Post Closure Land Use Plan
2750-2770 Bristol Street
Costa Mesa, California 92626
Assessor Parcel Number (APN): 418-182-06

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Prepared for:

Walker Group Ventures
11100 Cambie Road, Unit 105
Richmond, BC V6X 1K9

Prepared by:

SCS Engineers
3900 Kilroy Airport Way, Suite 100
Long Beach, CA 90806

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SCS Engineers
3900 Kilroy Airport Way, Suite 100
Long Beach, CA 90806

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1 INTRODUCTION

SCS Engineers (SCS) has prepared this Post Closure Land Use Plan (PCLUP), dated February 28 (revised June 2), 2023. This PCLUP has been prepared for property located at 2750-2770 Bristol Street in Costa Mesa, California (the "Site"). The Assessor's Parcel Number (APN) for the Site is 418-182-06. A map showing the general vicinity of the location the Site is provided as Figure 1. This PCLUP has been prepared as a draft for construction purposes and conditional approval by the Local Enforcement Agency (LEA), outstanding information required prior to approval of the Final PCLUP is discussed in the text below and a compilation of correspondence between SCS and the LEA regarding comments and responses of this PCLUP are provided in Appendix I.

The Site is approximately 1.5 acres and overlies a small portion of the former 15-acre municipal waste landfill designated as Newport Avenue Station No.1, Solid Waste Information System (SWIS) No. 30-CR-0071 (the Landfill). The north-northeastern, south-southeastern, and eastern portions of the Site are underlain by the footprint of the former Landfill. The western portion of the Site lies outside of the boundaries of the former Landfill.

Reportedly, the Landfill accepted inert materials such as, wood, concrete, brick, glass and cans and operated between 1946 and 1955. Observations of subsurface conditions from previous investigations conducted at the Site confirm limited amounts of inert debris to depths up to 25 feet below ground surface (bgs) are present. A description of previous investigations is discussed further below.

1.1 PURPOSE AND SCOPE

Per Title 27 of the California Code of Regulations (27 CCR), Sections 21090, 21180, and 21190 the purpose of this PCLUP is to describe the proposed post-closure improvements and land use for the Site, and the relevant information required by 27 CCR, to demonstrate that the proposed redevelopment will not increase the potential threat to human health or the environment. Provided herein is the general site information, background of the former landfill, further details of the proposed land use, and the post-closure maintenance plan.

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2 GENERAL SITE INFORMATION

The following subsections present the site location, legal description and ownership information, and the geology and hydrogeology.

2.1 SITE LOCATION, LEGAL DESCRIPTION, AND OWNERSHIP

The Site consists of an approximately 1.5-acre parcel that overlies a portion of the former 15-acre municipal waste landfill designated as Newport Avenue Station No.1 (SWIS No. 30-CR-0071). North of the Site is a vacant land, east of the site is a Freeway, south is a commercial facility for dog care and boarding, west is Bristol Street. Land to the north, east, and south encompass the majority of the designated footprint of the Landfill.

The Site is located on Assessor's Parcel Number (APN) is 418-182-06. An assessor parcel map of the Site is provided as Figure 2. A map showing the Site boundary and approximate limits of the former Landfill is provided as Figure 3.

2.2 GEOLOGY

The Site located within the Orange County area of the Peninsular Ranges physiographic province, in which the dominant geologic formations are of Tertiary and Quarternary age. Numerous investigations have been conducted at the Site. The investigations have predominantly been geotechnical evaluations of soil conditions and environmental impacts focused on areas where previous features (such as clarifiers and underground storage tanks [USTs]) were located. Soil investigations conducted from 2000 to 2022 have provided information regarding the nature and extent of the fill associated with Newport Avenue Station No.1.

Partner Engineering & Science, Inc. (Partner) conducted both geotechnical and environmental investigations in 2019. Partner described soil conditions as fill materials comprised of sandy/silty soils to a depth of 25 feet bgs and native soils below a depth of 25 feet. Sandy alluvium was present between 25 to 40 feet bgs, clayey alluvium present between 40 and 45 feet bgs, and dense sandy alluvium between 45 to 50 feet bgs. Two of the six boring advanced by Partner identified limited amounts of debris within the soil. The reported debris encountered in these borings consisted of glass fragments to a depth of approximately 20 feet bgs.

NorCal Engineering (Norcal) conducted a geotechnical investigation in August 2020. The Norcal investigation found that the site is underlain by approximately 10 to 25 feet of stiff undocumented fill.

Review of previous investigations at the Site have documented that soil fill is present beneath the site between 10 and 25 feet bgs. Beneath this fill, native soil was noted to depths up to 51.5 feet bgs. The native soil is composed of alluvial material consisting of sand and silty sand with lenses or discrete layers of clayey material in the depth range of 40 to 45 feet bgs.

As documented in the Landfill Soil Characterization Report (SCS, February 24, 2023), fill soils were identified from ground surface to depths between 10 and 24.5 feet bgs, below which, native soil, consisting predominantly of sands with varying amounts of silt, was identified. In borings C1, D1, and D2, located in the western portion of the Site, outside of the designated Landfill boundary, undocumented fill soils (primarily a mixture of sand, silt, and gravel) were identified at depths between 10 and 15 feet bgs. In borings A1, A2, A3, B1, and B2, located within the designated

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footprint of the former Landfill, fill soils were identified that contained limited amounts (5-20%) of inert debris such as brick, glass, concrete, and rock.

2.3 HYDROGEOLOGY

The Site is located within the Coastal Plain, Orange County Basin, which is an approximately 360 square mile basin drained primarily by the Santa Ana River. The main water bearing units in this area are within the younger alluvium. Due to extensive extraction of water for irrigation, municipal, and industrial use, and intermittent recharge, depth to groundwater has fluctuated. During investigation activities conducted by NorCal in 2020, groundwater was detected between 24 and 25 feet bgs beneath the Site. During SCS's 2022 investigation, groundwater was encountered at a depth of approximately 27 feet bgs. Based on results of the last monitoring event conducted by Western Environmental Engineers Company (WEECO) during the first quarter of 2010, groundwater flow direction at the Site was variable with flow directions interpreted to be both to the southeast and northwest (WEECO, March, 4, 2010). A copy of the WEECO report is provided in **Appendix A.**

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3 BACKGROUND AND CURRENT CONDITIONS

This Site is listed on the CalRecycle website as Newport Avenue Station #1 (30-CR-0071) with the current "Site Operational Status" of the Landfill is "Closed" and the "Site Regulatory Status" is "Pre-regulation."

Based on review of topographic maps, the Site appears to have been vacant land from 1896 to 1965. In the 1935 and 1942 topographic maps, the Site is depicted within a wetlands or area of significant ponding. This area of ponding/low-lying area can additionally be identified in the 1938 aerial photograph. A 1947 aerial photograph of the Site and surrounding area shows evidence of earth moving activities and the 1948 topographic map no longer depicts a wetland or ponded area at or in the vicinity of the Site. Reportedly, the Site was part of an Orange County municipal solid waste landfill between 1946 and 1955 (Partner, 2019). Between 1963 and 1977, historical topographic maps and aerial photographs show that a portion of the Site was incorporated into a mobile home park. Historical topographic maps and aerial photographs are provided in Appendix A.

By 1990, the Site was redeveloped as a car wash and gasoline service station. An additional light automotive maintenance "lube" center was constructed on the Site in 1993.

A Solid Waste Assessment Test (SWAT) investigation of the Landfill was conducted in 1997, results of which showed that metals and volatile organic compounds (VOCs) were not detected in groundwater at concentrations exceeding their maximum contaminant levels (MCLs) for California drinking water (Partner, June 19, 2019).

On behalf of the County of Orange Integrated Waste Management Department, an Environmental Assessment Report (EAR) for the Landfill was prepared by TRC, dated July 2000. The EAR (provided in Appendix A) in which numerous documents and investigation reports associated with the Landfill have been complied, concluded the following with respect to the landfill footprint and physical component, landfill gas (LFG) generation and migration potential, and groundwater quality:

- Most (approximately 80%) of the refuse material was removed from the Landfill during the development of the Corona Del Mar/Newport Freeway interchange. Developments to the west (including the Site) contain fill sand with minor to heavy amounts of debris (identified primarily as rock, asphaltic concrete [AC], concrete fragments, glass, wood, brick fragments, and metal fragments) ranging between 0 to 20 feet below ground surface (bgs).

- Potential for LFG generation and migration was considered very low since the majority of refuse had been removed during the freeway interchange construction and that the remaining deposited material was mostly inert rubbish and burn residue. Furthermore, in a study conducted by Clements Environmental in 1996, methane was not detected in 20 probes that surrounded the Site to the north, south, east and, west. During the Clements investigation, the probes were installed at approximately 5 feet bgs and the monitoring equipment used was capable of detecting methane at a concentration of 1,000 parts per million by volume (ppmv) or greater.

- Groundwater quality investigations have shown that water quality both up- and downgradient of the Landfill is poor and not suitable as drinking water. Concentrations of constituents of concern (COCs), specifically VOCs, are greater in upgradient wells than in downgradient wells, indicating that the primary source of COCs was an up-gradient off-site source.

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In 2003, the service station was decommissioned, which included the removal of four USTs for fuel and six dispenser islands. These activities were conducted under regulatory oversight of the Orange County Health Care Agency (OCHCA), case #03UT012. Following several environmental investigations of soil, soil vapor, and groundwater, associated with a release from the former USTs, remediation was conducted which included air-sparge, soil vapor extraction, and groundwater monitoring. The OCHCA issued a "Remedial Action Certification" on June 4, 2010. Documents regarding the investigations, remediation, and subsequent OCHCA Completion Certification are available on the State Water Resource Control Board's GeoTracker website.

Following WGC's acquisition of the Site, permits for demolition and grading were issued by the City of Costa Mesa Department of Building Safety (CMDBS) in 2021, without reference to restrictions regarding Title 27 requirements.

On February 2, 2022, demolition activities began at the Site in accordance with CMDBS-approved permits. Following demolition activities, grading and earth work proceeded in accordance with the proposed redevelopment plans that had been provided to the CMDBS. Redevelopment activities commenced with routine inspections conducted by the CMDBS.

In April 2022, a representative of the Local Enforcement Agency (LEA [a division of OCHCA]) conducted a routine inspection of the Landfill and surrounding areas. This routine inspection resulted in notification to WGC that a Post Closure Land Use Plan (PCLUP) would be required in accordance with Title 27 CCR §21190. In response to the LEA notification, Mearns Consulting LLC prepared a PCLUP, dated July 7, 2022, which documented a methane gas assessment report prepared by DL Science, Inc. (DLS), dated June 4, 2022. As part of their evaluation of methane gas, DLS installed and monitored seven shallow (4-feet bgs) and four deep multi-nested probe sets (implants set at 5, 10, and 20 feet bgs) on the Site. Each of the probes was monitored during two separate events on May 31, and June 1, 2022. The highest positive pressure detected during the two monitoring events was 0.02 inches of water (i.w.). Methane was detected, above the monitoring equipment's detection limit of 1,000 ppmv, in six of the 19 probes. During the two monitoring events, the highest concentration of methane was 5,000 ppmv, detected in probe DP-3 at 20 feet bgs. A copy of the DLS report is provided in Appendix A.

On August 11, 2022, an email from Joanne Lee of the California Regional Water Quality Control Board, Santa Ana Region, was sent to Robert Walker of WGC stating that "currently, the former Newport Avenue Landfill is not regulated by the Santa Ana Water Board because no groundwater impacts from the landfill has been found based on groundwater monitoring data collected from 1993 to 2017." A copy of this correspondence is included in Appendix A.

In August 2022, the LEA conducted a routine inspection of the Landfill in accordance with CCR Title 27. At the time of the inspection, the development team was notified that the construction activities being conducted were not compliant with Title 27 requirements. Subsequently, on September 1, 2022, the LEA issued a formal notice of violation, after which construction activities ceased.

WGC's consultants and counsel met with representatives of the LEA and CalRecycle on September 22, 2022. During this meeting, the LEA stated that additional soil characterization and LFG assessments would be required prior to their review of a PCLUP, regardless of the previous work and numerous investigations that had been conducted on the Site and the Landfill as early as 1993.

In December 2022, SCS conducting a landfill soil characterization investigation, in which, eight borings were advanced throughout the Site with soil samples collected for visual observation and

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laboratory analysis to evaluate the lateral and vertical extent of waste and characterize the material for COCs. Physical observations of the material recovered from the eight borings identified limited amounts (5-20%) of inert debris, such as brick, glass, concrete, and rock, sporadically located throughout the Site, confirming previous investigations indicating that there is an insufficient amount of decomposable material to generate significant amounts of methane gas. Upon reaching total depth, each of the borings was converted to a dual-nested soil gas probe, screened from 5 to 10 feet bgs (shallow zone) and 19 to 24 feet bgs (deep zone) for LFG/Soil Gas monitoring and sampling. No significant concentrations of petroleum hydrocarbons, VOCs, or metals were identified. A copy of the Landfill Soil Characterization Report is provided in Appendix B.

In conjunction with the landfill soil characterization, LFG/Soil Gas samples were collected bi-weekly from each probe for a period of approximately 30 days. LFG/Soil Gas samples were collected on January 6, January 20, and February 3, 2023 for analysis of methane and fixed gasses, as well as, VOCs.

With the exception of probe set "D2," methane was not detected in samples collected from the LFG/Soil Gas probes installed across the Site. Methane was detected in subsurface gas in the both shallow and deep probes at location D2 at concentrations between 0.17 and 0.39 percent volume by volume (%v/v).. Positive pressure above 0.3 i.w. was not detected in the probes during any of the monitoring events. A summary table of methane monitoring events conducted between 1996 and 2023 is provided in Appendix E. As shown, the highest concentration of methane ever detected is 0.5 %v/v; which is an order of magnitude below its lower explosive limit (LEL) of 5 %v/v.

During the 2023 LFG assessment, 29 VOC species were detected in subsurface gas samples collected over three bi-weekly monitoring events. A summary of VOCs detected in soil gas samples is provided in Appendix E.

With respect to VOCs in soil gas beneath the Site, the Department of Toxic Substance Control (DTSC) Health and Ecological Risk Office (HERO) Note No. 3 makes recommendations regarding the methodology and use of the U.S. Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) and DTSC-modified screening levels (SLs) for soil vapor screening under residential and commercial/industrial land use scenarios. Screening levels also allow for evaluation of existing or future building scenarios. The DTSC-Recommended SLs for evaluating soil vapor intrusion are calculated using indoor air screening levels and recommended attenuation factors. The risk-based values calculated using Note No. 3 recommendations are conservative. Chemical concentrations in excess of the calculated DTSC-Recommended SLs are not conclusive evidence of adverse risks to human health.

Structures and hardscape on the Site have been recently demolished and the upper 8 feet of soil is engineered and compacted fill. The planned use of the Site is for a commercial/industrial automotive repair facility, therefore, comparison to commercial/industrial screening levels is appropriate.

The current regulatory paradigm for soil vapor screening has been evolving, particularly regarding attenuation factors. Currently, DTSC also recommends that screening assessments calculate soil vapor screening levels using the U.S. EPA recommended attenuation factor (AF) of 0.03 (based on June 2015 guidance) for sub-slab soil gas and "near-source" exterior soil gas. Use of this attenuation factor is also in the Final Draft Supplemental Guidance: Screening and Evaluating Vapor Intrusion released by DTSC and the California Water Resources Control Boards in February 2023. Numerous VOCs have been detected in soil gas at concentrations exceeding their respective SLs using an AF of

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0.03. However, the AF of 0.03 results in extremely conservative SLs, which was derived on limited studies of primarily residential homes with degraded concrete/basements and is not necessarily applicable to all sites and investigations.

SCS notes that the Final Draft Supplemental Guidance states:

> "The Supplemental Guidance sets forth one approach that may be used by practitioners and regulators when screening buildings for potential health risk to building occupants from subsurface vapor contamination," and
>
> "Disclaimer: This document is guidance and is not regulation or a water quality control plan or policy, therefore, use of this Supplemental Guidance is optional."

Although the Supplemental Draft Guidance provides one approach, it allows for alternative approaches based on multiple lines of evidence (LOE). SCS notes, as additional LOEs, several peer-reviewed scientific studies including one prepared by DTSC staff based on a DTSC AF database for sites in California, that indicate the use of 0.03 as the default AF for sub-slab and deeper soil gas for both residential and commercial buildings in California is not appropriate since it is not representative of VOC attenuation across slab-on-grade foundations, nor is it representative for commercial buildings, particularly as they are typically constructed in California (Lahvis, M.A., Ettinger, R.A., 2021; Ettinger et al., 2018; and Rafat Abbasi, PE, Dan Gallagher, PG, and Dr. William Bosan, PhD, 2020). In SCS' opinion, these LOEs supersede or obviate the suggested approach to screening sites presented in the Supplemental Draft Guidance.

The AF values derived from the empirical data and multiple peer-review studies referenced above are all at least an order of magnitude less than the default U.S. EPA AF of 0.03, but are comparable to the AFs of 0.001 and 0.0005 for existing and future commercial buildings, respectively, presented in the DTSC 2011 Vapor Intrusion Guidance.

None of the VOCs detected in subsurface soil gas at the Site were detected at concentrations exceeding their respective SL utilizing an AF of 0.0005, the default AF presented in DTSC 2011 Vapor Intrusion Guidance. The default AF of 0.0005 for commercial/industrial land use is based on common construction methods currently used for commercial facilities and does not take into account mitigation measures such as subslab ventilation and impervious membrane, which would at a minimum enhance attenuation if no completely restrict vapor intrusion potential. As discussed further below and attached plans, proposed building construction will include a vapor intrusion mitigation system that will consist of subslab ventilation and an impervious membrane.

A comprehensive compilation of sample locations, data, and boring logs is attached in Appendix E.

Currently, the Site remains as vacant unpaved land pending approval of the LEA to recommence development activities.

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3.1 LANDFILL COVER

As discussed above, the Newport Avenue Station #1 disposal site ceased operations and closed in 1955, prior to current regulations. By 1990, the Site was redeveloped with a carwash and gasoline service station. An additional automotive maintenance ("lube") center was constructed on the Site in 1993. In 2003 the service station was decommissioned. The Site "cover" at this time was predominately asphalt and concrete pavement and buildings. The LEA (OCHCA personnel) have conducted routine inspections of the Site since at least 2006 (the earliest report available on the CalRecycle website). The inspection reports from the LEA have not identified signs of differential settling or ponding at the Site for a period of over 16 years.

As discussed, the carwash and automotive service facilities and associated hardscape have been removed from the Site. Grading activities, soil compaction, pad development for proposed buildings (including footing excavations; discussion of soil management is discussed in the sections below) have been conducted prior to the pause in activities pending the preparation and approval of a PCLUP.

The Site is currently "capped" with engineered fill soil to a depth of approximately 8 feet bgs. Additional preparation for the engineered soil cap is required prior to building construction as specified in NorCal Engineering's letter dated May 25. 2023 (Appendix C).

3.2 LANDFILL GAS MONITORING

Documents readily available on the CalRecycle website, including inspection records from the LEA, indicates that landfill gas (specifically methane) has not been monitored during the occupancy of the former automotive service station and carwash developed between 1990 and 1993.

Reportedly, the 15-acre Newport Avenue Station Site No. 1 disposal site was included in the Closed Landfill Environmental Assessment and Response project in 2000 (Mearns Consulting LLC., July 7, 2022). Available information from OCHCA and CalRecycle files have not identified methane mitigation controls or landfill gas monitoring on the Site or the surrounding former disposal facility.

As discussed in Section 3 above, SCS conducted a landfill gas assessment in 2023. This assessment included a review of previous methane gas investigation by Clements Environmental in 1996 and DL Science in 2022.

During the 2023 LFG assessment eight dual-nested probes, screened between 5 and 10 feet bgs (shallow zone) and 19 to 24 feet bgs (deep zone) were monitored and sampled on three occasions over a period of approximately one month. Samples were collected for laboratory analysis for VOCs as well as, methane and fixed gasses. During the LFG assessment, 29 VOC species were detected in subsurface gas samples collected over three bi-weekly monitoring events. None of the VOCs detected exceed their DTSC-Recommended SL, calculated using an attenuation factor of 0.0005 for commercial/industrial land use. Further, the default attenuation factor is considered overly conservative as it does not take into account proposed site-specific mitigation measures such as subslab passive ventilation and the presence of an impervious membrane, which would, at a minimum, enhance attenuation if not completely restrict vapor intrusion potential. With the exception of probe set "D2," methane was not detected in samples collected from the LFG/Soil Gas probes installed across the Property. Methane was detected in the both shallow and deep probes at location D2 at concentrations between 0.17 and 0.39 %v/v in subsurface gas. Positive pressure above 0.3 i.w. was not detected in the probes during any of the monitoring events. Results of this assessment are consistent with the findings of previous investigations at the Property, including those conducted in 1996, in which methane was not detected beneath the Property, and in 2022, in which methane was not detected with the exception of a few locations (with a maximum concentration of methane detected at 0.5 %v/v).

Routine LFG monitoring for VOCs and methane are proposed to continue on a monthly basis for a period of one year to be included in a final PCLUP as stipulated by the LEA/Calrecylce.

3.2.1 Indoor Air Methane Sensors

As stated, the Site is currently vacant with no structures, therefore, indoor methane sensors are not present. Methane mitigation plans or methane gas control system plans have been prepared for the proposed development and include indoor air combustible gas sensors with audible alarm and battery back-up. The Methane Gas Control System Plans developed by Methane Specialists are provided in **Appendix C.**

3.2.2 Landfill Gas Monitoring Probes

No documents were obtained to indicate that the LEA required the installation and monitoring of landfill gas monitoring probes from former on-Site developments.

As discussed above, eight dual-nested LFG/Soil Gas monitoring probes were installed across the Site and monitored for approximately one month on a biweekly period between January and February 2023. As documented in the monitoring events, VOCs were not detected at levels above their recommended screening levels (with respect to vapor intrusion), very little positive pressure (<0.3 i.w.) was detected, the highest concentration of methane detected was 0.39 %v/v.

Results have shown that a significant risk to public health and proposed development at the Property from VOCs and/or methane is not present, SCS recommends that monthly monitoring be continued throughout 2023, at probes located outside of the proposed footprint of the building during redevelopment activities, in accordance with the agreement between WGC and CalRecyle/LEA and general requirements of Title 27.

3.3 GROUNDWATER MONITORING

Groundwater monitoring is not currently conducted at the Site.

As discussed above, historically a 1997 SWAT investigation of the Landfill concluded that metals and VOCs were not detected in groundwater at concentrations exceeding their MCLs. Furthermore the 2000 EAR documented that groundwater quality investigation have shown that water quality both up- and downgradient of the Landfill is poor and not suitable as drinking water. Concentrations of constituents of concern (COCs), specifically VOCs, are greater in upgradient wells than in downgradient wells, indicating that the primary source of COCs was an up-gradient off-site source. On August 11, 2022, an email from Joanne Lee of the California Regional Water Quality Control Board, Santa Ana Region (SARWQCB), was sent to Robert Walker of WGC stating that "currently, the former Newport Avenue Landfill is not regulated by the Santa Ana Water Board because no groundwater impacts from the landfill has been found based on groundwater monitoring data collected from 1993 to 2017."

Based on the previous monitoring activities, and no interest response from the SARWQCB, future groundwater monitoring at the Site is not warranted and is not proposed.

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4 PROPOSED SITE IMPROVEMENTS

Proposed improvement at the Site is to redevelop the parcel as a 37,485 square-foot automobile repair facility. The structures will include an on-grade office and repair space and roof top parking stalls. The remainder of the Site will be paved with concrete and asphalt. Landscaped areas are to be lined with concrete with drainage piping to be conveyed to a concrete sump with pump for off-site discharge.

Plans for the redevelopment of the Site included a Geotechnical Assessment (to ensure proper compaction and soil stability to prevent settlement of soil and be protective of the proposed structure), civil engineering plans (which show that the proposed site use will have proper drainage across the Site and eliminate areas of pooling or ponding), structural plans (to ensure the integrity and safety of the proposed structure), and methane mitigation plans (for building and inhabitant protection of landfill gas by impermeable membrane and passive ventilation). The Geotechnical Assessment report, Civil Engineering Plans, Structural Engineering Plans and Methane Mitigation Plans are provided in Appendix C.

The former car wash and automotive maintenance facility were demolished including the removal of all hardscape. Following demolition activities, the Site was graded, re-compacted, and trenching for proposed building footings commenced.

4.1 SITE GRADING

As discussed above, prior to the preparation of this PCLUP, the majority of site grading and excavation for building footings has been completed. No significant signs of contamination such as, discoloration, odor, or obvious signs of debris were encountered during the excavation activities. Soils generated from the excavation for footing installation have been stockpiled on-site and covered with plastic sheeting. SCS collected two composite samples from the stockpiled soil on September 1, 2022. The soil samples were analyzed for total petroleum hydrocarbons (TPH) by EPA Method 8015M, VOCs by EPA Method 8260B, semi-volatile organic compounds (SVOCs) by EPA Method 8270C, and Title 22 Metals by EPA Method 7000 Series. Soil subsets were composited and transferred into laboratory supplied glass jars, sealed, labeled, and placed on ice for transport to Performance Analytical Laboratories, Inc (PAL) of Signal Hill, CA. PAL is ELAP Certified to conduct the specified analyses. Samples were submitted using standard chain-of-custody protocols. The PAL analytical results are provided in Appendix D. As shown in the PAL report, TPH, VOCs, and SVOCs were not detected in the samples collected from the stockpile samples. Metals were detected at concentrations typical of background California soils and below levels that would restrict the use of this soil for any purpose.

The entire area of the Site has already been over-excavated to a depth of 8 to 10 feet and re-compacted per geotechnical specifications. Significant quantities of debris or suspect contamination was not identified, further confirmed by the Landfill Soil Characterization Report (SCS, 2023) and the analytical results from stockpiled soils, discussed above.

Future earth moving activities will not expose soil to depths greater than that already conducted. Therefore notification to Air Quality Management District (AQMD) and application of a soil management plan is not necessary.

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4.2 STRUCTURES AND UTILITIES

As stated, on the Site a 37,485 square-foot building will be installed on the 1.5-acres of land. Design plans for the new structure incorporated methane mitigation controls including impervious membrane beneath the concrete slab and methane collection and passive ventilation system installed beneath the membrane to protect the building and occupants from accumulation of methane gas within the building. Additionally, utility lines entering the structure will include trench dams and conduit seals for electrical lines to further prevent the migration of methane into the structure. Detail plans of the Methane Gas Control System is provided in Appendix C.

4.3 DRAINAGE

The Civil Engineering plans for the Site show that the entire area of the parcel will be graded and capped allowing for sheet flow by gravity. Landscaped areas within the footprint of the Landfill will be concrete lined and drainage piping will be used to convey water to a concrete lined sump and pump for discharge outside of the landfill footprint. The proposed grading and slopes will provide adequate drainage of surface water run-off. Stormwater is designed to drain away from the landfill portion, and discharged into the City's stormwater system. Grading and drainage plans are shown in the Civil Engineering plans included in Appendix C.

4.4 LANDFILL GAS MITIGATION AND MONITORING

As discussed above in Section 4.2, designs to protect the structure from the infiltration of methane (or landfill gas) have been prepared and are provided in Appendix C. Mitigation features will be consistent with Title 27 CCR standards and provide protection from potential safety hazards associated with methane gas accumulation.

As part of the subgrade passive methane gas ventilation system, which will consist of a gravel layer and perforated vent piping, the sub-slab perforated vent piping will be connected to nine solid vertical vent risers that extend from the subfloor vent piping to outlets located above the building roofline. To ensure that methane is not potentially accumulating beneath the building, a sample port will be installed at each of the vent risers and will be monitored on a quarterly basis, the results of which will be submitted to the LEA.

As discussed in Section 3.2, routine LFG monitoring for VOCs and methane are proposed to continue on a monthly basis for a period of one year (2023) results of which will be included in a final PCLUP as stipulated by the LEA/Calrecylce. Eight probes were installed, five within the footprint of the landfill and three to the west of the Site outside the Landfill footprint. Two of these probes are within the footprint of the proposed building and Landfill will require abandonment. Therefore, in accordance with the prior approval of the LEA/CalRecycle the two probes (A2 and A3) having been sampled for a one month period on a bi-weekly schedule, will be removed from future LFG monitoring in order to allow development of the Site to resume. A site map showing the location of the probes is provided as Figure 4.

4.5 PERIMETER GAS NETWORK MONITORING

Currently there is no perimeter gas monitoring network for the Newport Avenue Station No.1 former disposal site.

As stated, only the eastern portion of the Site is located within the footprint of the former Landfill. Three probes (designated D1, D2, and C1) were installed on the western portion of the Site and

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outside of the footprint of the former Landfill as part of the LFG Assessment (discussed above). The probes have and will serve as perimeter probes to evaluate potential LFG migration from the Site (i.e. potential migration to the west only, as the parcels to the north, south, and east are also within the footprint of the former Landfill and outside of the Site's property line).

4.6 PROJECT AREA SETBACKS

The proposed building will have sufficient setbacks from the property line in the event that landfill gas collection wells are required. Such requirements would be based on the monitoring results of the building passive venting system as discussed above.

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5 SITE REDEVELOPMENT ASSESSMENT

As required by Title 27, the following sections discuss the effects of the redevelopment on existing landfill conditions.

5.1 SETTLEMENT

Settlement of a landfill up to and following closure is comprised of two principal phases: one is the primary mechanical settlement (i.e., compression) of the existing waste due to the addition of additional waste lifts, or other physical loads such as the final cover system components, and the other is due to continuing and on-going settlement from bio-chemical decay of organic matter that generates decomposition gas (methane) over a period of time.

The disposal site was closed in 1955. Since that time the Site, which occupies a small portion of the footprint of the former Landfill has been occupied by various developments, the most recent a carwash and vehicle service and maintenance facilities. From at least 2006 the LEA has inspected the Site and has reported no violations associated with differential settlement.

In 2020 NorCal Engineering prepared a Geotechnical Engineering Investigation report, dated August 4, 2020. NorCal's investigation included exploratory exploration and sampling, laboratory testing, soil infiltration testing, and engineering analysis of field and laboratory data. NorCal concluded that the proposed development is feasible provided that their recommendations were followed during design and construction. A copy of the NorCal report is provided in Appendix C.

Observations made by Norcal, with respect to visual observations of subsurface soil, is consistent with observations documented during various other environmental investigations conducted by other consultants and SCS (i.e. there is a limited amount of inert debris mixed with a majority of fill soils).

Given that the limited amount of debris identified in soils beneath the Site consist of fragments of inert materials that generally do not decay, that since at least the 1990 (date of the construction of a service station and carwash) significant settlement of subsurface soils have not been observed, and the results and conclusions of the NorCal report, it appears that differential settlement associated with current proposed Site improvements will not occur. SCS has not been provided with or found any information that would contradict the findings presented by NorCal.

5.2 GAS MIGRATION

As stated, probes have been installed throughout the Site. Parcels to the north, south, and east are within the footprint of the former Landfill therefore an evaluation of gas migration in those directions is not feasible. Three of the probes (D1, D2, and C1) were installed along the western portion of the Site and outside of the former Landfill footprint and will continue to be monitored on a monthly basis throughout 2023 to determine if LFG generation and/or migration to the west is occurring. To date, LFG is not present in the subsurface that would be of significant concern to a regulatory agency.

5.3 LEACHATE MIGRATION

A review of available environmental investigations for the Site was performed to determine the likelihood of leachate migration at the Site due to the development project.

Based on previous investigations, groundwater data, and hydrogeological setting, groundwater quality has not been impacted by leachate from the former Landfill. The proposed development will

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be more effective in controlling and/or eliminating infiltration of water into the subsurface portion of the former Landfill beneath the Site, therefore leachate migration is not of concern.

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6 POST-CLOSURE MAINTENANCE PLAN

The following sections outline the post-closure maintenance plan for the proposed redevelopment use.

6.1 LANDFILL COVER INSPECTIONS AND MAINTENANCE

6.1.1 Inspections

To verify that the integrity and effectiveness of the future final cover is maintained, the Site will be visually inspected on a semi-annual basis (during the dry weather [between April 15th and November 14th] and during the wet weather [between November 15th and April 14th]) for changes in its condition. The objective will be to maintain final grades and cover integrity to prevent ponding and minimize infiltration. The inspections will document the Site conditions, including:

- Areas of differential and general subsidence on the landfill cover;
- Cover erosion or erosion channels;
- Ponded water;
- Condition of vegetation;
- Animal burrows affecting cover integrity;
- Odors; and,
- Leachate seeps or exposed refuse

Inspections will be performed and documented in reports submitted to the LEA on an annual basis. Records of the inspection dates, location of problem areas, and nature of the problem will be maintained by the Owner. The LEA will be notified of areas of concern identified and will establish priority for maintenance (emergency, immediate, or routine). The Owner will be responsible for cover surface maintenance items identified during the landfill cover inspections.

6.1.2 Maintenance

The effect of damages on the integrity of the cover system will be evaluated, and repaired as needed by the Owner or through use of third-party contracted personnel and equipment. Methods of repair will be consistent with final cover construction and post-closure uses. If necessary, temporary berms, ditches, and straw wattles will be used to prevent damage or ponding until permanent repairs can be implemented.

6.2 WET SEASON INSPECTIONS AND PREPARATION

During wet weather season inspections, the Site will be visually inspected to verify that the on-site surface drainage is functioning properly. The surface drainage area will be cleared of debris, vegetation, silt deposits, low areas, and other obstructions so that it properly functions during storm events. If damage to the surface drainage area is observed, repairs will be made by the Owner, or representatives of the Owner, or through use of contracted personnel and equipment, in accordance with Section 6.1 and 6.2 of this Plan.

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6.3 REGULATORY NOTIFICATIONS

If an event occurs which requires emergency response action, the agencies listed below will be contacted:

CalRecycle
1001 "I" Street
Sacramento California, 95814
(916) 341-6723

Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348
(951) 782-4130

Orange County Health Care Agency
1241 E. Dyer Road, Suite 120
Santa Ana, CA 92705
(714) 433-6000

6.4 LANDFILL GAS CONTROL AND MONITORING

Methane monitoring of the passive ventilation conveyance piping will be conducted routinely as specified in the operation, maintenance and monitoring plan (OM&M Plan) under oversight by the LEA. Reports documenting the results on the monitoring will be prepared and submitted to the LEA for review. The OM&M Plan is provided in Appendix G

6.4.1 Proposed LFG Mitigation and Monitoring Systems

The proposed building is slab-on-grade construction with a second floor for vehicle parking. The building will be equipped with passive methane mitigation and monitoring systems. Methane mitigation designs comply with the Uniform Building Code (UBC) and local ordinances (Appendix C).

Additionally, plug-in combustible gas sensors with visual and audible alarms will be installed within occupied and/or enclosed spaces of the proposed building. As specified by the manufacturer, maintenance and inspection of the combustible gas sensors will be conducted on a routine basis in conjunction with on-site structural monitoring as described further below. Following conditional approval of the PCLUP, an OM&M plan, to verify that building sensors are in working order, will be prepared for LEA approval prior to building occupancy.

These measures are consistent with 27 CCR requirements for construction on landfills and appropriate based on SCS's understanding of Site conditions. Vent risers will be equipped with a sampling port near ground level to allow monitoring of subsurface conditions below the structural slab and membrane of the building. This method for structure monitoring is consistent with 27 CCR Section 20931(b).

6.4.2 On-Site Structure Monitoring

The proposed passive sub-slab venting system consists of a gravel bed with embedded perforated piping connected to vent risers that extend above the building roofline. These vent risers will be

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equipped with sample ports near ground level to allow testing of soil gases below the main building and shed footprints.

The vent risers will be tested for methane concentrations using a portable landfill gas meter (Landtec GEM5000 or similar) and VOCs which will be collected in laboratory supplied Summa canisters and analyzed by a state-certified laboratory for VOCs using EPA Method TO-15 . Monitoring of the passive ventilation system, via the sampling port, will be completed on a quarterly basis to verify the absence of LFG parameters for the first year following project completion. Additional analyses may be recommended following review of initial data following building construction. Results of monitoring activities will be report to the LEA.

Following one-year of quarterly readings from the passive ventilation system for the main building and shed, and assuming methane concentrations are below 1.25 percent by volume, as required by regulation, the Owner may petition the LEA to reduce the sampling frequency.

6.4.3 Landfill Gas Monitoring Probes

As stated, probes have been installed throughout the Site. Parcels to the north, south, and east are within the footprint of the former Landfill therefore an evaluation of gas migration in those directions is not feasible. Three of the probes (D1, D2, and C1) were installed along the western portion of the Site and outside of the former Landfill footprint and will continue to be monitored on a monthly basis throughout 2023 to determine if LFG generation and/or migration to the west is occurring. To date, LFG is not present in the subsurface that would be of significant concern to a regulatory agency.

6.4.4 Contingency Measures/Reporting and Control of Excessive Gas Concentrations

In the event results of monitoring indicate subsurface combustible gas concentrations are at or in excess of the LEL during gas monitoring events, immediate steps to protect public health and safety will be taken in accordance with 27 CCR 20937 requirements. Such steps will include:

- Immediately take all steps necessary to protect public health and safety. Notify the LEA in writing if compliance levels have been exceeded;

- Perform confirmatory field testing to verify the accuracy of the data and rule out any potential interferences (utility gas, for example); and

- Conduct additional monitoring, if necessary; to further identify the extent of migration.

If testing confirms the presence of elevated combustible gas levels is landfill-related and a safety hazard exists, a remediation plan will be prepared and submitted to the LEA for approval within two weeks of detection and will be implemented within 30 days of approval from the LEA. The plan shall describe the nature of the hazard and proposed remedy. The specific mitigation measures to be employed will be a function of site-specific conditions and hazards (i.e., geology, utility locations, and gas generation potential), and will be developed by personnel familiar with combustible gas hazards and controls. If viable, an appropriate remediation system that meets the criteria of Title 27 20939 will be installed following remedial actions.

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6.5 HEALTH AND SAFETY

As discussed above, excavation of soils during development activities at the Site have not encountered refuse and the soil that has been excavated did not contain COCs such as VOCs, SVOCs, or metals at or above background levels. Based on these observations it is not anticipated that the limited trenching required to complete redevelopment will encounter materials that require specialized health and safety training. In the event that material is discovered during additional construction activities and for soils excavated to depths greater than 5 feet bgs, a site-specific Health and Safety Plan (HASP) has been prepared and is attached in Appendix F. This HASP will be provided to all contractors conducting work on-site to be used as a supplement to any health and safety controls specific to their activities and company requirements. .

Prior to building occupancy, an emergency evacuation plan will be prepared for future tenants in the event that elevated concentrations of combustible gas, such as methane, is detected by alarm sensors within the future structure. In the event that an evacuation of the structure is required due to methane generation, the LEA will be notified immediately.

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7 REFERENCES

California Department of Toxic Substances Control (DTSC), Office of Human and Ecological Risk (HERO), May 2022. *Human Health Risk Assessment (HHRA) Note Number 3*.

County of Orange Health Care Agency, Remedial Action Completion Certification, OCHCA Case #03UT012, South Pacific Car Wash, 2750 South Bristol Street, Costa Mesa, CA, dated June 4, 2010.

County of Orange Health Care Agency, Remedial Action Completion Certification, OCHCA Case #03UT012, South Pacific Car Wash, 2750 South Bristol Street, Costa Mesa CA. June 4, 2010.

Los Angeles Regional Water Quality Control Board (LARWQCB). May 1996. *Interim Site Assessment and Cleanup Guidebook*.

Mearns Consulting LLC, Post Closure Land Use Plan, 2750-2770 Bristol Street, Costa Mesa, California 92626, dated July 7, 2022.

NorCal Engineering, Geotechnical Engineering Investigation, Proposed No.1 Collision Center Automobile Repair Facility, 2750 and 2770 Bristol Street, Costa Mesa, California, dated August 4, 2020.

Partner Engineering and Science, Inc, Draft Phase I Environmental Site Assessment Report, Former South Pacific Car Wash and Lube Center, 2750 and 2770 Bristol Street, Costa Mesa, California 92626. April 19, 2019.

TRC, Environmental Assessment Report, Former Newport Avenue Refuse Disposal Station. July 2000

Western Environmental Engineers Co., First Quarter 2010 Groundwater Monitoring and Progress Report, South Pacific Car Wash, 2750 South Bristol Street, Costa Mesa, CA 92626 OCHCA Case # 03UT012, dated March 4, 2010.

Western Environmental Engineers Co., Groundwater Monitoring Wells Abandonment Report, 2750 South Bristol Street, Costa Mesa, CA 92626 OCHCA Case # 03UT012, dated May 6, 2010.

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Figures

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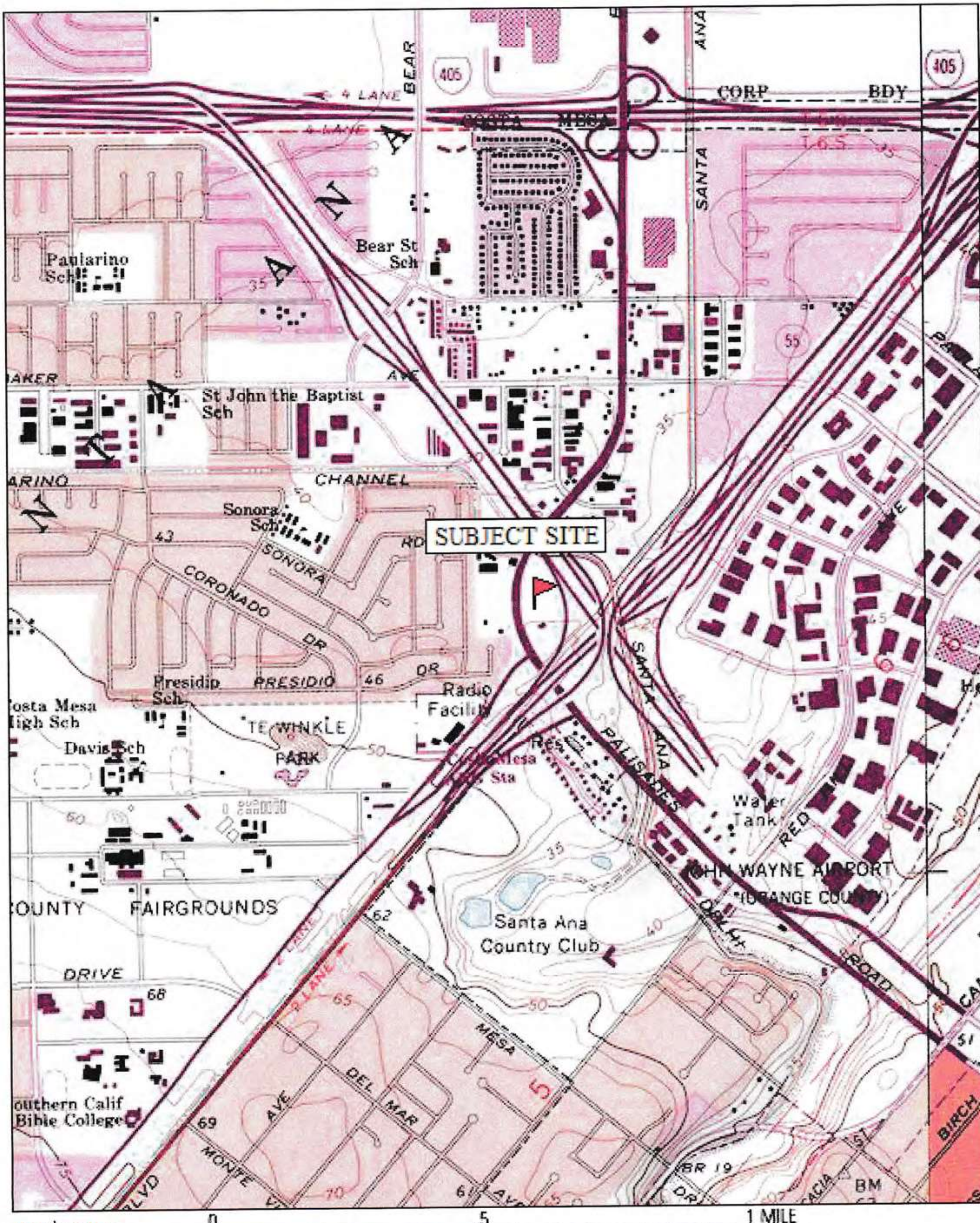
Figure 1: Vicinity Map



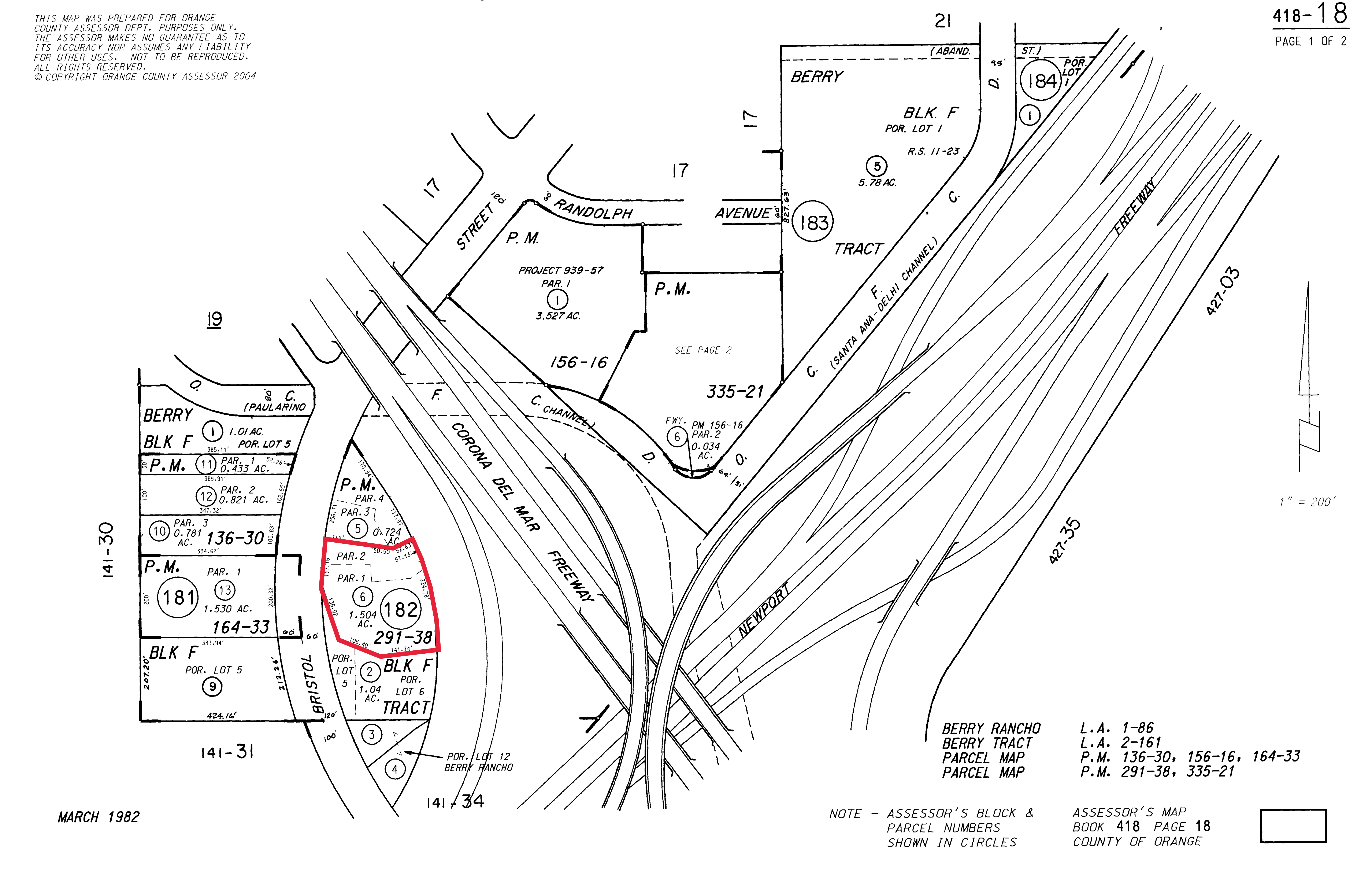
TN MN 13°

0 .5 1 MILE

0 1000 FEET 0 500 1000 METERS

Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

Figure 2: Assessor Parcel Map



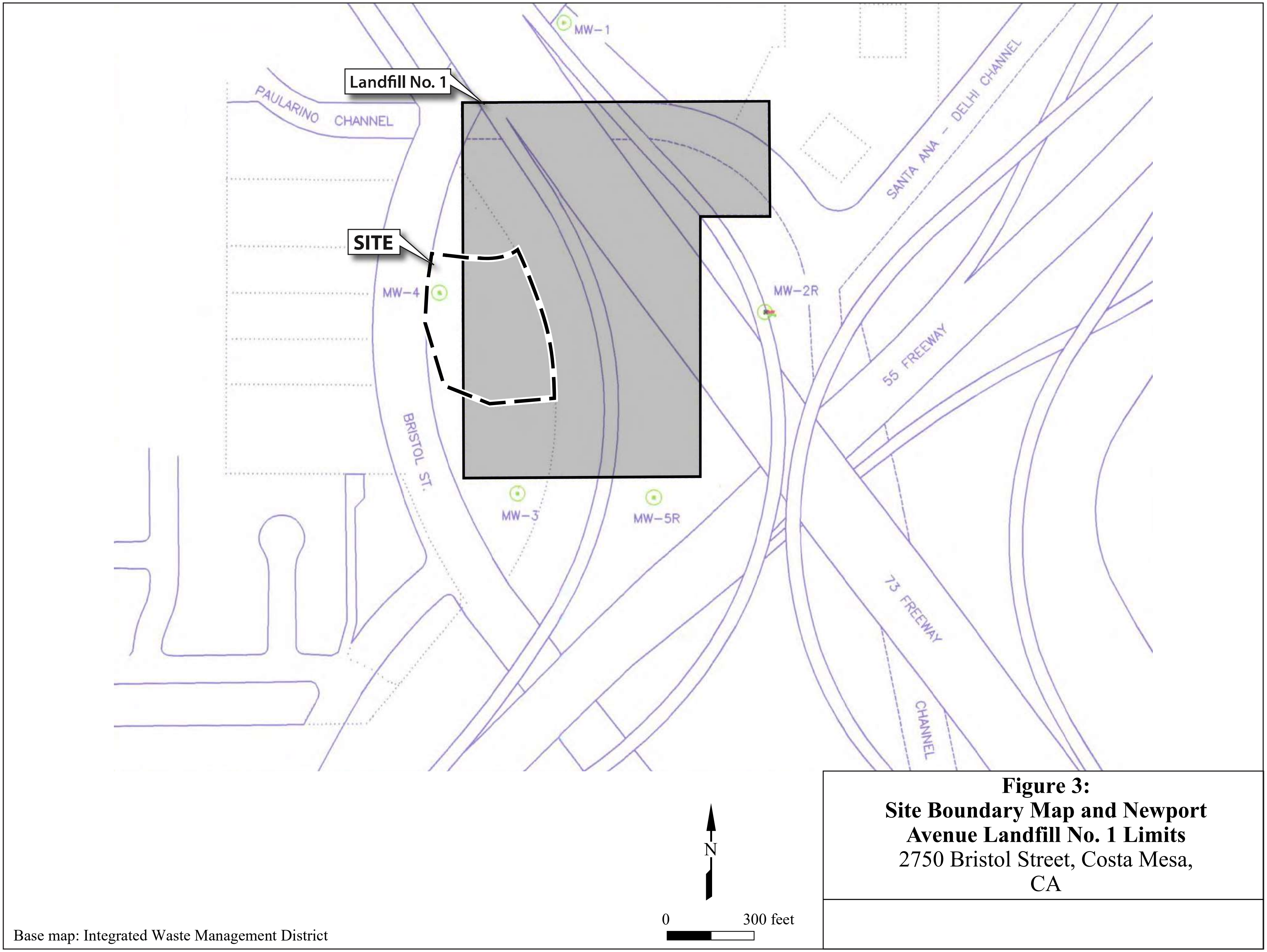
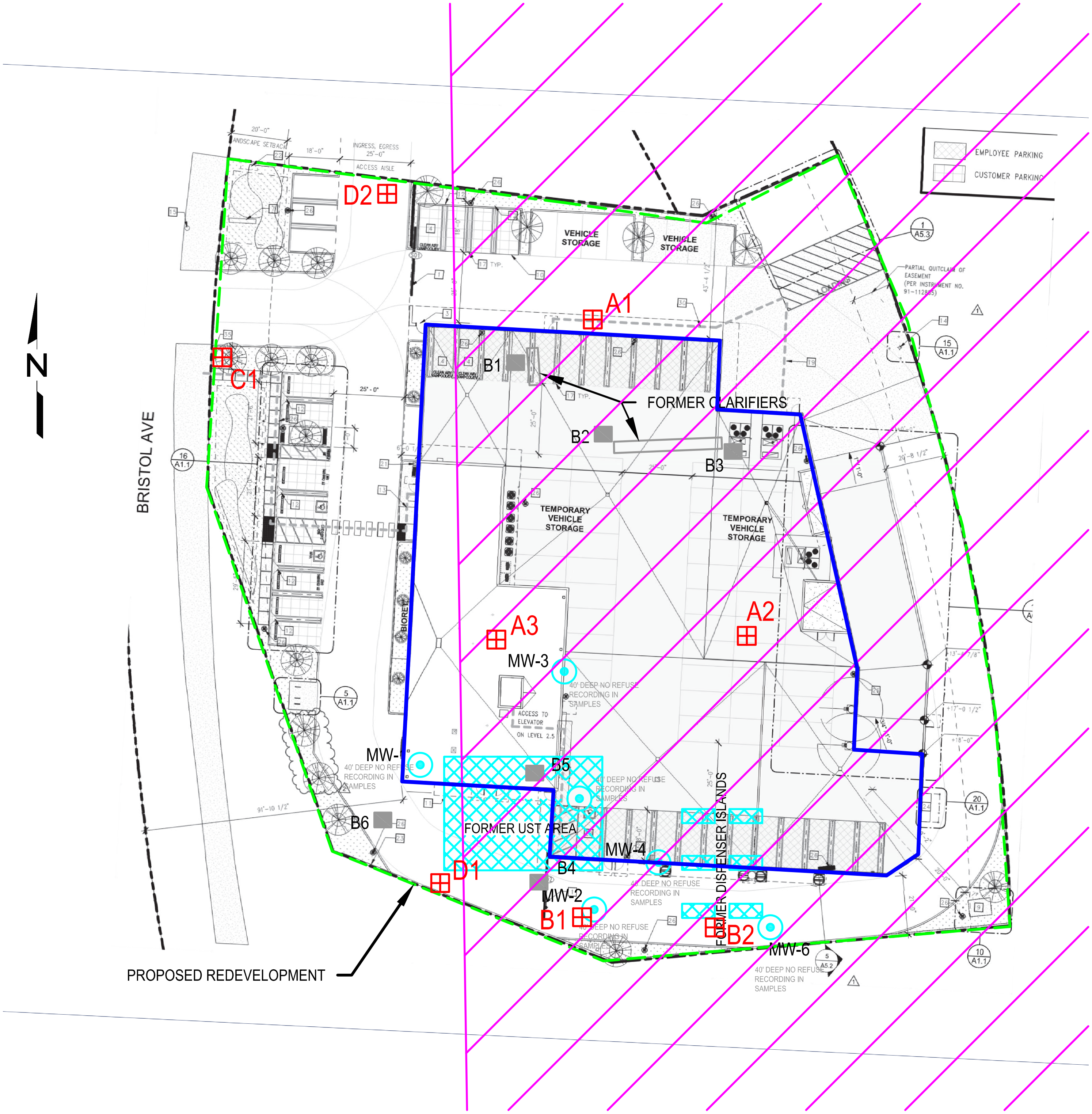


Figure 3:
Site Boundary Map and Newport Avenue Landfill No. 1 Limits
2750 Bristol Street, Costa Mesa, CA

Base map: Integrated Waste Management District



LEGEND

- PROPERTY BOUNDARY
- APPROXIMATE LIMITS OF DISPOSAL STATION # 1 NEWPORT AVENUE
- APPROXIMATE PROPOSED BUILDING FOOTPRINT
- SOIL BORING/PROBE LOCATIONS

GRAPHIC SCALE

0 50 100

SCALE IN FEET

SCS ENGINEERS ENVIRONMENTAL CONSULTANTS 3900 KILROY AIRPORT WAY, SUITE 100 LONG BEACH, CA 90806 PH. (562) 426-9544 FAX. (562) 427-0805	CLIENT: WALKER GROUP VENTURES 11100 CAMBIE ROAD, UNIT 105 RICHMOND, BC V6X 1K9	SHEET TITLE: SITE MAP SHOWING BORING/PROBE LOCATIONS	DATE: 2/24/2023
PROJ. NO. 01222204.00 / DWN. BY: J.SIEG / ACAD FILE: N/A		PROJECT TITLE: 2750-2770 BRISTOL STREET COSTA MESA, CALIFORNIA	SCALE: 1"=50'
DSN. BY: SCS / CHK. BY: R.HUFF / APP. BY: R.HUFF			FIGURE NO. 4

Appendix A

Previous Environmental Reports and Supporting Documents

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(WEECO) WESTERN ENVIRONMENTAL ENGINEERS CO.

1815 E. Wilshire Ave., Suite 905
Santa Ana, CA 92705

(714) 542-2644
Fax: (714) 542-2520

March 4, 2010

Ms. Denamarie Baker
County of Orange Health Care Agency
Environmental Health
1241 East Dyer Road, Suite 120
Santa Ana, CA 92705-5611

RE: First Quarter 2010 Groundwater Monitoring and Progress Report
South Pacific Car Wash
2750 South Bristol Street
Costa Mesa, CA 92626
OCHCA Case # 03UT012
WEECO Project No. 2009-1382W

Dear Ms. Denamarie Baker:

On behalf of South Pacific Car Wash, Western Environmental Engineers Company (WEECO) has prepared the First Quarter 2010 Groundwater Monitoring Report for the site referenced above. Work conducted during this quarter consisted of groundwater monitoring activities, which were performed by WEECO.

If you have any questions regarding the information in this report, please contact either of the undersigned at (714) 542-2644.

Sincerely
Western Environmental Engineers Company

James Yoon, REA
Project Manager

Sin Han Kim, P.E.
Principal Engineer
Registered Civil Engineer
California Registration No. C62688

REGISTERED PROFESSIONAL ENGINEER
SIN H. KIM
C 62
EXP. 6/10
CIVIL
STATE OF CALIFORNIA

Attachment – First Quarter 2010 Groundwater Monitoring Report

cc: Heung Il, Inc., Responsible Party

SEMI-ANNUAL (FIRST QUARTER 2010) GROUNDWATER MONITORING REPORT

Site Name:	South Pacific Car Wash
Address:	2750 South Bristol Street, Costa Mesa, California
Consulting Co./Contact Person:	WEECO/James Yoon
WEECO Project No.	2009-1382W
Primary Agency:	County of Orange Health Care Agency (OCHCA)

WORK PERFORMED DURING FIRST QUARTER 2010:

WEECO completed the First Quarter Groundwater Monitoring on February 24, 2010.

FIRST QUARTER 2010 SUMMARY TABLE:

Groundwater Monitoring Data	
Current phase of project:	Groundwater Monitoring
Frequency of groundwater sampling and monitoring:	Semi Annually
Groundwater sampling date:	February 24, 2010
Groundwater purge method:	3" PVC Rapid Wheel & bailer
Number of wells sampled this quarter:	6
Number of wells existing at the Site:	6
Depth to groundwater range (feet)	26.20 (MW-1) to 27.55 (MW-4)
Groundwater elevation range (feet above mean sea level [msl]	12.01 (MW-4) to 13.57 (MW-6)
Groundwater gradient flow direction:	Southeast direction from MW-1 to MW-4 Northwest direction from MW-6 to MW-4
Groundwater gradient (foot per foot)	0.0076 0.039
Wells with liquid-phase hydrocarbon (LPH):	None
Wells with detectable dissolved-phase hydrocarbon concentration:	MW-1, MW-2, MW-4, MW-5 & MW-6
Highest dissolved-phase hydrocarbons were observed in well:	MW-4
TPH (gasoline) concentrations range (µg/L):	<100 to 120 (MW-4)
Benzene concentrations range (µg/L):	Not Detected
Toluene concentrations range (µg/L):	Not Detected
Ethylbenzene concentrations range (µg/L):	Not Detected
Total Xylenes concentrations range (µg/L):	Not Detected
MTBE concentrations range (µg/L):	<1 to 92 (MW-4)
ETBE concentrations range (µg/L):	Not Detected
DIPE concentrations range (µg/L):	Not Detected
TAME concentrations range (µg/L):	Not Detected
TBA concentrations range (µg/L):	Not Detected

FIRST QUARTER 2010 DISCUSSION:

First Quarter 2010 groundwater data for the site (Figure 1) is summarized in Tables 1 and 2. The graphs included in Appendix A presents current and historical groundwater data since groundwater monitoring began in January 2005. A groundwater elevation contour map is shown on Figure 2. The laboratory data is presented in Appendix B, and field notes are included in Appendix C. TPH (gasoline) and MTBE concentration contour is shown on Figures 3 & 4, respectively. The following trends were noted during a comparison of First Quarter 2010 data with historical data:

- The groundwater hydraulic gradient for this quarter is 0.0076 foot per foot to southeast direction for the eastern portion of the property, which has slightly increased in comparison to the 1st quarter 2009. In addition, the groundwater hydraulic gradient for the western portion of the property is 0.039 foot per foot to northwest direction, which has slightly increased in comparison to the 1st quarter 2009. Lastly, there is a slightly decrease in groundwater elevation in wells at an average of 0.14 feet since 1st quarter 2009.

- Historically, hydrocarbon concentration has decreased in MW-1 MW-2, MW-4 and MW-5 since 2005.

- Historically, benzene, toluene, ethylbenzene, total xylenes, ETBE, DIPE, TAME and TBA have not been detected in wells MW-1 through MW-6 since 2006.

- The concentration of MTBE (3 μg/L) in MW-1 has slightly increased in current quarter compared to 1st quarter 2009. TPH (gasoline), benzene, toluene, ethylbenzene, total xylenes, ETBE, DIPE, TAME and TBA were not detected in this quarter.

- The concentration of MTBE (6 μg/L) in MW-2 has slightly decreased in current quarter compared to 1st quarter 2010. TPH (gasoline), benzene, toluene, ethylbenzene, total xylenes, ETBE, DIPE, TAME and TBA were not detected in this quarter.

- There was no detection of Petroleum hydrocarbons and fuel oxygenate compounds in well MW-3 since June 2008.

- In comparison to the 1st quarter 2010, the concentrations of TPH (gasoline: 120 μg/L) and MTBE (92 μg/L) in MW-4 have slightly increased. Benzene, toluene, ethylbenzene, total xylenes, ETBE, DIPE, TAME and TBA were not detected in this quarter.

- The concentration of MTBE (2 μg/L) in MW-5 has slightly decreased in current quarter compared to 1st quarter 2010. TPH (gasoline), benzene, toluene, ethylbenzene, total xylenes, ETBE, DIPE, TAME and TBA were not detected in this quarter.

- The concentration of MTBE (2 μg/L) in MW-6 has slightly increased in current quarter compared to 1st quarter 2010. TPH (gasoline), benzene, toluene, ethylbenzene, total xylenes, ETBE, DIPE, TAME and TBA were not detected in this quarter.

- No liquid-phase hydrocarbons (LPH) was found in any wells.

CONCLUSIONS AND RECOMMENDATIONS:

The depth to groundwater on February 24, 2010, for the wells at the subject site varied from 26.20 feet to 27.55 feet below top of casing. LPH was not found in any wells. The local groundwater appears to flow southeasterly (hydraulic gradient = 0.0076 ft/ft) for the eastern portion of the site. In addition, for the western portion of the property, the local groundwater appears to flow northwesterly (hydraulic gradient = 0.039 ft/ft).

During this quarter, at the subject site based on the sampling data, concentrations of TPH (gasoline) were found to be within a range between <100 to 120 µg/L; and concentrations of MTBE were found to be within a range between <1 to 92 µg/L, respectively.

Comparison of groundwater concentrations during the 1st quarter 2009 and 1st quarter 2010 for MW-4 indicates that both TPH (gasoline) and MTBE have slightly increasd.

Based on the above analytical results, we believe no further subsurface investigation is necessary for the site. Accordingly, WEECO requests the County of Orange Health care Agency for issuance of the "No Further Action Letter" to South Pacific Car Wash.

ATTACHED:

<u>Tables</u>
Table 1 - Current Groundwater Analytical and Gauging results (2/24/2010)
Table 2 - Historical Groundwater Analytical and Gauging Results

<u>Figures</u>
Figure 1 - Site Location Map
Figure 2 - Groundwater Elevation Contour Map, February 24, 2010
Figure 3 - Dissolved-Phase TPH-g Concentrations in Groundwater, February 24, 2010
Figure 4 - Dissolved-Phase MTBE Concentrations in Groundwater, February 24, 2010

<u>Appendices</u>
Appendix A - Time-Series Graphs of Groundwater Elevation and TPHg and MTBE Concentrations for Each Well
Appendix B - Laboratory Report and Chain-of-Custody Documentation for Groundwater Samples
Appendix C - Monitoring Well Purging / Surging Data Sheet
Appendix D – Summary of Environmental Background

TABLES

TABLE 1
CURRENT GROUNDWATER ANALYTICAL AND GAUGING RESULTS

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-1	2/24/10	38.82	26.20	0	12.62	40	<100	<1	<1	<1	<2	3	<1	<1	<1	<10
MW-2	2/24/10	38.95	26.86	0	12.09	40	<100	<1	<1	<1	<2	6	<1	<1	<1	<10
MW-3	2/24/10	38.91	26.46	0	12.45	40	<100	<1	<1	<1	<2	<1	<1	<1	<1	<10
MW-4	2/24/10	39.56	27.55	0	12.01	40	120	<1	<1	<1	<2	92	<1	<1	<1	<10
MW-5	2/24/10	39.00	26.51	0	12.49	40	<100	<1	<1	<1	<2	2	<1	<1	<1	<10
MW-6	2/24/10	40.70	27.13	0	13.57	35	<100	<1	<1	<1	<2	2	<1	<1	<1	<10

Notes: µg/L = micrograms per liter
LPH = liquid-phase hydrocarbons
TPHg = total petroleum hydrocarbons as gasoline analyzed by modified EPA Method 8015B
MTBE = methyl tertiary butyl ether analyzed by EPA Method 8260B
ETBE = ethyl tertiary butyl ether analyzed by EPA Method 8260B
DIPE = di-isopropyl ether analyzed by EPA Method 8260B
TAME = tertiary amyl methyl ether analyzed by EPA Method 8260B
TBA = tertiary butyl alcohol analyzed by EPA Method 8260B
GW = groundwater
Benzene, toluene, ethylbenzene, total xylenes (BTEX) analyzed by EPA Method 8260B unless noted

TABLE 2
Historical Groundwater Analyses and Gauging Results for MW-1

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-1	1/28/05	38.82	20-40	25.84	0	12.98	40	ND<50	ND<1	ND<1	ND<1	ND<2	18	ND<2	ND<2	ND<2	ND<10
	3/31/05	38.82	20-40	25.00	0	13.82	40	ND<50	ND<1	5	2	14	4	ND<2	ND<2	ND<2	ND<10
	6/29/05	38.82	20-40	24.88	0	13.94	40	ND<50	ND<1	ND<1	ND<1	ND<2	3	ND<2	ND<2	ND<2	ND<10
	9/28/05	38.82	20-40	25.03	0	13.79	40	ND<50	ND<1	ND<1	ND<1	ND<2	2	ND<2	ND<2	ND<2	ND<10
	12/23/05	38.82	20-40	25.20	0	13.62	40	ND<50	ND<1	ND<1	ND<1	ND<2	3	ND<2	ND<2	ND<2	ND<10
	4/6/06	38.82	20-40	25.14	0	13.68	40	ND<50	ND<1	ND<1	ND<1	ND<2	3	ND<2	ND<2	ND<2	ND<10
	6/30/06	38.82	20-40	24.93	0	13.89	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/21/06	38.82	20-40	25.01	0	13.81	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	12/28/06	38.82	20-40	25.08	0	13.74	40	ND<50	ND<1	ND<1	ND<1	ND<2	3	ND<2	ND<2	ND<2	ND<10
	3/7/07	38.82	20-40	25.08	0	13.74	40	ND<50	ND<1	ND<1	ND<1	ND<2	2	ND<2	ND<2	ND<2	ND<10
	6/28/07	38.82	20-40	25.17	0	13.65	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/28/07	38.82	20-40	25.39	0	13.43	40	ND<50	ND<1	ND<1	ND<1	ND<2	4	ND<2	ND<2	ND<2	ND<10
	12/27/07	38.82	20-40	25.55	0	13.27	40	ND<50	ND<1	ND<1	ND<1	ND<2	4	ND<2	ND<2	ND<2	ND<10
	3/21/08	38.82	20-40	25.53	0	13.29	40	ND<100	ND<1	ND<1	ND<1	ND<2	1	ND<1	ND<1	ND<1	ND<10
	6/25/08	38.82	20-40	25.70	0	13.12	40	ND<100	ND<1	ND<1	ND<1	ND<2	4	ND<1	ND<1	ND<1	ND<10
	9/25/08	38.82	20-40	25.90	0	12.92	40	ND<100	ND<1	ND<1	ND<1	ND<2	3	ND<1	ND<1	ND<1	ND<10
	12/22/08	38.82	20-40	26.06	0	12.76	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	3/3/09	38.82	20-40	26.06	0	12.76	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	2/24/10	38.82	20-40	26.20	0	12.62	40	ND<100	ND<1	ND<1	ND<1	ND<2	3	ND<1	ND<1	ND<1	ND<10

TABLE 2
Historical Groundwater Analyses and Gauging Results for MW-2

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-2	1/28/05	38.95	20-40	26.47	0	12.48	40	2,200	ND<1	ND<1	ND<1	ND<2	2,100	5	ND<2	ND<2	ND<10
	3/31/05	38.95	20-40	25.65	0	13.30	40	4,100	ND<1	ND<1	ND<1	ND<2	4,076	ND<2	ND<2	ND<2	ND<10
	6/29/05	38.95	20-40	25.53	0	13.42	40	3,100	ND<1	ND<1	ND<1	ND<2	3,040	ND<2	ND<2	ND<2	ND<10
	9/28/05	38.95	20-40	25.66	0	13.29	40	1,600	ND<1	ND<1	ND<1	ND<2	1,481	ND<2	ND<2	ND<2	ND<10
	12/23/05	38.95	20-40	25.86	0	13.09	40	650	ND<1	ND<1	ND<1	ND<2	576	ND<2	ND<2	ND<2	ND<10
	4/6/06	38.95	20-40	25.76	0	13.19	40	200	ND<1	ND<1	ND<1	ND<2	156	ND<2	ND<2	ND<2	ND<10
	6/30/06	38.95	20-40	25.60	0	13.35	40	250	ND<1	ND<1	ND<1	ND<2	212	ND<2	ND<2	ND<2	ND<10
	9/21/06	38.95	20-40	25.65	0	13.30	40	80	ND<1	ND<1	ND<1	ND<2	67	ND<2	ND<2	ND<2	ND<10
	12/28/06	38.95	20-40	25.70	0	13.25	40	160	ND<1	ND<1	ND<1	ND<2	133	ND<2	ND<2	ND<2	ND<10
	3/7/07	38.95	20-40	25.72	0	13.23	40	60	ND<1	ND<1	ND<1	ND<2	22	ND<2	ND<2	ND<2	ND<10
	6/28/07	38.95	20-40	25.82	0	13.13	40	100	ND<1	ND<1	ND<1	ND<2	48	ND<2	ND<2	ND<2	ND<10
	9/28/07	38.95	20-40	26.03	0	12.92	40	90	ND<1	ND<1	ND<1	ND<2	44	ND<2	ND<2	ND<2	ND<10
	12/27/07	38.95	20-40	26.21	0	12.74	40	60	ND<1	ND<1	ND<1	ND<2	47	ND<2	ND<2	ND<2	ND<10
	3/21/08	38.95	20-40	26.19	0	12.76	40	280	ND<1	ND<1	ND<1	ND<2	202	ND<1	ND<1	ND<1	ND<10
	6/25/08	38.95	20-40	26.35	0	12.60	40	420	ND<1	ND<1	ND<1	ND<2	336	ND<1	ND<1	ND<1	27
	9/25/08	38.95	20-40	26.54	0	12.41	40	ND<100	ND<1	ND<1	ND<1	ND<2	28	ND<1	ND<1	ND<1	ND<10
	12/22/08	38.95	20-40	26.71	0	12.24	40	ND<100	ND<1	ND<1	ND<1	ND<2	8	ND<1	ND<1	ND<1	ND<10
	3/3/09	38.95	20-40	26.70	0	12.25	40	ND<100	ND<1	ND<1	ND<1	ND<2	11	ND<1	ND<1	ND<1	ND<10
	2/24/10	38.95	20-40	26.86	0	12.09	40	ND<100	ND<1	ND<1	ND<1	ND<2	6	ND<1	ND<1	ND<1	ND<10

TABLE 2
Historical Groundwater Analyses and Gauging Results for MW-3

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-3	1/28/05	38.91	20-40	26.12	0	12.79	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	3/31/05	38.91	20-40	25.25	0	13.66	40	ND<50	ND<1	5	2	14	15	ND<2	ND<2	ND<2	ND<10
	6/29/05	38.91	20-40	25.13	0	13.78	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/28/05	38.91	20-40	25.30	0	13.61	40	ND<50	ND<1	ND<1	ND<1	ND<2	5	ND<2	ND<2	ND<2	ND<10
	12/23/05	38.91	20-40	25.45	0	13.46	40	ND<50	ND<1	ND<1	ND<1	ND<2	2	ND<2	ND<2	ND<2	ND<10
	4/6/06	38.91	20-40	25.40	0	13.51	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	6/30/06	38.91	20-40	25.23	0	13.68	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/21/06	38.91	20-40	25.30	0	13.61	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	12/28/06	38.91	20-40	25.35	0	13.56	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	3/7/07	38.91	20-40	25.38	0	13.53	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	6/28/07	38.91	20-40	25.45	0	13.46	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/28/07	38.91	20-40	25.66	0	13.22	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	12/27/07	38.91	20-40	25.82	0	13.09	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	3/21/08	38.91	20-40	25.81	0	13.10	40	ND<100	ND<1	ND<1	ND<1	ND<2	3	ND<1	ND<1	ND<1	ND<10
	6/25/08	38.91	20-40	25.99	0	12.92	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	9/25/08	38.91	20-40	26.11	0	12.75	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	12/22/08	38.91	20-40	26.33	0	12.58	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	3/3/09	38.91	20-40	26.32	0	12.59	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	2/24/10	38.91	20-40	26.46	0	12.45	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10

TABLE 2
Historical Groundwater Analyses and Gauging Results for MW-4

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-4	1/28/05	39.56	20-40	27.14	0	12.42	40	ND<50	ND<1	ND<1	ND<1	ND<2	40	ND<2	ND<2	ND<2	ND<10
	3/31/05	39.56	20-40	26.34	0	13.22	40	420	ND<1	ND<1	ND<1	ND<2	416	ND<2	ND<2	ND<2	ND<10
	6/29/05	39.56	20-40	26.20	0	13.36	40	180	ND<1	ND<1	ND<1	ND<2	137	ND<2	ND<2	ND<2	ND<10
	9/28/05	39.56	20-40	26.38	0	13.18	40	200	ND<1	ND<1	ND<1	ND<2	195	ND<2	ND<2	ND<2	ND<10
	12/23/05	39.56	20-40	26.55	0	13.01	40	310	ND<1	ND<1	ND<1	ND<2	216	ND<2	ND<2	ND<2	ND<10
	4/6/06	39.56	20-40	26.46	0	13.10	40	120	ND<1	ND<1	ND<1	ND<2	89	ND<2	ND<2	ND<2	ND<10
	6/30/06	39.56	20-40	26.29	0	13.27	40	50	ND<1	ND<1	ND<1	ND<2	38	ND<2	ND<2	ND<2	ND<10
	9/21/06	39.56	20-40	26.33	0	13.23	40	80	ND<1	ND<1	ND<1	ND<2	70	ND<2	ND<2	ND<2	ND<10
	12/28/06	39.56	20-40	26.42	0	13.14	40	340	ND<1	ND<1	ND<1	ND<2	280	ND<2	ND<2	ND<2	ND<10
	3/7/07	39.56	20-40	26.43	0	13.13	40	100	ND<1	ND<1	ND<1	ND<2	86	ND<2	ND<2	ND<2	ND<10
	6/28/07	39.56	20-40	26.51	0	13.05	40	130	ND<1	ND<1	ND<1	ND<2	75	ND<2	ND<2	ND<2	ND<10
	9/28/07	39.56	20-40	26.72	0	12.84	40	210	ND<1	ND<1	ND<1	ND<2	156	ND<2	ND<2	ND<2	ND<10
	12/27/07	39.56	20-40	26.89	0	12.67	40	100	ND<1	ND<1	ND<1	ND<2	63	ND<2	ND<2	ND<2	ND<10
	3/21/08	39.56	20-40	26.87	0	12.69	40	210	ND<1	ND<1	ND<1	ND<2	158	ND<1	ND<1	ND<1	ND<10
	6/25/08	39.56	20-40	27.04	0	12.52	40	ND<100	ND<1	ND<1	ND<1	ND<2	66	ND<1	ND<1	ND<1	ND<10
	9/25/08	39.56	20-40	27.23	0	12.33	40	ND<100	ND<1	ND<1	ND<1	ND<2	71	ND<1	ND<1	ND<1	ND<10
	12/22/08	39.56	20-40	27.40	0	12.16	40	120	ND<1	ND<1	ND<1	ND<2	174	ND<1	ND<1	ND<1	ND<10
	3/3/09	39.56	20-40	27.40	0	12.16	40	ND<100	ND<1	ND<1	ND<1	ND<2	82	ND<1	ND<1	ND<1	ND<10
	2/24/10	39.56	20-40	27.55	0	12.01	40	120	ND<1	ND<1	ND<1	ND<2	92	ND<1	ND<1	ND<1	ND<10

TABLE 2
Historical Groundwater Analyses and Gauging Results for MW-5

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethyl-Benzene (μg/L)	Total Xylenes (μg/L)	MTBE (μg/L)	ETBE (μg/L)	DIPE (μg/L)	TAME (μg/L)	TBA (μg/L)
MW-5	1/28/05	39.00	20-40	26.14	0	12.86	40	ND<50	ND<1	ND<1	ND<1	ND<2	180	ND<2	ND<2	ND<2	ND<10
	3/31/05	39.00	20-40	25.30	0	13.70	40	250	ND<1	ND<1	ND<1	ND<2	252	ND<2	ND<2	ND<2	ND<10
	6/29/05	39.00	20-40	25.19	0	13.81	40	650	ND<1	ND<1	ND<1	ND<2	610	ND<2	ND<2	ND<2	ND<10
	9/28/05	39.00	20-40	25.33	0	13.67	40	190	ND<1	ND<1	ND<1	ND<2	186	ND<2	ND<2	ND<2	ND<10
	12/23/05	39.00	20-40	25.49	0	13.51	40	480	ND<1	ND<1	ND<1	ND<2	430	ND<2	ND<2	ND<2	ND<10
	4/6/06	39.00	20-40	25.42	0	13.58	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<10
	6/30/06	39.00	20-40	25.24	0	13.76	40	ND<50	ND<1	ND<1	ND<1	ND<2	23	ND<2	ND<2	ND<2	ND<10
	9/21/06	39.00	20-40	25.31	0	13.66	40	60	ND<1	ND<1	ND<1	ND<2	49	ND<2	ND<2	ND<2	ND<10
	12/28/06	39.00	20-40	25.39	0	13.61	40	90	ND<1	ND<1	ND<1	ND<2	77	ND<2	ND<2	ND<2	ND<10
	3/7/07	39.00	20-40	25.40	0	13.60	40	110	ND<1	ND<1	ND<1	ND<2	86	ND<2	ND<2	ND<2	ND<10
	6/28/07	39.00	20-40	25.48	0	13.52	40	80	ND<1	ND<1	ND<1	ND<2	52	ND<2	ND<2	ND<2	ND<10
	9/28/07	39.00	20-40	25.70	0	13.30	40	60	ND<1	ND<1	ND<1	ND<2	37	ND<2	ND<2	ND<2	ND<10
	12/27/05	39.00	20-40	25.88	0	13.12	40	70	ND<1	ND<1	ND<1	ND<2	55	ND<2	ND<2	ND<2	ND<10
	3/21/08	39.00	20-40	25.87	0	13.13	40	ND<100	ND<1	ND<1	ND<1	ND<2	40	ND<1	ND<1	ND<1	ND<10
	6/25/08	39.00	20-40	26.63	0	12.99	40	ND<100	ND<1	ND<1	ND<1	ND<2	5	ND<1	ND<1	ND<1	ND<10
	9/25/08	39.00	20-40	26.22	0	12.78	40	ND<100	ND<1	ND<1	ND<1	ND<2	2	ND<1	ND<1	ND<1	ND<10
	12/22/08	39.00	20-40	26.38	0	12.62	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	3/3/09	39.00	20-40	26.38	0	12.62	40	ND<100	ND<1	ND<1	ND<1	ND<2	8	ND<1	ND<1	ND<1	ND<10
	2/24/10	39.00	20-40	26.51	0	12.49	40	ND<100	ND<1	ND<1	ND<1	ND<2	2	ND<1	ND<1	ND<1	ND<10

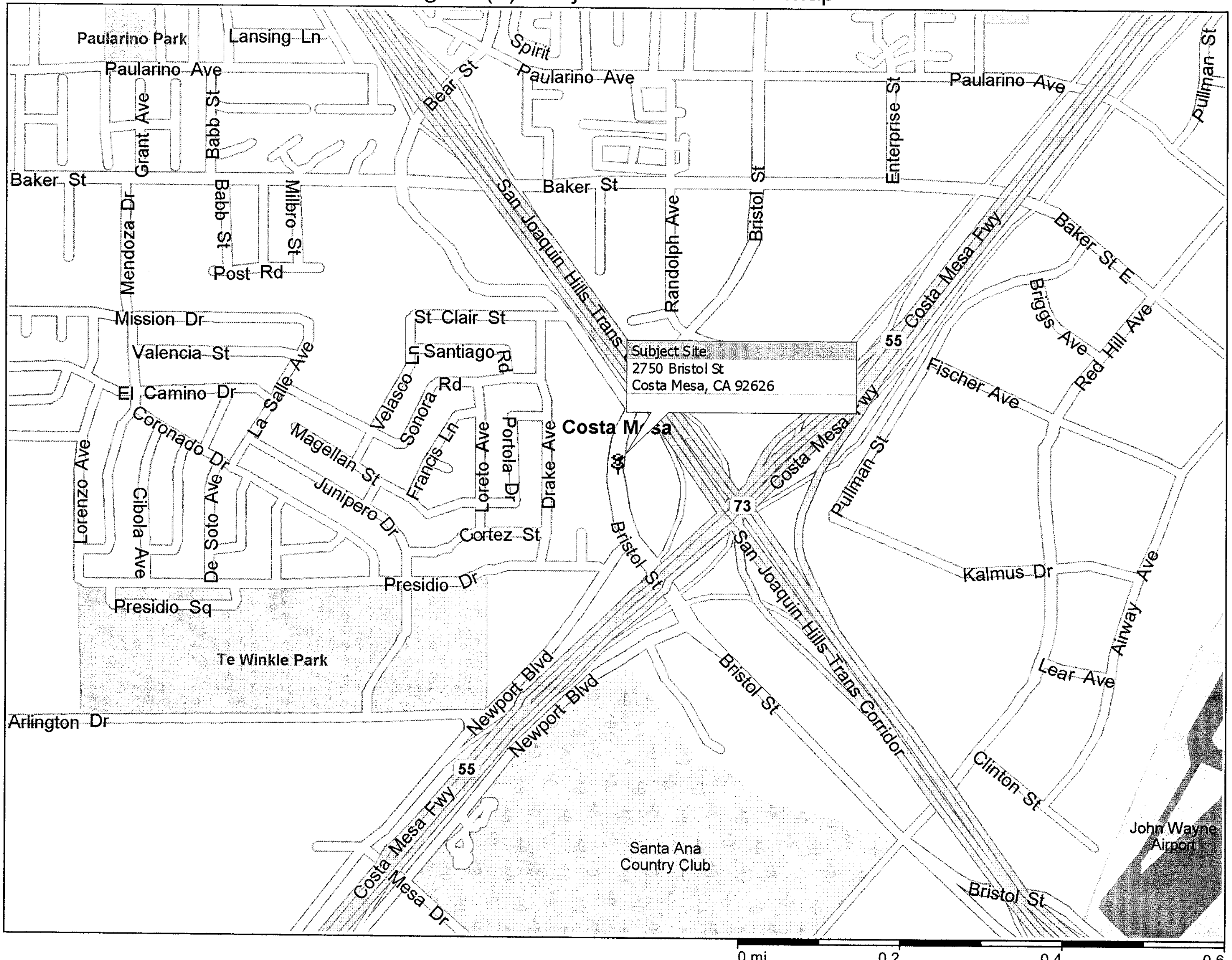
TABLE 2
Historical Groundwater Analyses and Gauging Results for MW-6

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-6	4/6/06	40.70	20-35	26.02	0	14.08	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	6/30/06	40.70	20-35	25.85	0	14.85	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/21/06	40.70	20-35	25.92	0	14.78	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	12/28/06	40.70	20-35	25.99	0	14.71	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	3/7/07	40.70	20-35	26.01	0	14.69	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	6/28/07	40.70	20-35	26.10	0	14.60	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/28/07	40.70	20-35	26.32	0	14.38	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	12/27/07	40.70	20-35	26.49	0	14.21	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	3/21/08	40.70	20-35	26.47	0	14.23	35	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	6/25/08	40.70	20-35	26.63	0	14.07	35	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	9/25/08	40.70	20-35	26.82	0	13.88	35	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	12/22/08	40.70	20-35	27.00	0	13.70	35	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	3/3/09	40.70	20-35	26.99	0	13.71	35	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	2/24/10	40.70	20-35	27.13	0	13.57	35	ND<100	ND<1	ND<1	ND<1	ND<2	2	ND<1	ND<1	ND<1	ND<10

FIGURES

Figure (1) Subject Site Location Map



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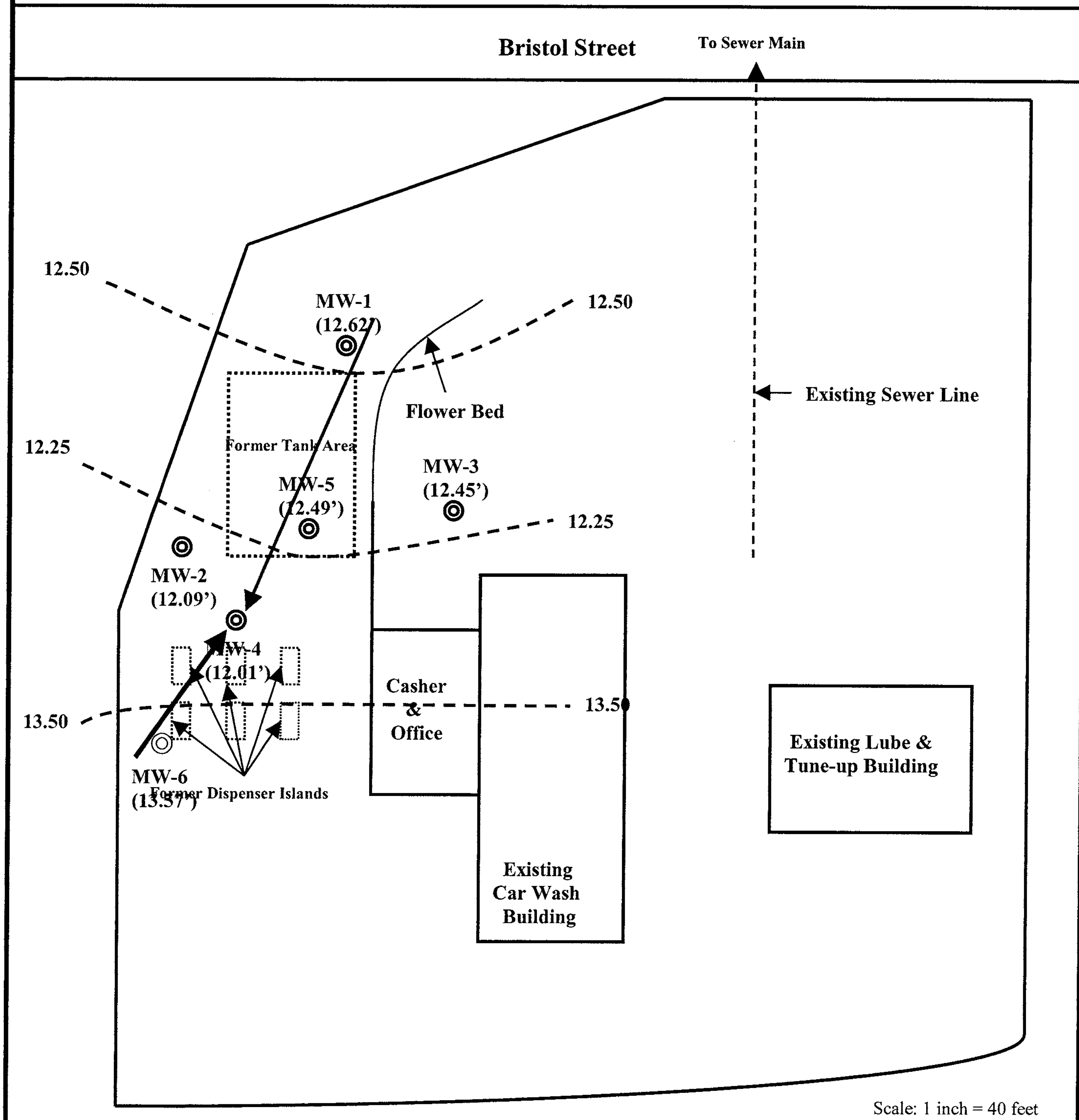


Site Address: South Pacific Car Wash
2750 S. Bristol Street
Costa Mesa, CA 92626

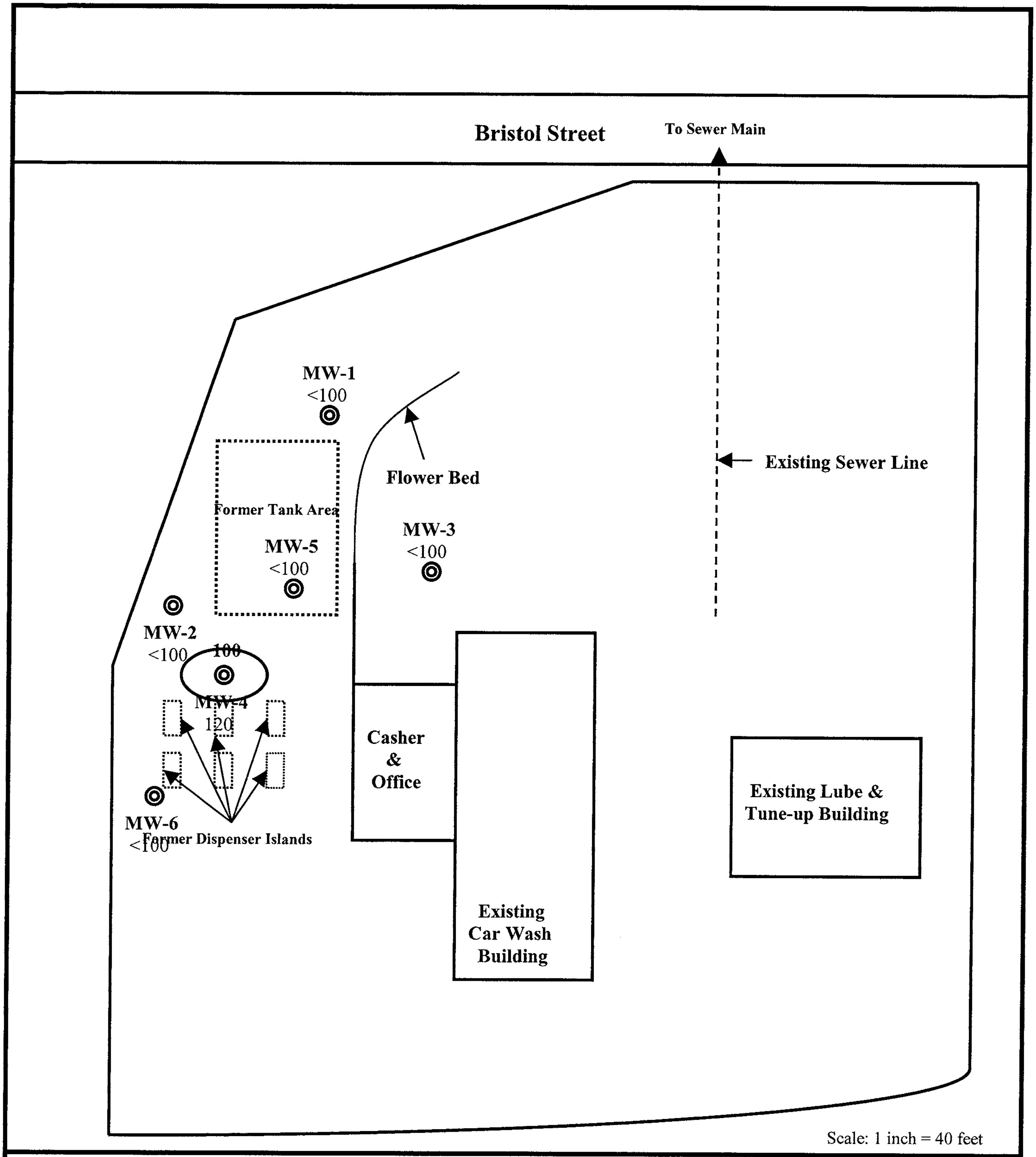
◎ : Groundwater Monitoring Wells Location (MW-3)

(12.49'): Groundwater Elevation in Feet Above Mean Sea Level

12.25 --- : Approximate Location of groundwater Elevation Contour in Feet Mean Sea Level

← : Inferred Groundwater Flow Direction
(Approximate Hydraulic Gradient = 0.0076 & 0.039 ft/ft)

FIGURE (2) GROUNDWATER ELEVATION CONTOUR MAP (2/24/2010)



Site Address: South Pacific Car Wash
2750 S. Bristol Street
Costa Mesa, CA 92626

LEGEND

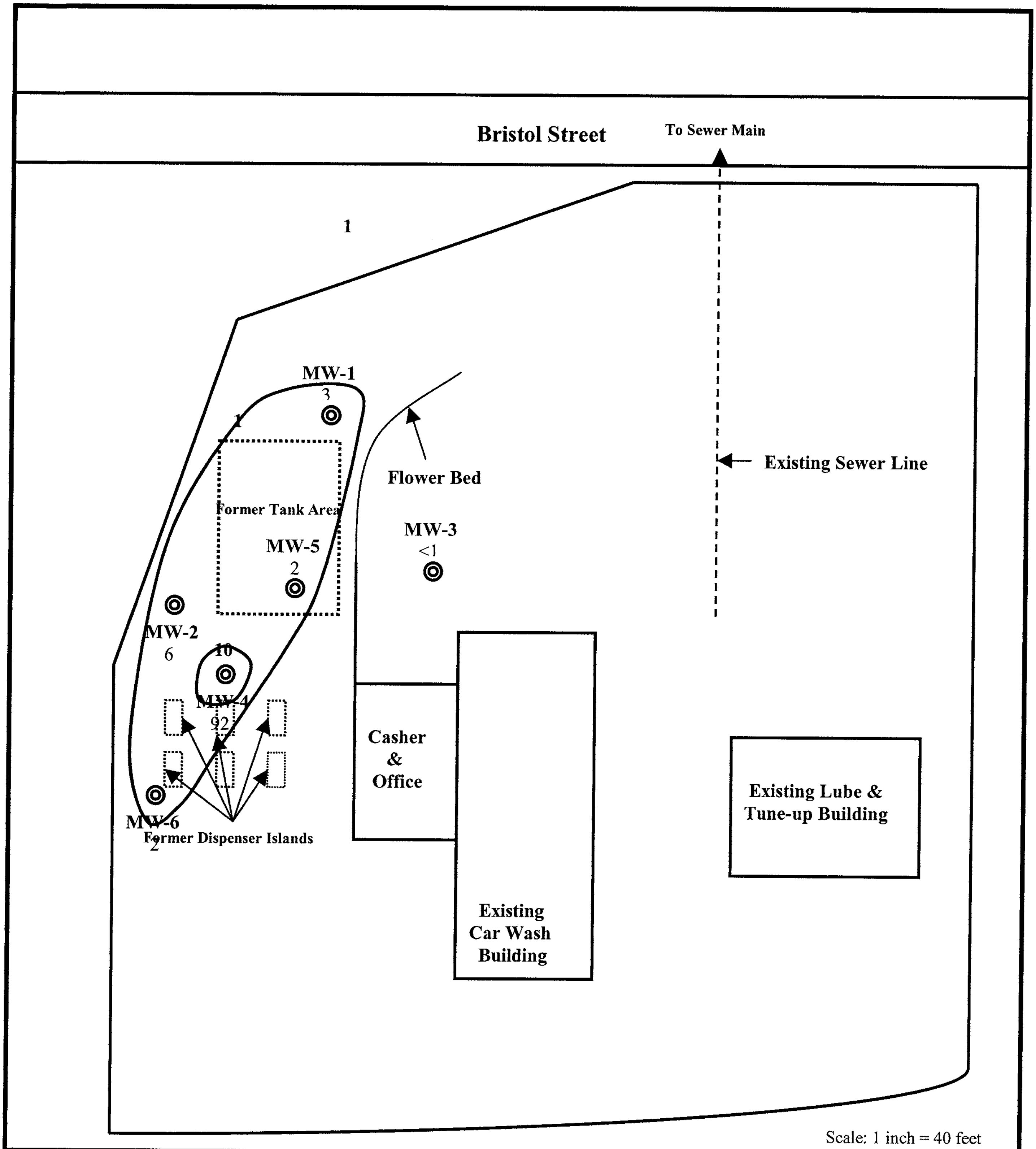
◎ : Existing Groundwater Monitoring Wells Location (MW-4)

—— : Approximate Isoconcentration TPH-g Contour Lines

120: TPH-g Concentration in Micrograms per Liter (µg/L)

<100: Analyze Not Detected at or below the Laboratory Method Reporting Limit

Figure (3) Dissolved-Phase TPH-g Concentrations in Groundwater (2/24/2010)



Site Address: South Pacific Car Wash
2750 S. Bristol Street
Costa Mesa, CA 92626

LEGEND

◎ : Existing Groundwater Monitoring Wells Location (MW-4)

— : Approximate Isoconcentration MTBE Contour Lines

2: MTBE Concentration in Micrograms per Liter (μg/L)

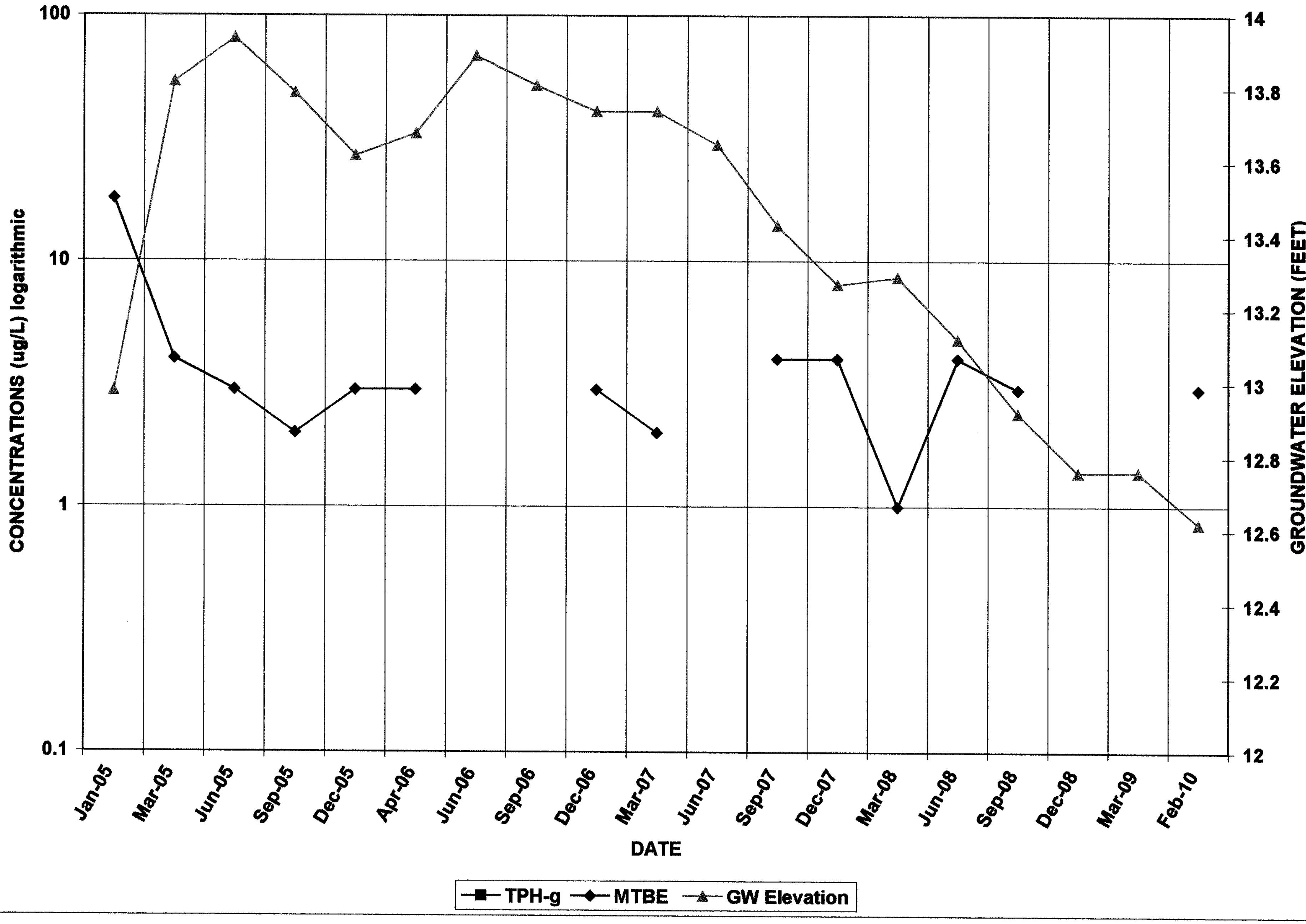
<1: Analyze Not Detected at or below the Laboratory Method Reporting Limit

Figure (4) Dissolved-Phase MTBE Concentrations in Groundwater (2/24/2010)

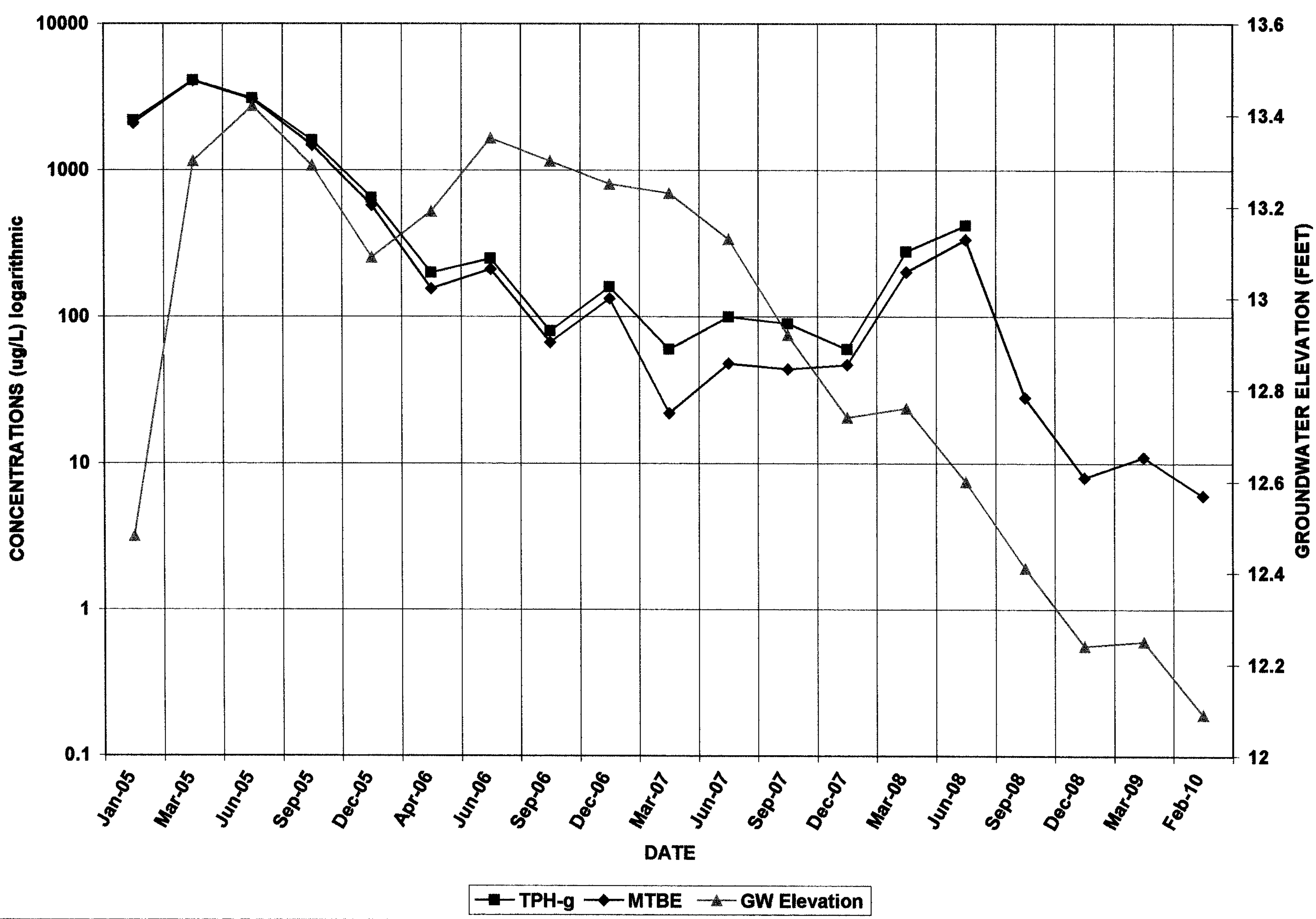
APPENDIX A

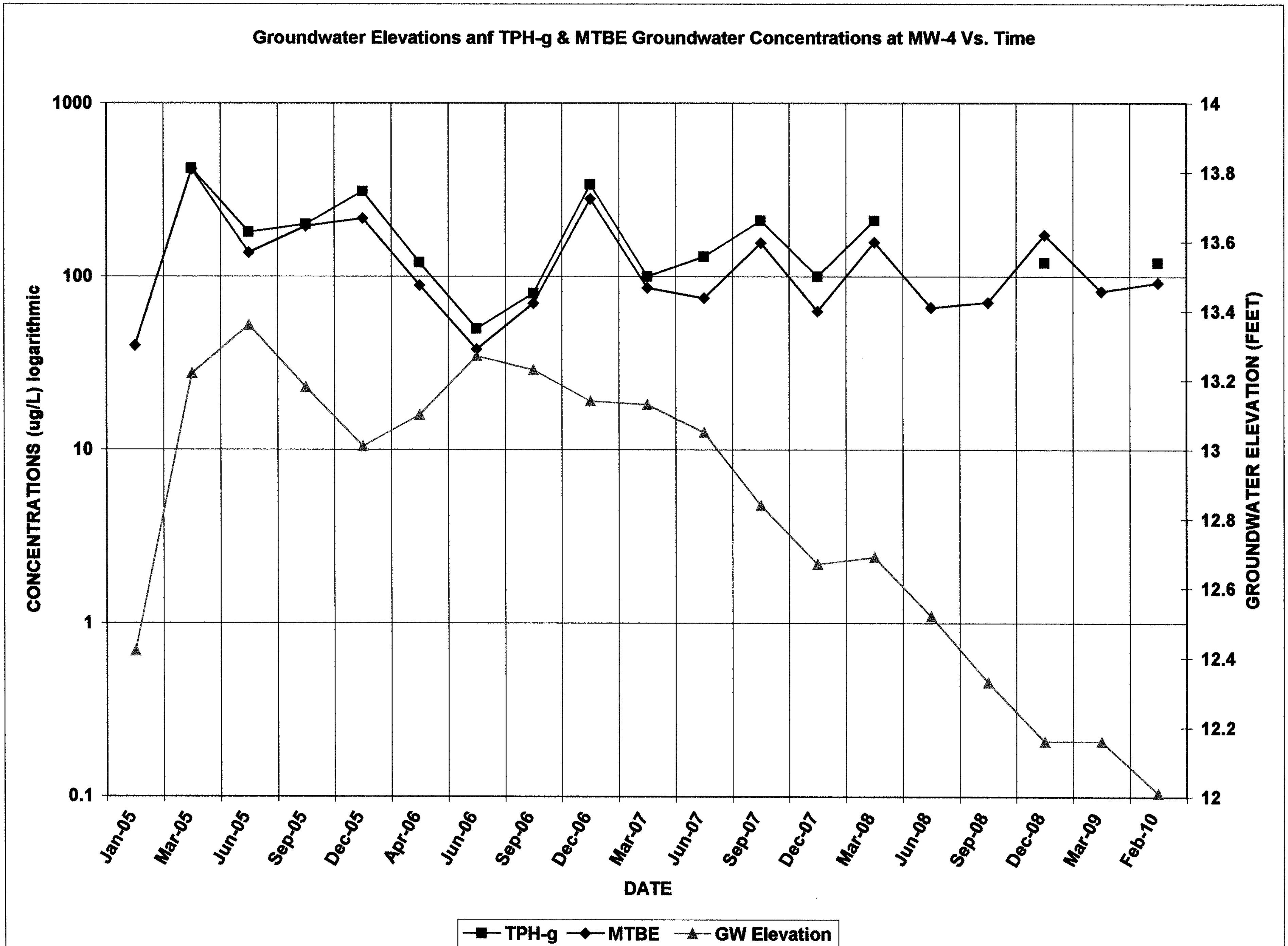
Time-Series Graphs of Groundwater Elevation and TPHg and MTBE Concentrations for Each Well

Groundwater elevations and TPH-g & MTBE Groundwater Concentrations at MW-1 Vs. Time

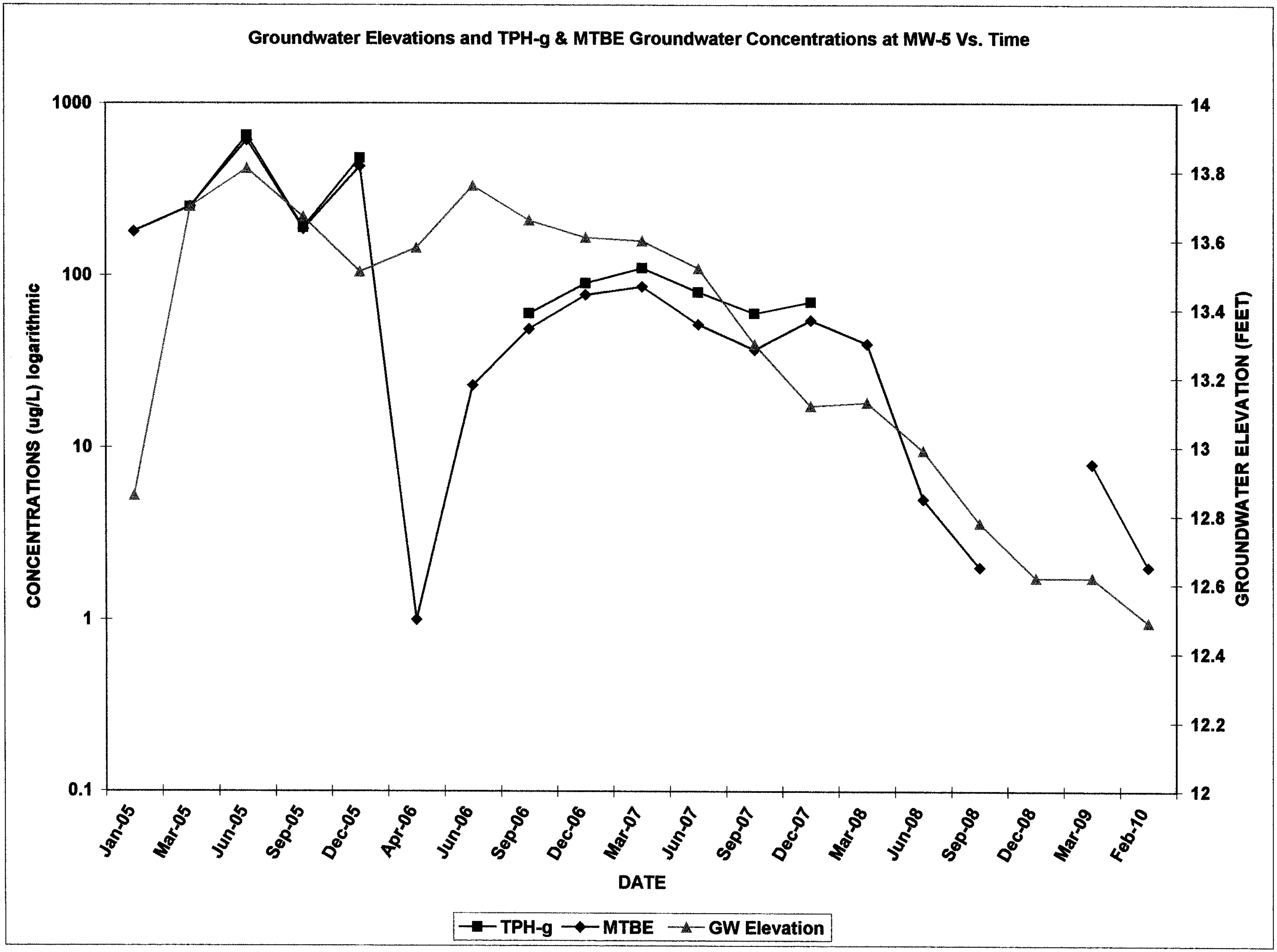


Groundwater Elevations and TPH-g & MTBE Groundwater Concentrations at MW-2 Vs. Time





Groundwater Elevations anf TPH-g & MTBE Groundwater Concentrations at MW-4 Vs. Time
1000
100
10
1
0.1
CONCENTRATIONS (ug/L) logarithmic
14
13.8
13.6
13.4
13.2
13
12.8
12.6
12.4
12.2
12
GROUNDWATER ELEVATION (FEET)
Jan-05
Mar-05
Jun-05
Sep-05
Dec-05
Apr-06
Jun-06
Sep-06
Dec-06
Mar-07
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Feb-10
DATE
TPH-g
MTBE
GW Elevation



Groundwater Elevations and TPH-g & MTBE Groundwater Concentrations at MW-5 Vs. Time
CONCENTRATIONS (ug/L) logarithmic
1000
100
10
1
0.1
GROUNDWATER ELEVATION (FEET)
14
13.8
13.6
13.4
13.2
13
12.8
12.6
12.4
12.2
12
Jan-05
Mar-05
Jun-05
Sep-05
Dec-05
Apr-06
Jun-06
Sep-06
Dec-06
Mar-07
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Feb-10
DATE
TPH-g
MTBE
GW Elevation

APPENDIX B

Laboratory Report and Chain-of-Custody Documentation for Groundwater Samples

CHEMTEK Environmental Laboratories Inc.
13554 Larwin Circle, Santa Fe Springs, CA 90670
Tel. (562) 926-9848 FAX (562) 926-8324 Email: ChemtekLabs@hotmail.com
CA Dept of Health Accredited. (ELAP No. 1435) & Mobile Lab (ELAP No. 2629)

CHAIN OF COUSTODY RECORD

Job No.: 002103

Page: of

CUSTOMER INFORMATION

COMPANY NAME: WEECO
PROJECT CONTACT: [illegible]
ADDRESS: 1815 E. Wilshire Ave, #515
CITY, STATE, ZIP: Santa Ana, CA 927[illegible]
PHONE: FAX:
EMAIL:

PROJECT INFORMATION

PROJECT NAME: [illegible]
SITE ADDRESS: [illegible]
SAMPLED BY: [illegible]
☒ EDF

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	TYPE *	REMARKS	NO. OF CONT	8015M TPH G	8015M TPH D	BTEX/MTBE (8021 B)	VOCs (8260 B) FULL	OXYGENATES (8260 B) SHORT	TRPH (418.1)	COD / TSS	pH, Conductivity, Turbidity
MW-6	[illegible]	2:40	GW		1	✓		✓		✓			✓
MW-2	"	2:50	"		"	✓		✓		✓			✓
MW-3	"	3:00	"		"	✓		✓		✓			✓
MW-1	"	3:10	"		"	✓		✓		✓			✓
MW-4	"	3:20	"		"	✓		✓		✓			✓
MW-5	"	3:30	"		1	✓		✓		✓			✓

	SIGNATURE	PRINT NAME	COMPANY NAME	DATE	TIME
RELINQUISHED BY:	[illegible]	[illegible]	WEECO	[illegible]	5:30
RECEIVED BY:					
RELINQUISHED BY:					
RECEIVED FOR LABORATORY BY:	[illegible]	Martin Cu	Chemtek	2/26/10	5:30

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made.

Distribution : **WHITE** with report / **YELLOW** to **CHEMTEK** / **PINK** to courier

***Type**: **SO**-Soil **GW**-Ground Water **WW**-Waste Water **AQ**-Aqueous **A**-Air **OT**-Other

CHEMTEK ENVIRONMENTAL LABORATORIES INC.
"An environment-friendly company"
13554 Larwin Cir., Santa Fe Springs, CA 90670
Tel. (562) 926-9848 FAX (562) 926-8324
CA Dept of Health Accredited. (ELAP No. 1435)

CERTIFICATE OF ANALYSIS

Job No.002103 Date:02-26-10

This is the Certificate of Analysis for the following samples:

Client	:	Western Environmental Eng. Co.
Contact person	:	James Yoon
Project	:	South Pacific Car Wash
Project site	:	2750 S. Bristol St. Costa Mesa, CA
Date of sample	:	02-24-10
Date received	:	02-24-10
Number of samples	:	6
Sample type	:	Groundwater

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY NUMBER
MW-6	002103-01A
MW-2	002103-02A
MW-3	002103-03A
MW-1	002103-04A
MW-4	002103-05A
MW-5	002103-06A

Reviewed and Approved:

Michael C.C. Lu
Laboratory Director

CHEMTEK ENVIRONMENTAL LAB.
LABORATORY ANALYSIS REPORT

Client : Western Environmental Eng. Co.
Project : South Pacific Car Wash
Project Site : 2750 S. Bristol St.
Costa Mesa, CA

Job No. : 002103 Date: 02-26-10

Analysis: EPA 8015M (TPH Gas) Unit: ppm or mg/l

Sample IDs : See below
Sample type : Ground Water
Sample date : 02-24-10

Sample IDs Client	Analysis Date	DF	TPH Gas (ppm)
MW-6	02-25-10	1	ND
MW-2	02-25-10	1	ND
MW-3	02-25-10	1	ND
MW-1	02-25-10	1	ND
MW-4	02-25-10	1	0.12
MW-5	02-25-10	1	ND
Method Blank			ND
Method Detection Limit			0.10

ND: NOT DETECTED BELOW (DF x Detection Limit)
DF: DILUTION FACTOR

CHEMTEK ENVIRONMENTAL LAB.
LABORATORY ANALYSIS REPORT

Client : Western Environmental Eng. Co.
Project : South Pacific Car Wash
Project Site : 2750 S. Bristol St.
Costa Mesa, CA

Job No. : 002103 Date: 02-26-10

Analysis: EPA 8260B (Volatile Organics by GC-MS) Unit: ppb or ug/l

Sample ID : See below
Sample matrix : Ground Water

Sample date : 02-24-10
Analysis date : 02-25-10

COMPOUND	MW-6	MW-2	MW-3	MW-1	MW-4	detect
Dilution Factor	1	1	1	1	1	limit
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
Benzene	ND	ND	ND	ND	ND	1
Toluene	ND	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	ND	1
Total Xylenes	ND	ND	ND	ND	ND	2
Methyl Tert.Butyl Ether(MTBE)	2	6	ND	3	92	1
Ethyl Tert. Butyl Ether (ETBE)	ND	ND	ND	ND	ND	1
Diisopropyl Ether (DIPE)	ND	ND	ND	ND	ND	1
Tert. Amyl Methyl Ether (TAME)	ND	ND	ND	ND	ND	1
T-Butyl Alcohol (TBA)	ND	ND	ND	ND	ND	10

ND: NOT DETECTED BELOW (DF x Detection Limit)
DF: DILUTION FACTOR

CHEMTEK ENVIRONMENTAL LAB.
LABORATORY ANALYSIS REPORT

Client : Western Environmental Eng. Co.
Project : South Pacific Car Wash
Project Site : 2750 S. Bristol St.
Costa Mesa, CA

Job No. : 002103 Date: 02-26-10

Analysis: EPA 8260B (Volatile Organics by GC-MS) Unit: ppb or ug/l

Sample ID : See below Sample date : 02-24-10
Sample matrix : Ground Water Analysis date : 02-25-10

COMPOUND Dilution Factor	MW-5 1 (ppb)	detect limit (ppb)
Benzene	ND	1
Toluene	ND	1
Ethylbenzene	ND	1
Total Xylenes	ND	2
Methyl Tert.Butyl Ether(MTBE)	2	1
Ethyl Tert. Butyl Ether (ETBE)	ND	1
Diisopropyl Ether (DIPE)	ND	1
Tert. Amyl Methyl Ether (TAME)	ND	1
T-Butyl Alcohol (TBA)	ND	10

ND: NOT DETECTED BELOW (DF x Detection Limit)
DF: DILUTION FACTOR

CHEMTEK ENVIRONMENTAL LAB.
LABORATORY ANALYSIS REPORT

QA/QC REPORT

EPA 8015M (TPH Gas)
Unit: mg/L

Job No. : 002103
Lab Sample ID : 002103-01A
Date Performed : 02-25-10

Analyte	Orig. Result	SPK CONC	MS	% MS	MSD	% MSD	RPD	ACP %MS	ACP RPD
TPH Gas	ND	0.50	0.55	110.0	0.52	104.0	5.6	70-130	0-30

QA/QC REPORT

EPA 8260B
Unit: µg/L

Job No. : 002103
Lab Sample ID : 002103-01A
Date Performed : 02-25-10

ANALYTE	ORIG. RESULT	SPK CONC	MS	% MS	MSD	% MSD	RPD	ACP %MS	ACP RPD
1,1-DCE	ND	50.0	42.1	84.2	43.0	86.0	1.8	70-130	0-30
Benzene	ND	50.0	50.2	100.4	50.4	100.8	0.4	70-130	0-30
TCE	ND	50.0	47.0	94.0	47.0	94.0	0.0	70-130	0-30
Toluene	ND	50.0	47.2	94.4	46.5	93.0	0.6	70-130	0-30
Chloro benzene	ND	50.0	50.9	101.8	51.0	102.8	1.0	70-130	0-30

CHEMTEK ENVIRONMENTAL LAB.
LABORATORY ANALYSIS REPORT

Client : Western Environmental Eng. Co.
Project : South Pacific Car Wash
Project Site : 2750 S. Bristol St.
Costa Mesa, CA

Job No. : 002103 Date: 02-26-10

Analysis: Conductivity, pH, Turbidity
Method : EPA 120.1, EPA 150.1, SM 2130B

Sample ID : See Below
Sample Date : 02-24-10
Analysis Date: 02-24-10
Sample Matrix: Groundwater

Sample IDs Client	Lab	Conductivity (u-mho/cm)	Results pH (unit)	Turbidity (NTU)
MW-6	01A	1,482	7.26	23
MW-2	02A	1,524	7.35	17
MW-3	03A	1,610	7.29	33
MW-1	04A	1,612	7.28	28
MW-4	05A	1,632	7.25	16
MW-5	06A	1,032	7.33	29
Method Blank :		----	----	---
Detection Limit:		----	----	---

ND: Not Detected at the specified limit.

APPENDIX C

Monitoring Well Purging / Surging Data Sheet

GROUNDWATER WELL MONITORING DATA SHEET

Site Address: 2750 S. Bristol Street, Costa Mesa, CA 92626	
Sampler: James Yoon	Date: 2/24/2010
Well No.: MW-1	Well Diameter: 4"
Total Well Depth: 40'	Depth to Water: 26.20'
Depth to Free Product: 0	Thickness of Free Product: 0
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW] = 28.96'	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other ________

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing

Case Volume (gal.) = πR^2 x (Total Well Depth – Depth to Water) x 7.4805

9 (1 Case Volume) (Gallons) x 1 (Specified Volumes) = 9 (Calculated Volume) Gallons

Time	Temp (°F)	pH	Conductivity (µS)	Turbidity (NTU)	Gal. Removal	Observation
1:55	72.8	6.65	2361	36	10	
3:10	70.6	6.66	2311	34	0	Sampling

Did well dewater? Yes No — Gallons actually evacuated: 10

Sampling Date: 2/24/2010 Sampling Time: 3:10 Depth to Water: 26.74'

Sample ID: MW-1 Laboratory: Chemtek Environmental Lab.

Analyzed for: TPH-g BTEX MTBE Oxygenates Other ________

GROUNDWATER WELL MONITORING DATA SHEET

Site Address: 2750 S. Bristol Street, Costa Mesa, CA 92626	
Sampler: James Yoon	Date: 2/24/2010
Well No.: MW-2	Well Diameter: 4"
Total Well Depth: 40'	Depth to Water: 26.86'
Depth to Free Product: 0	Thickness of Free Product: 0
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW] = 29.49'	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other ________

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing

Case Volume (gal.) = πR^2 x (Total Well Depth – Depth to Water) x 7.4805

8.6 (1 Case Volume) (Gallons) x 1 (Specified Volumes) = 8.6 (Calculated Volume) Gallons

Time	Temp (°F)	pH	Conductivity (µS)	Turbidity (NTU)	Gal. Removal	Observation
12:36	71.5	6.63	2022	28	10	
2:50	70.7	6.71	2181	19	6	Sampling

Did well dewater? Yes No — Gallons actually evacuated: 10

Sampling Date: 2/24/2010 Sampling Time: 2:50 Depth to Water: 27.23'

Sample ID: MW-2 Laboratory: Chemtek Environmental Lab.

Analyzed for: TPH-g BTEX MTBE Oxygenates Other ________

GROUNDWATER WELL MONITORING DATA SHEET

Site Address: 2750 S. Bristol Street, Costa Mesa, CA 92626	
Sampler: James Yoon	Date: 2/24/2010
Well No.: MW-3	Well Diameter: 4"
Total Well Depth: 40'	Depth to Water: 26.46'
Depth to Free Product: 0	Thickness of Free Product: 0
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW] = 29.17'	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other ________

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing

Case Volume (gal.) = πR^2 x (Total Well Depth – Depth to Water) x 7.4805

8.8 (Gallons) x 1 = 8.8 Gallons
1 Case Volume / Specified Volumes / Calculated Volume

Time	Temp (°F)	pH	Conductivity (µS)	Turbidity (NTU)	Gal. Removal	Observation
1:30	75.1	6.68	2232	38	10	
3:00	72.1	6.73	2321	34	0	sampling

Did well dewater? Yes No Gallons actually evacuated: 10

Sampling Date: 2/24/2010 Sampling Time: 3:00 Depth to Water: 26.73'

Sample ID: MW-3 Laboratory: Chemtek Environmental Lab.

Analyzed for: TPH-g BTEX MTBE Oxygenates Other ________

GROUNDWATER WELL MONITORING DATA SHEET

Site Address: 2750 S. Bristol Street, Costa Mesa, CA 92626	
Sampler: James Yoon	Date: 2/24/2010
Well No.: MW-4	Well Diameter: 4"
Total Well Depth: 40'	Depth to Water: 27.55'
Depth to Free Product: 0	Thickness of Free Product: 0
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW] = 30.04'	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other ________

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing

Case Volume (gal.) = πR^2 x (Total Well Depth – Depth to Water) x 7.4805

8.1 (Gallons) x 1 = 8.1 Gallons
(1 Case Volume) (Specified Volumes) (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (µS)	Turbidity (NTU)	Gal. Removal	Observation
1:55	72.4	6.65	2328	18	10	
3:20	70.5	6.74	2336	23	0	Sampling

Did well dewater? Yes No (circled: No) Gallons actually evacuated: 10

Sampling Date: 2/24/2010 Sampling Time: 3:20 Depth to Water: 27.56'

Sample ID: MW-4 Laboratory: Chemtek Environmental Lab.

Analyzed for: TPH-g BTEX MTBE Oxygenates Other ________

GROUNDWATER WELL MONITORING DATA SHEET

Site Address: 2750 S. Bristol Street, Costa Mesa, CA 92626	
Sampler: James Yoon	Date: 2/24/2010
Well No.: MW-5	Well Diameter: 4"
Total Well Depth: 40'	Depth to Water: 26.51'
Depth to Free Product: 0	Thickness of Free Product: 0
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW] = 29.21'	

Purge Method: Bailer, Disposable Bailer (circled), Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other ________

Sampling Method: Bailer, Disposable Bailer (circled), Extraction Port, Dedicated Tubing

Case Volume (gal.) = πR^2 x (Total Well Depth – Depth to Water) x 7.4805

8.8 (Gallons) x 1 = 8.8 Gallons
1 Case Volume / Specified Volumes / Calculated Volume

Time	Temp (°F)	pH	Conductivity (µS)	Turbidity (NTU)	Gal. Removal	Observation
2:22	71.4	6.57	1071	28	10	
3:30	70.5	6.79	1426	14	0	Sampling

Did well dewater? Yes No (circled) Gallons actually evacuated: 10

Sampling Date: 2/24/2010 Sampling Time: 3:30 Depth to Water: 27.36'

Sample ID: MW-5 Laboratory: Chemtek Environmental Lab.

Analyzed for: TPH-g BTEX MTBE Oxygenates Other ________

GROUNDWATER WELL MONITORING DATA SHEET

Site Address: 2750 S. Bristol Street, Costa Mesa, CA 92626	
Sampler: James Yoon	Date: 2/24/2010
Well No.: MW-6	Well Diameter: 4"
Total Well Depth: 35'	Depth to Water: 27.13'
Depth to Free Product: 0	Thickness of Free Product: 0
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW] = 28.7'	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other ________

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing

Case Volume (gal.) = πR^2 x (Total Well Depth – Depth to Water) x 7.4805

5.1 (Gallons) x 1 = 5.1 Gallons
(1 Case Volume) (Specified Volumes) (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (µS)	Turbidity (NTU)	Gal. Removal	Observation
1:14	73.2	6.66	2260	41	5	
2:40	70.7	6.75	2232	24	~~Sample~~ 10	Sampling

Did well dewater? Yes No   Gallons actually evacuated: 5

Sampling Date: 2/24/2010   Sampling Time: 2140   Depth to Water: 27.17'

Sample ID: MW-6   Laboratory: Chemtek Environmental Lab.

Analyzed for: TPH-g BTEX MTBE Oxygenates Other ________

APPENDIX D

Summary of Environmental Background

The property is located at 2750 South Bristol Street, Costa Mesa, California. The property was used as a gasoline service station in the past. Currently, the property is used as a Car Wash facility.

On March 10, 2003, three (3) 15,000-gallon gasoline and one (1) 8,000-gallon diesel double-wall fiber glass underground storage tanks and six (6) fuel dispensers were removed from the subject site. The analyses of soil samples taken just after the tank removal by WEECO revealed that some of the soil samples were indicative of considerable soil hydrocarbon contamination.

On March 28, 2003, WEECO submitted the "Tank Closure Report" to the County of Orange Health Care Agency, Environmental Health.

On April 10, 2003, the County of Orange Health Care Agency, Environmental Health required us to prepare Workplan for Preliminary Phase II Environmental Site Assessment at the subject site.

On January 12 & 13, 2004, thirteen (13) borings (Labeled B-1 through B-13) were drilled from the ground surface to thirty (30) feet bgs in the vicinity of the previous underground storage tank and dispenser islands area. A total of sixty-six (66) soil and thirteen (13) groundwater samples were collected from the thirteen borings (labeled B-1 through B-13).

In accordance with the laboratory results for soil samples, concentrations of TPH (gasoline) were found to be within a range of 0.3 ppm to 1.15 ppm above their respective detection limits; concentrations of Benzene were found to be within a range between 12 ppb and 62 ppb above their respective detection limits; concentrations of Toluene were found to be within a range between 6 ppb and 12 ppb above their respective detection limits; concentrations of Ethylbenzene were found to be within a range between 10 ppb and 25 ppb above their respective detection limits; concentrations of Total Xylenes was found to be 56 ppb above their respective detection limits; and concentrations of MTBE were found to be within a range between 5 ppb and 943 ppb above its detection limit.

In accordance with the laboratory results for groundwater samples, concentrations of TPH (gasoline) were found to be within a range of 0.051 ppm to 2.45 ppm above its detection limit; concentrations of Benzene were found to be within a range between 1 ppb and 4 ppb above its detection limit; concentrations of Toluene were found to be within a range between 1 ppb and 7 ppb above its detection limit; concentrations of Ethylbenzene was found to be 1 ppb above its detection limit; concentrations of Total Xylenes was found to be 7 ppb above its detection limits; and concentrations of MTBE were found to be within a range between 2 ppb and 2,370 ppb above its detection limit.

On November 18, 2004 through January 28, 2005, five (5) borings were drilled from the surface to forty (40) feet below ground surface (bgs) in the vicinity of the former underground storage tank and dispenser islands areas, and a total of twenty-six (26) soil samples were collected from the five (5) borings. All soil borings were subsequently converted into groundwater monitoring wells on the property. These wells were located adjacent to the previously excavated underground storage tanks and dispenser islands area. In accordance with the laboratory results for soil samples, concentration of TPH (gasoline) was found to be 3.770 ppm; and concentrations of MTBE were found to be within a range between 6 ppb to 3,640 ppb, respectively. In accordance with the laboratory results for groundwater samples, concentration of TPH (gasoline) was found to be 2.2 ppm; concentration of TAME was found to be 5 ppb; and concentrations of MTBE were found to be within a range between 18 ppb to 2,100 ppb, respectively.

On February 24, 2005, the County of Orange Health Care Agency, Environmental Health required us to prepare a Workplan for Soil Vapor Extraction Pilot Test at the subject site.

On March 31, 2005, WEECO collected groundwater samples for the analysis of the first quarter, 2005 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-2, MW-4 and MW-5.

On April 29, 2005, WEECO submitted the "Workplan for In-Situ Air Sparging (IAS) with Soil Vapor Extraction (SVE) Pilot Test" to the County of Orange Health Care Agency, Environmental Health.

On May 12, the County of Orange Health Care Agency, Environmental Health approved our workplan for In-Situ Air Sparging (IAS) with Soil Vapor Extraction (SVE) Pilot Test.

On June 29, 2005, WEECO collected groundwater samples for the analysis of the second quarter, 2005 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-2, MW-4 and MW-5.

On September 28, 2005, WEECO collected groundwater samples for the analysis of the third quarter, 2005 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1 through MW-5.

On September 21, 2005, WEECO installed three (3) soil vapor extraction pilot test well at the site. The In-situ Air Sparging and Soil Vapor Extraction Pilot Test was conducted on October 24, 2005.

On September 28, 2005, WEECO collected groundwater samples for the analysis of the third quarter, 2005 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1 through MW-5.

On October 24, 2005, WEECO performed the In-Situ Air Sparging (IAS) with Soil Vapor Extraction (SVE) Pilot Test.

On December 23, 2005, WEECO collected groundwater samples for the analysis of the fourth quarter, 2005 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1 through MW-5.

On January 3, 2005, the County of Orange Health Care Agency, Environmental Health required us to prepare a Workplan for Additional Phase II Environmental Site Assessment & Groundwater Monitoring Well Installation at the subject site.

On March 14 through April 6, 2006, one (1) boring was drilled from the surface to thirty-five (35) feet below ground surface (bgs) in the vicinity of the former underground storage tank and dispenser islands areas. this soil boring was subsequently converted into groundwater monitoring wells on the property. These wells were located adjacent to the previously excavated underground storage tanks and dispenser islands area. WEECO collected groundwater samples for the analysis of the first quarter, 2006 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1 through MW-6.

On June 30, 2006, WEECO collected groundwater samples for the analysis of the second quarter, 2006 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-2, MW-4 and MW-5.

On September 21, 2006, WEECO collected groundwater samples for the analysis of the third quarter, 2006 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-2, MW-4 and MW-5.

On December 28, 2006, WEECO collected groundwater samples for the analysis of the fourth quarter, 2006 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5.

On March 7, 2007, WEECO collected groundwater samples for the analysis of the first quarter, 2007 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5.

On June 28, 2007, WEECO collected groundwater samples for the analysis of the second quarter, 2007 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-2, MW-4 and MW-5.

On September 28, 2007, WEECO collected groundwater samples for the analysis of the third quarter, 2007 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5.

On December 28, 2007, WEECO collected groundwater samples for the analysis of the fourth quarter, 2007 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5.

On March 21, 2008, WEECO collected groundwater samples for the analysis of the first quarter, 2008 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-3, MW-4 and MW-5.

On June 25, 2008, WEECO collected groundwater samples for the analysis of the second quarter, 2008 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5. Based on the above analytical results, we believe no further subsurface investigation is necessary for the site. Accordingly, WEECO requests the County of Orange Health care Agency for issuance of the "No Further Action Letter" to South Pacific Car Wash.

On September 25, 2008, WEECO collected groundwater samples for the analysis of the third quarter, 2008 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5. Based on the above analytical results, we believe no further subsurface investigation is necessary for the site. Accordingly, WEECO requests the County of Orange Health care Agency for issuance of the "No Further Action Letter" to South Pacific Car Wash.

On December 22, 2008, WEECO collected groundwater samples for the analysis of the fourth quarter, 2008 report. The depth to groundwater on December 22, 2008 for the wells at the subject site varied from 26.06 feet to 27.40 feet below top of casing. LPH was not found in any wells. The local groundwater appears to flow southwesterly (hydraulic gradient = 0.0075 ft/ft) for the eastern portion of the site. In addition, for the western portion of the property, the local groundwater appears to flow northwesterly (hydraulic gradient = 0.0385 ft/ft). During this quarter, at the subject site based on the sampling data, concentrations of TPH (gasoline) were found to be within a range between <100 to 120 μg/L; and concentrations of MTBE were found to be within a range between <1 to 174 μg/L, respectively.

On March 3, 2009, WEECO collected groundwater samples for the analysis of the first quarter, 2009 report. The depth to groundwater on March 3, 2009 for the wells at the subject site varied from 26.06 feet to 27.40 feet below top of casing. LPH was not found in any wells. The local groundwater appears to flow southeasterly (hydraulic gradient = 0.0075 ft/ft) for the eastern portion of the site. In addition, for the western portion of the property, the local groundwater appears to flow northwesterly (hydraulic gradient = 0.0387 ft/ft). During this quarter, at the subject site based on the sampling data, concentrations of MTBE were found to be within a range between <1 to 82 μg/L, respectively.

On February 24, 2010, WEECO collected groundwater samples for the analysis of the first quarter, 2010 report. The depth to groundwater on February 24, 2010, for the wells at the subject site varied from 26.20 feet to 27.55 feet below top of casing. LPH was not found in any wells. The local groundwater appears to flow southeasterly (hydraulic gradient = 0.0076 ft/ft) for the eastern portion of the site. In addition, for the western portion of the property, the local groundwater appears to flow northwesterly (hydraulic gradient = 0.039 ft/ft). During this quarter, at the subject site based on the sampling data, concentrations of TPH (gasoline) were found to be within a range between <100 to 120 μg/L; and concentrations of MTBE were found to be within a range between <1 to 92 μg/L, respectively.

(WEECO) WESTERN ENVIRONMENTAL ENGINEERS CO.

1815 E. Wilshire Ave., Suite 905
Santa Ana, CA 92705

(714) 542-2644
Fax: (714) 542-2520

May 6, 2010

Ms. Denamarie Baker
County of Orange Health Care Agency
Environmental Health
1241 East Dyer Road, Suite 120
Santa Ana, CA 92705-5611

RE: Groundwater Monitoring Wells Abandonment Report
South Pacific Car Wash
2750 South Bristol Street
Costa Mesa, CA 92626
OCHCA Case # 03UT012
WEECO Project No. 2010-1382X

Dear Ms. Denamarie Baker:

On behalf of South Pacific Car Wash, Western Environmental Engineers Company (WEECO) has prepared the Groundwater Monitoring Wells Abandonment Report for the site referenced above. Work conducted during this quarter consisted of groundwater monitoring well abandonment activities, which were performed by Jet Drilling, Inc.

If you have any questions regarding the information in this report, please contact either of the undersigned at (714) 542-2644.

Sincerely
Western Environmental Engineers Company

James Yoon, REA
Project Manager

Sin Han Kim, P.E.
Principal Engineer
Registered Civil Engineer
California Registration No. C62688

REGISTERED PROFESSIONAL ENGINEER
SIN H. KIM
C 62688
EXP. 6/10
CIVIL
STATE OF CALIFORNIA

Attachment –Groundwater Monitoring Wells Abandonment Report.

cc: Heung Il, Inc., Responsible Party

1.0 INTORDUCTION

This report presents the results of six (6) wells' abandonment at the property located at 2750 South Bristol Street, Costa Mesa, CA 92626 (see Figure 1), conducted by Western Environmental Engineers Company (WEECO) on March 31, 2010. These well abandonment activity was completed at the request of the Orange County Health Care Agency (see Attachment C).

The purpose of the well abandonment was to completely cleanup the subject site.

2.0 BACKGROUND

The property is located at 2750 South Bristol Street, Costa Mesa, California. The property was used as a gasoline service station in the past. Currently, the property is used as a Car Wash facility.

On March 10, 2003, three (3) 15,000-gallon gasoline and one (1) 8,000-gallon diesel double-wall fiber glass underground storage tanks and six (6) fuel dispensers were removed from the subject site. The analyses of soil samples taken just after the tank removal by WEECO revealed that some of the soil samples were indicative of considerable soil hydrocarbon contamination.

On March 28, 2003, WEECO submitted the "Tank Closure Report" to the County of Orange Health Care Agency, Environmental Health.

On April 10, 2003, the County of Orange Health Care Agency, Environmental Health required us to prepare Workplan for Preliminary Phase II Environmental Site Assessment at the subject site.

On January 12 & 13, 2004, thirteen (13) borings (Labeled B-1 through B-13) were drilled from the ground surface to thirty (30) feet bgs in the vicinity of the previous underground storage tank and dispenser islands area. A total of sixty-six (66) soil and thirteen (13) groundwater samples were collected from the thirteen borings (labeled B-1 through B-13).

In accordance with the laboratory results for soil samples, concentrations of TPH (gasoline) were found to be within a range of 0.3 ppm to 1.15 ppm above their respective detection limits; concentrations of Benzene were found to be within a range between 12 ppb and 62 ppb above their respective detection limits; concentrations of Toluene were found to be within a range between 6 ppb and 12 ppb above their respective detection limits; concentrations of Ethylbenzene were found to be within a range between 10 ppb and 25 ppb above their respective detection limits; concentrations of Total Xylenes was found to be 56 ppb above their respective detection limits; and concentrations of MTBE were found to be within a range between 5 ppb and 943 ppb above its detection limit.

In accordance with the laboratory results for groundwater samples, concentrations of TPH (gasoline) were found to be within a range of 0.051 ppm to 2.45 ppm above its detection limit; concentrations of Benzene were found to be within a range between 1 ppb and 4 ppb above its detection limit; concentrations of Toluene were found to be within a range between 1 ppb and 7 ppb above its detection limit; concentrations of Ethylbenzene was found to be 1 ppb above its detection limit; concentrations of Total Xylenes was found to be 7 ppb above its detection limits; and concentrations of MTBE were found to be within a range between 2 ppb and 2,370 ppb above its detection limit.

On November 18, 2004 through January 28, 2005, five (5) borings were drilled from the surface to forty (40) feet below ground surface (bgs) in the vicinity of the former underground storage tank and dispenser islands areas, and a total of twenty-six (26) soil samples were collected from the five (5) borings. All soil borings were subsequently converted into groundwater monitoring wells on the property. These wells were located adjacent to the previously excavated underground storage tanks and dispenser islands area. In accordance with the laboratory results for soil samples, concentration of TPH (gasoline) was found to be 3.770 ppm; and concentrations of MTBE were found to be within a range between 6 ppb to 3,640 ppb, respectively. In accordance with the laboratory results for groundwater samples, concentration of TPH (gasoline) was found to be 2.2 ppm; concentration of TAME was found to be 5 ppb; and concentrations of MTBE were found to be within a range between 18 ppb to 2,100 ppb, respectively.

On February 24, 2005, the County of Orange Health Care Agency, Environmental Health required us to prepare a Workplan for Soil Vapor Extraction Pilot Test at the subject site.

On March 31, 2005, WEECO collected groundwater samples for the analysis of the first quarter, 2005 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-2, MW-4 and MW-5.

On April 29, 2005, WEECO submitted the "Workplan for In-Situ Air Sparging (IAS) with Soil Vapor Extraction (SVE) Pilot Test" to the County of Orange Health Care Agency, Environmental Health.

On May 12, the County of Orange Health Care Agency, Environmental Health approved our workplan for In-Situ Air Sparging (IAS) with Soil Vapor Extraction (SVE) Pilot Test.

On June 29, 2005, WEECO collected groundwater samples for the analysis of the second quarter, 2005 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-2, MW-4 and MW-5.

On September 28, 2005, WEECO collected groundwater samples for the analysis of the third quarter, 2005 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1 through MW-5.

On September 21, 2005, WEECO installed three (3) soil vapor extraction pilot test well at the site. The In-situ Air Sparging and Soil Vapor Extraction Pilot Test was conducted on October 24, 2005.

On September 28, 2005, WEECO collected groundwater samples for the analysis of the third quarter, 2005 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1 through MW-5.

On October 24, 2005, WEECO performed the In-Situ Air Sparging (IAS) with Soil Vapor Extraction (SVE) Pilot Test.

On December 23, 2005, WEECO collected groundwater samples for the analysis of the fourth quarter, 2005 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1 through MW-5.

On January 3, 2005, the County of Orange Health Care Agency, Environmental Health, required us to prepare a Workplan for Additional Phase II Environmental Site Assessment & Groundwater Monitoring Well Installation at the subject site.

On March 14 through April 6, 2006, one (1) boring was drilled from the surface to thirty-five (35) feet below ground surface (bgs) in the vicinity of the former underground storage tank and dispenser islands areas. This soil boring was subsequently converted into groundwater monitoring wells on the property. These wells were located adjacent to the previously excavated underground storage tanks and dispenser islands area. WEECO collected groundwater samples for the analysis of the first quarter, 2006 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1 through MW-6.

On June 30, 2006, WEECO collected groundwater samples for the analysis of the second quarter, 2006 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-2, MW-4 and MW-5.

On September 21, 2006, WEECO collected groundwater samples for the analysis of the third quarter, 2006 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-2, MW-4 and MW-5.

On December 28, 2006, WEECO collected groundwater samples for the analysis of the fourth quarter, 2006 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5.

On March 7, 2007, WEECO collected groundwater samples for the analysis of the first quarter, 2007 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5.

On June 28, 2007, WEECO collected groundwater samples for the analysis of the second quarter, 2007 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-2, MW-4 and MW-5.

On September 28, 2007, WEECO collected groundwater samples for the analysis of the third quarter, 2007 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5.

On December 28, 2007, WEECO collected groundwater samples for the analysis of the fourth quarter, 2007 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5.

On March 21, 2008, WEECO collected groundwater samples for the analysis of the first quarter, 2008 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-3, MW-4 and MW-5.

On June 25, 2008, WEECO collected groundwater samples for the analysis of the second quarter, 2008 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5. Based on the above analytical results, we believe no further subsurface investigation is necessary for the site. Accordingly, WEECO requests the County of Orange Health care Agency for issuance of the "No Further Action Letter" to South Pacific Car Wash.

On September 25, 2008, WEECO collected groundwater samples for the analysis of the third quarter, 2008 report. Laboratory analyses again indicated the presence of petroleum hydrocarbons in groundwater samples collected from MW-1, MW-2, MW-4 and MW-5. Based on the above analytical results, we believe no further subsurface investigation is necessary for the site. Accordingly, WEECO requests the County of Orange Health care Agency for issuance of the "No Further Action Letter" to South Pacific Car Wash.

On December 22, 2008, WEECO collected groundwater samples for the analysis of the fourth quarter, 2008 report. The depth to groundwater on December 22, 2008 for the wells at the subject site varied from 26.06 feet to 27.40 feet below top of casing. LPH was not found in any wells. The local groundwater appears to flow southwesterly (hydraulic gradient = 0.0075 ft/ft) for the eastern portion of the site. In addition, for the western portion of the property, the local groundwater appears to flow northwesterly (hydraulic gradient = 0.0385 ft/ft). During this quarter, at the subject site based on the sampling data, concentrations of TPH (gasoline) were found to be within a range between <100 to 120 μg/L; and concentrations of MTBE were found to be within a range between <1 to 174 μg/L, respectively.

On March 3, 2009, WEECO collected groundwater samples for the analysis of the first quarter, 2009 report. The depth to groundwater on March 3, 2009 for the wells at the subject site varied from 26.06 feet to 27.40 feet below top of casing. LPH was not found in any wells. The local groundwater appears to flow southeasterly (hydraulic gradient = 0.0075 ft/ft) for the eastern portion of the site. In addition, for the western portion of the property, the local groundwater appears to flow northwesterly (hydraulic gradient = 0.0387 ft/ft). During this quarter, at the subject site based on the sampling data, concentrations of MTBE were found to be within a range between <1 to 82 μg/L, respectively.

On February 24, 2010, WEECO collected groundwater samples for the analysis of the first quarter, 2010 report. The depth to groundwater on February 24, 2010, for the wells at the subject site varied from 26.20 feet to 27.55 feet below top of casing. LPH was not found in any wells. The local groundwater appears to flow southeasterly (hydraulic gradient = 0.0076 ft/ft) for the eastern portion of the site. In addition, for the western portion of the property, the local groundwater appears to flow northwesterly (hydraulic gradient = 0.039 ft/ft). During this quarter, at the subject site based on the sampling data, concentrations of TPH (gasoline) were found to be within a range between <100 to 120 μg/L; and concentrations of MTBE were found to be within a range between <1 to 92 μg/L, respectively.

3.0 GEOLOGY AND HYDROGEOLOGY

The soil material encountered throughout the borings was generally a combination of clayey sand (surface to 15 feet bgs) and sand (15 feet to 30 feet bgs). The color of the soil ranged from dark brown to light brown; the consistency of the soil was moist.

The Orange County area lies within the Pacific Border physiographic province of the Western United States (Bloom, 1978). The dominant geologic formations of the area are of Tertiary and Quaternary ages. The Tertiary rocks are formed almost entirely of marine deposits and consist mainly of shale, siltstone and sandstone. The Quarternary rocks, mainly of Pleistocene age, contain almost all of the aquifers now tapped by water wells.

The property lies within the Coastal Plain – Orange County Basin of the South Coastal Hydrologic Study Area (HSA). The South Coastal HSA comprises the coastal drainage basins of California north of the Tijuana River Basin to the Ventura River Drainage basin in western Ventura County. The Coastal Plain – Orange County Basin consists of a 360-square mile coastal basin drained primarily by the Santa Ana River. The main water bearing material in this area is comprised of younger alluvium. Groundwater development in the area is described as intensive for irrigation, municipal, and industrial use and moderate for domestic use. Recharge to the basin was estimated at 221,000 acre-feet/year. Extractions in 1956 were estimated to be approximately 200,000 acre-feet. There is a potential for limited additional development; however, overdraft was also noted to be a problem in the basin (CDWR, 1975).

Groundwater at the subject site was encountered at about 25.84-feet below ground surface (bgs), and the shallow groundwater aquifer is believed to exist between 25.84-40 feet below ground surface.

The following are the closest groundwater well locations from the subject site according to the Orange County Health Care Agency:

1. A well located at 2900 Bristol Street (last reviewed in July 1992). The depth to the groundwater was approximately 25.0 feet blow ground surface (bgs).

2. A well located at 3045 Bristol Street (last reviewed in November 2001). The depth to the groundwater was approximately 24.0 feet blow ground surface (bgs).

3. A well located at 2995 Bristol Street (last reviewed in September 1998). The depth to the groundwater was approximately 25.0 feet blow ground surface (bgs).

4.0 WELL ABANDONMENT PROCEDURE

On March 31, 2010, abandonment of six (6) groundwater monitoring wells were conducted by Western Environmental Engineers Company (WEECO).

WEECO was responsible for the groundwater monitoring well abandonment activities.

WELL ABANDONMENT (Performed by WEECO and Jet Drilling, Inc.)

(1) Breakout of existing concrete pavement,
(2) Used an air hammer to destroy six (6) well boxes,
(3) Pressure grouted the wells to provide seal against intrusion,
(4) Drilled out first five feet and sealed to surface with a concrete cap,
(5) The area was cleaned in a workmanlike manner when our field work was completed,
(6) Repaved 1-foot concrete,
(7) Disposed of well debris (well box lid, well box frame, plastic casing), and
(8) Prepared this Well Abandonment Report, signed by a California Registered Civil Engineer.

5.0 CONCLUSIONS AND RECOMMENDATIONS

After reviewing previous soil reports and groundwater sampling reports written by WEECO, WEECO conducted abandonment of six (6) groundwater monitoring wells. WEECO concludes that no further subsurface investigation is necessary for the site.

ATTACHED:

Tables

Figures

Appendices

TABLES

TABLE 1
Historical Groundwater Analyses and Gauging Results for MW-1

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-1	1/28/05	38.82	20-40	25.84	0	12.98	40	ND<50	ND<1	ND<1	ND<1	ND<2	18	ND<2	ND<2	ND<2	ND<10
	3/31/05	38.82	20-40	25.00	0	13.82	40	ND<50	ND<1	5	2	14	4	ND<2	ND<2	ND<2	ND<10
	6/29/05	38.82	20-40	24.88	0	13.94	40	ND<50	ND<1	ND<1	ND<1	ND<2	3	ND<2	ND<2	ND<2	ND<10
	9/28/05	38.82	20-40	25.03	0	13.79	40	ND<50	ND<1	ND<1	ND<1	ND<2	2	ND<2	ND<2	ND<2	ND<10
	12/23/05	38.82	20-40	25.20	0	13.62	40	ND<50	ND<1	ND<1	ND<1	ND<2	3	ND<2	ND<2	ND<2	ND<10
	4/6/06	38.82	20-40	25.14	0	13.68	40	ND<50	ND<1	ND<1	ND<1	ND<2	3	ND<2	ND<2	ND<2	ND<10
	6/30/06	38.82	20-40	24.93	0	13.89	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/21/06	38.82	20-40	25.01	0	13.81	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	12/28/06	38.82	20-40	25.08	0	13.74	40	ND<50	ND<1	ND<1	ND<1	ND<2	3	ND<2	ND<2	ND<2	ND<10
	3/7/07	38.82	20-40	25.08	0	13.74	40	ND<50	ND<1	ND<1	ND<1	ND<2	2	ND<2	ND<2	ND<2	ND<10
	6/28/07	38.82	20-40	25.17	0	13.65	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/28/07	38.82	20-40	25.39	0	13.43	40	ND<50	ND<1	ND<1	ND<1	ND<2	4	ND<2	ND<2	ND<2	ND<10
	12/27/07	38.82	20-40	25.55	0	13.27	40	ND<50	ND<1	ND<1	ND<1	ND<2	4	ND<2	ND<2	ND<2	ND<10
	3/21/08	38.82	20-40	25.53	0	13.29	40	ND<100	ND<1	ND<1	ND<1	ND<2	1	ND<1	ND<1	ND<1	ND<10
	6/25/08	38.82	20-40	25.70	0	13.12	40	ND<100	ND<1	ND<1	ND<1	ND<2	4	ND<1	ND<1	ND<1	ND<10
	9/25/08	38.82	20-40	25.90	0	12.92	40	ND<100	ND<1	ND<1	ND<1	ND<2	3	ND<1	ND<1	ND<1	ND<10
	12/22/08	38.82	20-40	26.06	0	12.76	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	3/3/09	38.82	20-40	26.06	0	12.76	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	2/24/10	38.82	20-40	26.20	0	12.62	40	ND<100	ND<1	ND<1	ND<1	ND<2	3	ND<1	ND<1	ND<1	ND<10

TABLE 1
Historical Groundwater Analyses and Gauging Results for MW-2

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-2	1/28/05	38.95	20-40	26.47	0	12.48	40	2,200	ND<1	ND<1	ND<1	ND<2	2,100	5	ND<2	ND<2	ND<10
	3/31/05	38.95	20-40	25.65	0	13.30	40	4,100	ND<1	ND<1	ND<1	ND<2	4,076	ND<2	ND<2	ND<2	ND<10
	6/29/05	38.95	20-40	25.53	0	13.42	40	3,100	ND<1	ND<1	ND<1	ND<2	3,040	ND<2	ND<2	ND<2	ND<10
	9/28/05	38.95	20-40	25.66	0	13.29	40	1,600	ND<1	ND<1	ND<1	ND<2	1,481	ND<2	ND<2	ND<2	ND<10
	12/23/05	38.95	20-40	25.86	0	13.09	40	650	ND<1	ND<1	ND<1	ND<2	576	ND<2	ND<2	ND<2	ND<10
	4/6/06	38.95	20-40	25.76	0	13.19	40	200	ND<1	ND<1	ND<1	ND<2	156	ND<2	ND<2	ND<2	ND<10
	6/30/06	38.95	20-40	25.60	0	13.35	40	250	ND<1	ND<1	ND<1	ND<2	212	ND<2	ND<2	ND<2	ND<10
	9/21/06	38.95	20-40	25.65	0	13.30	40	80	ND<1	ND<1	ND<1	ND<2	67	ND<2	ND<2	ND<2	ND<10
	12/28/06	38.95	20-40	25.70	0	13.25	40	160	ND<1	ND<1	ND<1	ND<2	133	ND<2	ND<2	ND<2	ND<10
	3/7/07	38.95	20-40	25.72	0	13.23	40	60	ND<1	ND<1	ND<1	ND<2	22	ND<2	ND<2	ND<2	ND<10
	6/28/07	38.95	20-40	25.82	0	13.13	40	100	ND<1	ND<1	ND<1	ND<2	48	ND<2	ND<2	ND<2	ND<10
	9/28/07	38.95	20-40	26.03	0	12.92	40	90	ND<1	ND<1	ND<1	ND<2	44	ND<2	ND<2	ND<2	ND<10
	12/27/07	38.95	20-40	26.21	0	12.74	40	60	ND<1	ND<1	ND<1	ND<2	47	ND<2	ND<2	ND<2	ND<10
	3/21/08	38.95	20-40	26.19	0	12.76	40	280	ND<1	ND<1	ND<1	ND<2	202	ND<1	ND<1	ND<1	ND<10
	6/25/08	38.95	20-40	26.35	0	12.60	40	420	ND<1	ND<1	ND<1	ND<2	336	ND<1	ND<1	ND<1	27
	9/25/08	38.95	20-40	26.54	0	12.41	40	ND<100	ND<1	ND<1	ND<1	ND<2	28	ND<1	ND<1	ND<1	ND<10
	12/22/08	38.95	20-40	26.71	0	12.24	40	ND<100	ND<1	ND<1	ND<1	ND<2	8	ND<1	ND<1	ND<1	ND<10
	3/3/09	38.95	20-40	26.70	0	12.25	40	ND<100	ND<1	ND<1	ND<1	ND<2	11	ND<1	ND<1	ND<1	ND<10
	2/24/10	38.95	20-40	26.86	0	12.09	40	ND<100	ND<1	ND<1	ND<1	ND<2	6	ND<1	ND<1	ND<1	ND<10

TABLE 1
Historical Groundwater Analyses and Gauging Results for MW-3

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethyl-Benzene (μg/L)	Total Xylenes (μg/L)	MTBE (μg/L)	ETBE (μg/L)	DIPE (μg/L)	TAME (μg/L)	TBA (μg/L)
MW-3	1/28/05	38.91	20-40	26.12	0	12.79	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	3/31/05	38.91	20-40	25.25	0	13.66	40	ND<50	ND<1	5	2	14	15	ND<2	ND<2	ND<2	ND<10
	6/29/05	38.91	20-40	25.13	0	13.78	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/28/05	38.91	20-40	25.30	0	13.61	40	ND<50	ND<1	ND<1	ND<1	ND<2	5	ND<2	ND<2	ND<2	ND<10
	12/23/05	38.91	20-40	25.45	0	13.46	40	ND<50	ND<1	ND<1	ND<1	ND<2	2	ND<2	ND<2	ND<2	ND<10
	4/6/06	38.91	20-40	25.40	0	13.51	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	6/30/06	38.91	20-40	25.23	0	13.68	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/21/06	38.91	20-40	25.30	0	13.61	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	12/28/06	38.91	20-40	25.35	0	13.56	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	3/7/07	38.91	20-40	25.38	0	13.53	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	6/28/07	38.91	20-40	25.45	0	13.46	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/28/07	38.91	20-40	25.66	0	13.22	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	12/27/07	38.91	20-40	25.82	0	13.09	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	3/21/08	38.91	20-40	25.81	0	13.10	40	ND<100	ND<1	ND<1	ND<1	ND<2	3	ND<1	ND<1	ND<1	ND<10
	6/25/08	38.91	20-40	25.99	0	12.92	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	9/25/08	38.91	20-40	26.11	0	12.75	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	12/22/08	38.91	20-40	26.33	0	12.58	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	3/3/09	38.91	20-40	26.32	0	12.59	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	2/24/10	38.91	20-40	26.46	0	12.45	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10

TABLE 1
Historical Groundwater Analyses and Gauging Results for MW-4

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-4	1/28/05	39.56	20-40	27.14	0	12.42	40	ND<50	ND<1	ND<1	ND<1	ND<2	40	ND<2	ND<2	ND<2	ND<10
	3/31/05	39.56	20-40	26.34	0	13.22	40	420	ND<1	ND<1	ND<1	ND<2	416	ND<2	ND<2	ND<2	ND<10
	6/29/05	39.56	20-40	26.20	0	13.36	40	180	ND<1	ND<1	ND<1	ND<2	137	ND<2	ND<2	ND<2	ND<10
	9/28/05	39.56	20-40	26.38	0	13.18	40	200	ND<1	ND<1	ND<1	ND<2	195	ND<2	ND<2	ND<2	ND<10
	12/23/05	39.56	20-40	26.55	0	13.01	40	310	ND<1	ND<1	ND<1	ND<2	216	ND<2	ND<2	ND<2	ND<10
	4/6/06	39.56	20-40	26.46	0	13.10	40	120	ND<1	ND<1	ND<1	ND<2	89	ND<2	ND<2	ND<2	ND<10
	6/30/06	39.56	20-40	26.29	0	13.27	40	50	ND<1	ND<1	ND<1	ND<2	38	ND<2	ND<2	ND<2	ND<10
	9/21/06	39.56	20-40	26.33	0	13.23	40	80	ND<1	ND<1	ND<1	ND<2	70	ND<2	ND<2	ND<2	ND<10
	12/28/06	39.56	20-40	26.42	0	13.14	40	340	ND<1	ND<1	ND<1	ND<2	280	ND<2	ND<2	ND<2	ND<10
	3/7/07	39.56	20-40	26.43	0	13.13	40	100	ND<1	ND<1	ND<1	ND<2	86	ND<2	ND<2	ND<2	ND<10
	6/28/07	39.56	20-40	26.51	0	13.05	40	130	ND<1	ND<1	ND<1	ND<2	75	ND<2	ND<2	ND<2	ND<10
	9/28/07	39.56	20-40	26.72	0	12.84	40	210	ND<1	ND<1	ND<1	ND<2	156	ND<2	ND<2	ND<2	ND<10
	12/27/07	39.56	20-40	26.89	0	12.67	40	100	ND<1	ND<1	ND<1	ND<2	63	ND<2	ND<2	ND<2	ND<10
	3/21/08	39.56	20-40	26.87	0	12.69	40	210	ND<1	ND<1	ND<1	ND<2	158	ND<1	ND<1	ND<1	ND<10
	6/25/08	39.56	20-40	27.04	0	12.52	40	ND<100	ND<1	ND<1	ND<1	ND<2	66	ND<1	ND<1	ND<1	ND<10
	9/25/08	39.56	20-40	27.23	0	12.33	40	ND<100	ND<1	ND<1	ND<1	ND<2	71	ND<1	ND<1	ND<1	ND<10
	12/22/08	39.56	20-40	27.40	0	12.16	40	120	ND<1	ND<1	ND<1	ND<2	174	ND<1	ND<1	ND<1	ND<10
	3/3/09	39.56	20-40	27.40	0	12.16	40	ND<100	ND<1	ND<1	ND<1	ND<2	82	ND<1	ND<1	ND<1	ND<10
	2/24/10	39.56	20-40	27.55	0	12.01	40	120	ND<1	ND<1	ND<1	ND<2	92	ND<1	ND<1	ND<1	ND<10

TABLE 1
Historical Groundwater Analyses and Gauging Results for MW-5

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-5	1/28/05	39.00	20-40	26.14	0	12.86	40	ND<50	ND<1	ND<1	ND<1	ND<2	180	ND<2	ND<2	ND<2	ND<10
	3/31/05	39.00	20-40	25.30	0	13.70	40	250	ND<1	ND<1	ND<1	ND<2	252	ND<2	ND<2	ND<2	ND<10
	6/29/05	39.00	20-40	25.19	0	13.81	40	650	ND<1	ND<1	ND<1	ND<2	610	ND<2	ND<2	ND<2	ND<10
	9/28/05	39.00	20-40	25.33	0	13.67	40	190	ND<1	ND<1	ND<1	ND<2	186	ND<2	ND<2	ND<2	ND<10
	12/23/05	39.00	20-40	25.49	0	13.51	40	480	ND<1	ND<1	ND<1	ND<2	430	ND<2	ND<2	ND<2	ND<10
	4/6/06	39.00	20-40	25.42	0	13.58	40	ND<50	ND<1	ND<1	ND<1	ND<2	ND<2	ND<2	ND<2	ND<2	ND<10
	6/30/06	39.00	20-40	25.24	0	13.76	40	ND<50	ND<1	ND<1	ND<1	ND<2	23	ND<2	ND<2	ND<2	ND<10
	9/21/06	39.00	20-40	25.31	0	13.66	40	60	ND<1	ND<1	ND<1	ND<2	49	ND<2	ND<2	ND<2	ND<10
	12/28/06	39.00	20-40	25.39	0	13.61	40	90	ND<1	ND<1	ND<1	ND<2	77	ND<2	ND<2	ND<2	ND<10
	3/7/07	39.00	20-40	25.40	0	13.60	40	110	ND<1	ND<1	ND<1	ND<2	86	ND<2	ND<2	ND<2	ND<10
	6/28/07	39.00	20-40	25.48	0	13.52	40	80	ND<1	ND<1	ND<1	ND<2	52	ND<2	ND<2	ND<2	ND<10
	9/28/07	39.00	20-40	25.70	0	13.30	40	60	ND<1	ND<1	ND<1	ND<2	37	ND<2	ND<2	ND<2	ND<10
	12/27/05	39.00	20-40	25.88	0	13.12	40	70	ND<1	ND<1	ND<1	ND<2	55	ND<2	ND<2	ND<2	ND<10
	3/21/08	39.00	20-40	25.87	0	13.13	40	ND<100	ND<1	ND<1	ND<1	ND<2	40	ND<1	ND<1	ND<1	ND<10
	6/25/08	39.00	20-40	26.63	0	12.99	40	ND<100	ND<1	ND<1	ND<1	ND<2	5	ND<1	ND<1	ND<1	ND<10
	9/25/08	39.00	20-40	26.22	0	12.78	40	ND<100	ND<1	ND<1	ND<1	ND<2	2	ND<1	ND<1	ND<1	ND<10
	12/22/08	39.00	20-40	26.38	0	12.62	40	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	3/3/09	39.00	20-40	26.38	0	12.62	40	ND<100	ND<1	ND<1	ND<1	ND<2	8	ND<1	ND<1	ND<1	ND<10
	2/24/10	39.00	20-40	26.51	0	12.49	40	ND<100	ND<1	ND<1	ND<1	ND<2	2	ND<1	ND<1	ND<1	ND<10

TABLE 1
Historical Groundwater Analyses and Gauging Results for MW-6

South Pacific Car Wash
2750 South Bristol Street, Costa Mesa, California

Well ID	Date Samples	Top of Casing (feet)	Screen Interval (ft bgs)	Depth to GW (feet)	LPH Thickness (feet)	GW Elevation (feet)	Depth of Well (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-6	4/6/06	40.70	20-35	26.02	0	14.08	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	6/30/06	40.70	20-35	25.85	0	14.85	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/21/06	40.70	20-35	25.92	0	14.78	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	12/28/06	40.70	20-35	25.99	0	14.71	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	3/7/07	40.70	20-35	26.01	0	14.69	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	6/28/07	40.70	20-35	26.10	0	14.60	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	9/28/07	40.70	20-35	26.32	0	14.38	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	12/27/07	40.70	20-35	26.49	0	14.21	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	3/21/08	40.70	20-35	26.47	0	14.23	35	ND<50	ND<1	ND<1	ND<1	ND<2	ND<1	ND<2	ND<2	ND<2	ND<10
	6/25/08	40.70	20-35	26.63	0	14.07	35	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	9/25/08	40.70	20-35	26.82	0	13.88	35	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	12/22/08	40.70	20-35	27.00	0	13.70	35	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	3/3/09	40.70	20-35	26.99	0	13.71	35	ND<100	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<10
	2/24/10	40.70	20-35	27.13	0	13.57	35	ND<100	ND<1	ND<1	ND<1	ND<2	2	ND<1	ND<1	ND<1	ND<10

TABLE 2
Historical Soil Analytical Data

(unit: mg/kg)

Sample ID	TPHg	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE	ETBE	DIPE	TAME	TBA	Date
TK1-S-16'	12.5	0.005	0.015	ND	ND	6.34	ND	ND	ND	ND	3/13/03
TK1-N-16'	ND	ND	ND	ND	ND	1.85	ND	ND	ND	ND	3/13/03
TK2-S-17'	ND	ND	ND	ND	ND	1.14	ND	ND	ND	0.62	3/13/03
TK2-N-16'	ND	ND	0.06	ND	0.17	0.49	ND	ND	ND	ND	3/13/03
TK3-S-17'	ND	ND	ND	ND	ND	1.59	ND	ND	ND	ND	3/13/03
TK3-N-17'	ND	ND	ND	ND	0.005	7.76	ND	ND	ND	0.61	3/13/03
TK4-S-18'	3.5	9.1	64.8	28.2	150	272	ND	ND	ND	ND	3/13/03
TK4-N-19'	ND	ND	ND	ND	ND	3.24	ND	ND	ND	ND	3/13/03
DS-1-2'	ND	ND	ND	ND	ND	0.345	ND	ND	ND	ND	3/10/03
DS-2-2'	ND	ND	ND	ND	ND	0.115	ND	ND	ND	ND	3/10/03
DS-3-2'	120	ND	0.1	0.43	6.3	0.2	ND	ND	ND	ND	3/10/03
DS-4-2'	90	ND	0.02	0.065	1.09	0.21	ND	ND	ND	ND	3/10/03
DS-5-2'	ND	ND	ND	ND	ND	0.235	ND	ND	ND	ND	3/10/03
DS-6-2'	830	0.27	19.2	9.68	56.6	3.84	ND	ND	0.05	ND	3/10/03
SP-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3/10/03
SP-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3/10/03
B-1-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-1-10	ND	ND	ND	ND	ND	0.044	ND	ND	ND	ND	1/12/04
B-1-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-1-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-1-25	ND	ND	ND	ND	ND	0.013	ND	ND	ND	ND	1/12/04
B-1-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-2-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-2-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-2-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-3-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-3-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-3-25	0.615	ND	ND	ND	ND	0.53	ND	ND	ND	ND	1/12/04
B-3-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-4-15	ND	ND	ND	ND	ND	0.06	ND	ND	ND	ND	1/12/04
B-4-20	ND	0.012	0.006	ND	ND	0.232	ND	ND	ND	ND	1/12/04
B-4-25	ND	ND	0.012	0.01	0.056	0.057	ND	ND	ND	ND	1/12/04
B-4-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-5-20	0.75	ND	ND	ND	ND	0.63	ND	ND	ND	ND	1/12/04
B-5-25	0.4	ND	ND	ND	ND	0.306	ND	ND	ND	ND	1/12/04
B-5-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-6-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-6-20	ND	ND	ND	ND	ND	0.02	ND	ND	ND	ND	1/12/04
B-6-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-6-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-7-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04

Sample ID	TPHg	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE	ETBE	DIPE	TAME	TBA	Date
B-7-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-7-15	ND	ND	ND	ND	ND	0.008	ND	ND	ND	ND	1/13/04
B-7-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-7-25	1.15	0.067	0.011	0.025	ND	0.943	ND	ND	ND	ND	1/13/04
B-7-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-8-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-8-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-8-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-8-20	ND	ND	ND	ND	ND	0.016	ND	ND	ND	ND	1/13/04
B-8-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-8-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-9-5	ND	ND	ND	ND	ND	0.016	ND	ND	ND	ND	1/13/04
B-9-10	ND	ND	ND	ND	ND	0.006	ND	ND	ND	ND	1/13/04
B-9-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-9-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-9-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-9-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-10-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-10-10	ND	ND	ND	ND	ND	0.005	ND	ND	ND	ND	1/13/04
B-10-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-10-20	ND	ND	ND	ND	ND	0.007	ND	ND	ND	ND	1/13/04
B-10-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-10-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-11-5	0.35	ND	ND	ND	ND	0.346	ND	ND	ND	ND	1/13/04
B-11-10	ND	ND	ND	ND	ND	0.02	ND	ND	ND	ND	1/13/04
B-11-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-11-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-11-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-11-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-12-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-12-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-12-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-12-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-12-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/13/04
B-12-30	ND	ND	ND	ND	ND	0.007	ND	ND	ND	ND	1/13/04
B-13-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-13-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-13-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-13-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-13-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
B-13-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1/12/04
MW-1-5	ND	ND	ND	ND	ND	0.014	ND	ND	ND	ND	11/19/04
MW-1-10	ND	ND	ND	ND	ND	0.009	ND	ND	ND	ND	

Sample ID	TPHg	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE	ETBE	DIPE	TAME	TBA	Date
MW-1-15	ND	ND	ND	ND	ND	0.025	ND	ND	ND	ND	
MW-1-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11/19/04
MW-1-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11/19/04
MW-2-5	ND	ND	ND	ND	ND	0.041	ND	ND	ND	ND	11/18/04
MW-2-10	ND	ND	ND	ND	ND	0.011	ND	ND	ND	ND	11/18/04
MW-2-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11/18/04
MW-2-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11/18/04
MW-2-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11/18/04
MW-3-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12/16/04
MW-3-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12/16/04
MW-3-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12/16/04
MW-3-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12/16/04
MW-3-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12/16/04
MW-3-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12/16/04
MW-4-5	ND	ND	ND	ND	ND	0.008	ND	ND	ND	ND	11/18/04
MW-4-10	ND	ND	ND	ND	ND	0.136	ND	ND	ND	ND	11/18/04
MW-4-15	ND	ND	ND	ND	ND	0.026	ND	ND	ND	ND	11/18/04
MW-4-20	ND	ND	ND	ND	ND	0.009	ND	ND	ND	ND	11/18/04
MW-4-25	ND	ND	ND	ND	ND	0.011	ND	ND	ND	ND	11/18/04
MW-5-5	ND	ND	ND	ND	ND	0.254	ND	ND	ND	ND	11/19/04
MW-5-10	ND	ND	ND	ND	ND	0.006	ND	ND	ND	ND	11/19/04
MW-5-15	ND	ND	ND	ND	ND	0.015	ND	ND	ND	ND	11/19/04
MW-5-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11/19/04
MW-5-25	3.77	ND	ND	ND	ND	3.64	ND	ND	ND	ND	11/19/04
MW-6-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3/14/06
MW-6-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3/14/06
MW-6-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3/14/06
MW-6-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3/14/06
MW-6-25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3/14/06
MW-6-30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3/14/06

Notes: mg/kg = milligram per kilogram
TPHg = total petroleum hydrocarbons as gasoline analyzed by modified EPA Method 8015M
MTBE = methyl tertiary butyl ether analyzed by EPA Method 8260B
ETBE = ethyl tertiary butyl ether analyzed by EPA Method 8260B
DIPE = di-isopropyl ether analyzed by EPA Method 8260B
TAME = tertiary amyl methyl ether analyzed by EPA Method 8260B
TBA = tertiary butyl alcohol analyzed by EPA Method 8260B
Benzene, toluene, ethylbenzene, total xylenes (BTEX) analyzed by EPA Method 8260B unless noted

TABLE 3
Maximum and Minimum Soil and Groundwater contaminant Concentrations

Soil

(unit: mg/kg)

	TPHg	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE	TAME	TBA
Maximum	830	9.1	64.8	28.2	150	7.76	0.05	0.62
Minimum	0.35	0.005	0.006	0.01	0.005	0.005	--	0.61

-- : analyze not detect or below the laboratory reporting limit.

Groundwater

(unit: µg/L)

	TPH-g	Toluene	Ethyl benzene	Total Xylenes	MTBE	ETBE	TBA
Maximum	4,100	5	2	14	4,076	5	27
Minimum	50	--	--	--	1	--	--

-- : analyze not detect or below the laboratory reporting limit.

TABLE 2
Historical Groundwater Analytical Result
Lee's Auto Center
15763 East Amar Road, La Puente, California

Sample ID	8015(m) Gasoline (mg/kg)	418.1 Waste Oil (mg/kg)	Organic Lead (mg/kg)	MTBE (mg/kg)	8020 Benzene (mg/kg)	8020 Toluene (mg/kg)	8020 Ethyl-benzene (mg/kg)	8020 Xylenes (mg/kg)	Date
TK-1-E	<100	NA	NA	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99
TK-1-W	<100	NA	<0.25	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99
TK-2-E	<100	NA	<0.25	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99
TK-2-W	<100	NA	NA	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99
TK-3-E	<100	NA	<0.25	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99
TK-3-W	<100	NA	NA	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99
TK-4-E	3,840	NA	<0.25	1.18	0.21	3.32	8.21	57.4	1/9/99
TK-4-W	<100	NA	NA	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99
TK-5	NA	<100	NA	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99
DS-A-1	<100	NA	<0.25	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99
DS-A-2	<100	NA	<0.25	<0.01	<0.05	<0.05	<0.05	0.055	1/9/99
DS-B-1	<100	NA	<0.25	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99
DS-B-2	<100	NA	<0.25	<0.01	<0.05	<0.05	<0.05	<0.015	1/9/99

Sample ID	8015(m) for Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	ETBE (mg/kg)	DIPE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Date
B-1-5	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-10	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-15	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-20	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-25	<0.5	<0.002	<0.002	<0.002	<0.005	0.065	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-30	1,300	14.7	350	128	629	3.125	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-35	560	3.4	11.8	63	335	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-40	106	ND	20	10.7	63	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-45	19	0.5	3	1.4	6.4	0.7	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-50	3	1.9	2.3	0.185	1.03	0.22	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-55	1.5	0.43	0.135	0.035	0.13	0.035	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-60	<0.5	0.075	0.008	0.006	0.02	0.016	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-65	<0.5	0.105	0.008	0.008	0.021	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-70	<0.5	0.03	0.06	0.01	0.052	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-2-5	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-2-10	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-2-15	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-2-20	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-2-25	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-2-30	<0.5	<0.002	<0.002	<0.002	<0.005	0.065	<0.002	<0.002	<0.002	<0.01	2/2/05
B-2-35	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-2-40	3	0.017	0.041	0.008	0.051	0.044	<0.002	<0.002	<0.002	<0.01	2/2/05
B-3-5	<0.5	<0.002	<0.002	<0.002	<0.005	0.005	<0.002	<0.002	<0.002	<0.01	2/1/05
B-3-10	<0.5	<0.002	<0.002	<0.002	<0.005	0.005	<0.002	<0.002	<0.002	<0.01	2/1/05
B-3-15	<0.5	<0.002	<0.002	<0.002	<0.005	0.018	<0.002	<0.002	<0.002	<0.01	2/1/05
B-3-20	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/1/05
B-3-25	<0.5	<0.002	<0.002	<0.002	<0.005	0.011	<0.002	<0.002	<0.002	<0.01	2/1/05
B-3-30	<0.5	<0.002	<0.002	<0.002	<0.005	0.033	<0.002	<0.002	<0.002	<0.01	2/1/05
B-3-35	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/1/05
B-3-40	<0.5	0.025	0.033	0.009	0.046	0.485	<0.002	<0.002	<0.002	<0.01	2/1/05
B-4-5	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	1/20/05
B-4-10	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	1/20/05

Sample ID	8015(m) for Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	ETBE (mg/kg)	DIPE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Date
B-4-15	<0.5	<0.002	<0.002	<0.002	<0.005	0.007	<0.002	<0.002	<0.002	<0.01	1/20/05
B-4-20	<0.5	<0.002	<0.002	<0.002	<0.005	0.042	<0.002	<0.002	<0.002	<0.01	1/20/05
B-4-25	<0.5	<0.002	<0.002	<0.002	<0.005	0.165	<0.002	<0.002	<0.002	<0.01	1/20/05
B-4-30	<0.5	<0.002	<0.002	<0.002	<0.005	0.052	<0.002	<0.002	<0.002	<0.01	1/20/05
B-4-35	<0.5	<0.002	<0.002	<0.002	<0.005	2.1	<0.002	<0.002	<0.002	<0.01	1/20/05
B-4-40	<0.5	<0.002	<0.002	<0.002	<0.005	0.17	<0.002	<0.002	<0.002	<0.01	1/20/05
B-5-20	<0.5	<0.002	<0.002	<0.002	<0.005	0.035	<0.002	<0.002	<0.002	<0.01	2/1/05
B-5-25	<0.5	0.029	0.058	0.012	0.08	0.835	<0.002	<0.002	<0.002	<0.01	2/1/05
B-5-30	1.2	0.031	0.041	0.012	0.08	6.04	<0.002	<0.002	<0.002	<0.01	2/1/05
B-5-35	<0.5	<0.002	<0.002	<0.002	<0.005	0.17	<0.002	<0.002	<0.002	<0.01	2/1/05
B-5-40	<0.5	0.052	0.13	0.028	0.19	6.1	<0.002	<0.002	<0.002	<0.01	2/1/05
B-5-45	1.0	<0.002	0.019	<0.002	0.023	4.5	<0.002	<0.002	<0.002	<0.01	2/1/05
B-5-50	5.0	0.34	0.27	0.065	0.26	13.4	<0.002	<0.002	0.013	<0.01	2/1/05
B-5-55	7.5	0.185	<0.002	0.017	0.052	5.3	<0.002	<0.002	<0.002	<0.01	2/1/05
B-5-60	<0.5	<0.002	<0.002	<0.002	<0.005	0.212	<0.002	<0.002	<0.002	<0.01	2/1/05
B-6-5	<0.5	<0.002	<0.002	<0.002	<0.005	0.007	<0.002	<0.002	<0.002	<0.01	2/1/05
B-6-10	<0.5	<0.002	<0.002	<0.002	<0.005	ND	<0.002	<0.002	<0.002	<0.01	2/1/05
B-6-15	<0.5	<0.002	<0.002	<0.002	<0.005	0.029	<0.002	<0.002	<0.002	<0.01	2/1/05
B-6-20	<0.5	<0.002	<0.002	<0.002	<0.005	0.025	<0.002	<0.002	<0.002	<0.01	2/1/05
B-6-25	<0.5	<0.002	<0.002	<0.002	<0.005	0.01	<0.002	<0.002	<0.002	<0.01	2/1/05
B-6-30	<0.5	<0.002	<0.002	<0.002	<0.005	0.036	<0.002	<0.002	<0.002	<0.01	2/1/05
B-6-35	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/1/05
B-6-40	<0.5	<0.002	<0.002	<0.002	<0.005	0.031	<0.002	<0.002	<0.002	<0.01	2/1/05
B-7-5	<0.5	<0.002	<0.002	<0.002	<0.005	0.065	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-10	<0.5	<0.002	<0.002	<0.002	<0.005	0.074	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-15	<0.5	<0.002	<0.002	<0.002	<0.005	0.33	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-20	<0.5	<0.002	<0.002	<0.002	<0.005	0.165	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-25	<0.5	<0.002	<0.002	<0.002	<0.005	0.46	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-30	<0.5	<0.002	<0.002	<0.002	<0.005	0.35	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-35	<0.5	<0.002	<0.002	<0.002	<0.005	0.335	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-40	<0.5	<0.002	<0.002	<0.002	<0.005	0.44	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-45	2,570	31.3	215	123	439	28	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-50	<0.5	0.034	0.05	0.007	0.047	6.9	<0.002	<0.002	0.009	<0.01	1/19/05
B-7-55	<0.5	0.009	0.013	<0.002	<0.005	1.5	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-60	<0.5	0.11	0.017	0.01	0.035	3.3	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-65	<0.5	0.019	<0.002	<0.002	<0.005	0.94	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-70	<0.5	<0.002	<0.002	<0.002	<0.005	0.24	<0.002	<0.002	<0.002	<0.01	1/19/05
B-7-75	<0.5	0.010	0.016	ND	0.017	1.15	<0.002	<0.002	<0.002	<0.01	1/19/05
B-8-5	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-10	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-15	<0.5	<0.002	0.008	<0.002	0.025	0.006	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-20	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-25	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-30	<0.5	0.007	0.006	<0.002	0.015	0.07	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-35	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-40	<0.5	0.072	0.225	0.045	0.3	0.1	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-45	<0.5	0.005	0.021	0.008	0.05	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-50	<0.5	0.11	0.16	0.015	0.095	0.018	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-55	<0.5	0.127	0.006	0.011	0.033	0.012	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-60	<0.5	0.165	0.01	0.014	0.045	0.01	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-65	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-8-70	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	2/2/05
B-1-75	<0.5	<0.002	0.005	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/12/05
B-1-80	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/12/05
B-1-85	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/12/05

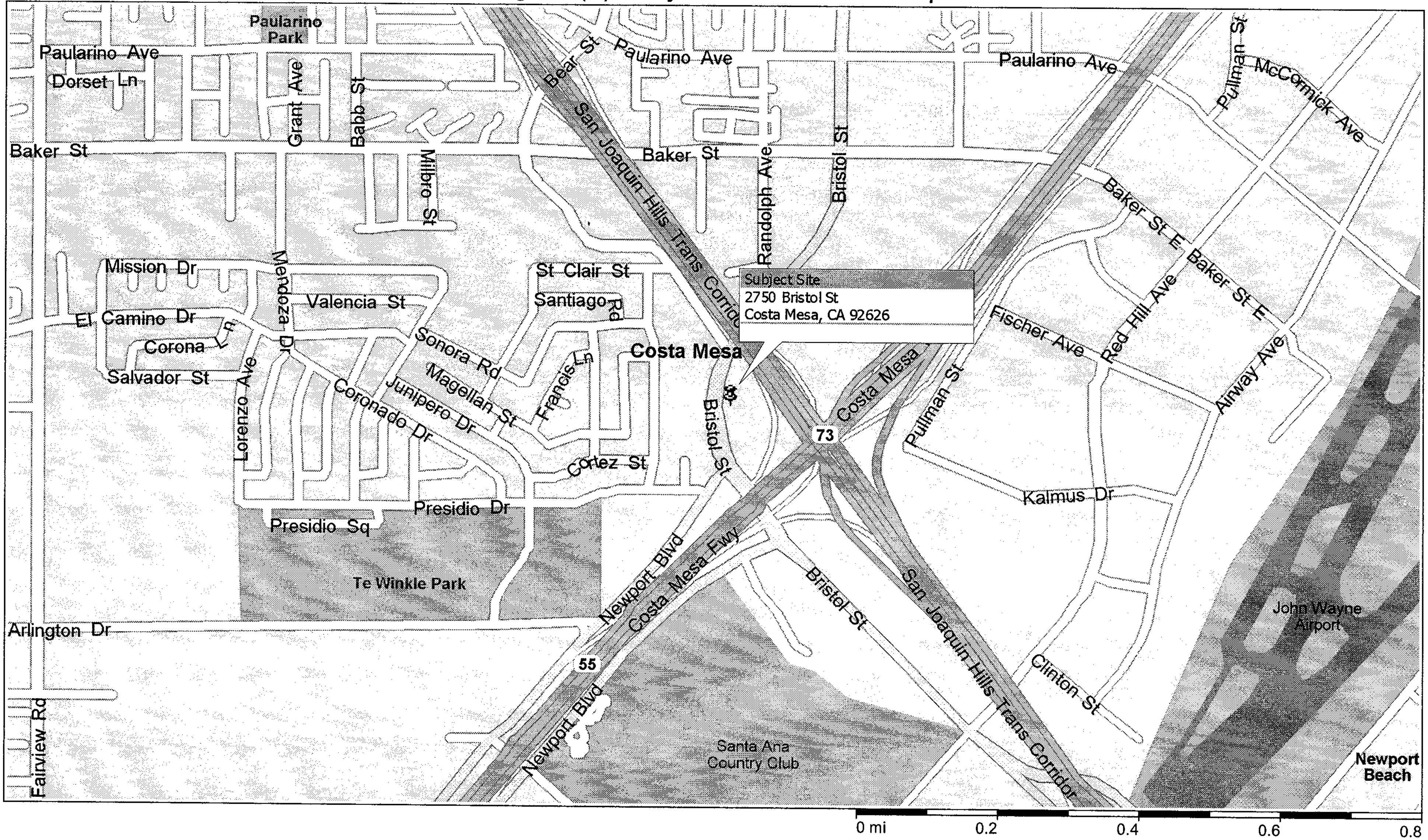
Sample ID	8015(m) for Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	ETBE (mg/kg)	DIPE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Date
B-1-90	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/12/05
B-4-45	3.7	0.006	<0.002	<0.002	<0.005	3.6	<0.002	<0.002	<0.002	<0.01	8/11/05
B-4-50	0.9	<0.002	<0.002	<0.002	<0.005	0.91	<0.002	<0.002	<0.002	<0.01	8/11/05
B-4-55	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/11/05
B-4-60	<0.5	0.015	<0.002	<0.002	<0.005	0.053	<0.002	<0.002	<0.002	<0.01	8/11/05
B-4-65	<0.5	0.023	<0.002	<0.002	<0.005	0.015	<0.002	<0.002	<0.002	<0.01	8/11/05
B-4-70	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/11/05
B-4-75	<0.5	<0.002	<0.002	<0.002	<0.005	0.008	<0.002	<0.002	<0.002	<0.01	8/11/05
B-4-80	<0.5	<0.002	<0.002	<0.002	<0.005	0.008	<0.002	<0.002	<0.002	<0.01	8/11/05
B-4-85	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/11/05
B-4-90	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/11/05
B-4-95	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/11/05
B-7-80	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/11/05
B-7-85	<0.5	<0.002	0.007	<0.002	<0.005	0.022	<0.002	<0.002	<0.002	<0.01	8/11/05
B-7-90	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/11/05
B-7-95	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/11/05
MW3-5	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-10	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-15	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-20	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-25	<0.5	<0.002	<0.002	<0.002	<0.005	0.083	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-30	<0.5	0.015	0.041	<0.002	0.047	0.132	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-35	<0.5	<0.002	<0.002	<0.002	<0.005	0.005	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-40	172.5	2.7	17.3	10.43	45.15	0.23	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-45	<0.5	<0.002	0.01	<0.002	0.021	0.019	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-50	<0.5	0.044	0.027	0.005	0.025	0.015	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-55	<0.5	0.067	0.009	0.005	0.02	0.011	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-60	<0.5	0.018	<0.002	<0.002	0.012	0.006	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-65	<0.5	0.096	0.014	0.009	0.049	0.007	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-70	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-75	<0.5	0.066	0.059	0.022	0.127	0.007	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-80	<0.5	0.008	0.011	<0.002	<0.005	0.06	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-85	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-90	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/18/05
MW3-95	<0.5	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.01	8/18/05

NOTES: • Samples IDs that start with: **TK is sample taken under the tank (E: East, W: West).**
DS is sample taken under dispenser area.

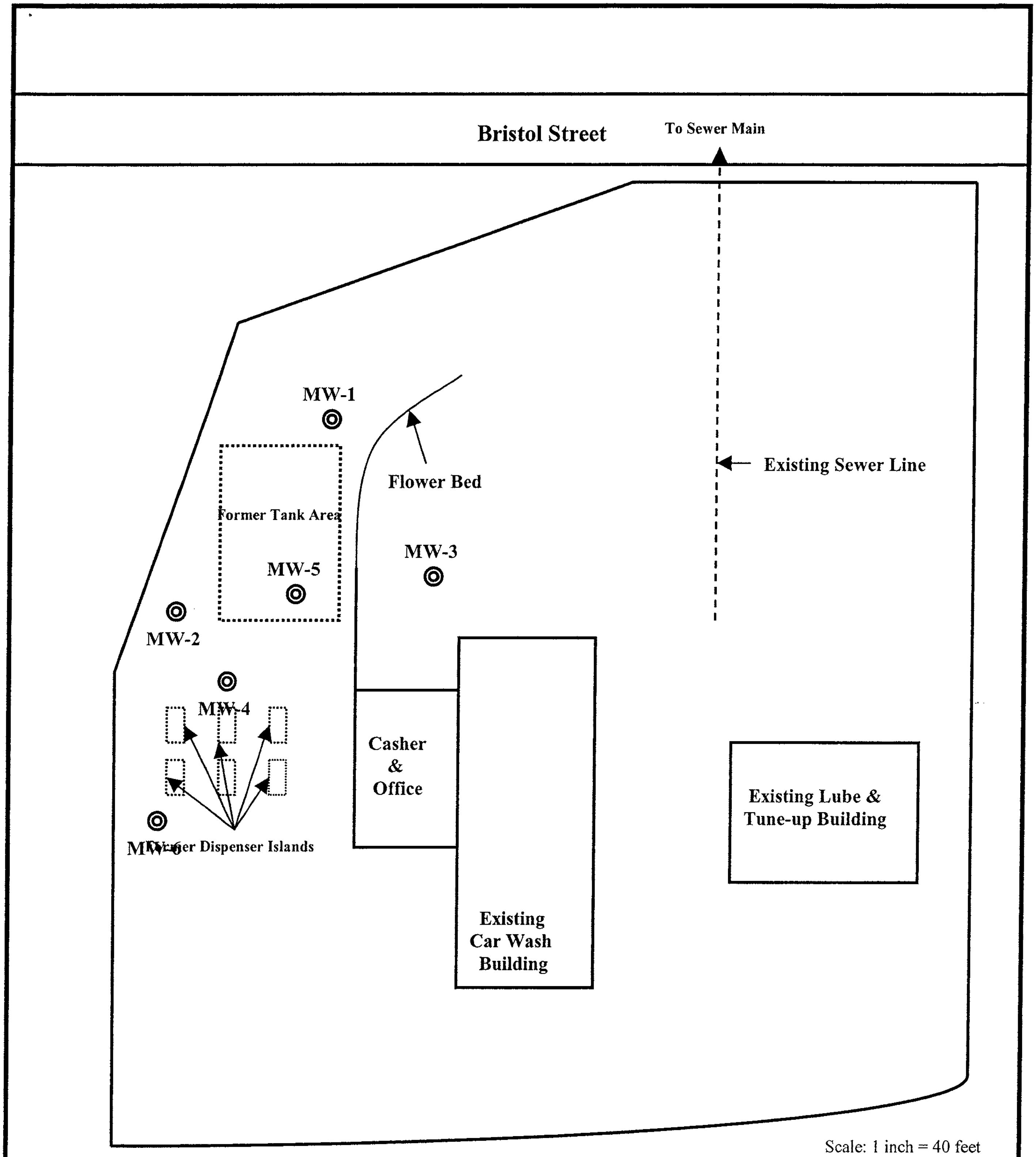
MTBE = Methyl Tertiary Butyl Ether
ETBE = Ethyl Tertiary Butyl Ether
DIPE = Diisopropyl Ether
TAME = Tertiary Amyl Methyl Ether
TBA = Tertiary Butyl Alcohol

FIGURES

Figure (1) Subject Site Location Map



Copyright © 1988-2001 Microsoft Corp. and/or its suppliers. All rights reserved. http://www.microsoft.com/streets
© Copyright 2000 by Geographic Data Technology, Inc. All rights reserved. © 2000 Navigation Technologies. All rights reserved. This data includes information taken with permission from Canadian authorities © Her Majesty the Queen in Right of Canada. © Copyright 2000 by Compusearch Micromarketing Data and Systems `x"g♂?g♂?→



Site Address: South Pacific Car Wash
2750 S. Bristol Street
Costa Mesa, CA 92626

◎ : Existing Groundwater Monitoring Wells Location

Groundwater Monitoring Well Location

APPENDIX A

Well Abandonment Permit

APPLICATION FOR WELL DESTRUCTION PERMIT

ORANGE COUNTY HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH DIVISION

1241 E. DYER ROAD, SUITE 120
SANTA ANA, CA 92705-4720

(714) 433-6000
FAX: (714) 433-6481

WELL PERMIT NUMBER 10-03-30

CITY: Costa Mesa

DATE: 3/23/10

WELL LOCATION (ADDRESS IF AVAILABLE): 2750 S. Bristol Street, Costa Mesa, CA 92626

NAME OF WELL OWNER: South Pacific Car Wash

ADDRESS: 2750 S. Bristol Street

CITY: Costa Mesa ZIP: 92626 TELEPHONE: (714) 433-0135

NAME OF CONSULTING FIRM: Western Environmental Engineers Company

BUSINESS ADDRESS: 1815 E. Wilshire Avenue, #905

CITY: Santa Ana ZIP: 92705 TELEPHONE: (714) 542-2644

NAME OF DRILLING CO.: Jet Drilling, Inc

C-57 LICENSE NUMBER: 750885

CITY: Signal Hills ZIP: 90755 TELEPHONE: (562) 988-2849

WELL DEPTH: 40 Feet

DIAMETER: 4 Inches

TYPE OF WELL/TOTAL NUMBER: 6

- [ ] WATER
- [ ] CATHODIC
- [x] MONITORING
- [ ] OTHER

SEALING MATERIAL / ESTIMATE AMOUNT OF SEALING MATERIAL NEEDED: Cement/ Bentonite

PROPOSED START DATE: 3/30/10

METHOD OF DESTRUCTION:
- Pressure grouting with an approved sealing material that flows through the perforations
- The casing need to be ripped or punctured to ensure sealing material penetrates the filter pack and all other voids.
- The top five feet of the well and well box will be removed.

DIAGRAM OF WELL SITE (Use additional sheets and/or attachments)

See Attached Well Diagram

[x] SITE PLAN ATTACHED

I HEREBY AGREE TO COMPLY IN EVERY RESPECT WITH ALL REQUIREMENTS OF THE HEALTH CARE AGENCY AND WITH ALL ORDINANCES AND LAWS OF THE COUNTY OF ORANGE AND OF THE STATE OF CALIFORNIA PERTAINING TO WELL CONSTRUCTION, RECONSTRUCTION AND DESTRUCTION.

APPLICANT'S SIGNATURE: [signature] DATE: 3/23/10

PRINT NAME: James Yoon

PHONE NUMBER: (714) 542-2644 FAX NUMBER: (714) 542-2520

FOR ACCOUNTING USE ONLY:

HSO NO. 324266 CHECK NO. CC/AMEX

DATE 3-23-10 AMOUNT $750.00

INTL. [initials]

APPROVAL BY OTHER AGENCIES:

JURISDICTION

REMARKS

AUTHORIZED SIGNATURE DATE

PAID

DISPOSITION OF PERMIT (DO NOT FILL IN):

[x] **APPROVED** SUBJECT TO THE FOLLOWING CONDITIONS: Please call if start date changes

A. [x] NOTIFY THIS AGENCY AT LEAST **48 HOURS** PRIOR TO START.

B. [ ] SUBMIT TO THE AGENCY A WELL DESTRUCTION REPORT. PLEASE REFERENCE PERMIT NUMBER.

C. [ ] OTHER

[ ] **DENIED**

PERMIT ISSUED BY: John Banocz DATE: 3/24/10

PRINT NAME: JOHN BANOCZ PHONE NUMBER: 433-6287

WHEN SIGNED BY ORANGE COUNTY HEALTH CARE AGENCY REPRESENTATIVE, THIS APPLICATION IS A PERMIT.

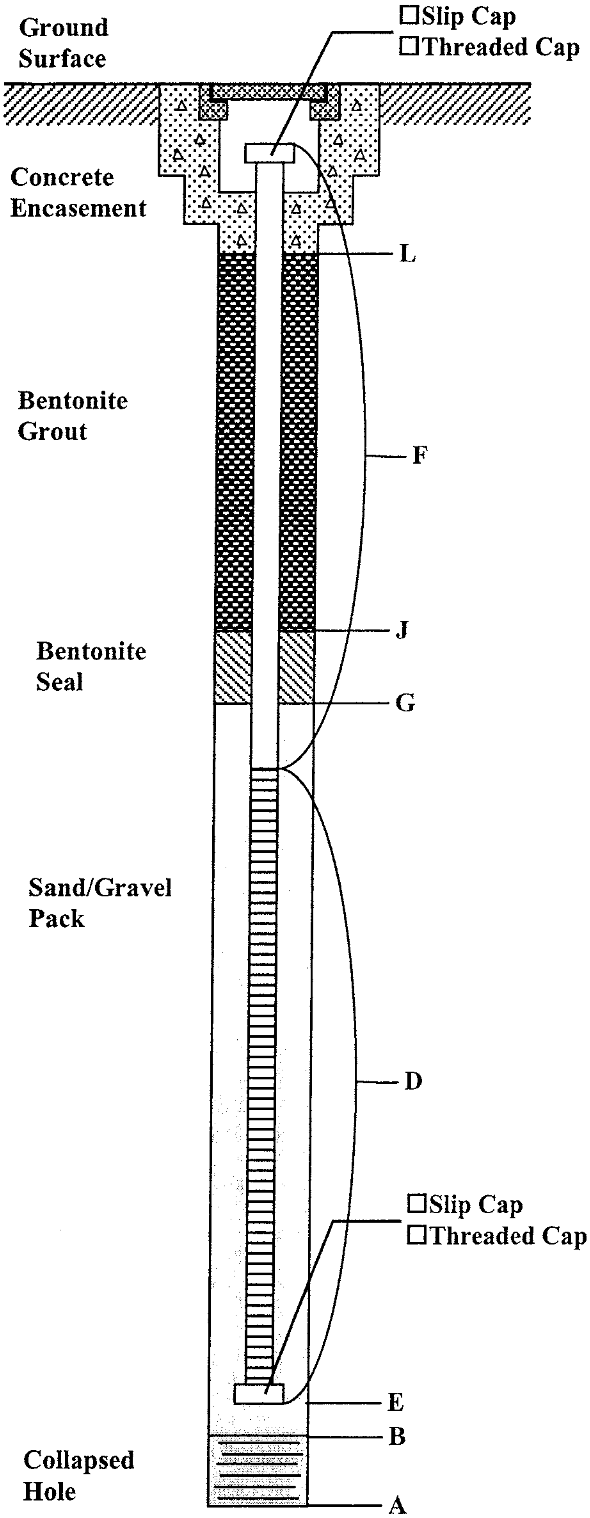
F272-09.1543 (R9/96)

APPENDIX B

Well Diagram

GROUNDWATER MONITORING WELL DIAGRAM

Boring Number: MW-1	Date: 2/11/2005	Logger's Initials JY
Location: 2750 South Bristol Street, Costa Mesa, CA 92626		



Description	Measurements	Calculations
A. Total depth drilled	40 feet	
B. Depth of open hole (if no caving occurs as augers are raised, value will be same as A)	40 feet	
C. Footage of hole collapsed	C = A - B	0
D. Length of slotted casing installed	20 feet	
E. Depth of bottom of casing	40 feet	
F. Length of blank casing	20 feet	
G. Depth to top of gravel/sand fill	18 feet	
H. Footage of gravel sand fill	H = B - G	22 feet
I. Bags of gravel sand used	10 bags	
J. Depth to top of bentonite seal **	9 feet	
K. Thickness of bentonite seal	K = G - J	9 feet
L. Depth to top of bentonite grout	2 feet	
M. Thickness of bentonite grout	M = J - L	7 feet
N. Thickness of concrete encasement	1 feet	

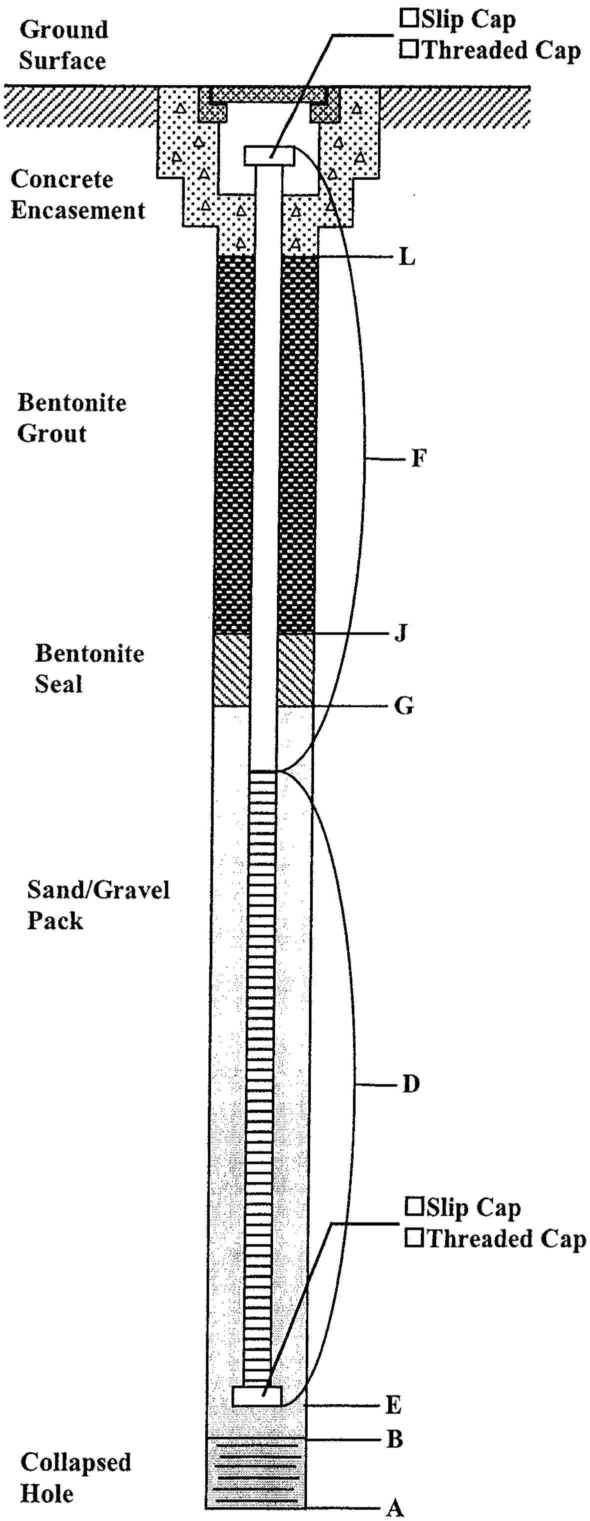
* No. 3 Sand - SRI Supreme (Silica Resources, Inc.)

** Bentonite Seal = Enviroplug Coarse (4 Bags)

Depth to water	26.47 feet
Type of casing	PVC SCH 40 (4" Well)
Slot Size	0.020 slots
Type of access box used	418 x A – 12" x 12"
Top of casing elevation	38.95'
Date surveyed	January 14, 2005
Ground water elevation	12.48'

GROUNDWATER MONITORING WELL DIAGRAM

Boring Number: MW-2	**Date:** 2/11/2005	**Logger's Initials** JY
Location: 2750 South Bristol Street, Costa Mesa, CA 92626		



Description	Measurements	Calculations
A. Total depth drilled	40 feet	
B. Depth of open hole (if no caving occurs as augers are raised, value will be same as A)	40 feet	
C. Footage of hole collapsed	C = A - B	0
D. Length of slotted casing installed	20 feet	
E. Depth of bottom of casing	40 feet	
F. Length of blank casing	20 feet	
G. Depth to top of gravel/sand fill	18 feet	
H. Footage of gravel sand fill	H = B - G	22 feet
I. Bags of gravel sand used	10 bags	
J. Depth to top of bentonite seal **	9 feet	
K. Thickness of bentonite seal	K = G - J	9 feet
L. Depth to top of bentonite grout	2 feet	
M. Thickness of bentonite grout	M = J - L	7 feet
N. Thickness of concrete encasement	1 feet	

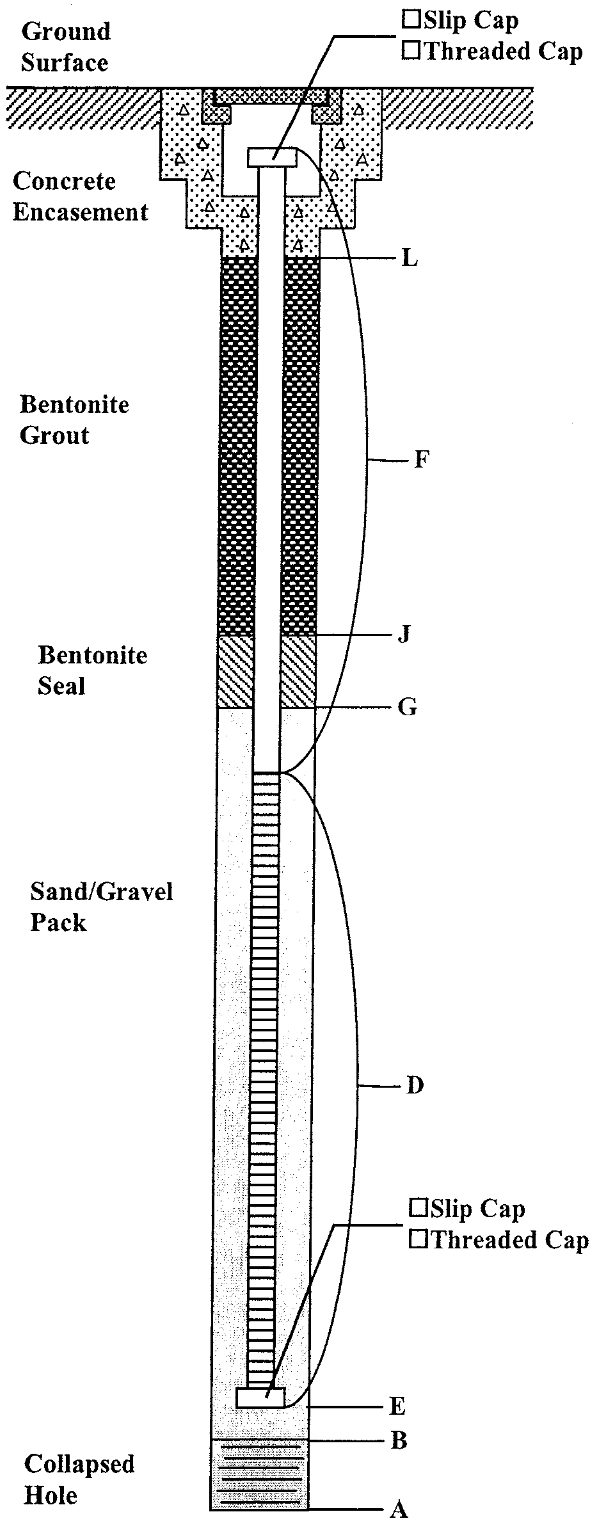
*** No. 3 Sand - SRI Supreme (Silica Resources, Inc.)**

**** Bentonite Seal = Enviroplug Coarse (4 Bags)**

Depth to water	**26.12 feet**
Type of casing	**PVC SCH 40 (4" Well)**
Slot Size	**0.020 slots**
Type of access box used	**418 x A – 12" x 12"**
Top of casing elevation	**38.91'**
Date surveyed	**January 14, 2005**
Ground water elevation	**12.79'**

GROUNDWATER MONITORING WELL DIAGRAM

Boring Number: MW-3	**Date:** 2/11/2005	**Logger's Initials** JY
Location: 2750 South Bristol Street, Costa Mesa, CA 92626		



Description	Measurements	Calculations
A. Total depth drilled	40 feet	
B. Depth of open hole (if no caving occurs as augers are raised, value will be same as A)	40 feet	
C. Footage of hole collapsed	C = A - B	0
D. Length of slotted casing installed	20 feet	
E. Depth of bottom of casing	40 feet	
F. Length of blank casing	20 feet	
G. Depth to top of gravel/sand fill	18 feet	
H. Footage of gravel sand fill	H = B - G	22 feet
I. Bags of gravel sand used	10 bags	
J. Depth to top of bentonite seal **	9 feet	
K. Thickness of bentonite seal	K = G - J	9 feet
L. Depth to top of bentonite grout	2 feet	
M. Thickness of bentonite grout	M = J - L	7 feet
N. Thickness of concrete encasement	1 feet	

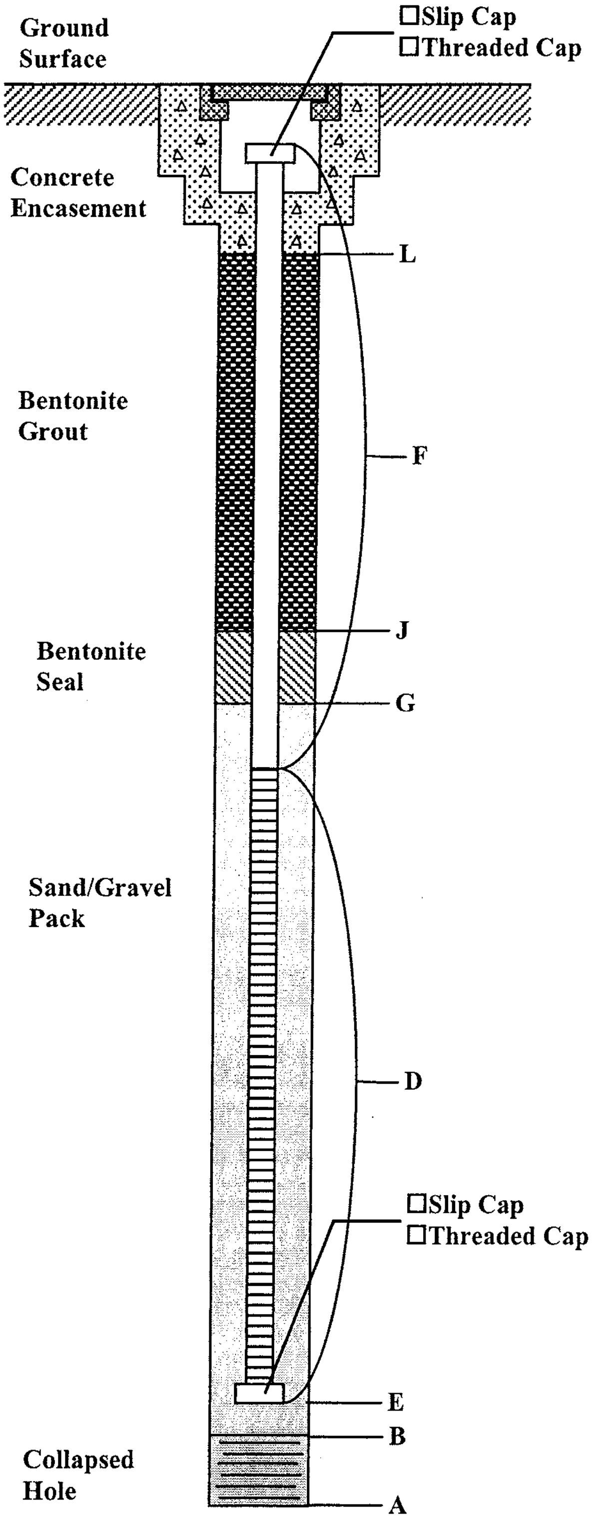
*** No. 3 Sand - SRI Supreme (Silica Resources, Inc.)**

**** Bentonite Seal = Enviroplug Coarse (4 Bags)**

Depth to water	**27.14 feet**
Type of casing	**PVC SCH 40 (4" Well)**
Slot Size	**0.020 slots**
Type of access box used	**418 x A – 12" x 12"**
Top of casing elevation	**39.56'**
Date surveyed	**January 14, 2005**
Ground water elevation	**12.42'**

GROUNDWATER MONITORING WELL DIAGRAM

Boring Number: MW-4	**Date:** 2/11/2005	**Logger's Initials** JY
Location: 2750 South Bristol Street, Costa Mesa, CA 92626		



Description	Measurements	Calculations
A. Total depth drilled	40 feet	
B. Depth of open hole (if no caving occurs as augers are raised, value will be same as A)	40 feet	
C. Footage of hole collapsed	C = A - B	0
D. Length of slotted casing installed	20 feet	
E. Depth of bottom of casing	40 feet	
F. Length of blank casing	20 feet	
G. Depth to top of gravel/sand fill	18 feet	
H. Footage of gravel sand fill	H = B - G	22 feet
I. Bags of gravel sand used	10 bags	
J. Depth to top of bentonite seal **	9 feet	
K. Thickness of bentonite seal	K = G - J	9 feet
L. Depth to top of bentonite grout	2 feet	
M. Thickness of bentonite grout	M = J - L	7 feet
N. Thickness of concrete encasement	1 feet	

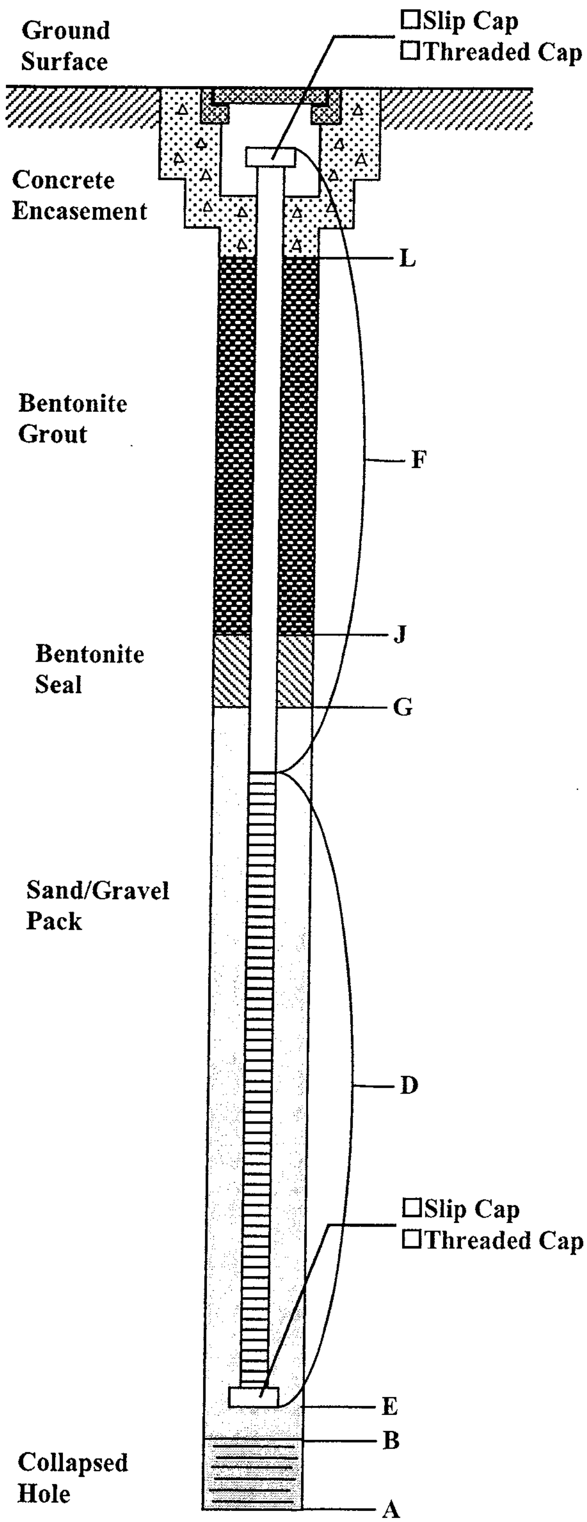
*** No. 3 Sand - SRI Supreme (Silica Resources, Inc.)**

**** Bentonite Seal = Enviroplug Coarse (4 Bags)**

Depth to water	26.14 feet
Type of casing	PVC SCH 40 (4" Well)
Slot Size	0.020 slots
Type of access box used	418 x A – 12" x 12"
Top of casing elevation	39.00'
Date surveyed	January 14, 2005
Ground water elevation	12.86'

GROUNDWATER MONITORING WELL DIAGRAM

Boring Number: MW-5	**Date:** 1/20/2006	**Logger's Initials** JY
Location: 2750 South Bristol Street, Costa Mesa, CA 92626		



Description	Measurements	Calculations
A. Total depth drilled	40 feet	
B. Depth of open hole (if no caving occurs as augers are raised, value will be same as A)	40 feet	
C. Footage of hole collapsed	C = A - B	0
D. Length of slotted casing installed	20 feet	
E. Depth of bottom of casing	40 feet	
F. Length of blank casing	20 feet	
G. Depth to top of gravel/sand fill	18 feet	
H. Footage of gravel sand fill	H = B - G	22 feet
I. Bags of gravel sand used	10 bags	
J. Depth to top of bentonite seal **	9 feet	
K. Thickness of bentonite seal	K = G - J	9 feet
L. Depth to top of bentonite grout	2 feet	
M. Thickness of bentonite grout	M = J - L	7 feet
N. Thickness of concrete encasement	1 feet	

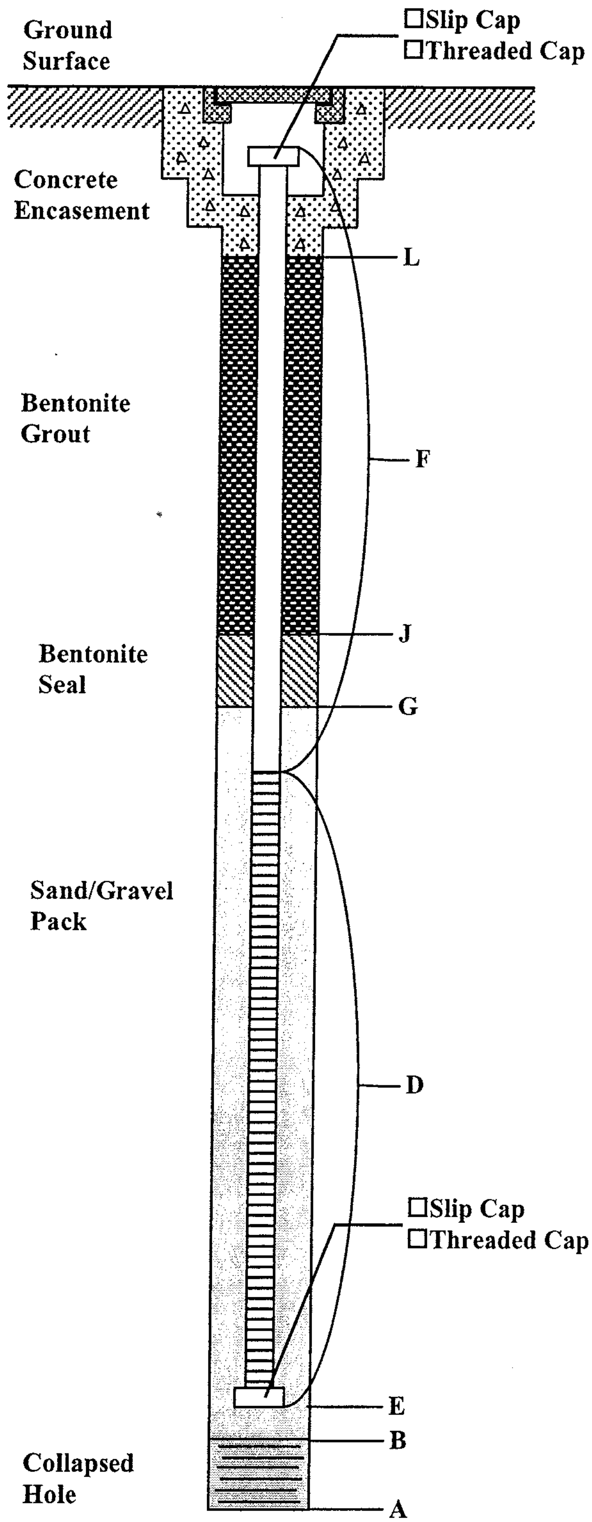
*** No. 3 Sand - SRI Supreme (Silica Resources, Inc.)**

**** Bentonite Seal = Enviroplug Coarse (4 Bags)**

Depth to water	
Type of casing	**PVC SCH 40 (4" Well)**
Slot Size	**0.020 slots**
Type of access box used	**418 x A – 12" x 12"**
Top of casing elevation	
Date surveyed	
Ground water elevation	

GROUNDWATER MONITORING WELL DIAGRAM

Boring Number: MW-6	**Date:** 3/14/2006	**Logger's Initials** JY
Location: 2750 South Bristol Street, Costa Mesa, CA 92626		



Description	Measurements	Calculations
A. Total depth drilled	35 feet	
B. Depth of open hole (if no caving occurs as augers are raised, value will be same as A)	35 feet	
C. Footage of hole collapsed	C = A - B	0
D. Length of slotted casing installed	15 feet	
E. Depth of bottom of casing	35 feet	
F. Length of blank casing	20 feet	
G. Depth to top of gravel/sand fill	17 feet	
H. Footage of gravel sand fill	H = B - G	18 feet
I. Bags of gravel sand used	9 bags	
J. Depth to top of bentonite seal **	11 feet	
K. Thickness of bentonite seal	K = G - J	6 feet
L. Depth to top of bentonite grout	2 feet	
M. Thickness of bentonite grout	M = J - L	9 feet
N. Thickness of concrete encasement	1 feet	

*** No. 3 Sand - SRI Supreme (Silica Resources, Inc.)**

**** Bentonite Seal = Enviroplug Coarse (4 Bags)**

Depth to water	**26.02 feet**
Type of casing	**PVC SCH 40 (4" Well)**
Slot Size	**0.020 slots**
Type of access box used	**418 x A – 12" x 12"**
Top of casing elevation	**40.70'**
Date surveyed	**April 1, 2006**
Ground water elevation	**14.68'**

APPENDIX C

Letter of Orange County Health Care Agency

COUNTY OF ORANGE
HEALTH CARE AGENCY

PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH

Excellence
Integrity
Service

DAVID L. RILEY
DIRECTOR

DAVID M. SOULELES, MPH
DEPUTY AGENCY DIRECTOR

RICHARD SANCHEZ, REHS, MPH
DIRECTOR
ENVIRONMENTAL HEALTH

MAILING ADDRESS:
1241 E. DYER RD., #120
SANTA ANA, CA 92705-5611

TELEPHONE: (714) 433-6000
FAX: (714) 754-1732
E-MAIL: ehealth@ochca.com

March 19, 2010

Chanho Yang
2750 South Bristol Street
Costa Mesa, CA 92626

Subject: **Notification of Pre-Closure Requirements**

Re: South Pacific Car Wash
2750 South Bristol Street
Costa Mesa, CA
OCHCA Case #03UT012

Dear Mr. Yang:

The Orange County Local Oversight Program has determined that the above referenced site is eligible for case closure. A remedial action completion certification letter will be issued upon completion of the following:

1. All monitoring and remediation wells must be properly destroyed. All other site improvements related to the site assessment or remediation (piping, remediation equipment, etc.) must be abandoned or removed. Waste materials must be disposed of in accordance with all local, state and federal requirements.

2. A well destruction and waste disposal report must be submitted to this office and must include copies of all well destruction permits, waste manifests, and disposal documentation generated for this activity.

These activities must be completed within 90 days from the date of this letter. You are required to continue quarterly monitoring and reporting until the wells are destroyed. You may also be directed to conduct further remedial action if site conditions or regulatory standards change before the remedial action completion certification letter is issued.

If you have any questions, please call me at (714) 433-6255.

Sincerely,

Denamarie Baker

Denamarie Baker
Hazardous Waste Specialist
Hazardous Materials Management Section
Environmental Health

cc: Ken Williams, Santa Ana Regional Water Quality Control Board
Larry Honeybourne, Water Quality Section, Environmental Health
James Yoon, Western Environmental Engineers Co.

APPENDIX D.

Waste Manifest

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 1-800-424-9300	4. Waste Tracking Number 34212

5. Generator's Name and Mailing Address
SOUTH PACIFIC CAR WASH-C/O WEECO
1815 E. WILSHIRE BLVD., #905
SANTA ANA, CA 92705
Generator's Phone: 714 542-2644 CONTACT:JAMES YOON

Generator's Site Address (if different than mailing address)
2750 S. BRISTOL ST.
COSTA MESA, CA
ORANGE, CA 92626

6. Transporter 1 Company Name: EFR ENVIRONMENTAL SERVICES, INC.
U.S. EPA ID Number: CAR000011205

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: WESTERN ENVIRONMENTAL SERVICES, INC.
62-150 GENE WELMAS DRIVE
MECCA, CA 9225485346
Facility's Phone: 760-396-0222
U.S. EPA ID Number: CAR000157206

9. Waste Shipping Name and Description	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.
1. NON-HAZARDOUS WASTE LIQUID (PURGE WATER)	2	DM	110	G
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
9B-1 PROFILE NO. WEI 1105

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Octavio Quintero Agent
Signature: [signature]
Month 5 Day 14 Year 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Octavio Quintero
Signature: [signature]
Month 5 Day 14 Year 10

Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name
Signature
Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

169-BLC-O 6 10498 (Rev. 8/06)

GENERATOR'S/SHIPPER'S INITIAL COPY

COUNTY OF ORANGE
HEALTH CARE AGENCY

PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH

Excellence
Integrity
Service

DAVID L. RILEY
DIRECTOR

DAVID M. SOULELES, MPH
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SANTA ANA, CA 92705-5611

TELEPHONE: (714) 433-6000
FAX: (714) 754-1732
E-MAIL: ehealth@ochca.com

June 4, 2010

Chanho Yang
South Pacific Car Wash
2750 South Bristol Street
Costa Mesa, CA 92626

Subject: **Remedial Action Completion Certification**

OCHCA Case #03UT012
South Pacific Car Wash
2750 South Bristol Street
Costa Mesa, CA

Dear Mr. Yang:

This letter confirms the completion of site investigation and corrective action for the underground storage tank(s) formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this Agency was accurate and representative of site conditions, this Agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25296.10 of the Health and Safety Code. Please call Denamarie Baker at (714) 433-6255 if you have any questions regarding this matter.

Sincerely,

Richard Sanchez, REHS, MPH
Director
Environmental Health

Attachment: Case Closure Summary

cc: Ken Williams, Santa Ana Regional Water Quality Control Board
Cleanup Fund Manager, State Water Resources Control Board
Larry Honeybourne, Environmental Health Division

Case Closure Summary
Leaking Underground Fuel Tank Program

I. Agency Information

Date: **March 12, 2010**

Agency Name: **Orange County Health Care Agency**	Address: **1241 Dyer Road, Ste. 120**
City/State/Zip: **Santa Ana, CA 92705**	Phone: **(714) 433-6254**
Responsible staff person: **Denamarie Baker**	Title: **Hazardous Waste Specialist**

II. Case Information

Site Facility Name: **South Pacific Car Wash**		
Site Facility Address: **2750 South Bristol Street, Costa Mesa, CA 92626**		
RB LUSTIS Case No.:	Local Case No.: **RO0003154**	LOP Case No.: **03UT012**
URF Filing Date:	SWEEPS No.	

Responsible Party	Address	Phone Number
Chanho Yang	**2750 South Bristol Street** **Costa Mesa, CA 92626**	**714-433-0135**

Tank No	Size in Gal.	Contents	Closed in-Place/Removed?	Date
1-3	**15,000**	**Gasoline**	**Removed**	**03/10/03**
4	**8,000**	**Diesel**	**Removed**	**03/10/03**

III. Release and Site Characterization Information

Cause and type of release: **Underground storage tank system**		
Site characterization complete? **Yes**	Date approved by oversight agency: **February 16, 2010**	
Monitoring wells installed? **Yes**	Number: **6**	Proper screened interval? **Yes**
Highest GW depth BGS: **24.88**	Lowest depth: **27.40**	Flow direction: **predominantly to the east –southeast**
Most sensitive current use: **Municipal and Domestic supply**		
Are drinking water wells affected? **No**	Aquifer name:	
Is surface water affected? **No**	Nearest/affected SW name: **N/A**	
Off-site beneficial use impacts (addresses/locations): **None**		
Report(s) on file? **Yes**	Where is report(s) filed? **OCHCA & GeoTracker**	

Treatment and Disposal of Affected Material

Material	Amount (include Units)	Action (treatment or disposal/destination)	Date
Tank	**4 tanks removed**	**Ecology Auto Parts, Santa Fe Springs, CA**	**March 10, 2003**
Groundwater	**2,300 gallons**	**Crosby & Overton**	**March 7 & 10, 2003**

Date: **March 12, 2010** Case #: **03UT012**

III. Release and Site Characterization Information (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup									
Contaminant	Soil (ppm)		Water (ppm)		Contaminant	Soil (ppm)		Water (ppm)	
	Before	After	Before	After		Before	After	Before	After
TPH (gas)	**830**	**0.35**	**4.1**	**0.12**	MTBE	**272**	**0.005**	**4.076**	**0.092**
Benzene	**9.1**	**0.005**	**<0.001**	**<0.001**	TBA	**0.62**	**0.061**	**0.027**	**<0.010**
Toluene	**64.8**	**0.006**	**0.005**	**<0.001**	DIPE	**<0.002**	**<0.002**	**<0.002**	**<0.002**
Ethylbenzene	**28.2**	**0.01**	**0.002**	**<0.001**	ETBE	**<0.002**	**<0.002**	**0.005**	**<0.002**
Xylenes	**150**	**0.005**	**0.014**	**<0.002**	TAME	**0.05**	**<0.002**	**<0.002**	**<0.002**

Comments (Depth of Remediation, etc.):

The subject site is currently a retail car wash facility. On March 10, 2003, four double-wall fiberglass underground storage tanks (USTs), six dispenser islands and associated product piping were removed from the site. The tanks were not replaced. Eight soil samples were collected from beneath the former tanks and were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX), methyl tertiary-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), tertiary-amyl methyl ether (TAME) and tertiary-butyl alcohol (TBA). A maximum TPHg concentration of 830 parts per million (ppm) was detected in a sample (DS-6-2) collected from beneath one of the dispensers. The maximum benzene and MTBE concentrations of 9.1 ppm and 272 ppm, respectively, were detected in sample TK4-S-18.

On January 12 and 13, 2004, 13 borings (B-1 through B-13) were drilled to approximately 30 feet below ground surface (bgs) in the vicinity of the former UST's and dispenser islands. Samples were collected at five-foot intervals beginning at five feet bgs in all borings except B-2, B-3, B-4, and B-5. Boring B-5 was sampled every five feet beginning at 20 feet bgs and was in the immediate vicinity of soil sample TK4-S-18 collected during the tank removal event. The maximum TPHg and MTBE concentrations detected in the sample collected from B-5 at 20 feet bgs were 0.75 ppm and 0.630 ppm, respectively. Benzene was not detected in any of the soil samples collected from boring B-5. Boring B-7, located approximately 20 feet east of soil sample TK4-S-18, indicated maximum concentrations of TPHg, benzene, and MTBE at 25 feet bgs of 1.15 ppm, 0.067 ppm, and 0.943 ppm, respectively. Boring B-13, located approximately 20 feet south of soil sample TK4-S-18, did not indicate detectable concentrations of any analyte in any of the soil samples collected.

Five groundwater monitoring wells (MW-1 through MW-5) on November 18, 2004 to approximately 40 feet bgs. Maximum concentrations of TPHg and MTBE of 3.77 and 3.64 ppm, respectively, were detected in the sample collected from MW-5 at a depth of 3.77 feet bgs. Groundwater samples were collected on January 28, 2005 from all five groundwater monitoring wells. Maximum TPHg and MTBE concentrations of 2.2 and 2.1 ppm, respectively, were detected in the sample collected from monitoring well MW-2. Benzene was never detected in any of the groundwater samples collected.

On September 21, 2005, three vapor extraction wells (EX-1 through EX-3) were installed to approximately 20 feet bgs. On October 24, 2005 these wells in conjunction with existing monitoring wells were used to conduct a air sparge/soil vapor extraction pilot test. The maximum TPHg concentration detected in vapor samples was 82.1 parts per million by volume (ppmv) collected 20 minutes after the beginning of the pilot test. Benzene, MTBE, and TBA were not detected in any vapor samples collected.

On March 14, 2006 one additional groundwater monitoring well (MW-6) was installed to approximately 35 feet bgs. No soil or groundwater samples indicated detectable concentrations of petroleum hydrocarbons or fuel oxygenates.

Case Closure Summary

Leaking Underground Fuel Storage Tank Program

Date: **March 12, 2010**

Case #: **03UT012**

According to the OCWD, there are no groundwater production wells within 2,000 feet of the site. Groundwater depth at the site is approximately 26 ft bgs.

This site is recommended for closure based on the following:

- **The former USTs were removed in March 2003 and were not replaced.**
- **Soil contamination, detected in sample TK4-S-18, is very limited in extent both vertically and laterally, as indicated by borings B-5, B-7, and B-13.**
- **The site is expected to remain a car wash facility**
- **Currently there are no groundwater production wells within 2,000 feet of the site.**

IV. Closure

Does completed corrective action protect *existing* beneficial uses per the Regional Board Basin Plan? **Yes**		
Does completed corrective action protect *potential* beneficial uses per the Regional Board Basin Plan? **Yes**		
Does corrective action protect public health for current land use? **Yes**		
Site management requirements:		
Should corrective action be reviewed if land use changes? **Yes**		
Monitoring wells decommissioned: **No**	Number decommissioned: **0**	Number Retained: **6**
List enforcement actions taken:		
List enforcement actions rescinded:		

V. Local Agency Representative Data

Name: **Anthony Martinez, CEG #2255**	Title: **Senior Engineering Geologist**
Signature:	Date: 6-2-10
Name: **Larry Honeybourne**	Title: **Program Manager**
Signature:	Date: 6-2-10

VI. RWQCB Notification

Date Submitted to RB: 3-15-2010	RB Response: Concurs w Closure
Name: **Kenneth Williams**	Title: **Chief, UST Section**
Signature: Kenneth R. Williams	Date: 3-18-2010

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file. Revised: 4/14/94

APPENDIX A

AERIAL PHOTOGRAPHS

Aerial Photograph Year: 1938

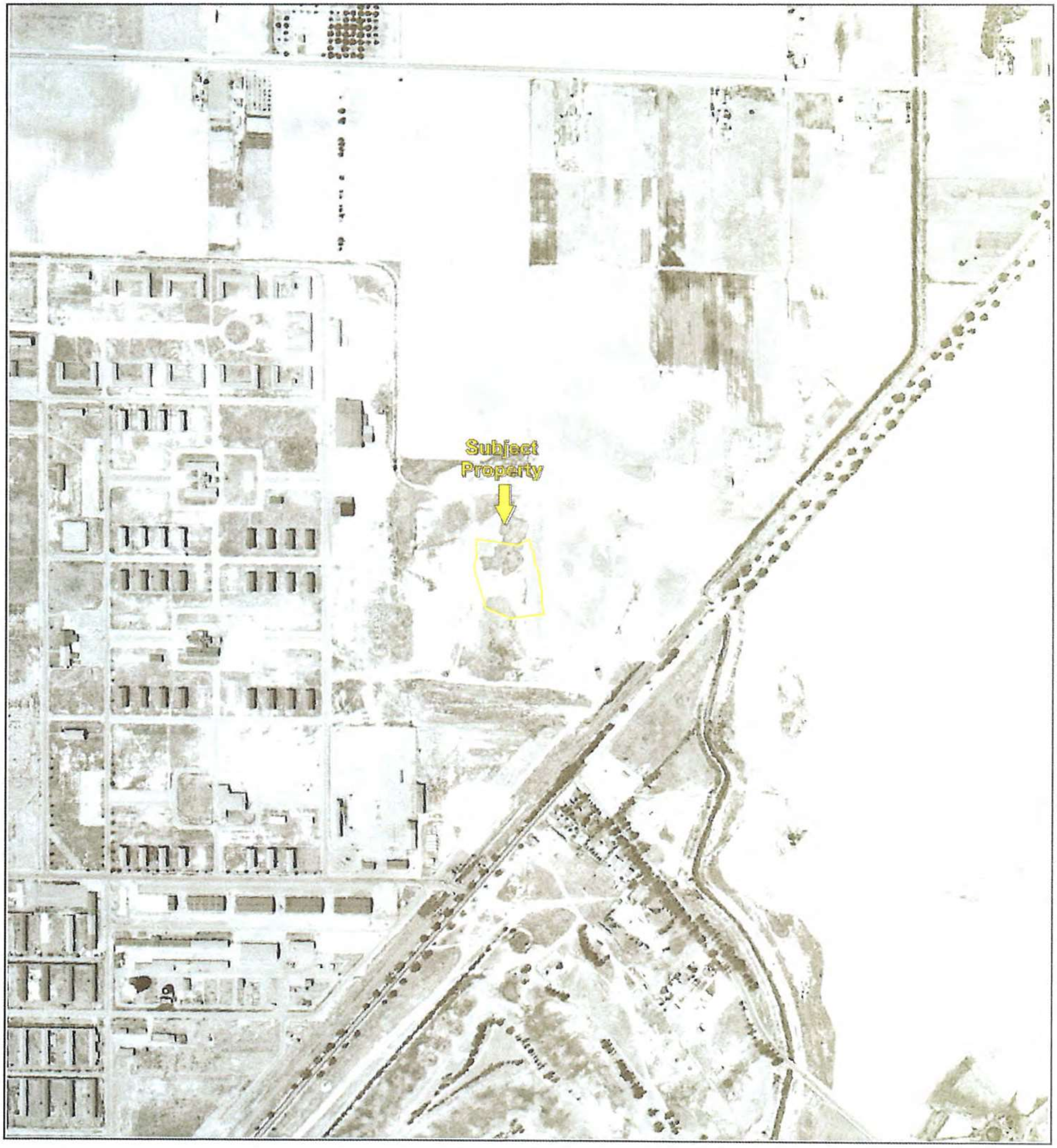
500 1000 2000

N

Key: Subject Property

APPENDIX B: AERIAL PHOTOGRAPHS

Project No. 19-243003.1



500 1000 2000

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Key: Subject Property

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Subject Property
500
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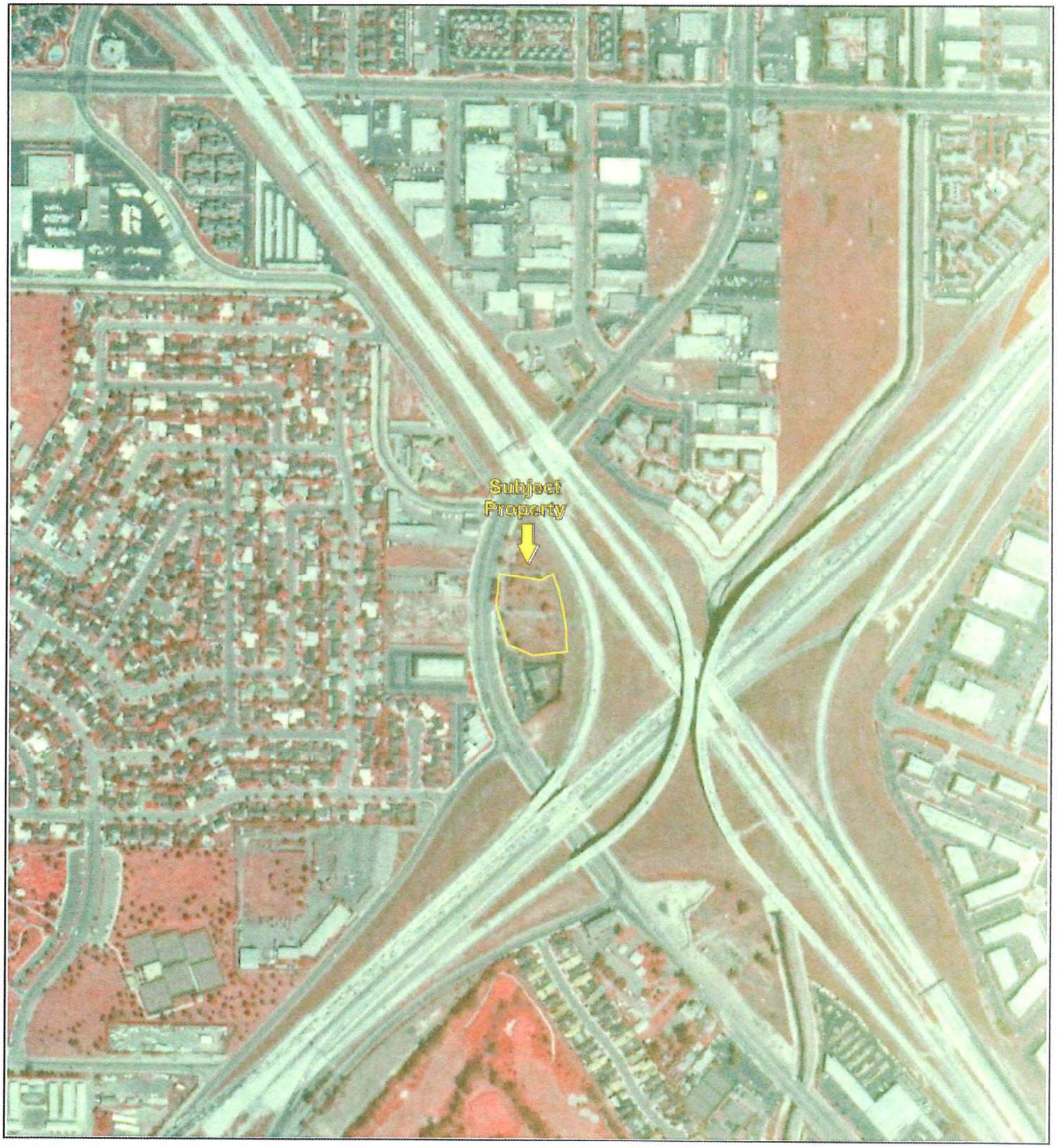
2000
N
Key: Subject Property



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Key: Subject Property

500 1000 2000

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Key: Subject Property

500 1000 2000

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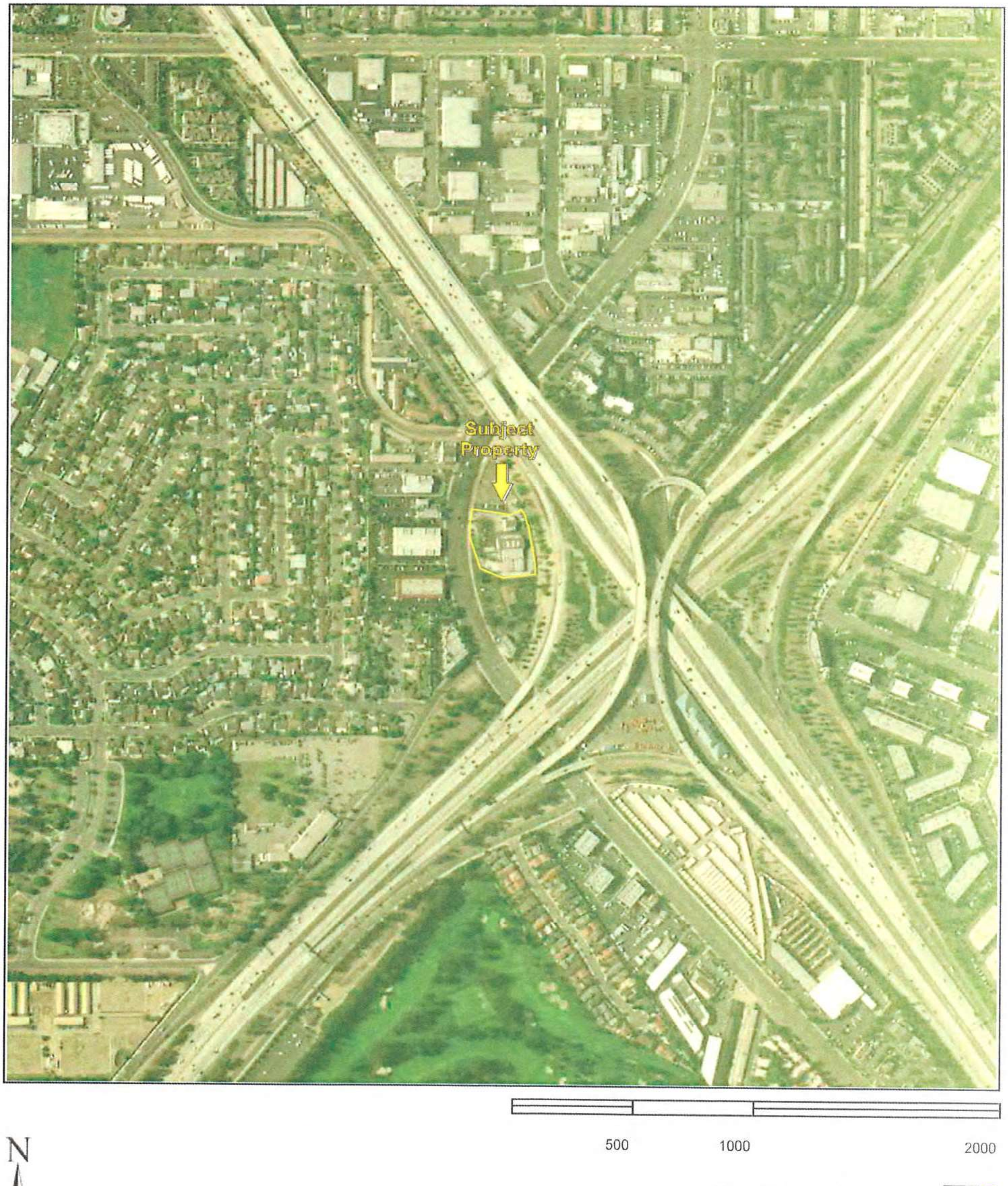
Key: Subject Property


Subject Property
500
1000
2000
N
Key: Subject Property

EDR

Aerial Photograph Year: 2009

500 1000 2000

N

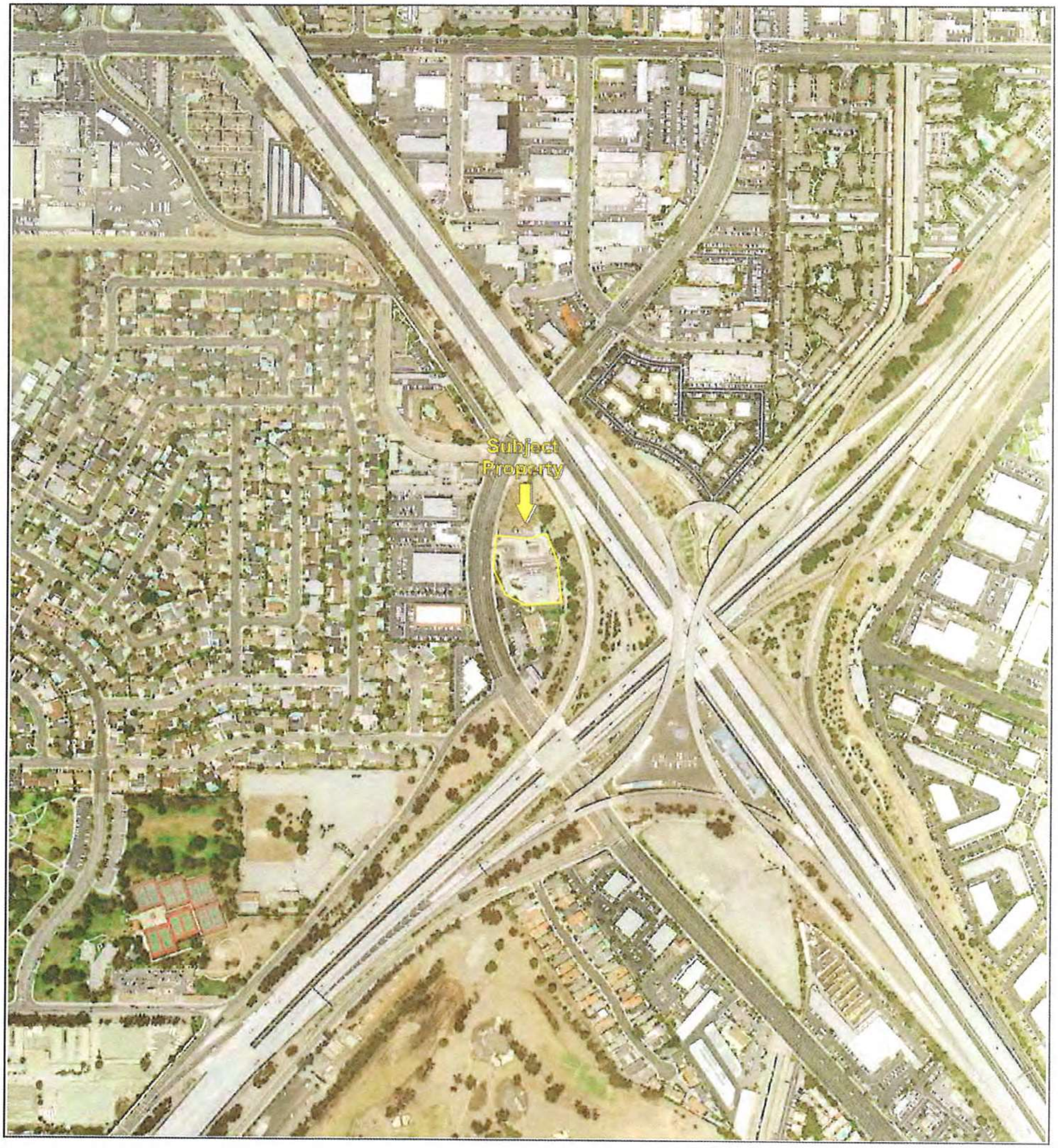
Key: Subject Property

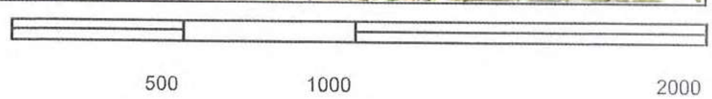
Aerial Photograph Year: 2012

500 1000 2000

N

Key: Subject Property



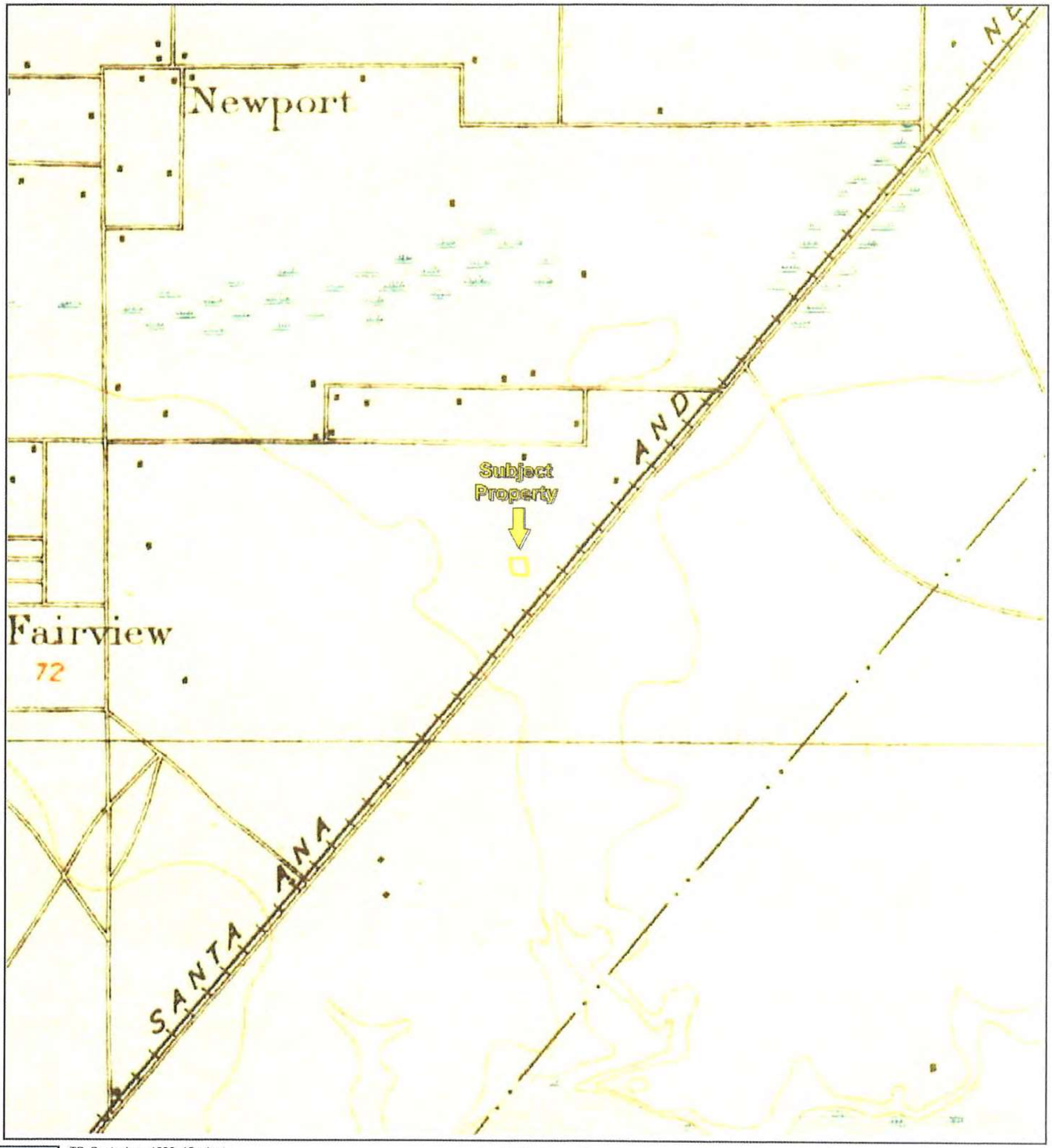


N

Key: Subject Property

APPENDIX B

HISTORIC TOPOGRAPHS

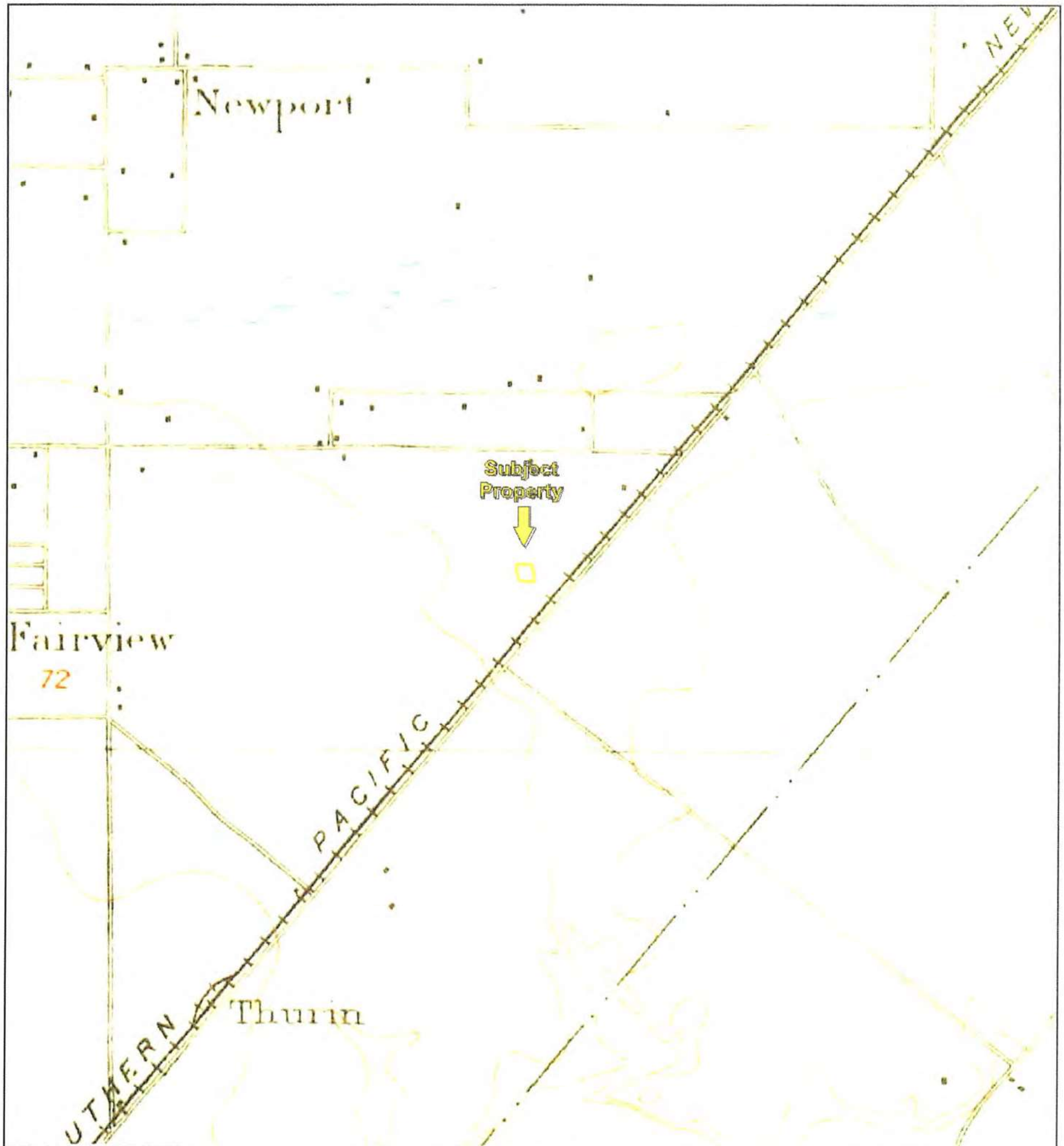


TP, Santa Ana, 1896, 15-minute

0 Miles 0.25 0.5 1 1.5

N

Key: Subject Property



TP, Santa Ana, 1901, 15-minute

0 Miles 0.25 0.5 1 1.5

N

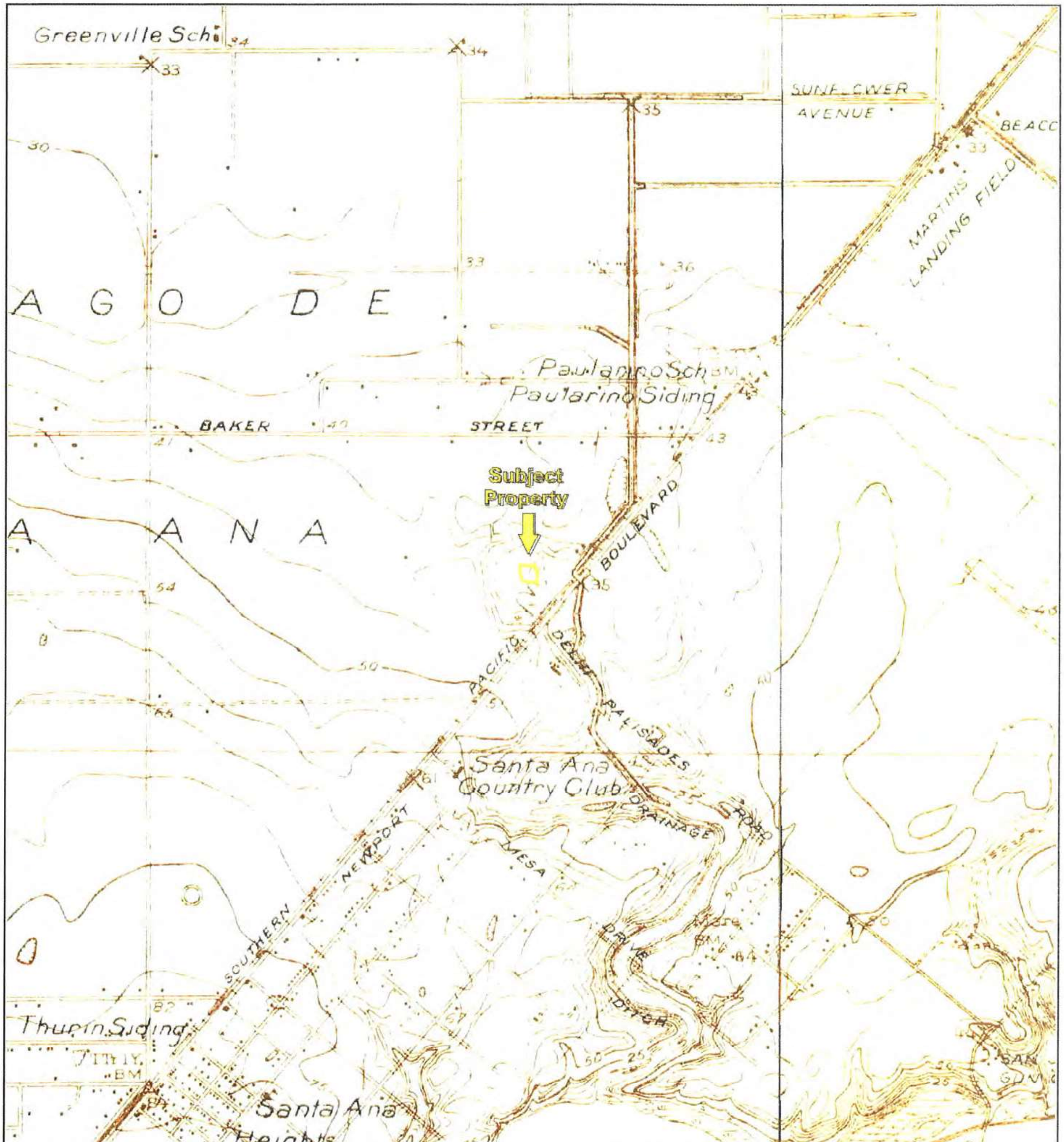
Key: Subject Property

TP, Corona, 1902, 30-minute

0 Miles 0.25 0.5 1 1.5

N

Key: Subject Property



TP, Newport Beach, 1932, 7.5-minute
E, Tustin, 1932, 7.5-minute

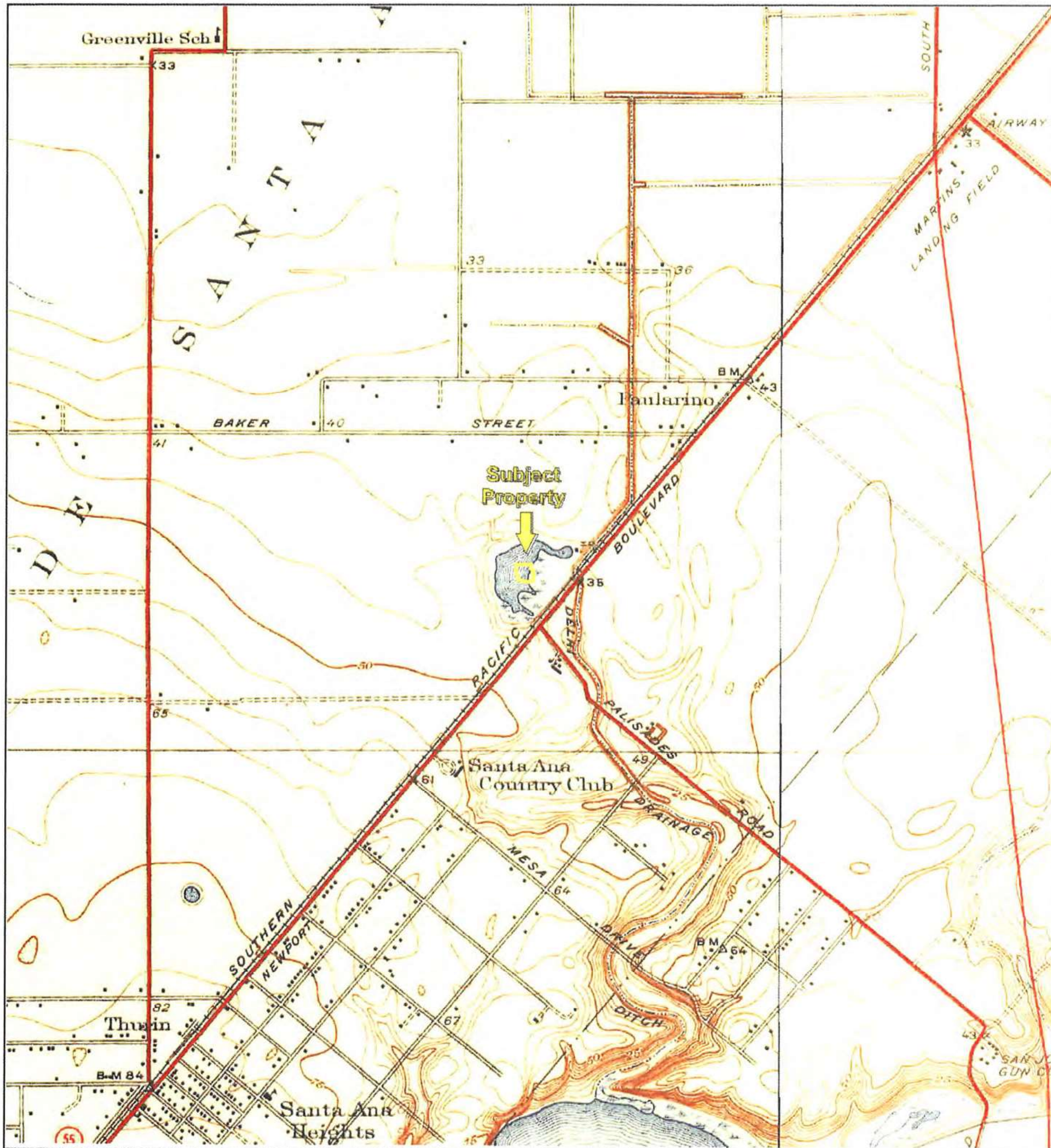
0 Miles 0.25 0.5 1 1.5

N

Key: Subject Property

APPENDIX B: Topographic Maps
Project No. 19-243003.1

PARTNER



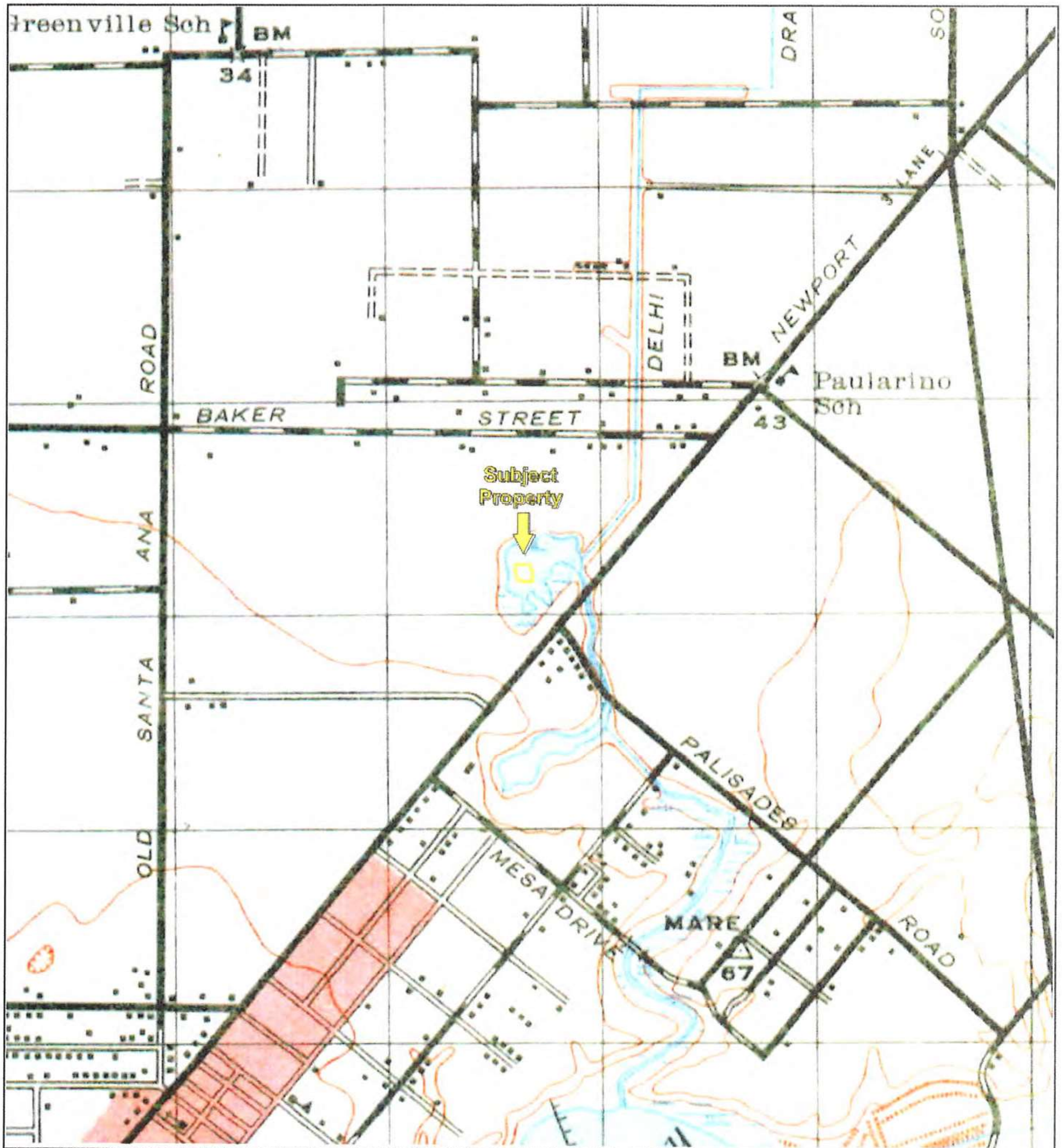
TP, Newport Beach, 1935, 7.5-minute
E, Tustin, 1935, 7.5-minute

0 Miles 0.25 0.5 1 1.5

N

Key: Subject Property

Topographic Map Year: 1942



TP, SANTA ANA, 1942, 15-minute

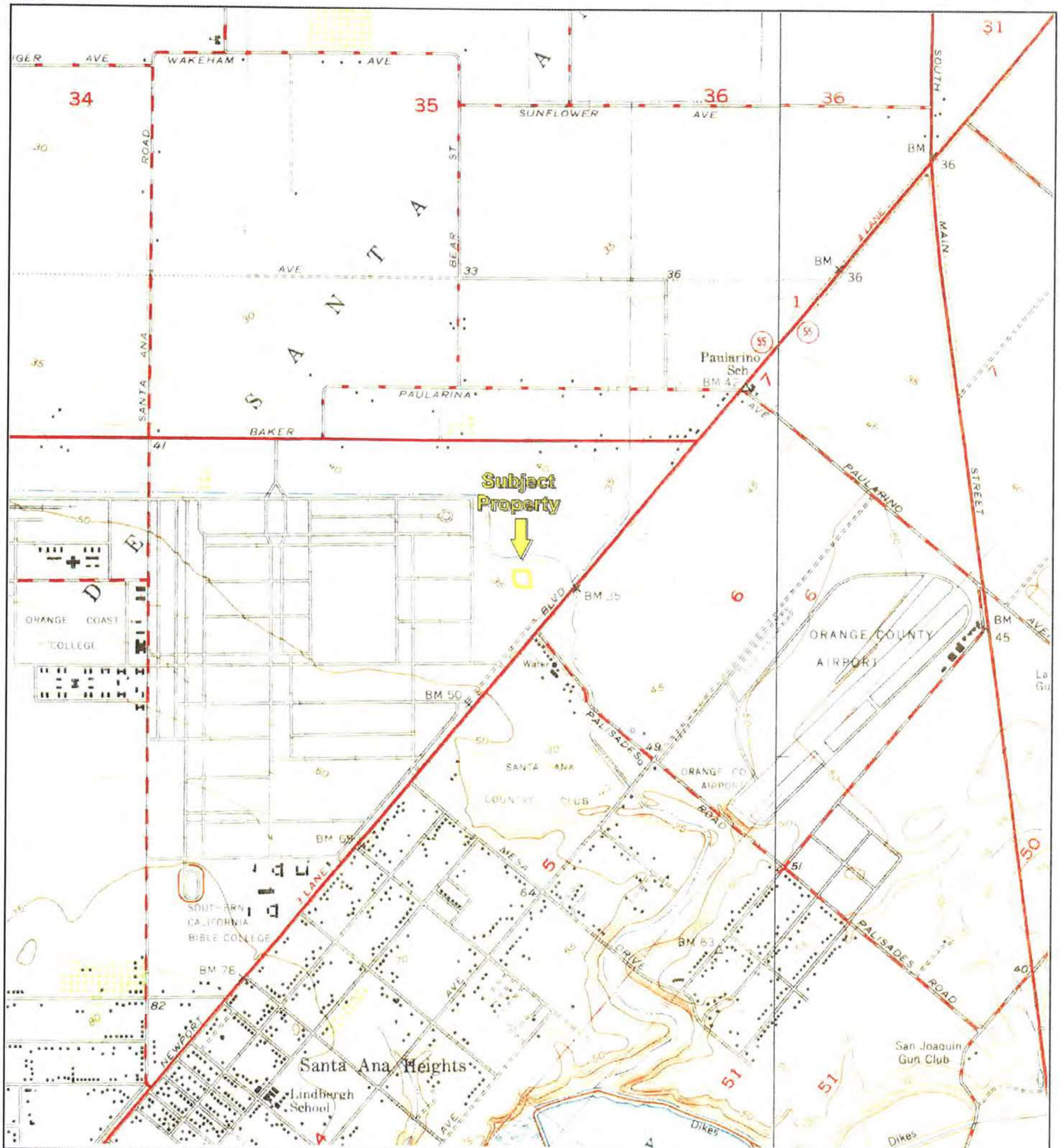
0 Miles 0.25 0.5 1 1.5

Key: Subject Property

N

APPENDIX B: Topographic Maps
Project No. 19-243003.1

PARTNER



TP, Newport Beach, 1949, 7.5-minute
E, Tustin, 1948, 7.5-minute

0 Miles 0.25 0.5 1 1.5

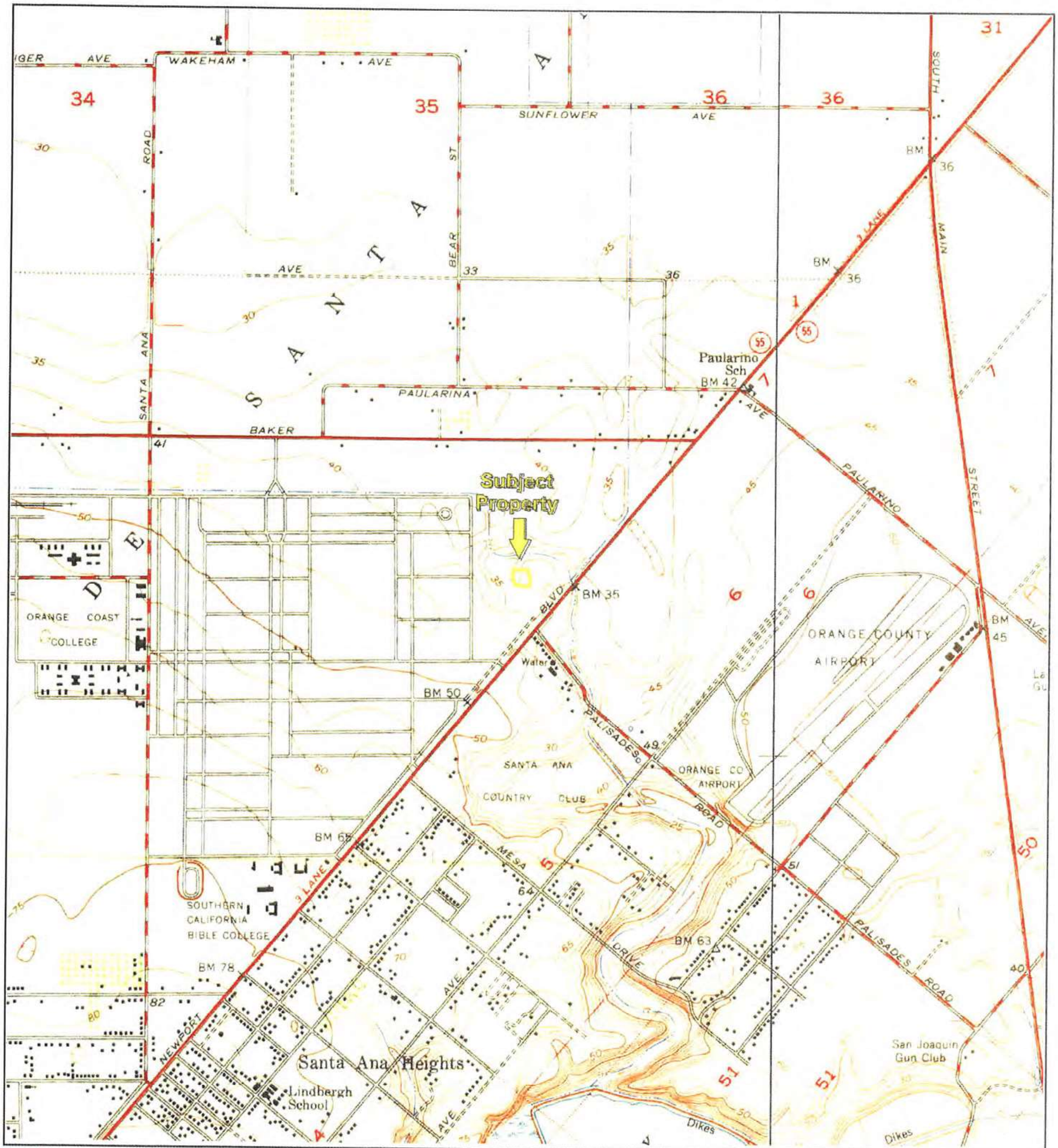
N

Key: Subject Property

APPENDIX B: Topographic Maps
Project No. 19-243003.1

PARTNER

Topographic Map Year: 1950, 1951



TP, Newport Beach, 1951, 7.5-minute
E, Tustin, 1950, 7.5-minute

0 Miles 0.25 0.5 1 1.5

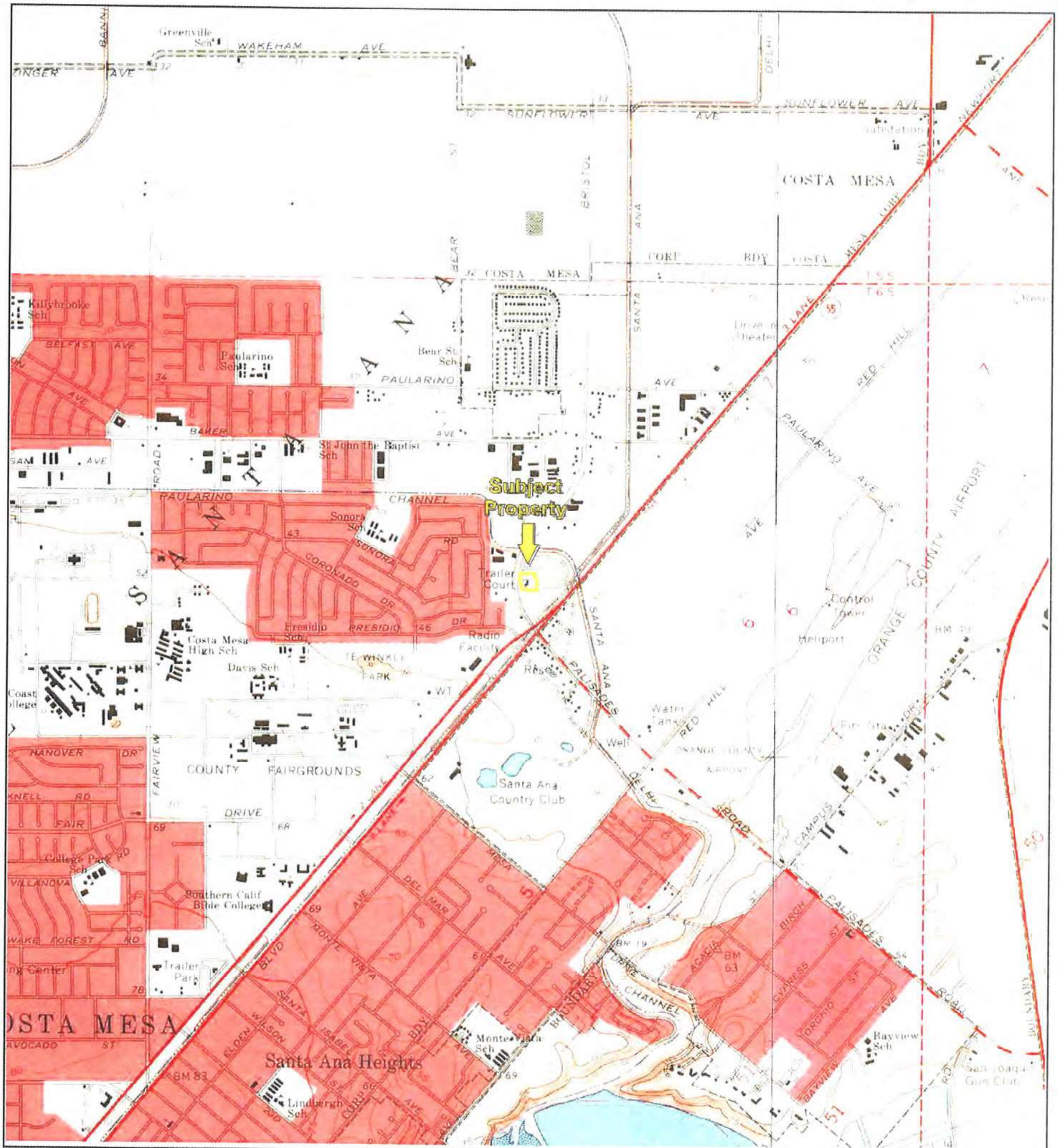
N

Key: Subject Property

APPENDIX B: Topographic Maps
Project No. 19-243003.1

PARTNER

Topographic Map Year: 1965



TP, Newport Beach, 1965, 7.5-minute
E, Tustin, 1965, 7.5-minute

0 Miles 0.25 0.5 1 1.5

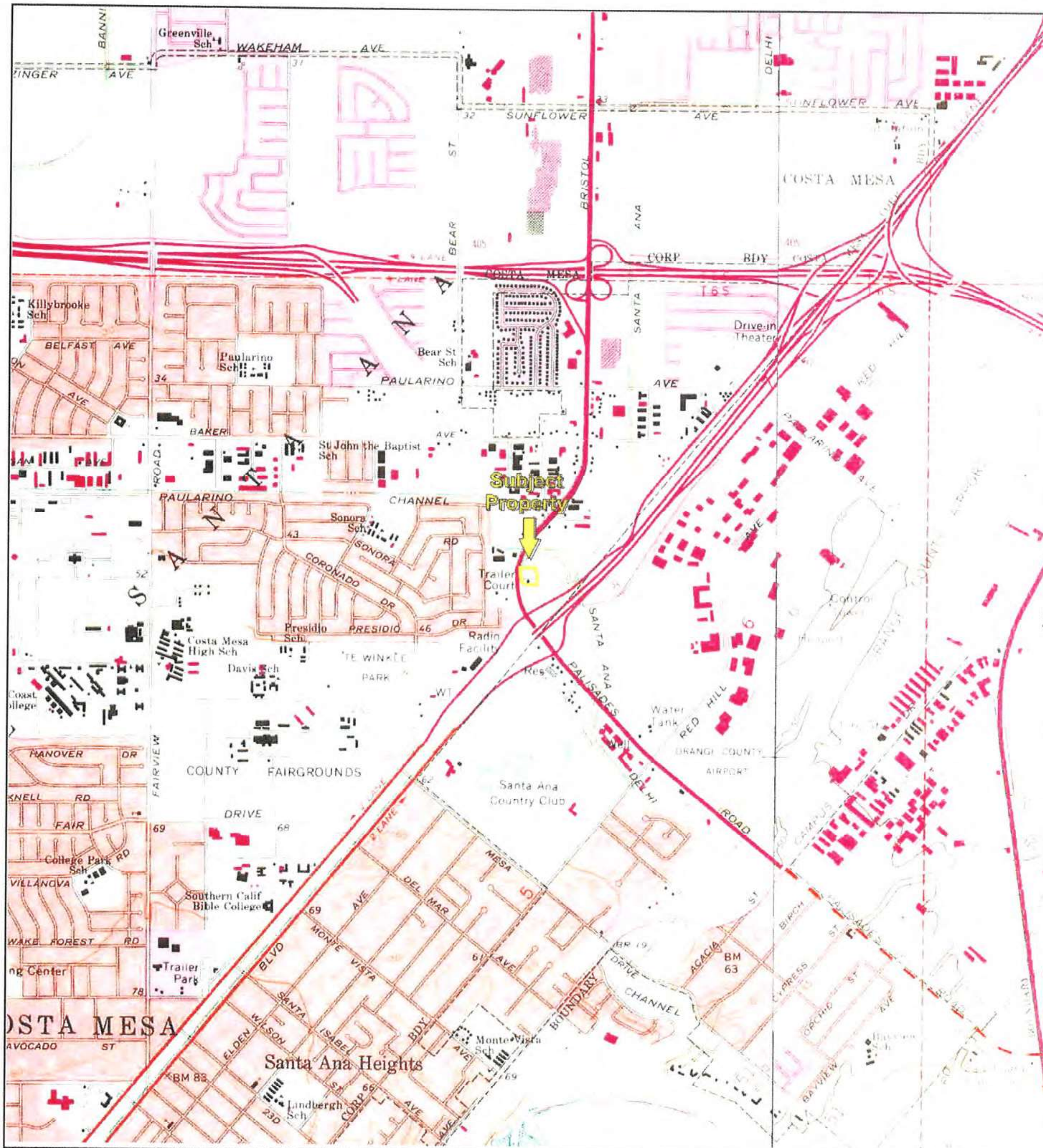
N

Key: Subject Property

APPENDIX B: Topographic Maps
Project No. 19-243003.1

PARTNER

EDR

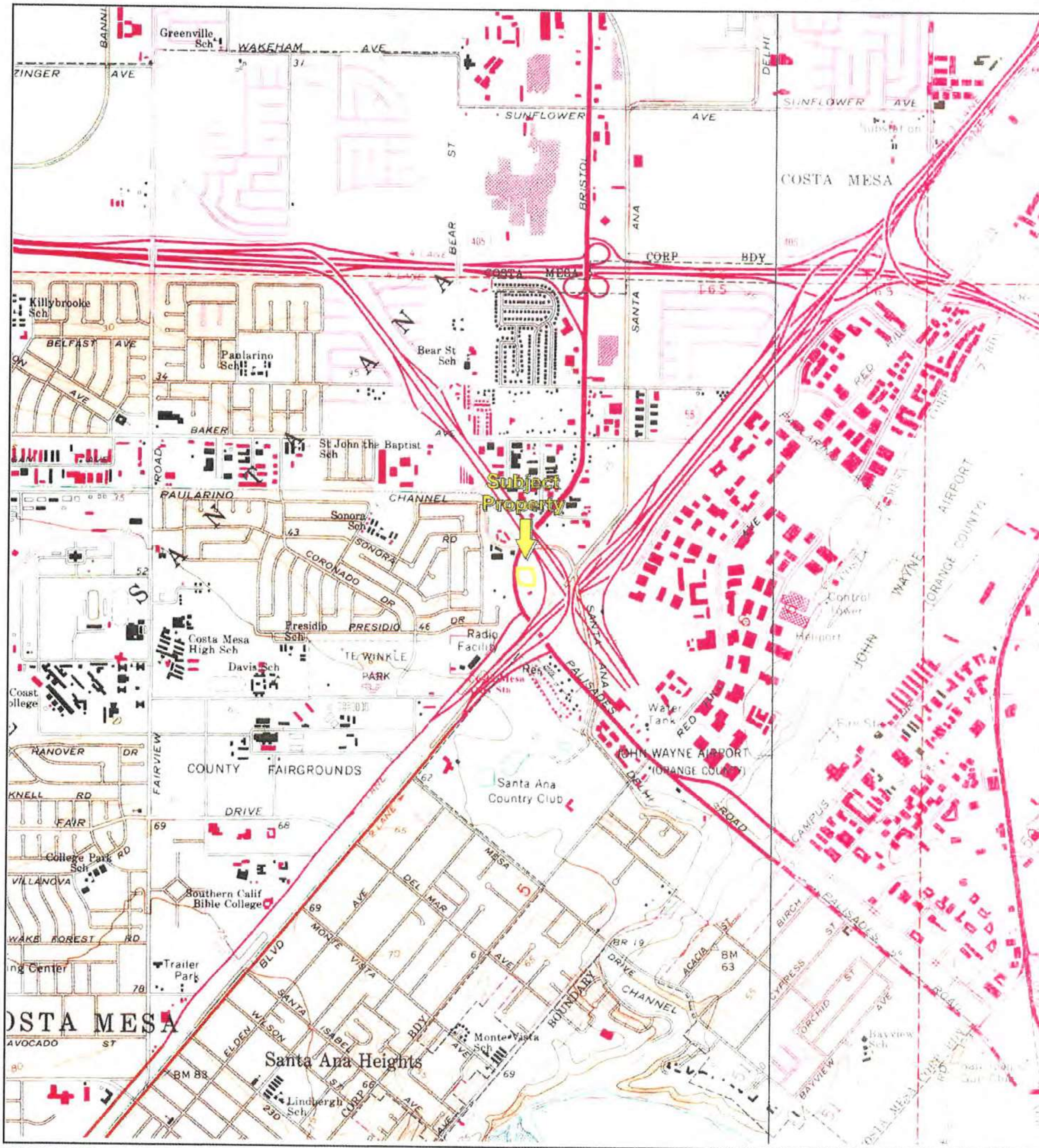


TP, Newport Beach, 1972, 7.5-minute
E, Tustin, 1972, 7.5-minute

0 Miles 0.25 0.5 1 1.5

N

Key: Subject Property



TP, Newport Beach, 1981, 7.5-minute
E, Tustin, 1981, 7.5-minute

0 Miles 0.25 0.5 1 1.5

N

Key: Subject Property

TP, Newport Beach, 2012, 7.5-minute
E, Tustin, 2012, 7.5-minute

0 Miles 0.25 0.5 1 1.5

N

Key: Subject Property

APPENDIX B: Topographic Maps

Project No. 19-243003.1

PARTNER

APPENDIX C

Weeco Boring Logs and Locations

LOG OF BORING

Drill Rig: B-61 8" HOLLOW STEM AUGER			Boring Diameter : 8 inches		Boring Number : MW-1
Drilling Date 11-19-2004	Logger: SL	Registered Civil Engineer: AA	This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions.		

BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS
							6" Concrete Paving.
X	X	ND	11:55	5-5-6	5	SC	6" – 5 FT: Coarse grained brown clayey sand, moist.
X	X	ND	12:14	5-5-5	10	CL	5 FT - 10 FT: Fine grained dark brown clay, moist.
X	X	ND	12:34	12-15-15	15	SC	10 FT – 15 FT: Coarse grained brown clayey sand, moist.
X	X	ND	12:51	15-15-15	20	SP	15 FT – 20 FT: Coarse grained light brown sand, moist
X	X	ND	1:16	15-16-16	25	SP	20 FT – 25 FT: Coarse grained light brown sand, moist
							27 FT: Encountered Groundwater. Installed 40-feet groundwater monitoring well (20' blank & 20' screen).
					30		
					35		
					40		

WEECO Western Environmental Engineers Co. 1815 E. Wilshire Ave. (Suite #905) Santa Ana, California 92705	PROJECT NAME: Phase II E.S.A. & Groundwater Mointoring Well Installation ADDRESS: 2750 South Bristol Street Costa Mesa, CA 92626
	Project Number: 2005-1382D | Figure Number

LOG OF BORING

Drill Rig: B-61 8" HOLLOW STEM AUGER	Boring Diameter : 8 inches		Boring Number : MW-2
Drilling Date 11-18-2004 / Logger: SL / Registered Civil Engineer: AA	This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions.		

BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS
							6" Concrete Paving.
X	X	ND	1:18	4-4-4	5	CL	6" – 5 FT: Fine grained brown clay, moist.
X	X	ND	1:33	5-7-7	10	CL	5 FT - 10 FT: Fine grained dark brown clay, moist.
X	X	ND	1:57	11-12-12	15	SC	10 FT – 15 FT: Coarse grained brown clayey sand, moist.
X	X	ND	2:18	16-16-16	20	SP	15 FT – 20 FT: Coarse grained light brown sand, moist
X	X	ND	2:35	14-14-14	25	SP	20 FT – 25 FT: Coarse grained light brown sand, moist 27 FT: Encountered Groundwater. Installed 40-feet groundwater monitoring well (20' blank & 20' screen).
					30		
					35		
					40		

WEECO Western Environmental Engineers Co. 1815 E. Wilshire Ave. (Suite #905) Santa Ana, California 92705	PROJECT NAME: Phase II E.S.A. & Groundwater Mointoring Well Installation ADDRESS: 2750 South Bristol Street Costa Mesa, CA 92626
	Project Number: 2005-1382D | Figure Number

LOG OF BORING

Drill Rig: B-61 8" HOLLOW STEM AUGER	Boring Diameter : 8 inches		Boring Number : MW-3
Drilling Date 12-16-2004 / Logger: SL / Registered Civil Engineer: AA	This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions.		

BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS
							6" Concrete Paving.
X	X	ND	9:30	5-5-7	5	SC	6" – 5 FT: Coarse grained dark brown clayey sand, moist.
X	X	ND	9:46	12-12-18	10	CL	5 FT - 10 FT: Fine grained dark brown silty clay, moist.
X	X	ND	5:10	8-8-8	15	CL	10 FT – 15 FT: Fine grained brown silty clay, moist.
X	X	ND	5:23	12-15-18	20	SP	15 FT – 20 FT: Coarse grained light brown sand, moist
X	X	ND	5:32	12-12-12	25	SP	20 FT – 25 FT: Coarse grained light brown sand, moist
X	X	ND	5:42	18-18-18	30	SW	25 FT – 30 FT: Coarse grained light brown sand, wet
					35		30 FT: Encountered Groundwater. Installed 40-feet groundwater monitoring well (20' blank & 20' screen).
					40		

WEECO Western Environmental Engineers Co.
1815 E. Wilshire Ave. (Suite #905)
Santa Ana, California 92705

PROJECT NAME: Phase II E.S.A. & Groundwater Mointoring Well Installation
ADDRESS: 2750 South Bristol Street
Costa Mesa, CA 92626

Project Number: 2005-1382D | Figure Number

LOG OF BORING

Drill Rig: B-61 8" HOLLOW STEM AUGER			Boring Diameter : 8 inches		Boring Number : MW-4
Drilling Date 11-18-2004	Logger: SL	Registered Civil Engineer: AA	This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions.		

BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS
							6" Concrete Paving.
X	X	ND	9:00	2-2-2	5	CL	6" – 5 FT: Fine grained dark brown clay, moist.
X	X	ND	9:35	4-12-12	10	CL	5 FT - 10 FT: Fine grained dark brown clay, moist.
X	X	ND	9:50	12-12-12	15	SC	10 FT – 15 FT: Coarse grained brown clayey sand, moist.
X	X	ND	10:16	12-12-12	20	SC	15 FT – 20 FT: Coarse grained dark brown clayey sand, moist
X	X	ND	10:40	7-7-7	25	SM	20 FT – 25 FT: Coarse grained dark brown silty sand, moist
							27 FT: Encountered Groundwater. Installed 40-feet groundwater monitoring well (20' blank & 20' screen).
					30		
					35		
					40		

WEECO Western Environmental Engineers Co.
1815 E. Wilshire Ave. (Suite #905)
Santa Ana, California 92705

PROJECT NAME: Phase II E.S.A. & Groundwater Mointoring Well Installation
ADDRESS: 2750 South Bristol Street
Costa Mesa, CA 92626

Project Number: 2005-1382D | Figure Number

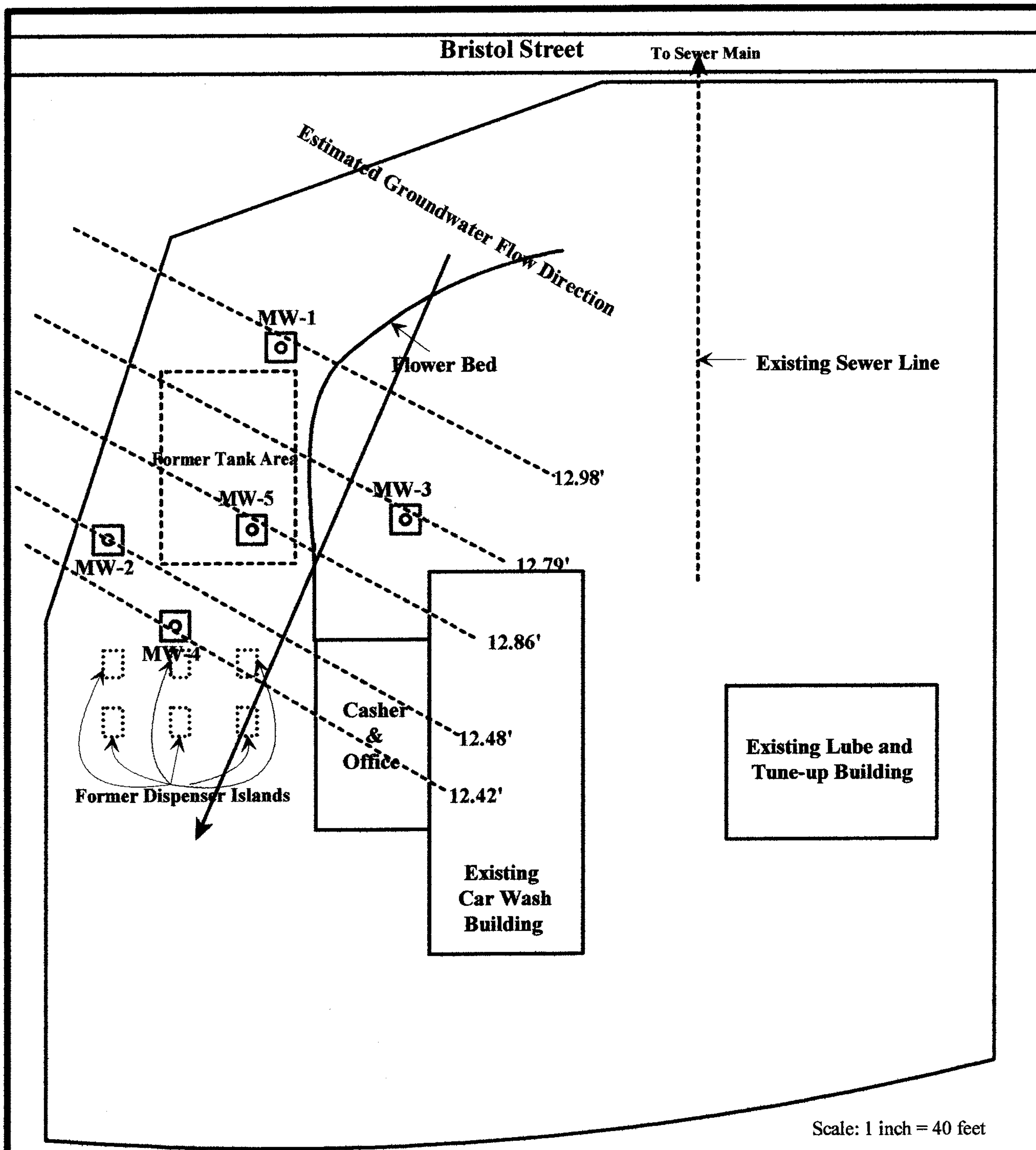
LOG OF BORING

Drill Rig: B-61 8" HOLLOW STEM AUGER	Boring Diameter : 8 inches		Boring Number : MW-5

Drilling Date 11-19-2004	Logger: SL	Registered Civil Engineer: AA	This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions.

BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS
							6" Concrete Paving.
X	X	ND	7:28	1-1-1	5	SC	6" – 5 FT: Coarse grained brown clayey sand, moist.
X	X	ND	7:40	2-3-3	10	SC	5 FT - 10 FT: Fine grained dark brown clayey sand, moist.
X	X	ND	7:53	2-2-2	15	SC	10 FT – 15 FT: Coarse grained brown clayey sand, moist.
X	X	ND	8:12	15-15-15	20	SP	15 FT – 20 FT: Coarse grained light brown sand, moist
X	X	ND	8:25	15-18-18	25	SP	20 FT – 25 FT: Coarse grained light brown sand, moist
							27 FT: Encountered Groundwater. Installed 40-feet groundwater monitoring well (20' blank & 20' screen).
					30		
					35		
					40		

WEECO Western Environmental Engineers Co. 1815 E. Wilshire Ave. (Suite #905) Santa Ana, California 92705	PROJECT NAME: Phase II E.S.A. & Groundwater Mointoring Well Installation ADDRESS: 2750 South Bristol Street Costa Mesa, CA 92626
	Project Number: 2005-1382D	Figure Number



Site Adress: South Pacific Car Wash
2750 S. Bristol Street
Costa Mesa, CA 92626

: Groundwater Monitoring Wells Location

Groundwater Flow Direction

APPENDIX D

Partner Boring Logs and Locations

Boring Number:	B1	Page 1 of 1	
Location:	Southwest of Clarifier 1	Date Started:	5/10/2019
Site Address:	2750 Bristol Street	Date Completed:	5/10/2019
	Costa Mesa, California 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.2	Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig	**Partner Engineering and Science**	
Sampling Equipment:	Acetate Liners, VOAs	2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches	Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2	B1-2	1.6	ML	Dark Grayish Brown (2.5 Y 4/2) sandy silt, medium dense, moist	
3					
4	B1-4	3.1	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, moist	
5					
6	B1-6	2.4	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, moist	
7					
8	B1-8	2.6	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
9					
10	B1-10	3.1	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
11					
12	B1-12	2.4	SM	Light Olive Brown (2.5 Y 5/4) silty sand (fine-to coarse-grained), loose, moist	
13					
14	B1-14	1.3	SM	Light Olive Brown (2.5 Y 5/4) silty sand (fine-to coarse-grained), loose, moist	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B2		Page 1 of 1
Location:	Northwest of Clarifier 2	Date Started:	5/10/2019
Site Address:	2750 Bristol Street	Date Completed:	5/10/2019
	Costa Mesa, California 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.2	Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig	Partner Engineering and Science	
Sampling Equipment:	Acetate Liners, VOAs	2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches	Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2	B2-2	3.0	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, moist	
3					
4	B2-4	2.1	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, moist	
5					
6	B2-6	2.2	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, moist	
7					
8	B2-8	1.5	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
9					
10	B2-10	1.5	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
11					
12	B2-12	2.1	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
13					
14	B2-14	1.6	SM	Light Olive Brown (2.5 Y 5/4) silty sand (fine-to coarse-grained), loose, moist	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B3			Page 1 of 1
Location:	Southeast of Clarifier 2		Date Started:	5/10/2019
Site Address:	2750 Bristol Street		Date Completed:	5/10/2019
	Costa Mesa, California 92626		Depth to Groundwater:	N/A
Project Number:	19-243003.2		Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig		Partner Engineering and Science	
Sampling Equipment:	Acetate Liners, VOAs		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches		Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2				no recovery, extremely soft	
3					
4				no recovery	
5					
6				no recovery	
7					
8	B3-8	7.4	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
9					
10	B3-10	5.1	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
11					
12	B3-12	4.6	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
13					
14	B3-14	3.2	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B4		Page 1 of 1
Location:	Southeast of former USTs	Date Started:	5/10/2019
Site Address:	2750 Bristol Street	Date Completed:	5/10/2019
	Costa Mesa, California 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.2	Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig	Partner Engineering and Science	
Sampling Equipment:	Acetate Liners, VOAs	2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches	Torrance, California 90501	

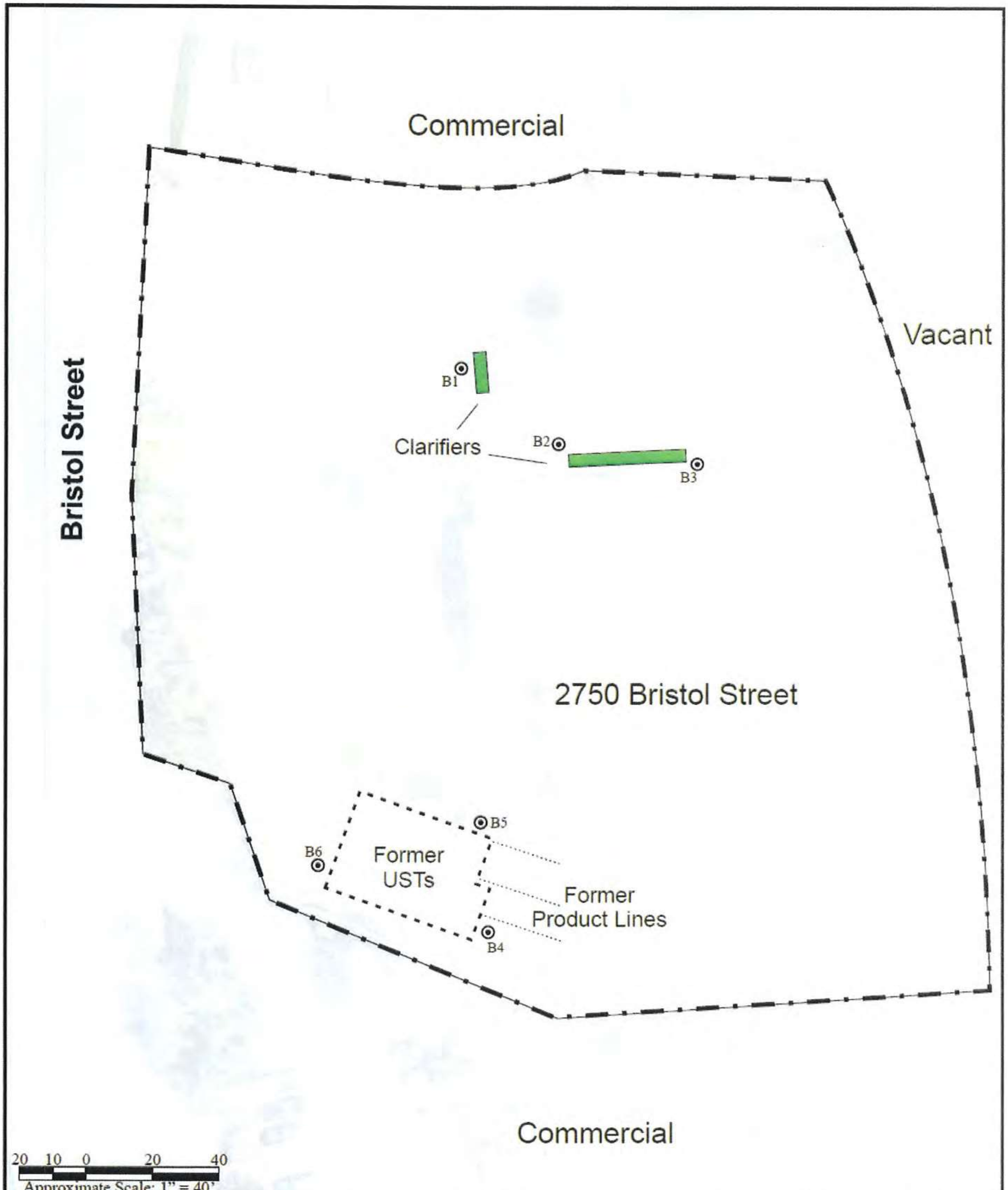
Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2	B4-2	3.5	ML	Dark Grayish Brown (2.5 Y 4/2) sandy silt, medium dense, moist	
3					
4	B4-4	3.2	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
5					
6	B4-6	2.1	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
7					
8	B5-8	2.4	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, damp	
9					
10	B4-10	1.6	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
11					
12	B4-12	1.8	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
13					
14	B4-14	0.4	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B5		
Location:	North of former USTs	Date Started:	5/10/2019
Site Address:	2750 Bristol Street	Date Completed:	5/10/2019
	Costa Mesa, California 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.2	Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig	**Partner Engineering and Science**	
Sampling Equipment:	Acetate Liners, VOAs	2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches	Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2	B5-2	0.0	ML	Dark Grayish Brown (2.5 Y 4/2) sandy silt, medium dense, moist	
3					
4	B5-4	0.3	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
5					
6	B5-6	1.2	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
7					
8	B5-8	0.2	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, damp	
9					
10	B5-10	1.0	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
11					
12	B5-12	0.7	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
13					
14	B5-14	0.8	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B6	Page 1 of 1	
Location:	Southwest of former USTs	Date Started:	5/10/2019
Site Address:	2750 Bristol Street	Date Completed:	5/10/2019
	Costa Mesa, California 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.2	Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig	Partner Engineering and Science	
Sampling Equipment:	Acetate Liners, VOAs	2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches	Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2	B6-2	0.7	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
3					
4	B6-4	0.3	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
5					
6	B6-6	0.7	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
7					
8	B6-8	0.3	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, damp	
9					
10	B6-10	0.3	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to coarse-grained), loose, moist	
11					
12	B6-12	0.0	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to coarse-grained), loose, moist	
13					
14	B6-14	0.1	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to coarse-grained), loose, moist	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					



PARTNER
Engineering and Science, Inc.
2154 Torrance Boulevard, Suite 200
Torrance, California 90501

Project Number: 19-243003.2

N

Legend

Subject Property

Boring Location

Sample Location Map

Figure	Prepared By	Date
3	J. Cain	May 2019

2750 Bristol Street
Costa Mesa, California 92626

APPENDIX E

Partner GeoTech Boring Logs and Locations

Source: Google Earth, 2019; Costa Mesa Dealership Site Plan, 2019

Key:

Approximate Boring Location

Approximate Project Limits

BORING LOG KEY - EXPLANATION OF TERMS

SURFACE COVER: General discription with thickness to the inch, ex. Topsoil, Concrete, Asphalt, etc,

FILL: General description with thickness to the 0.5 feet. Ex. Roots, Debris, Processed Materials (Pea Gravel, etc.)

NATIVE GEOLOGIC MATERIAL: Deposit type, 1.Color, 2.moisture, 3.density, 4.SOIL TYPE, other notes - Thickness to 0.5 feet

1. Color - Generalized

Light Brown (usually indicates dry soil, rock, caliche)
Brown (usually indicates moist soil)
Dark Brown (moist to wet soil, organics, clays)
Reddish (or other bright colors) Brown (moist, indicates some soil development/or residual soil)
Greyish Brown (Marine, sub groundwater - not the same as light brown above)
Mottled (brown and gray, indicates groundwater fluctuations)

2. Moisture

dry - only use for wind-blown silts in the desert
damp - soil with little moisture content
moist - near optimum, has some cohesion and stickyness
wet - beyond the plastic limit for clayey soils, and feels wet to the touch for non clays
saturated - Soil below the groundwater table, sampler is wet on outside

3. Density (based on blow counts or hand evaluation)

SPT	Ring	Granular	Cohesive		
0-5	0-7	very loose	very soft	Unsuitable	Thumb penetrates through
5-10	7-14	loose	soft	<1,500psf	Thumb penetrates part way
10-20	14-28	medium dense	firm	<3,000psf	Thumb dents only
20-75	28-100	dense	stiff	>3,000psf	Thumbnail dents
75+	100+	very dense	hard	Hard Dig	Thumbnail does not dent

4. Classification

Determine percent Gravel (bigger than 3/8")
Determine percent fines (silt and clay feel soft, with no grit)
Determine percent sand (between silt and clay, feels gritty)
Determine if clayey (make soil moist, if it easily roll into a snake it is clayey)

Sands and gravels (more gravel starts with G, more sand starts with S)

GP	SP	Mostly sand and gravel, with less than 5 % fines	sandy GRAVEL	SAND
GP-GM	SP-SM	Mostly sand and gravel 7-12% fines, non-clayey	sandy GRAVEL with silt	SAND with Silt
GP-GC	SP-SC	Mostly sand and gravel 7-12% fines, clayey	sandy GRAVEL with clay	SAND with clay
GC	SC	Mostly sand and gravel >12% fines clayey	clayey GRAVEL	clayey SAND
GM	SM	Mostly sand and gravel >12% fines non-clayey	silty GRAVEL	silty SAND

Cohesive Soil (generaly forms long chunks (more than 2 inches) in sampler

ML	Soft, non clayey	SILT with sand
MH	Very rare, holds a lot of water, and is pliable with very low strength	high plasticity SILT
CL	If sandy can be hard when dry, will be stiff/plastic when wet	CLAY with sand/silt
CH	Hard and resiliant when dry, very strong/sticky when wet (may have sand in it)	FAT CLAY

H = Liquid limit over 50%, L - LL under 50%
C = Clay
M = Silt

Samplers

S = Standard split spoon (SPT)
R = Modified ring
Bulk = Excavation spoils
ST = Shelby tube
C = Rock core

Boring Number:	B1		Boring Log Page 1 of 2
Location:	Building pad	Date Started:	5/23/2019
Site Address:	2750 Bristol Street	Date Completed:	5/23/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	27' 6"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (6"), no base
1			CL	**FILL:** Dark brown, damp, firm, sandy CLAY with organics (plant roots)
2				
3				
4				
5	S	12		(same as above)
6				
7				
8				
9				
10	S	12	SC	**NATIVE:** Dark brown, damp, medium dense, clayey SAND
11				
12				
13				
14				
15	R	31	ML	Tan, damp, stiff, SILT (Dry Density: 103.3 pcf, Moisture Content: 23.2%, Fines: 62.4%)
16				
17				
18				
19				
20	S	20	SP	Light brown, moist, dense, SAND
21				
22				
23				
24				
25	S	32	SP-SM	Light brown, saturated, dense, SAND with silt with gravel
26				
27			∇	**groundwater encountered**
28				
29				

Boring Number:	B1	Boring Log Page 2 of 2	
Location:	Building pad	Date Started:	5/23/2019
Site Address:	2750 Bristol Street	Date Completed:	5/23/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	27' 6"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
30	S	46	SM	Light brown, saturated, dense, silty SAND with gravel
31				
32				
33				
34				
35	S	16		medium dense
36				
37				
38				
39				
40	S	21	CL/ML	Blue-ish tan, moist, stiff, silty CLAY/clayey SILT
41				
42				
43				
44				
45	S	53	SM	Brown, saturated, dense, silty SAND
46				
47				
48				
49				
50	S	48		(same as above)
51				Boring terminated at 51.5'
52				Backfilled with soil cuttings and patched with concrete
53				Groundwater encountered at 27' 6"
54				
55				
56				
57				
58				
59				

Boring Number:	B2	Boring Log Page 1 of 2	
Location:	Building pad	Date Started:	5/24/2019
Site Address:	2750 Bristol Street	Date Completed:	5/24/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	27' 6"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	Partner Engineering and Science	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (3"), no base
1			ML	**FILL:** Greyish brown, damp, firm, sandy SILT with clay
2				*debris*
3				
4				
5	S	13		(same as above)
6				
7				
8				
9				
10	S	22	SM	Greyish brown, damp, dense, silty SAND with clay
11				*debris*
12				
13				
14				
15	S	21	ML	Dark greyish brown, damp, siff, sandy SILT with clay
16				*debris*
17				
18				
19				
20	S	28	SM	Dark greyish brown, damp, dense, silty SAND
21				*debris*
22				
23				
24				
25	R	57	SP-SM	**NATIVE:** Light brown, saturated, dense, SAND with silt (Dry Density: 111.4 pcf,
26				Moisture Content: 13.5%, Fines: 6%)
27			∇	**groundwater encountered**
28				
29				

Boring Number:	B2 (Cont.)	Boring Log Page 2 of 2	
Location:	Building pad	Date Started:	5/24/2019
Site Address:	2750 Bristol Street	Date Completed:	5/24/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	27' 6"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
30	S	46	SM	Light brown, saturated, dense, silty SAND with gravel
31				Boring terminated at 31.5'
32				Backfilled with soil cuttings and patched with concrete
33				Groundwater encountered at 27' 6"
34				
35				
36				
37				
38				
39				
40				
41				
42				
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58				
59				

Boring Number:	B3	Boring Log Page 1 of 2	
Location:	Building pad	Date Started:	5/23/2019
Site Address:	2750 Bristol Street	Date Completed:	5/23/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	26' 8"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (3"), no base
1			ML/SM	**FILL:** Dark brown, damp, firm, sandy SILT/silty SAND
2				
3				
4				
5	S	10		(same as above)
6				
7				
8				
9				
10	S	20	SM	Greyish, damp, dense, silty SAND
11				
12				
13				
14				
15	R	40		(same as above)
16				
17				
18				
19				
20	S	17	SP	Brown, damp, medium dense, SAND
21				*debris*
22				
23				
24				
25	R	7	SM	**NATIVE:** Light brown, saturated, loose, silty SAND with gravel
26			∇	**Groundwater encountered**
27				
28				
29				

Boring Number:	B3 (Cont.)	Boring Log Page 2 of 2	
Location:	Building pad	Date Started:	5/23/2019
Site Address:	2750 Bristol Street	Date Completed:	5/23/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	26' 8"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
30	S	46	SM	Light brown, saturated, dense, silty SAND with gravel
31				Boring terminated at 31.5'
32				Backfilled with soil cuttings and patched with concrete
33				Groundwater encountered at 26' 8"
34				
35				
36				
37				
38				
39				
40				
41				
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57				
58				
59				

Boring Number:	B4	Boring Log Page 1 of 1	
Location:	ramp	Date Started:	5/23/2019
Site Address:	2750 Bristol Street	Date Completed:	5/23/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				<u>**SURFACE COVER:**</u> concrete (6"), no base
1				
2	S	13	SM	FILL: Dark brown, damp, medium dense, silty SAND with little clay and gravel
3				(Fines: 37%, LL: 29 PI: 11)
4				
5	S	21		stiff, with gravel
6				*debris (broken glass)*
7				
8				
9				
10	S	26	SM	Dark brown, damp, dense, silty SAND
11				*debris (broken glass)*
12				
13				
14				
15	S	25		(same as above) *debris (broken glass)*
16				Boring terminated at 16.5'
17				Backfilled with soil cuttings and patched with concrete
18				Groundwater not encountered
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				

Boring Number:	B5	Boring Log Page 1 of 2	
Location:	Building pad	Date Started:	5/24/2019
Site Address:	2750 Bristol Street	Date Completed:	5/24/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	27'3"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (6"), no base
1			ML	**FILL:** Greyish brown, damp, firm, sandy SILT with clay
2				*debris (broken glass)*
3				
4				
5	S	19		(same as above)
6				*debris (broken glass)*
7				
8				
9				
10	S	23		Dark greyish brown
11				*debris (broken glass)*
12				
13				
14				
15	S	27		Dark brown
16				*debris (broken glass)*
17				
18				
19				
20	S	49	SP	Brown, damp, medium dense, SAND
21				*debris (broken glass)*
22				
23				
24				
25	R	83	SP	**NATIVE:** Light brown, saturated, very dense, SAND with gravel (Dry Density: 119.2 pcf,
26				Moisture Content: 8%, Fines: 5%)
27			∇	**Groundwater encountered at 27' 3"**
28				
29				

Boring Number:	B5 (Cont.)	Boring Log Page 2 of 2	
Location:	Building pad	Date Started:	5/24/2019
Site Address:	2750 Bristol Street Costa Mesa, CA 92626	Date Completed:	5/24/2019
		Depth to Groundwater:	27' 3"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
30	S	30	SP-SM	Light brown, saturated, very dense, SAND with silt
31				Boring terminated at 31.5'
32				Backfilled with soil cuttings and patched with concrete
33				Groundwater encountered at 27' 3"
34				
35				
36				
37				
38				
39				
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58				
59				

Boring Number:	B6	Boring Log Page 1 of 1	
Location:	parking area	Date Started:	5/23/2019
Site Address:	2750 Bristol Street	Date Completed:	5/23/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (6.5"), no base
1				*hand auger to 3' --> hit something hard, but seems to be leftover slab*
2			ML	**FILL:** Dark brown, damp, firm, sandy SILT/silty SAND with some clay
3				
4				
5	S	12		(same as above)
6				*debris*
7				
8				
9				
10	S	15	SM	**NATIVE:** Brown, damp, medium dense, silty SAND with gravel
11				
12				
13				
14				
15	S	23		Light brown
16				Boring terminated at 16.5'
17				Backfilled with soil cuttings and patched with concrete
18				Groundwater not encountered
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				

DL Science, Inc.

532 W. Maple Ave., El Segundo, CA. (90245)
tel. (310) 416-1472/ fax. (310) 416-1473
dllucero@sbcglobal.net

Walker Group of Companies
11100 Cambie Rd., #100
Richmond, British Columbia V6X1K9

June 4, 2022

Attention: **Rob Walker, c/o Susan Mearns, PhD, cel. (310) 403-1921/ email. Mearns.Consulting@verizon.net.**

References: DL Science, Inc., Proposal and Cost Estimate for Methane Soil Gas Investigation at 2750 Bristol St., Costa Mesa, CA, dated 5/5/22.

NorCal Engineering, Geotechnical Engineering Investigation, Proposed No. 1 Collision Center, 2750 and 2770 Bristol St., Costa Mesa, CA, dated 8/4/20.

1.0 INTRODUCTION: DL Science, Inc. has prepared this report to summarize methane soil gas investigation services for proposed improvements at the subject site which is described as an approximate 65,340 sq.ft. irregular-shaped parcel at the east side of Bristol St., approximately 355 ft. south of the intersection of Bear St., in the City of Costa Mesa, California (See **Exhibit 1, Site Location Map**).

The subject site is currently occupied by unoccupied former auto repair and car wash commercial structures, on-grade concrete and asphalt-paved hardscape areas and landscaped areas which are planned for demolition, and proposed new improvements are described in the geotechnical report referenced above as a new 2-story commercial building with slab-on-grade foundation with on-grade hardscape and landscape areas (See **Exhibit 2, Site Map**).

The proposed investigation was conducted by DL Science, Inc., a City of Los Angeles licensed Testing Agency (License No. 10211), in general accordance with the LADBS published, *Site Testing Standards for Methane (Reference No. 91.7104.1, Document No. P/BC 2002-101), effective 11/30/04 (revised 1/1/14)*.

The purpose of the subject methane soil gas investigation was to determine if detectable concentrations of methane gas are present in subsurface soil at the Subject Property.

Based on the proposed investigation area of approximately 1.5-acres (approx. 65,340 sq.ft.), the methane soil gas investigation required seven (7) shallow soil gas monitoring probes each to a depth of 4 ft. below surface grade elevation (bsg) and four (4) deep probe sets each with nested probes at 5 ft. bsg, 10 ft. bsg and 20 ft. bsg.

2.0 SCOPE OF WORK: The scope of work consisted of the installation of seven (7) shallow soil gas monitoring probes each to a depth of 4 ft. bsg and four (4) deep probe sets each with nested probes at 5 ft. bsg, 10 ft. bsg and 20 ft. bsg at select locations shown on **Exhibit 3, Probe Locations Map** and probes were constructed as shown on ***Exhibit 4, Probe Construction*** **Diagrams**. Actual shallow probe locations were determined in the field by drill rig accessibility and field conditions and actual deep probe set locations were determined in the field by drill rig accessibility, field conditions including locations of underground utilities marked by USA Dig-alert and methane concentrations measured at shallow probes.

All soil borings were excavated and converted to soil gas monitoring probes on 5/31/22 using a truck-mounted GeoProbe 5410 direct-push drill rig, and groundwater conditions were not found during drilling.

Shallow probes were monitored once on 5/31/22 using a portable, battery-operated, combustible gas detector capable of measuring concentrations of methane, carbon dioxide, oxygen and nitrogen (as balance). Deep probes were monitored twice, on 5/31/22 and 6/1/22, using a portable, battery-operated, combustible gas detector capable of measuring methane, carbon dioxide, oxygen and nitrogen (as balance), with a 24-hr. time interval between monitoring events. Probe pressure and combustible gas concentration as methane were measured and recorded during all monitoring events, and an in-line activated carbon filter was used to measure methane concentrations.

All shallow soil gas monitoring probes (probes SP-1 through SP-7) and deep probe sets (probe sets DP-1 through DP-4) were left in-place to allow future re-monitoring and or sampling, as needed.

The investigative results were compiled in this summary report signed and stamped by a State of California registered Professional Geologist.

3.0 FINDINGS: Probe pressure measurements in the field using portable gas detection equipment ranged from 0.00 in-H_20 to 0.02 in-H_20. Combustible gas measurements in the field using portable gas detection instrumentation, as methane, ranged from non-detect (ND), or less than 1,000 parts per million by volume (ppmv) to 0.5 percent by volume (%,v/v) or 5,000 ppmv (See **Exhibit 5, Monitoring Data Log Sheets**).

4.0 CONCLUSIONS AND RECOMMENDATIONS: Based upon the investigative findings presented herein, DL Science, Inc. concludes that elevated methane concentrations do exist in subsurface soil at the Subject Property and it is our recommendation that a passive methane barrier system be considered for proposed new improvements to mitigate elevated subsurface methane concentrations at the Subject Property.

5.0 LIMITATIONS: The guidelines presented in this report are based upon the services described herein and are based upon the scope of work for this survey. Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by reputable geologists and environmental scientists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional advice in this report. Any change in the existing conditions at the subject site should be brought immediately to the attention of DL Science, Inc. If the information related to us or further observations by the site owner reveal unanticipated or changed conditions, DL Science, Inc. reserves the right to make alterations or additions to the original recommendations.

The recommendations have been prepared specifically for the subject site and are to be used only by the site owner and authorized clients, consultants, and subcontractors for this subject site. No information contained herein may be reproduced, imitated, or used in any way other than for the above referenced project.

The opportunity to be of service is appreciated. Please contact David L. Lucero at cel. (818) 731-9644 if there are comments or questions.

Sincerely, DL Science, Inc.

Kevin M. Clark

David L. Lucero, President
Sr. Project Scientist

PROFESSIONAL GEOLOGIST
KEVIN M. CLARK
No. 8573
STATE OF CALIFORNIA

Kevin M. Clark
Professional Geologist No. 8573

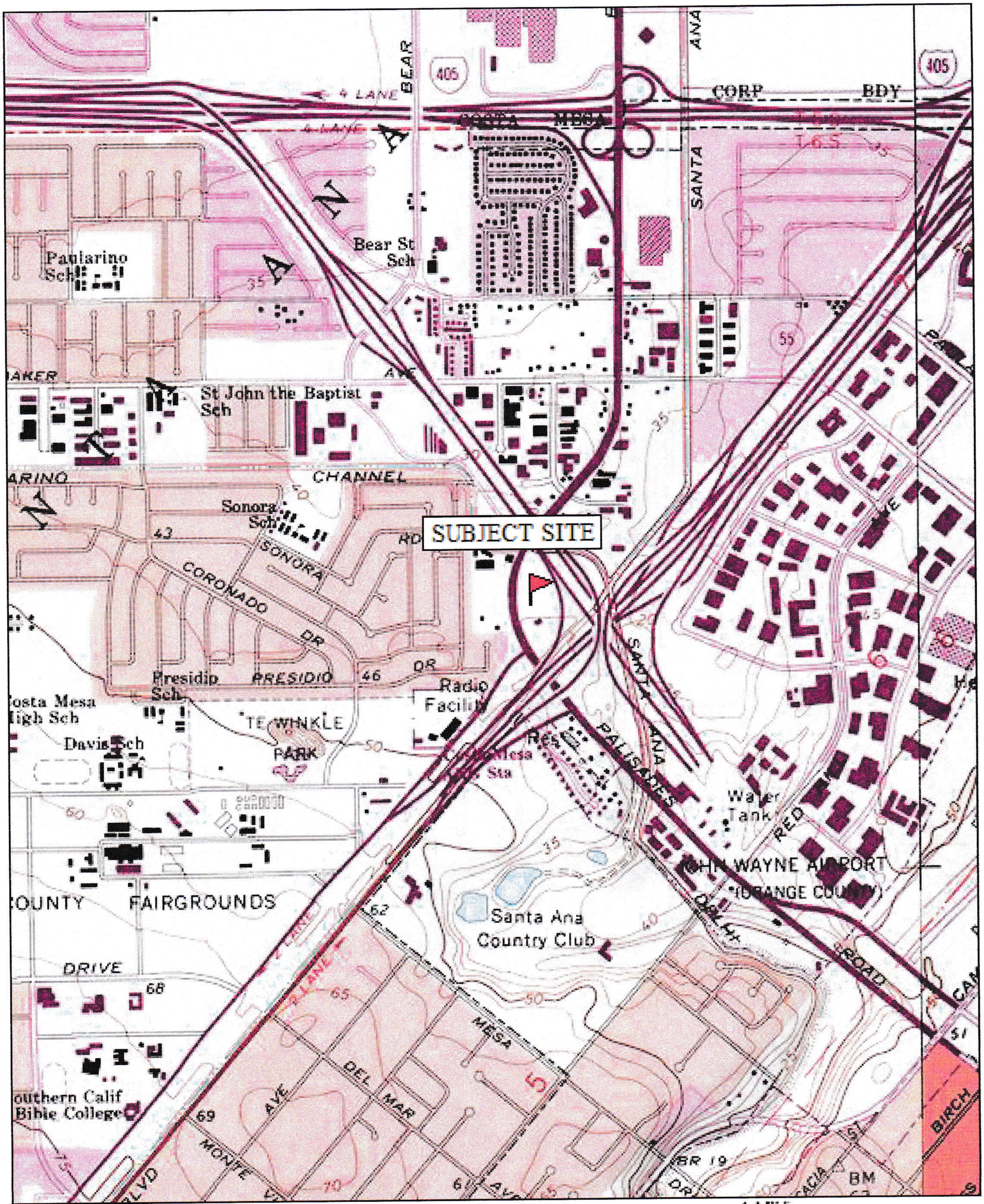
Log: 22-249.rept

ATTACHMENTS:

Exhibit 1	**Site Location Map**
Exhibit 2	**Site Map**
Exhibit 3	**Probe Locations Map**
Exhibit 4	**Probe Construction Diagrams**
Exhibit 5	**Monitoring Data Log Sheets**

EXHIBIT 1

Site Location Map



TN MN 13°

0 .5 1 MILE

0 1000 FEET 0 500 1000 METERS

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Exhibit 2

Site Map


Gruber Co Plumbing & Heating
K's Automotive
2750 Bristol St
Bristol St
Bristol St
Bristol St
Bristol St
Google Earth
200 ft
N

Exhibit 3

Probe Locations Map

Base map: Google Earth, 2022

N

0
50 feet

EXPLANATION

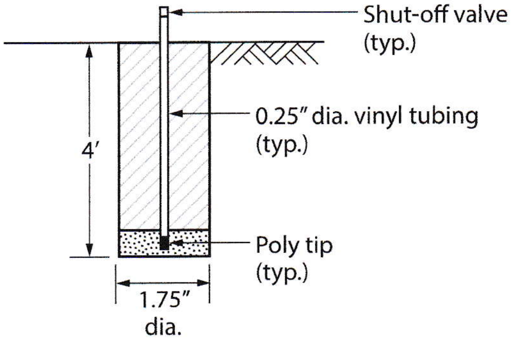
- Shallow probe
- Deep probe set

Probe Locations Map 2750 Bristol Street Costa Mesa, CA	
Date: 5/31/22	Figure: 1
DL Science, Inc.	

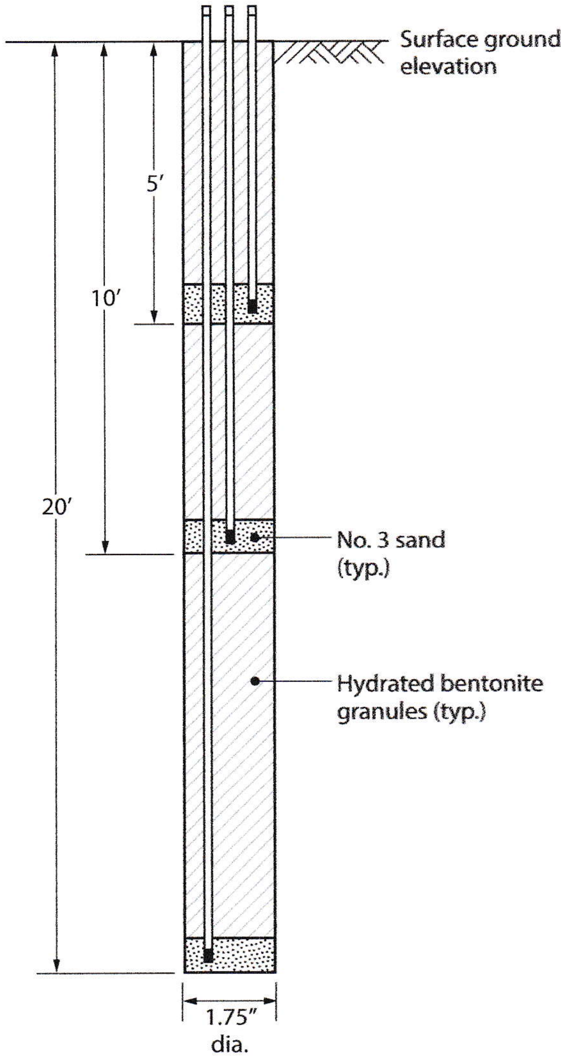
Exhibit 4

Probe Construction Diagrams

SP-1 through SP-7



DP-1 through DP-4



No scale

Probe Construction Diagram 2750 Bristol Street Costa Mesa, CA	
Date: 5/31/22	Figure: 2
DL Science, Inc.	

Exhibit 5

Monitoring Data Log Sheets

Soil Gas Investigation Spreadsheet

Site Location:	2750 Bristol St., Costa Mesa, CA.
Date:	5/31/22
Time:	1130hr.
Weather conditions:	Clear, warm, moderate breeze, dry.
Instrument:	Landtec GEM 5000 4-gas detector
Barometric Pressure:	29.88 "Hg
Drilling Method:	Truck-mounted GeoProbe 5410 rig.

Probe No.	Depth	Probe Press. (in-H20)	Methane (%v/v)	CO_2 (%v/v)	O_2 (%v/v)	N_2 (%v/v)	Comments:
SP-1	4.0	0.00	ND	0.2	9.7	Bal.	
SP-2	4.0	0.00	ND	0.1	15.2	Bal.	
SP-3	4.0	0.00	ND	0.2	15.2	Bal.	
SP-4	4.0	0.01	ND	0.1	14.1	Bal.	
SP-5	4.0	0.00	ND	0.1	14.1	Bal.	
SP-6	4.0	0.01	ND	0.1	18.3	Bal.	
SP-7	4.0	0.01	ND	0.1	16.9	Bal.	
DP-1	5.0	0.01	ND	1.5	3.2	Bal.	
	10.0	0.00	ND	2.2	0.5	Bal.	
	20.0	0.00	ND	7.4	0.3	Bal.	
DP-2	5.0	0.01	ND	0.1	11.6	Bal.	
	10.0	0.01	ND	0.1	4.5	Bal.	
	20.0	0.01	ND	0.1	2.6	Bal.	
DP-3	5.0	0.01	0.3	0.1	4.5	Bal.	
	10.0	0.01	0.3	0.1	3.7	Bal.	
	20.0	0.01	0.5	0.1	0.3	Bal.	
DP-4	5.0	0.00	0.1	0.1	6.9	Bal.	
	10.0	0.01	0.1	0.1	3.8	Bal.	
	20.0	0.00	0.1	0.1	3.5	Bal.	

(Note: ND = Not Detected. Measurements taken with in-line activated carbon filter.)

DL SCIENCE, INC.
532 W. Maple Avenue
El Segundo. CA 90245
Tel. (310) 416-1472
DLLUCERO@SBCGLOBAL.NET

Soil Gas Investigation Spreadsheet

Site Location:	2750 Bristol St., Costa Mesa, CA.
Date:	6/1/22
Time:	1030hr.
Weather conditions:	Clear, warm, slight breeze, dry.
Instrument:	Landtec GEM 5000 4-gas detector
Barometric Pressure:	29.87 "Hg
Drilling Method:	Truck-mounted GeoProbe 5410 rig.

Probe No.	Depth	Probe Press. (in-H20)	Methane (%v/v)	CO_2 (%v/v)	O_2 (%v/v)	N_2 (%v/v)	Comments:
SP-1	4.0	0.01	ND	0.3	6.0	Bal.	
SP-2	4.0	0.00	ND	0.1	11.6	Bal.	
SP-3	4.0	0.02	ND	0.2	8.4	Bal.	
SP-4	4.0	0.00	ND	0.1	11.1	Bal.	
SP-5	4.0	0.00	ND	0.2	8.4	Bal.	
SP-6	4.0	0.02	ND	0.1	13.0	Bal.	
SP-7	4.0	0.01	ND	0.1	12.5	Bal.	
DP-1	5.0	0.02	ND	0.6	14.0	Bal.	
	10.0	0.02	ND	0.7	6.9	Bal.	
	20.0	0.01	ND	1.4	5.6	Bal.	
DP-2	5.0	0.01	ND	0.2	18.9	Bal.	
	10.0	0.01	ND	0.1	5.7	Bal.	
	20.0	0.01	ND	0.2	4.6	Bal.	
DP-3	5.0	0.01	ND	2.5	ND	Bal.	
	10.0	0.00	0.4	0.7	ND	Bal.	
	20.0	0.00	0.2	0.1	ND	Bal.	
DP-4	5.0	0.01	0.5	0.1	ND	Bal.	
	10.0	0.00	0.3	0.4	ND	Bal.	
	20.0	0.01	ND	0.2	ND	Bal.	

(Note: ND = Not Detected. Measurements taken with in-line activated carbon filter.)

DL SCIENCE, INC.
532 W. Maple Avenue
El Segundo. CA 90245
TEL. (310) 416-1472
DLLUCERO@SBCGLOBAL.NET

Sieg, Jeff

From:	Robert A. Walker <rwalker@mbcollision.ca>
Sent:	Thursday, August 11, 2022 9:30 AM
To:	Sieg, Jeff
Subject:	Fwd: Santa Ana Water Board Response to the Post Closure Lan Use Plan (former Newport Ave Station 1 Landfill)

This email originated from outside of SCS Engineers. Do not click links or open attachments unless you recognize the sender and know the content is safe.

FYI below

Robert A. Walker
C.E.O.

100-11100 Cambie Road
Richmond, BC, V6X 1K9

C: 360.739.8343
P: 604.231.9614

Begin forwarded message:

From: "Lee, Joanne@Waterboards" <Joanne.Lee@waterboards.ca.gov>
Date: August 11, 2022 at 9:21:33 AM PDT
To: "Robert A. Walker" <rwalker@mbcollision.ca>
Cc: Christine Lane <clane@ochca.com>, "Cheng, Darwin" <DCheng@ochca.com>, "Shamel, Massoud" <Massoud.Shamel@coco.ocgov.com>, "Levine, Steve@CalRecycle" <steve.levine@calrecycle.ca.gov>, "Martinez-Centeno, Abel@CalRecycle" <Abel.Martinez-Centeno@calrecycle.ca.gov>, "Young, Glenn@CalRecycle" <Glenn.Young@calrecycle.ca.gov>, Garrett Kakishita <gkakishita@aqmd.gov>, Lauren Robinson <LRobinson@ochca.com>, "Weerasekera, Dan" <DWeerasekera@ochca.com>, "Sharifian, Akbar" <ASharifian@ochca.com>, "HUYNH, NANCY" <nancy.huynh@costamesaca.gov>, Susan Mearns <Mearns.Consulting@verizon.net>, cora@govsol.com, "Li, Cindy@Waterboards" <Cindy.Li@waterboards.ca.gov>
Subject: Santa Ana Water Board Response to the Post Closure Lan Use Plan (former Newport Ave Station 1 Landfill)

Hi Mr. Walker,

This is Joanne Lee of the California Regional Water Quality Control Board, Santa Ana Region (Santa Ana Water Board). We have reviewed the proposed Post Closure Land Use Plan (PCLUP), forwarded to us by Mr.

Dan Weerasekera of the Orange County Health Care Agency, Local Enforcement Agency (LEA), for the proposed redevelopment at 2750-2770 Bristol Street (the Site) in Costa Mesa. A portion of the 1.5-acre Site lies within the former 15-acre Newport Avenue Landfill, a municipal solid waste and inert waste landfill that was operated between 1946 and 1953.

Currently, the former Newport Avenue Landfill is not regulated by the Santa Ana Water Board because no groundwater impact from the landfill has been found based on groundwater monitoring data collected from 1993 to 2017. However, in accordance with California Code of Regulations, Title 27, section 20950(a)(2)(A), to minimize ponding and water infiltration through landfill cover and waste, we concur with the LEA that adequate drainage and erosion control and maintenance of the landfill cover at the Site is necessary.

Please submit a copy of the updated PCLUP, as requested by the LEA, to the Santa Ana Water Board. We will review and provide our comments, if any; formal approval from the Santa Ana Water Board is not necessary at this time. If you have any questions, please contact me.

Thanks,

Joanne Lee, PE
Water Resource Control Engineer
Land Disposal & DoD Section
California Regional Water Quality Control Board
Santa Ana Region (8)
3737 Main Street, Suite 500
Riverside, CA 92501
Joanne.Lee@waterboards.ca.gov
Tel: (951) 782-3291

Water Boards

Due to COVID-19, we are working remotely. Please leave messages using email.

From: Weerasekera, Dan <DWeerasekera@ochca.com>
Sent: Thursday, August 4, 2022, 5:06 PM
To: Robert A. Walker <rwalker@mbcollision.ca>
Cc: Christine Lane <clane@ochca.com>; Cheng, Darwin <DCheng@ochca.com>; Shamel, Massoud <Massoud.Shamel@coco.ocgov.com>; Levine, Steve@CalRecycle <Steve.Levine@CalRecycle.ca.gov>; Martinez-Centeno, Abel@CalRecycle <Abel.Martinez-Centeno@CalRecycle.ca.gov>; Young, Glenn@CalRecycle <Glenn.Young@CalRecycle.ca.gov>; Lee, Joanne@Waterboards <Joanne.Lee@waterboards.ca.gov>; Garrett Kakishita <gkakishita@aqmd.gov>; Lauren Robinson <LRobinson@ochca.com>; Sharifian, Akbar <ASharifian@ochca.com>; HUYNH, NANCY <nancy.huynh@costamesaca.gov>; Susan Mearns <Mearns.Consulting@verizon.net>; cora@govsol.com

Subject: LEA Response to the Post Closure Lan Use Plan (Newport Ave Station 1 Landfill - SWIS # 30-CR-0071)

EXTERNAL:

Hello Mr. Walker, Orange County Health Care Agency's response to the Post Closure Land Use Plan dated July 7, 2022 is attached. Please let me know if you have any questions.

Thanks.

Dan Weerasekera
Hazardous Materials Specialist
Hazardous Materials Mitigation
Local Oversight Program
(714) 433-6255

Website | Facebook | Twitter

PLEASE NOTE: Effective **May 1, 2022**, our USPS mailing address will be:
Orange County Environmental Health
PO Box 25400
Santa Ana, CA 92799

UPS and FedEx packages should continue to be directed to the physical address on Dyer Rd.

TRC
Customer-Focused Solutions

ENVIRONMENTAL ASSESSMENT REPORT

FORMER NEWPORT AVENUE REFUSE DISPOSAL STATION

Prepared for

County of Orange Integrated Waste Management Department
Santa Ana, California

Prepared by

TRC
Irvine, California

Project No. 00-175
July 2000

TRC
21 Technology Drive
Irvine, California 92618
Telephone 949-727-9336
Facsimile 949-727-7399

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LIST OF FIGURES

1.0 INTRODUCTION

1. The purpose of the Closed Landfill Environmental Assessment and Response (CLEAR) project is to provide the County of Orange (County) and property owners with the most up-to-date information regarding the former Newport Avenue Refuse Disposal Station's (Site's) current environmental conditions relative to the items listed below to allow identification of potential activities that may be needed to maintain protection of public health, safety and the environment and to meet regulatory requirements. With this information, the potential for long-term maintenance, monitoring and mitigation can be assessed. Since the site was closed prior to promulgation of current regulations, (e.g., Title 27 of the California Code of Regulations [CCR] and South Coast Air Quality Management District [SCAQMD] Rules and Regulations), it was assumed in conducting this work that a compliance with current regulations or future promulgated regulations would not be required. The assessment for the former Newport Avenue Refuse Disposal Station is based on a review of available information contained in reports and files located at the Integrated Waste Management Department (IWMD), the County of Orange Health Care Agency (the Local Enforcement Agency [LEA]), Caltrans District Office and the City of Newport Beach Planning and Development Department. This report is for the former Newport Avenue Refuse Disposal Station (Disposal Station No. 1).

2. The primary tasks included in the assessment of the former Newport Avenue Disposal Station included review and evaluation of existing information pertinent to:
   - Disposal site cover thickness, composition and erosion.
   - Refuse boundary and depth.
   - Landfill gas (LFG) migration.
   - Ground water and surface water quality.

   This information will provide for the identification of potential activities needed to maintain protection of public health, safety, and the environment relative to above.

3. This report includes a discussion of: (1) the site history and background; (2) the findings of the literature review relative to the former disposal station cover, refuse limits and depth, LFG migration and ground water and surface water quality; and (3) conclusions regarding environmental conditions relative to refuse prism cover, refuse limits and depth, LFG migration, and ground water and surface water quality. These discussions are organized into the following chapters:
   - Chapter 2.0 - Site History and Background
   - Chapter 3.0 - Findings of Literature Review
   - Chapter 4.0 - Conclusions

2.0 SITE HISTORY AND BACKGROUND

This section provides general site and background information for the former Newport Avenue Refuse Disposal Station. This information is excerpted from the various site documents. Specifically identified references (Ref.) are referred to by number with the references listed in Section 5.0.

2.1 FORMER REFUSE DISPOSAL STATION USE HISTORY AND INFORMATION

1. The County operated a refuse disposal station located in the City of Costa Mesa at the Corona Del Mar (73) and the Newport Freeway (55) interchange near Bristol Street (see Figure 1) from August 1946 to October 1955. In various County files, the same facility is referred to as the "Newport Avenue Dump," "Dump No. 1," "County Disposal Station No. 1," and "Rubbish Dump No. 1." There is no address for the site. The site is comprised of about 10 acres and occupies the northeastern part of Township 6 South, Range 10 West. There is no section number designated for the area of the site. The location of the landfill site is shown in the land ownership map taken from the 1993 water Solid Waste Assessment Test (SWAT) report and included in Appendix A as Figure 3. The property boundaries of the landfill site are based on the legal descriptions of the property as given in the lease agreements for the operation of the landfill.

2. The site was leased from the Reinking family by the County during operations. The County was the sole operator during this time. There are only very limited records available regarding the modes of operation used at the site. According to the lease agreements, the landfill was to be operated by the County as a "public rubbish disposal site." In a miscellaneous memorandum, it was stated that the landfill was operated as a burning dump, in which the refuse was burned and then covered with soil. In other memoranda for the former Newport Avenue Refuse Disposal Station, the site was initially intended to be for the dumping of only "trash, cans, bottles, and tree or lawn trimmings." For the most part, this appears to be confirmed by exploratory borings and trenches which were installed by Caltrans and others in the late 1960s, 1970s, and early 1980s throughout the site (see boring logs in Appendix B). No liquid or hazardous materials are known to have been disposed at the site.

3. There is no official record of the quantity or quality of all waste left in place at the time of site closure. However, construction documents of Caltrans indicate a total of approximately

44,000 cubic yards of waste material was present onsite in the early 1970s just before freeway construction began. The records are unclear as to how much of this waste remains onsite today, however, it is likely to be less than the original amount (Ref. 1-2).

4. Subsequent to closure, most of the site has been developed. The construction of the Corona Del Mar/Newport freeway interchange, which covers approximately 80 percent of the site, involved excavation of most of the deposited material according to Caltrans As-Built plans dated April 14, 1977 (Ref. 1-16). Also, commercial development on remaining portions of the site included further removal of portions of the deposited material (Ref. 1-12 and 1-14) (see Figure 4 in Appendix A).

5. In the early 1940s, a United States Army Airbase was located immediately south and west of the former Newport Avenue Refuse Disposal Station. A portion of this base was used as a military dump. The exact location of this dump is not well documented, but has been described to be partly located in the general area adjoining the west side of the site. There is some photographic evidence showing features that suggest that there was waste disposal outside the Site boundary. Further, the placement of roads to these locations suggests that access was from the Army Airbase and not from the former Newport Avenue Waste Disposal Station (Ref. 1-2, also see Figure 5 in Appendix A).

2.2 LAND OWNERSHIP AND OTHER RELEVANT SITE DATA

1. During operations, the site was leased from the Reinking family by the County. It was agreed and understood that the property would be used for refuse disposal.

2. Caltrans acquired about 80 percent of the site (i.e., all except the westerly portion along Bristol Avenue) for construction of the Corona Del Mar/Newport freeway interchange. The Orange County Flood Control District controls access along the Paularino flood control channel which crosses the northern end of the site. The remaining site portions are currently owned by various individuals, companies, trusts and partnerships (see Appendix C).

2.3 CURRENT AND PROPOSED LAND USE

Currently, the entire eastern portion of the former disposal station site is overlain by the Corona Del Mar/Newport freeway interchange. Remaining portions of the site are currently used as a self-serve carwash, plant nursery and parking lots.

2.4 SURROUNDING LAND USES

The land uses surrounding the site include freeways, commercial buildings, some residential. In general, residential neighborhoods are located west of the site; commercial buildings, an airport and a golf course are located to the east.

2.5 GEOLOGIC CONDITIONS

1. The site is situated in an area of the Orange County coastal plain known as the Newport Mesa. This mesa is bordered on the west by the Santa Ana Gap, which contains the Santa Ana River, and on the east by the inland arm of the Newport Bay. The mesa is gently inclined toward the north. The Newport Avenue site is located near the northern part of the Newport Mesa, at an elevation of about 40 feet above sea level. The Newport Mesa is underlain by Tertiary and Quaternary rocks which exceed some 20,000 feet in thickness. The uppermost rock units in the site vicinity are Quaternary marine terrace deposits and Quaternary alluvium and colluvium.

2. The alluvium and colluvium which underlie the northern part of the site vicinity consist of generally heterogeneous quartzo-feldspathic sand, silt, silty clay, and gravel. The sediments are largely unconsolidated near the surface; calcareous cement occurs locally in sandstones. The beds are flat-lying or gently sloping toward the coast. Thickness of this unit varies, but is up to 200 feet in this area. The unit unconformably overlies Quaternary terrace deposits (Qtm) and Miocene and Pliocene undifferentiated marine strata. Soil development is highly variable on the alluvium and colluvium. The most common soils are clay loam and loamy sand. These rich topsoils are characteristic except in active stream channels where there is little or none. The alluvium and colluvium, in general, have high porosity and moderately low permeability in the site vicinity. The lower zones of this unit contain the Talbert aquifer which is one of the principal ground water sources of the area. Upper zones have very low permeability, except

locally. Mainly because of the porosity and permeability characteristics, and the relationship to ground water, this unit has been described as unsuitable as a host for waste disposal sites.

3. The marine terrace deposits which underlie most of the site vicinity consist of quartzo-feldspathic fine-grained sandstone and conglomerate. Stratification is commonly lenticular and cross-bedded. The sand and conglomerate is friable and moderately consolidated. Thickness of this unit reaches about 400 feet in the site vicinity. These deposits unconformably overlie undifferentiated Miocene and Pliocene marine shale and sandstone strata. Soils are thin and poorly developed on these terrace deposits. The soils consist of sandy loam to loam with limy zones in the subsoil zones. The terrace deposits have moderately high to high permeability. Porosity is generally moderately high to moderately low locally. This unit serves as an excellent aquifer and consequently is the major ground water storage unit in the Orange County basin. Because of this, the unit serves as an undesirable host to any waste disposal site.

4. Based on observations made during drilling and as described above, the site is underlain by Quaternary marine terrace deposits. These deposits consist mainly of flat-lying, unconsolidated to semiconsolidated interbedded silt, sand, gravel, and clay. Thickness of these deposits at the site is greater than 90 feet. As shown in Figures 10 and 11 in Appendix A, the waste material (or remaining portion of the original quantity of waste material) directly overlies the terrace deposits. The ground water table occurs at about 20 feet below the ground surface, and just below the maximum depth of reported waste.

2.6 HYDROGEOLOGIC CONDITIONS

1. The site occupies a ground water subbasin of the Orange County Coastal Basin known as the Pressure Area. This subbasin in general is characterized by good quality ground water and is known to be the principle source of drinking water for the area. The source of ground water for this subbasin is principally fluvial recharge from the adjacent Forebay Area subbasin of the Orange County Coastal Basin. Certain areas of the Pressure Area subbasin have undergone degradation in ground water quality because of increasing organic and mineral content and sea water intrusion. However, the general area and site vicinity appear to have relatively normal ground water quality for the basin.

2. Figure 13 in Appendix A shows the surface water locations within the site vicinity. Perennial surface flows are contained within the Santa Ana and Paularino Channels. Other surface water includes only two ponds located at the golf course of the Santa Ana Country Club which is located south of the landfill site. There are no springs in the site vicinity.

3. Based on information obtained during installation and sampling of the five monitoring wells (MW-1 through MW-5) at the site, the ground water table is within the terrace deposits beneath the site (Figures 10 and 11, Appendix A). Table 1 in Appendix D summarizes recent four quarters of ground water elevations as measured in the wells at the site. Throughout the 1-year monitoring period, ground water elevations remained fairly constant. Figure 2 in Appendix D presents the ground water gradient beneath the site for the fourth quarter of 1999. The ground water gradient averages 0.002 ft/ft and the ground water flow beneath the site is predominantly southeast (Ref. 1-2 and 1-7).

4. Surface water at the site is limited to the perennial flows within the Paularino Channel. This flood control channel is concrete-lined and, therefore, surface flows within the channel probably have essentially no hydrologic continuity with the underlying vadose zone or ground water.

2.7 CLOSURE CONDITIONS

Operations at the former Newport Avenue Refuse Disposal Station ceased on or about October 1955. There is no record available of any site closure plans, closure details, or treatment processes. There is no information available regarding the final cover material or its thickness. The water SWAT, completed in January 1993, indicated there was no exposed waste at the site. The occurrence of land subsidence at the landfill has been referenced in correspondence from County files. The details regarding the specific time and extent of the subsidence are not apparent from the available documents. However, it is apparent that subsidence occurred before 1970 (i.e., prior to construction of the freeway interchange). There is no LFG collection system on or near the site.

3.0 FINDINGS OF LITERATURE REVIEW

This section summarizes the available existing information contained in reports and communications pertinent to the site's cover, refuse limits and depth, LFG migration, and ground water and surface water quality. This information leads to an understanding of site environmental conditions and allows for identification of potential mitigation, maintenance, and monitoring activities that may be required.

3.1 REFUSE PRISM COVER - THICKNESS, EROSION AND SOIL TYPE

1. There is no record available of any site closure plans, closure details, or treatment processes. There is no specific information available regarding the final cover material or its thickness. The water SWAT, completed in January 1993, indicated there was no exposed waste at the site (Ref. 1-2). A majority of the site surface has been covered by fill placed by Caltrans for construction of the freeway interchange. Some additional portions of the site surface are now covered by the self-serve car wash, a plant nursery and paved parking areas.

2. Reports of surface erosion, exposed refuse, or surface emissions were not evident in the documents reviewed.

3. Boring logs for borings completed within the site area not displaced by freeway construction indicate the upper 5 feet or more of the subsurface to be comprised of fill sand which is fine, silty and contains minor to heavy debris content. The debris is described as 2- to 3-inch rocks, asphalt concrete (AC), concrete, glass, wood, brick fragments, and metal fragments (Ref. 1-2, also see boring logs in Appendix B).

4. The occurrence of land subsidence at the refuse disposal station has been referenced in correspondence from County files. The details regarding the specific time and extent of the subsidence are not apparent from the available documents. However, it is apparent that subsidence occurred before 1970 and prior to construction of the freeway interchange (Ref. 1-2). Also, there was a discussion of settlement in a geotechnical report completed in 1993 for a portion of the site (Ref. 1-14) but the settlement was attributed to poor compaction of backfill placed after refuse removal in one area of the site. The files reviewed have not included discussions of any significant ponding onsite.

3.2 REFUSE LIMITS AND DEPTH

1. The location of the site is shown on the land ownership map taken from the water SWAT Report and included as Figure 3 in Appendix A. The property boundaries of the site are based on the legal descriptions of the property as given in the lease agreements for the operation of the refuse disposal station (Ref. 1-2).

2. Although as-built records are not available, limits of the deposited materials during site operations have been fairly well defined by review of Caltrans as-built drawings (Ref. 1-16), the water SWAT Report (Ref. 1-2) and geotechnical borings completed on and around the site (including logs from ground water monitoring wells MW-1 through -5). Figure 4 from the water SWAT Report is included in Appendix A and provides a map of approximate refuse limits.

3. The depth of deposited materials during site operations is reported as variable and up to 20 feet maximum (Ref. 1-2). This depth is confirmed in boring logs included in the water SWAT report and geotechnical investigations performed for developments subsequently constructed onsite (see boring logs in Appendix B).

4. Most of the deposited materials have been removed by Caltrans for construction of the freeway interchange and for other development onsite (Ref. 1-14 and 1-16). Ref. 1-14 includes recommendations for remedial grading of the car wash area located on the former refuse disposal site. The recommendations included recompaction of loose fill soil that had been previously placed after removal of refuse in the area.

3.3 LANDFILL GAS MIGRATION

1. The site has been reported to have been a burn site and to have accepted only "rubbish" defined as "trash, cans, bottles, and tree or lawn trimmings" (Ref. 1-2). The boring logs included in the water SWAT and geotechnical reports confirm the material to be inert (see boring logs in Appendix B). Most of the deposited material was removed by Caltrans for construction of the Costa Mesa/Newport freeway interchange (Ref. 1-16).

2. Indications of LFG odors were not recorded on logs of borings (refer to Appendix B) completed into the deposited materials for geotechnical investigations related to site developments (e.g., the self-serve car wash, plant nursery).

3. The Air Resources Board Screening Questionnaire completed in 1988 indicated there had not been reports of LFG migration or emissions from the site (Ref. 1-8).

4. The Orange County Closed Landfill Sites Summary document reported that twenty soil gas probes were installed to 5-foot depths around the western portion of the site (i.e., the portion not displaced by the freeway interchange) in 1996 (Ref. G-41), none of the probes detected methane. Probe locations (shown on Figure 1 in Appendix E) and monitoring results are included in Appendix E.

5. According to the water SWAT and subsequent quarterly monitoring reports, the ground water beneath the site has been impacted by Volatile Organic Compounds (VOCs). However, the same VOCs are reported in the upgradient monitoring well. These reports indicate that the impacts are possibly from an upgradient, offsite source rather than from LFG generated onsite (Ref. 1-2 and 1-3).

6. There is no LFG control system on or near the site.

7. There is no record of LFG migration into facilities currently operating at the site.

3.4 GROUND WATER QUALITY

1. The water SWAT report (Ref. 1-2) completed in 1993, which included installation and monitoring of one upgradient and three crossgradient and downgradient wells, indicated the following:
   - The ground water gradient averages 0.002 ft/ft and the ground water flow beneath the site is predominantly southeast (see Figure 2 in Appendix D).
   - Ground water samples collected from upgradient, crossgradient, and downgradient wells at the site contained levels of trichloroethene (TCE) which regularly exceeded the maximum contaminant level (MCL). Based on existing well data in the site vicinity, the purgeable organics present may be contributed from an upgradient source.

- There are at least five known upgradient underground tank sites within 1 mile of the Newport site. These tank sites have both soil and ground water contamination including gasoline and aliphatic hydrocarbons. Additionally, domestic water well H-3 located 1/2-mile upgradient has been shown to have both TCE and PCE contamination. Locations and descriptions of these wells and tank sites are given in Appendix F.
- The former Army Airbase operated a dump which was located at least in part immediately west and south of the former Newport Avenue Waste Disposal Station. The types of wastes disposed of are unknown but is potentially an upgradient source. During a waste clearance investigation for proposed development of several parcels located within the area of the previous Army dump adjacent to the site on the west (Ref. 1-11) organic contamination, including TCE, was reported in the upgradient ground water.
- MCLs for the general minerals parameters (turbidity, total dissolved solids, sulfate, and specific conductance) are regularly exceeded at all sample points at the site. These parameters appear to be representative characteristics of ground water entering and leaving the site.
- The MCL for manganese is also regularly exceeded in upgradient and downgradient wells at the site. The manganese concentrations observed may also be representative of ground water entering and leaving the site.
- The results of the chemical analyses at the site show that hazardous substances are not present in soil or samples collected from the well borings at the site.
- Several sites located upgradient of the former refuse disposal station are known to be impacted by gasoline or other VOCs. Therefore, the presence of purgeable organic compounds in wells at the site does not indicate that the contamination has emanated from the waste of the former refuse disposal station but does not preclude it.

2. In June 1994, the Regional Water Quality Control Board (RWQCB) approved the SWAT but indicated that they required another downgradient monitoring well be installed to further evaluate whether or not the site was contributing to ground water impacts (Ref. 1-10).

3. A Supplemental SWAT (Ref. 1-3) was completed in February 1997 and included installation and monitoring of a fifth well (MW-5) located downgradient of the site (see Figure 2 in Appendix D). Results and conclusions reported included the following:
   - Two soil samples were collected from depths of 15 and 25 feet in boring MW-5 and were analyzed for metals using U.S. Environmental Protection Agency (EPA) Method 6010/7470, organochlorine pesticides and polychlorinated biphenyls (PCBs) using EPA Method 8080, VOCs using EPA Method 8240, and semivolatile organic compounds (SVOCs) using EPA Method 8270. Concentrations of metals are within the range of natural soil concentrations. No pesticides/PCBs, VOCs, or SVOCs were detected in either soil sample at the specified detection limits.

- IWMD staff collected ground water samples from the five site wells between June 5 and 11, 1996. The samples were analyzed for general chemistry parameters, metals, and VOCs. In contrast to the results from the original SWAT investigation, none of the ground water samples collected during the supplemental investigation contained metals or VOC concentrations exceeding recommended MCLs. As indicated, tetrachloroethene was detected at concentrations near the detection limit of 0.5 micrograms per liter ($\mu g/L$) in all wells except MW-2 (crossgradient). Trichloroethene, 1,1-dichloroethene, toluene, and xylenes were detected in the sample from MW-5 (downgradient), also at concentrations near detection limits.

4. The IWMD continues to sample and analyze ground water from wells at the site. The results are reported to RWQCB on a quarterly basis. Monitoring results through the second quarter of 2000 indicated TCE above MCL detected in downgradient monitoring well MW-5 (Ref. 1-4, 1-5, 1-6, and 1-7).

5. Appendix G includes time history plots of concentrations for selected constituents from ground water samples from wells MW-1, MW-2, MW-3, MW-4 and MW-5. Monitoring well MW-1 is the upgradient well, MW-2 and MW-4 are crossgradient, and MW-3 and MW-5 are downgradient of the site. The data indicates that upgradient, crossgradient and downgradient monitoring wells contain concentrations of TCE and 1,2-dichloroethane which exceed the primary(1) MCLs except MW-2. MW-2 has concentrations of TCE between the detection limit and the primary MCL, i.e., 5 $\mu g/L$ during the 1999 sampling episodes. MW-2 is located about 200 feet east of the previous refuse disposal station site boundary. The upgradient monitoring well (i.e., MW-1) shows a slightly upward trend in TCE and a slightly downward trend in 1,2-dichloroethane concentrations from 1991 through second quarter 2000. Downgradient MW-5 data indicates a significant downward trend in TCE concentrations from initial sampling in 1996 through the June 2000 sampling episode. VOC concentrations are greater in upgradient MW-1 than in downgradient MW-5. All five monitoring wells also contain detectable concentrations of tetrachlororethene and 1,2-dichloroethane since monitoring for these constituents began in early 1992.(2)

6. General minerals parameters concentrations (total dissolved solids [TDS], alkalinity, nitrate, chloride and calcium) are high compared to most drinking water and are generally trending upward (except alkalinity and chloride which have remained fairly constant or trended

(1) Primary MCLs are established by Department of Health Services (DHS) for a number of chemical and radioactive contaminants to protect human health and the environment.

(2) (Note that this data for TCE and 1,2-dichloroethane concentrations in MW-5 does not correspond with that reported in the Supplemental SWAT.)

downward in the upgradient monitoring well) in both upgradient and downgradient monitoring wells. Nitrate exceeds the primary MCL in upgradient (MW-1) and downgradient (MW-3 and MW-5) wells with the upgradient wells showing the highest concentrations. Iron has been detected only occasionally in a few of the wells. Manganese concentrations have exceeded secondary MCL in both upgradient and downgradient wells and are indicated to be trending downward. TDS exceeds the secondary MCL(3) in all wells both upgradient and downgradient wells.

---

(2) (Note that this data for TCE and 1,2-dichloroethane concentrations in MW-5 does not correspond with that reported in the Supplemental SWAT.)

(3) Secondary MCL refers to the maximum contaminant concentration that may adversely affect the odor, taste or appearance of drinking water, but is not considered a health hazard.

4.0 CONCLUSIONS

This section provides conclusions regarding the former Newport Avenue Refuse Disposal Station's current environmental conditions relative to the refuse prism cover, refuse limits and depth, LFG migration, and ground water and surface water quality. These conclusions are based on a review of available information as summarized in Section 3.0.

4.1 REFUSE PRISM COVER - THICKNESS, EROSION AND SOIL TYPE

Although there is no record of a specific cover being placed over the site upon cessation of operations of the refuse disposal station, the following would indicate that there is only limited potential for infiltration or gas emissions:

- Most of the deposited material was removed for construction of the Corona Del Mar/Newport Freeway interchange which occupies about 80 percent of the former refuse disposal station site (Ref. 1-2 and 1-16).
- Additional refuse material has been removed for other site developments including the self-serve car wash and plant nursery. Portions of the site surface are now covered with impermeable facilities such as the car wash structure, plant nursery and paved parking areas and drives.
- Boring logs for these other developments indicate that the near surface materials are comprised of fill sand which is fine, silty and contains minor to heavy amounts of debris. The debris was described as 2- to 3-inch rocks, AC, concrete fragments, glass, wood, brick fragments and metal fragments.
- There were no reports in the documents reviewed which indicated exposed trash, significant ponding, erosion or LFG emissions occurring at the site.

4.2 REFUSE LIMITS AND DEPTH

1. The limits of the remaining refuse prism can reasonably be estimated by utilizing existing data (Ref. 1-2 and 1-16). True refuse limits may be expected to be inside or outside of estimated limits interpreted from existing data by several feet and in localized areas by tens of feet. Based on the existing land uses, this is considered to provide a reasonably well-defined limit.

2. The thickness of refuse potentially remaining in limited portions of the site ranges from 0 to 20 feet. At any point below the surface, the depth is not well defined; however, the need for knowing precise depths at all locations below the surface is low and not routine.

Thus, additional knowledge of refuse thickness through field investigations is not required for routine OM&M activities.

4.3 LANDFILL GAS MIGRATION

1. LFG generation potential and migration at the site is considered to be very low due to the nature of the deposited materials (i.e., mostly inert rubbish and burn residue), and since a majority of the material has been removed for freeway interchange and other construction at the site as discussed in Section 3.2 above (Ref. 1-2, 1-14, and 1-16).

2. LFG odors have not been reported in boring logs completed within the deposited materials.

3. Based on the study done by Clements Environmental (Ref. G-41), methane was not detected in 20 probes installed in 1996 around the perimeter of the western portion of the site which had not been displaced by freeway construction (see figure and table of results in Appendix E).

4. It is not likely that further field investigation would identify LFG in the site subsurface.

4.4 GROUND WATER QUALITY

1. Ground water quality investigations and data for the site have indicated that the water quality both upgradient and downgradient of the site is poor and is likely not a suitable drinking water source.

2. Upgradient concentrations of VOCs exceed downgradient concentrations which is indicative of an offsite source of impacts. There is evidence in the literature of several alternative sources for these impacts from properties surrounding the site including the dump areas for the former Army Air Base located south and west of the site and upgradient service stations, underground storage tanks and other properties with known organic contamination (Ref. 1-2 and see Appendix G).

3. No observations of surface water discharge issues or problems were reported in the documents reviewed. The water SWAT determined that the only surface water present occurs as perennial flows within the concrete-lined Paularino Channel, and thus the water is not likely to be affected by site conditions and, therefore, monitoring of surface water at the site was not proposed or included in the water SWAT Report.

5.0 REFERENCES(1)

1-1 Newport Avenue Landfill 1991-1999, CD ROM.

1-2 EMCON Associates. *Water-Quality SWAT Report Newport Avenue Landfill Orange County, California.* Prepared for: County of Orange Integrated Waste Management Department. Project OC11-003.06. January 21, 1993.

1-3 IT Corporation. *Solid Waste Assessment Test (SWAT) Supplemental Report Newport Avenue Landfill.* IT Project No. 763080. Prepared for: County of Orange Integrated Waste Management Department. February 1997.

1-4 *1999 First Quarter Ground Water Monitoring Report for Newport Avenue Landfill.* May 26, 1999.

1-5 County of Orange Integrated Waste Management Department. *Newport Avenue Landfill 1999 Second Quarter Ground Water Monitoring Report.* August 9, 1999.

1-6 County of Orange Integrated Waste Management Department. *Newport Avenue Landfill 1999 Third Quarter Ground Water Monitoring Report.* November 24, 1999.

1-7 County of Orange Integrated Waste Management Department. *Newport Avenue Landfill 1999 Fourth Quarter Ground Water Monitoring Report.* January 20, 2000.

1-8 State of California Air Resources Board. *Screening Questionnaire for Inactive Solid Waste Disposal Sites Health and Safety Code Section 41805.5.* April 12, 1988.

1-10 California Regional Water Quality Control Board. Letter to Mr. Murry L. Cable, Director, Orange County Integrated Waste Management Department, Regarding Newport Avenue Landfill, Costa Mesa: Approval of Solid Waste Water Quality Assessment Test (SWAT). June 28, 1994.

1-11 Hydrotech Consultants, Inc. *Waste Clearance Investigation Phase II.* Prepared for: Wells Fargo Bank, Job No. 13-3576-003-00-01, Log No. HTC-8-1448. March 17, 1988.

1-12 Correspondence Between County of Orange Waste Management Program, Solid Waste Enforcement Agency, and South Coast and Quality Management District, Regarding Excavation and Permit for 2751 Bristol Street, Costa Mesa. April to December 1985.

(1) Reference numbers were assigned by TRC to all documents received and reviewed for the Environmental Site Assessment. References were numbered by disposal station number and TRC identification number. General references are noted with a prefix of "G."

1-14 Gedfirm. *Recommendations for Remedial Grading, 2750 Bristol St., Costa Mesa, California.* Prepared for: Mr. Red Eadson, Westfore, Inc. November 12, 1993. (Report was reviewed on microfiche at City Planning Department but no copy was obtained).

1-16 State of California. Department of Transportation *"Route 73/55 Interchange."* As-Built Plans. April 14, 1977.

1-17 County of Orange. LEA. Various Records Regarding Newport Avenue Station No. 1, March 30, 2000.

G-41 Clements Environmental Corporation. *County Sanitation Districts of Orange County, Orange County Closed Landfill Sites Summary Document.* April 1996.

6.0 CERTIFICATION

I certify that this document and attachments presented in this report were prepared using normal standards of care generally employed by TRC in engineering consulting practice.

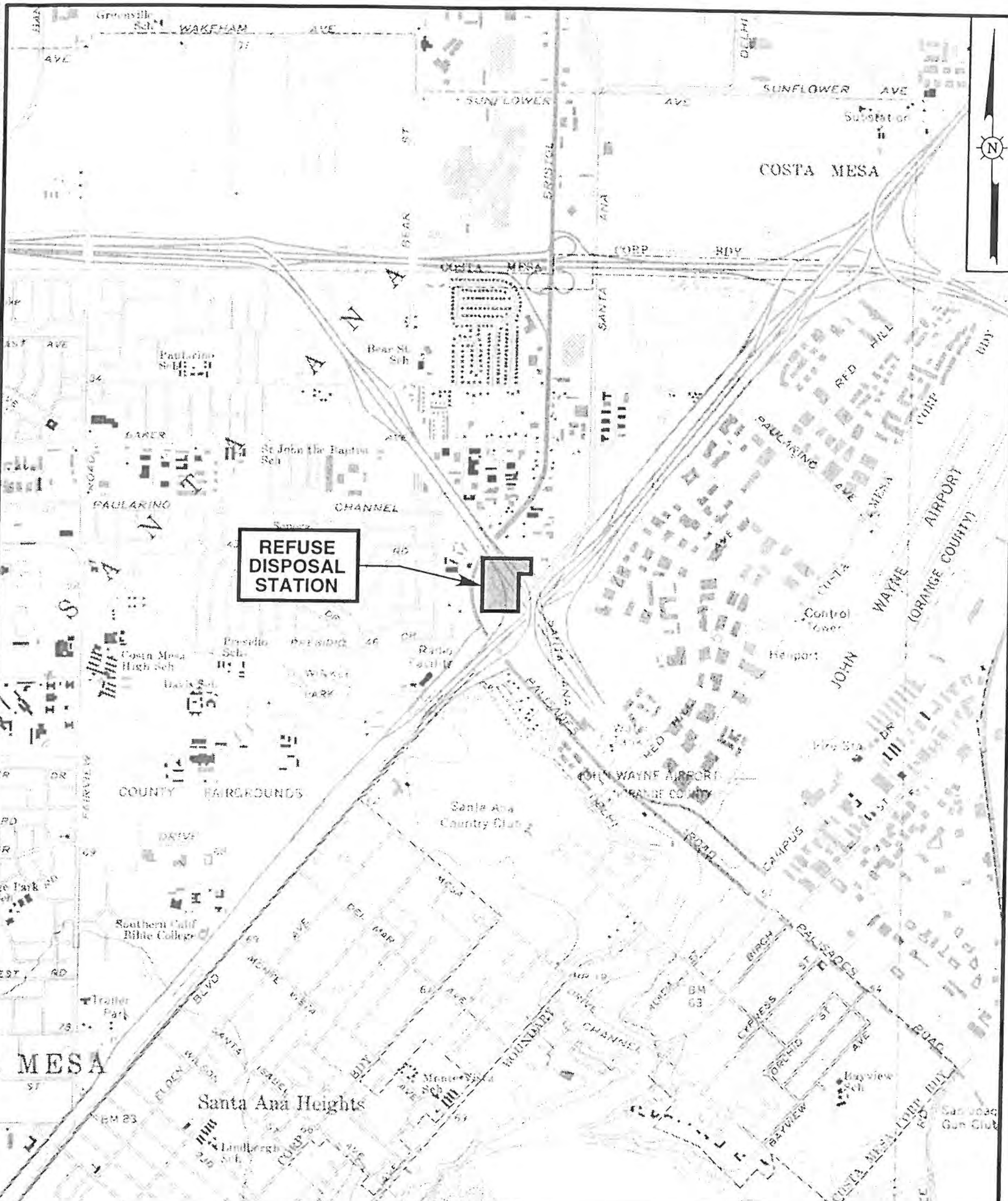
REGISTERED PROFESSIONAL ENGINEER
MICHAEL L. LEONARD
NO. 31181
Exp. 09/30/04
CIVIL
STATE OF CALIFORNIA

Michael L. Leonard, Sr.

Michael L. Leonard, Sr.
Registered Civil Engineer No. 31181

Date July 28, 2000

00-175NAEA-01 REV.07/19/00



0 2,000 4,000 FEET

SCALE

REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP OF NEWPORT BEACH, CALIFORNIA, DATED 1981, AND TUSTIN, CALIFORNIA, DATED 1981.

SITE LOCATION MAP
FORMER NEWPORT AVENUE
REFUSE DISPOSAL STATION

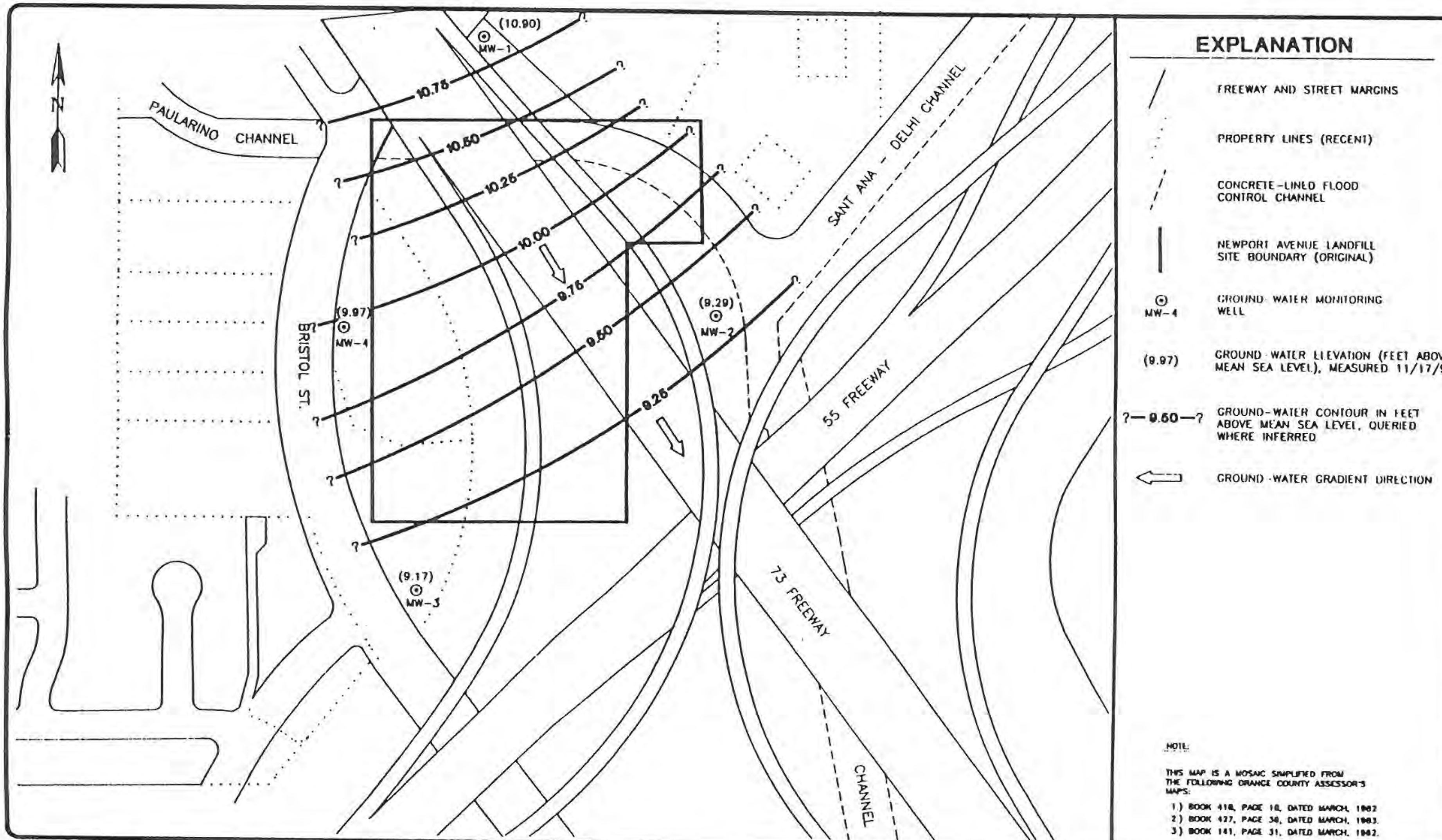
ORANGE COUNTY INTEGRATED
WASTE MANAGEMENT DEPARTMENT

TRC | **FIGURE 1**

APPENDIX A

FIGURES FROM SWAT REPORT (REF. 1-2)

Figure 2	Site Plan
Figure 3	Land Ownership Map
Figure 4	Waste Locations
Figure 5	Aerial Photograph Overlay
Figure 10	Site Cross Section A-A'
Figure 11	Site Cross Section B-B'
Figure 13	Surface Water



EMCON Associates

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
0	12/28/92	REV. SITE PLAN	RB	RB		

DATE OF ISSUE 12/28/92 | DWN BY R. BORNTREGER | CHK BY | DES BY R. Bailey | APP BY

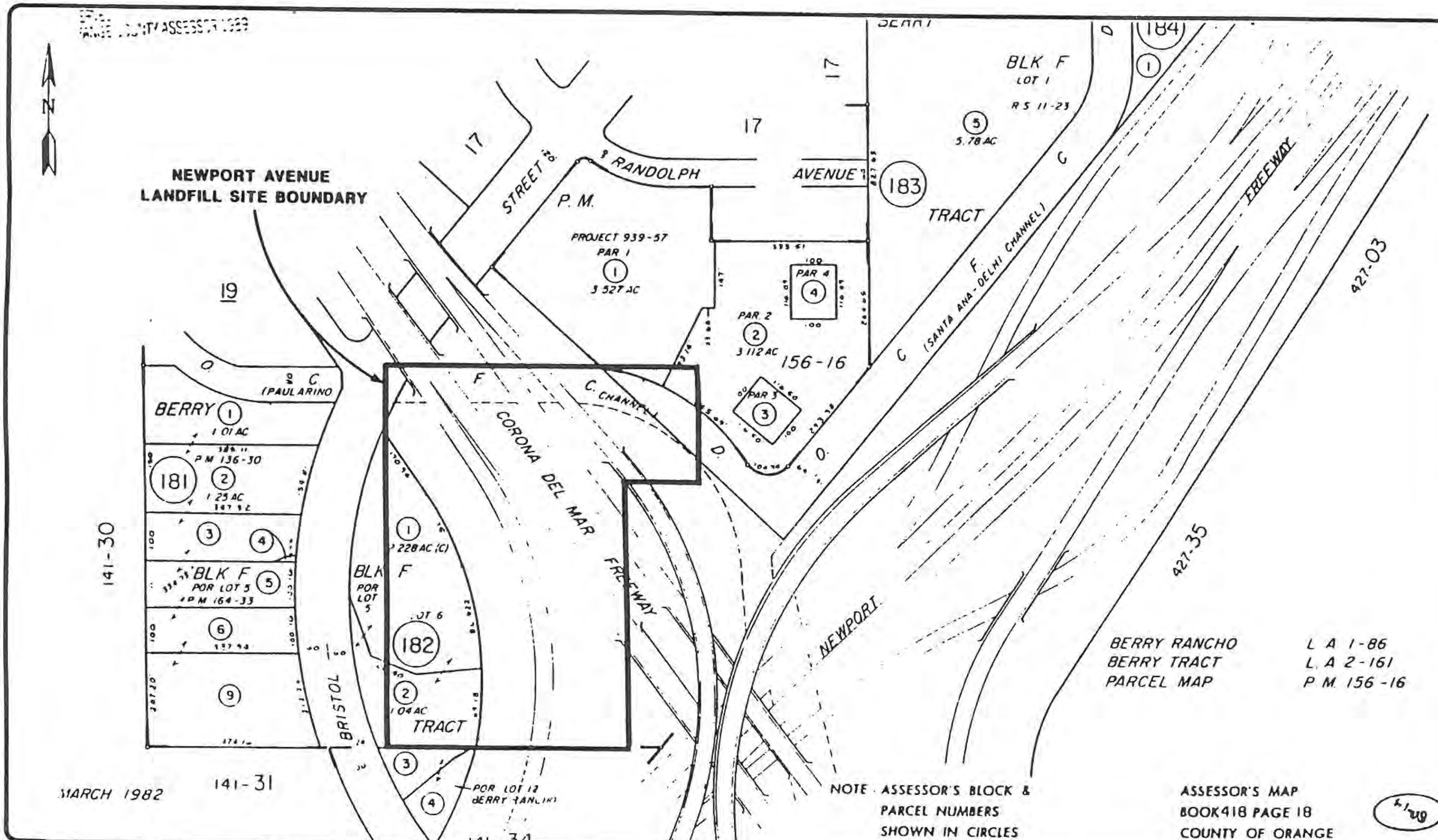
0 — 200 — 400 FEET
SCALE

SWAT REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

SITE PLAN

FIGURE 2
PROJECT NO 0C11-003.06

C1101MAP.DWG



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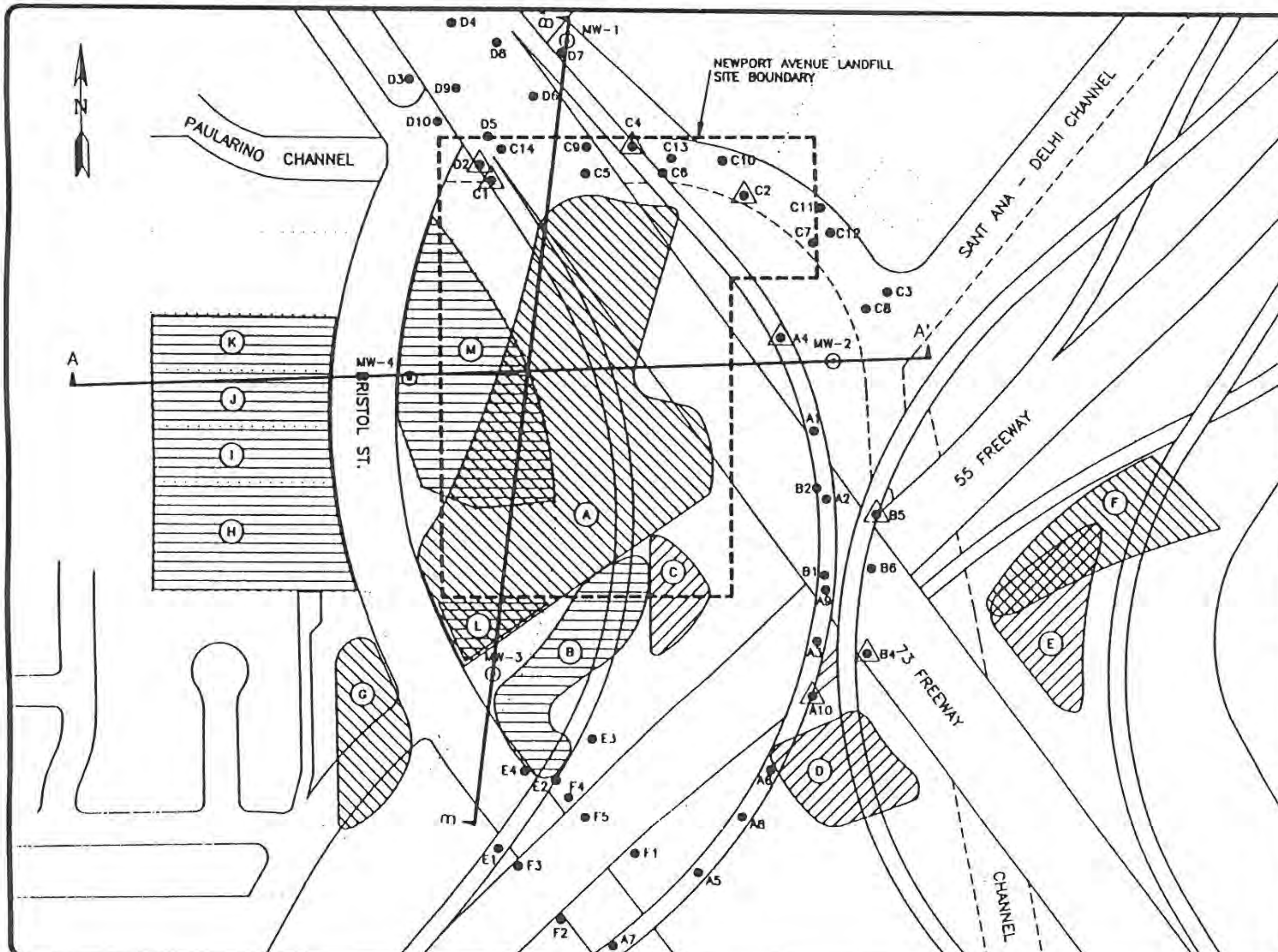
SWAT REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

LAND OWNERSHIP MAP

FIGURE 3

PROJECT NO 0C11 003 06



EXPLANATION

FREEWAY AND STREET MARGINS

PROPERTY LINES (RECENT)

CONCRETE-LINED FLOOD CONTROL CHANNEL

MW-2 GROUND-WATER MONITORING WELL

A A' GEOLOGIC CROSS SECTION; SEE FIGURES 10 AND 11

WASTE LOCATIONS ACCORDING TO PLANS AND REPORTS. NO RECORD OF REMOVAL.

WASTE REMOVAL AREA ACCORDING TO PLANS AND REPORTS. EXTENT AND AMOUNT OF REFUSE REMOVED FROM AREAS A AND F ARE UNKNOWN.

WASTE DISPOSAL AREA ACCORDING TO CALTRANS PLANS.

(A) CIRCLED LETTER REFERS TO WASTE AREA WHICH IS REFERENCED IN TEXT.

BORINGS: BORINGS INSTALLED BY CALTRANS LETTER REFERS TO SERIES AS DESCRIBED IN TEXT; NUMBER REFERS TO CALTRANS ORIGINAL DESIGNATION

A4 BORING WITH NO WASTE INDICATED ON LOG.

B5 BORING WITH WASTE INDICATED ON LOG

NOTE:
THIS MAP IS A MOSAIC SIMPLIFIED FROM THE FOLLOWING ORANGE COUNTY ASSESSOR'S MAPS:

1.) BOOK 418, PAGE 18, DATED MARCH, 1982.
2.) BOOK 427, PAGE 36, DATED MARCH, 1983.
3.) BOOK 141, PAGE 31, DATED MARCH, 1982.

EMCON Associates

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
1	12/3/92	SWAT REPORT				
0	1/30/92	CONTOURS				

DATE OF ISSUE 12/2/92 DWN BY R. BORNTRAEGER CHK BY
DES BY R. BAILEY APP BY

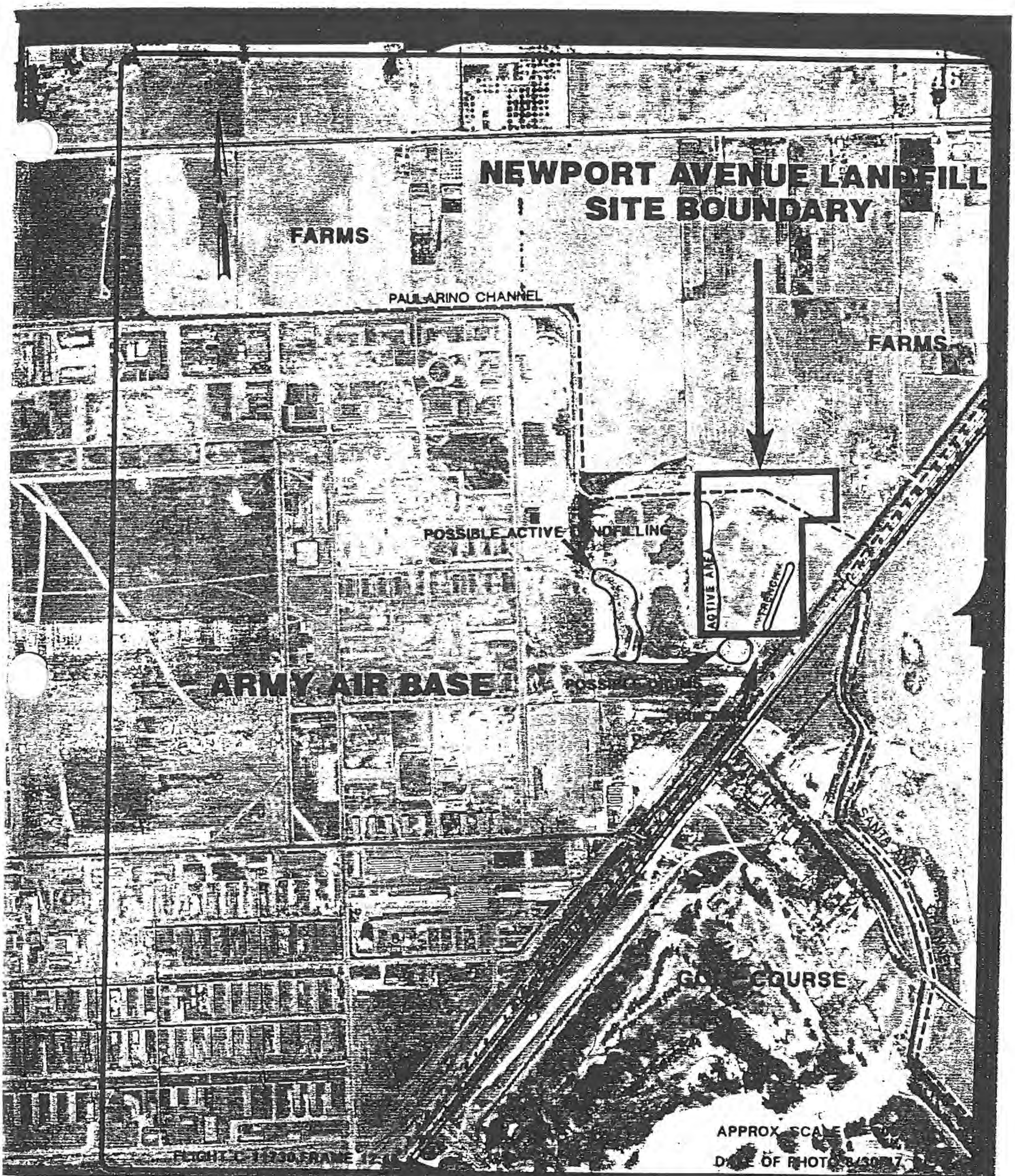
0 200 400 FEET
SCALE

SWAT REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

WASTE LOCATIONS

FIGURE 4

PROJECT NO. OC11-003.06



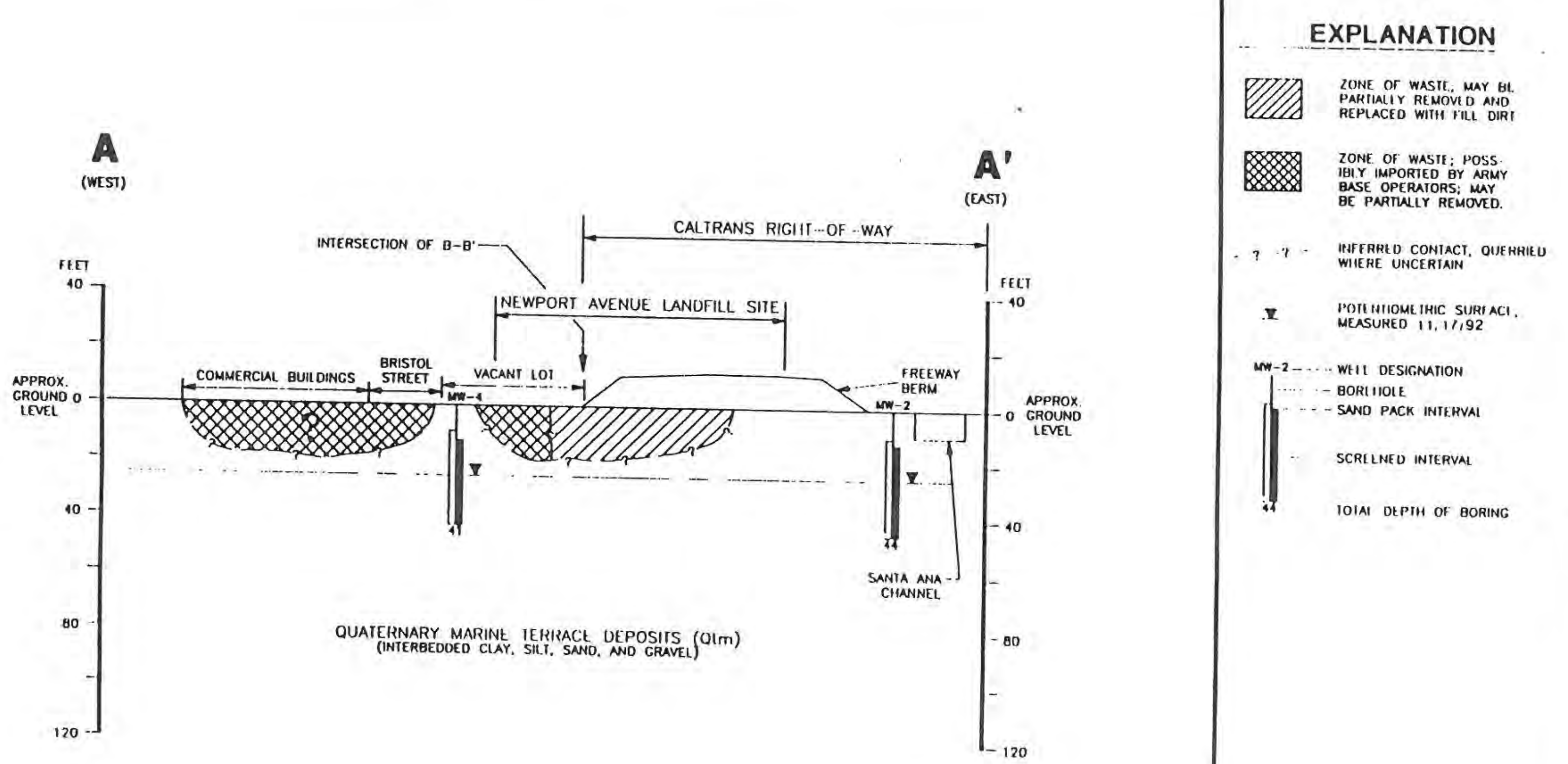
EMCON Associates

SWAT REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

AERIAL PHOTO OVERLAY

FIGURE
5

PROJECT NO.
0C11-003.06



SEE FIGURE 4 FOR LOCATION OF SECTION.

EMCON Associates

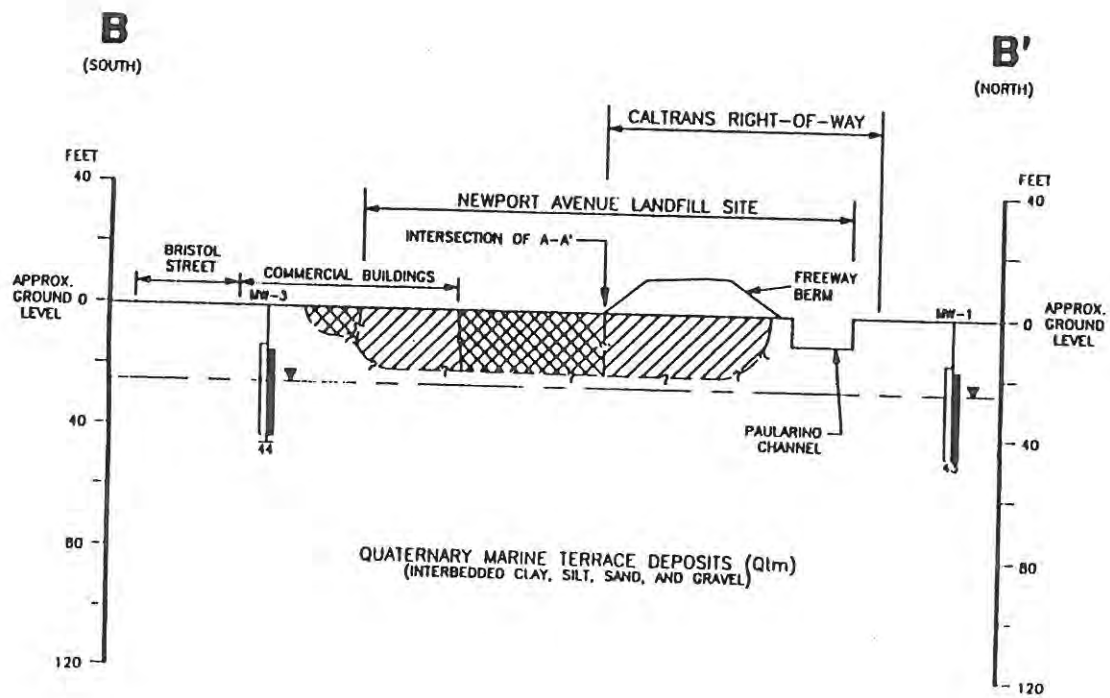
0 12/3/92 REV. X-SECTION
REV. DATE | DESCRIPTION | DWN BY | DES BY | CHK BY | APP BY
DATE OF ISSUE 12/3/92 | DWN BY | CHK BY | DES BY | APP BY

0 — 200 — 400 FEET
HORIZONTAL SCALE
VERTICAL EXAGGERATION = 5x

SWAT REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

SITE CROSS-SECTION A-A'

FIGURE 10
PROJECT NO. 0C11 003.08



EXPLANATION

- ZONE OF WASTE; MAY BE PARTIALLY REMOVED AND REPLACED WITH FILL DIRT.
- ZONE OF WASTE; POSSIBLY IMPORTED BY ARMY BASE OPERATORS; MAY BE PARTIALLY REMOVED.
- ? ? INFERRED CONTACT, QUERRIED WHERE UNCERTAIN.
- POTENTIOMETRIC SURFACE, MEASURED 11/17/92
- MW-1 — WELL DESIGNATION
- BOREHOLE
- SAND PACK INTERVAL
- SCREENED INTERVAL
- 43 — TOTAL DEPTH OF BORING

NOTE:

1.) SEE TABLE 1 AND FIGURE 4 FOR DETAILS OF WASTE AREAS.

2.) SEE FIGURE 4 FOR LOCATION OF SECTION

EMCON Associates

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
0	12/14/92	X-SECTION				

DATE OF ISSUE 12/14/92 DWN BY B.BORNTREGER CHK BY DES BY APP BY

0 200 400 FEET
HORIZONTAL SCALE
VERTICAL EXAGGERATION = 5x

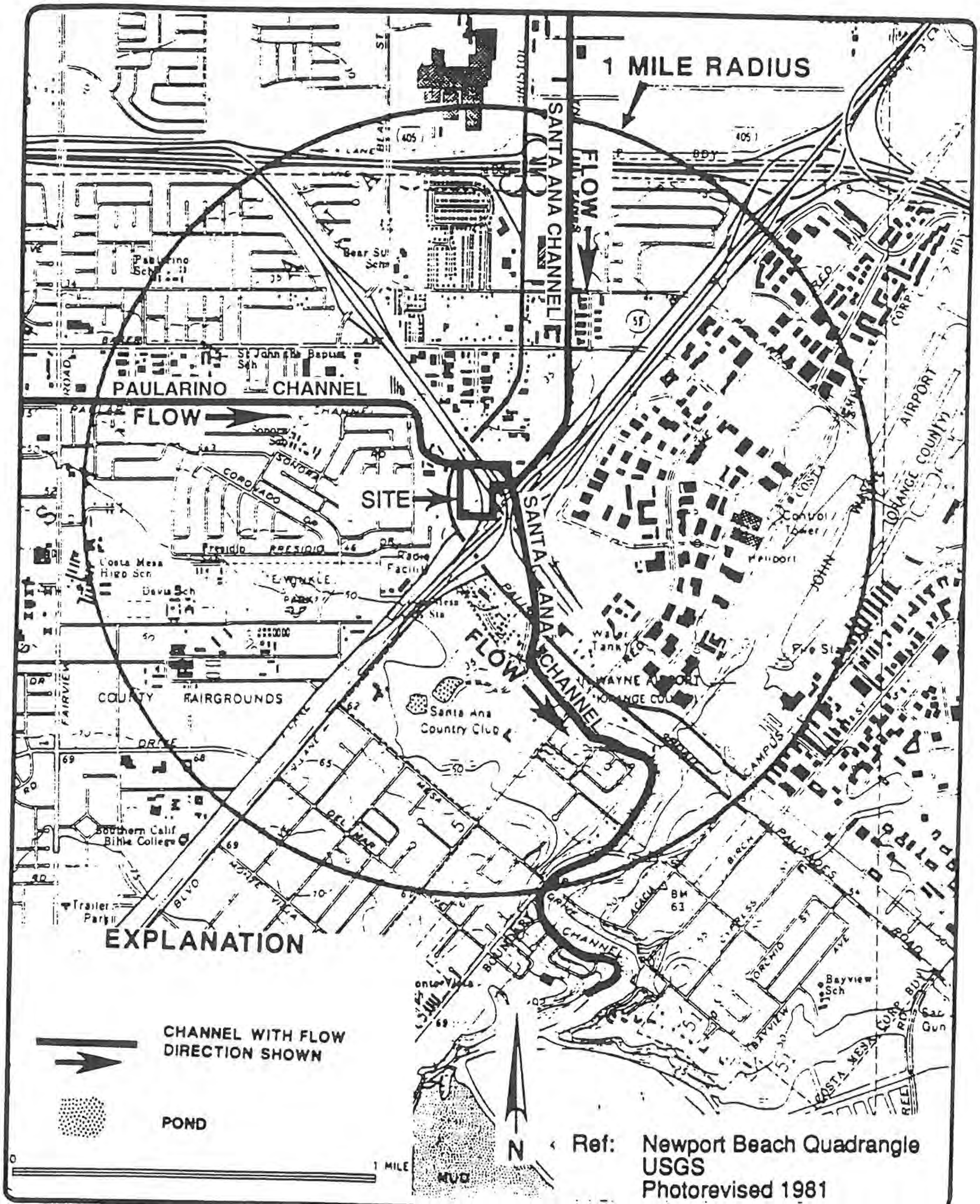
SWAT REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

SITE CROSS-SECTION B-B'

FIGURE 11

PROJECT NO. OC11-003.08

139000



EMCON Associates

SWAT REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

SURFACE WATER

FIGURE
13

PROJECT NO.
0C11-003.06

APPENDIX B

BORING AND TEST PIT LOCATION FIGURES AND LOGS FROM APPENDICES OF WATER SWAT REPORT (REF. 1-2)

Appendix B.1:	Map and Logs of Borings and Test Pits Completed by Kenneth G. Osborne & Associates within Area L of Figure 4 in Appendix A
Appendix B.2:	Map and Boring Logs by Soils International within Area M Of Figure 4 in Appendix A
Appendix B.3:	Boring Logs and Well Construction Details for SWAT Monitoring Wells

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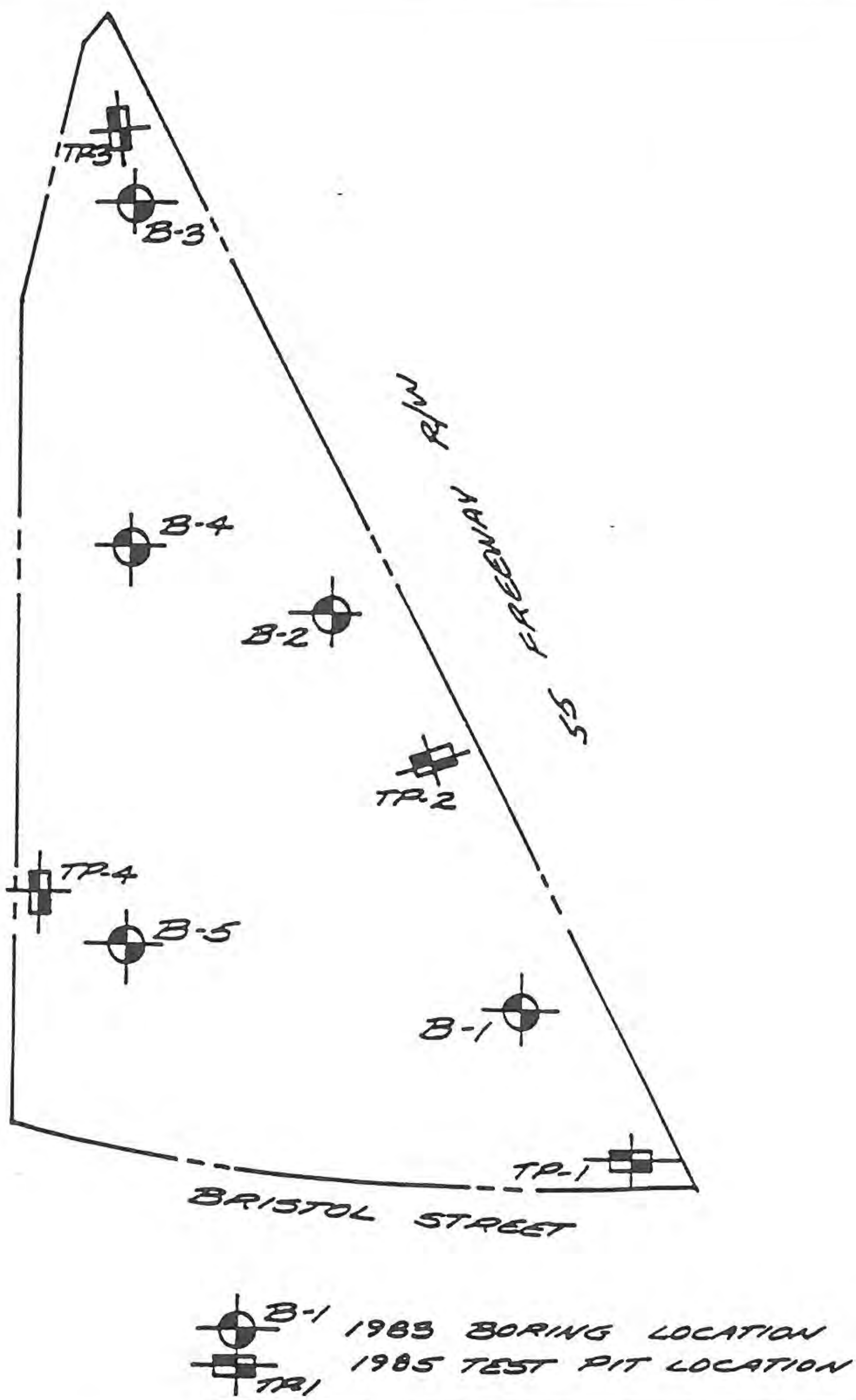
APPENDIX B.1

MAP AND LOGS OF BORINGS AND TEST PITS
COMPLETED BY KENNETH G. OSBORNE & ASSOCIATES
WITHIN AREA L OF FIGURE 4 IN APPENDIX A

TRC
Customer-Focused Solutions



SCALE: 1" = 30'

KENNETH G. OSBORNE & ASSOCIATES

BORING AND TEST PIT LOCATIONS

JOB NO.	DATE	Approved
5023	6-30-88	R.C.E. 14340

SURFACE ELEVATION 101'

DRY DENSITY lbs./cu.ft.	MAX. DENSITY lbs./cu.ft.	RELATIVE COMPACTION	MOISTURE %	PENETRATION N	DEPTH IN FEET	MATERIAL SYMBOL	UNIFIED SOIL CLASSIFICATION	
					0–4	FILL	SM	SAND, fine/coarse, silty, dry brown, micaceous, trace of gravel and cobbles, aspahlt & concrete – little gravel
					4–5	FILL	SC	SAND, fine/coarse, clayey, moist light rusty brown – increase in clay, trace of brick wood, metal, salts, dark brown
					6–9	FILL	CL	CLAY, sandy, fine/coarse, moist mottled, brown, trace of brick, wood and salts – light gray diatamaceous
					9–10		SC	SAND, fine/coarse, little clay, moist, brown
					10–16		SW	SAND, fine/coarse little to trace silt, moist, tan with iron stains, micaceous – trace of gravel & silt lenses with calcareous nodules
					16			Bottom of Boring 16' Slight Caving 12' on down No Ground Water

Depth scale: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22

KENNETH G. OSBORNE & ASSOCIATES

BORING LOG

TEST HOLE NO. B-1

JOB NO.	DATE	SHEET
3888	11/9/83	1 OF 1

B-3

SURFACE ELEVATION 101.5'

DEPTH IN FEET	MATERIAL SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION
0–2	FILL	SM	SAND, fine/coarse, silty, dry light brown, micaceous, trace gravel, brick, asphalt & concrete
2–4	FILL	CL	CLAY, sandy, fine/coarse, moist mottled brown, trace asphalt brick, wood & salts
4–8.5	FILL	SC	SAND, fine/coarse, clayey, moist mottled brown, trace gravel asphalt & concrete numerous large chunks of asphalt and concrete, increase in moisture
8.5–9	FILL	CL	CLAY, sandy, fine/coarse, verymoist mottled gray, trace metal
9–11		SC	SAND, fine/coarse, clayey, moist tan, trace of gravel
11–13		SM	SAND, fine/coarse, silty, moist light brown, micaceous
13–16		SW	SAND, fine/coarse, trace of silt moist, tan, micaceous, trace of gravel
16		CL	CLAY, silty, moist, gray, trace calcaraeous nodules

Bottom of Boring 16'
No Ground Water
No Caving

Depth scale: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22

DRY DENSITY lbs./cu.ft.	MAX. DENSITY lbs./cu.ft.	RELATIVE COMPACTION	MOISTURE %	PENETRATION N	DEPTH IN FEET	MATERIAL SYMBOL	UNIFIED SOIL CLASSIFICATION

KENNETH G. OSBORNE & ASSOCIATES

BORING LOG

TEST HOLE NO. B-2

JOB NO.	DATE	SHEET 1 OF 1
3888	11/9/83	

SURFACE ELEVATION 101.5

DRY DENSITY lbs./cu.ft.	MAX. DENSITY lbs./cu.ft.	RELATIVE COMPACTION	MOISTURE %	PENETRATION N	DEPTH IN FEET	MATERIAL SYMBOL	UNIFIED SOIL CLASSIFICATION	
					2, 4	F I	SM	SAND, fine/coarse, silty, dry light brown, micaceous, trace of gravel, concrete & asphalt moist, little clay tan, trace to no clay
					6, 8, 10	L L	SC	SAND, fine/coarse, clayye, moist mottled brown, micaceous
					12, 14, 16, 18		SC	SAND, fine/coarse, clayey, rusty brown, moist, trace of gravel decrease in clay, trace of silt lenses
					20		SW	SAND, fine/coarse, trace of silt moist, light rusty brown, micaceous, trace of gravel
					22			Bottom of Boring 21' No Ground Water No Caving

KENNETH G. OSBORNE & ASSOCIATES

BORING LOG

TEST HOLE NO. B-3

JOB NO.	DATE	
3888	11/9/83	SHEET 1 OF 1

B-5

SURFACE ELEVATION 101.8'

DRY DENSITY lbs./cu.ft.	MAX. DENSITY lbs./cu.ft.	RELATIVE COMPACTION	MOISTURE %	PENETRATION N	DEPTH IN FEET	MATERIAL SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION
					0–2	FILL	SM	SAND, fine/coarse, silty, little clay, slightly moist, brown trace gravel, asphalt & concrete
					2–5	FILL	SC	SAND, fine/coarse, clayey, little silt, moist, brown, trace to little brick, asphalt and concrete
					5–9		CL	CLAY, sandy, fine/coarse, moist mottled brown, porous rusty brown & gray, non porous
					9–14		SM	SAND, fine/coarse, silty, slightly moist, tan micaceous
					14–15.5		CL	CLAY, very silty, little sand, moist, gray, micaceous
					15.5–16		SM	SAND, fine/coarse, trace of silt, moist, brown, micaceous

Bottom of Boring 15'

Depth scale: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22

KENNETH G. OSBORNE & ASSOCIATES

BORING LOG

TEST HOLE NO. B-4

JOB NO.	DATE	SHEET
3888	11/9/83	1 OF 1

B-6

SURFACE ELEVATION 101'

DRY DENSITY lbs./cu.ft.	MAX. DENSITY lbs./cu.ft.	RELATIVE COMPACTION	MOISTURE %	PENETRATION N	DEPTH IN FEET	MATERIAL SYMBOL	UNIFIED SOIL CLASSIFICATION	
						F	SM	SAND, fine/coarse, silty, slightly moist, brown, micaceous, trace of gravel, asphalt and concrete
					2 4	I L	CL	CLAY, sandy, fine/coarse, moist mottled brown, little asphalt and concrete
					6	L	SC	SAND, fine/coarse, clayey, very moist, brown, trace of gravel
					8		CL	CLAY, sandy, fine/coarse, very moist, mottled brown trace diatamaceous material
					10		SC	SAND, fine/coarse, clayey, moist brown, slightly micaceous
					12		SM	SAND, fine/coarse, silty, trace of clay, moist, brown, micaceous increase in clay
					14		SW	SAND, fine/coarse, trace of silt moist, tan, micaceous, trace gravel
					16		ML	SITL, very clayey, moist, gray trace of salts, and calcarous nodules
					18			Bottom of Broing 15'
					20			
					22			

KENNETH G. OSBORNE & ASSOCIATES

BORING LOG

TEST HOLE NO. B-5

JOB NO.	DATE	SHEET 1 OF 1
3888	11/9/83	

B-7

SURFACE ELEVATION

DRY DENSITY lbs./cu.ft.	MAX. DENSITY lbs./cu.ft.	RELATIVE COMPACTION	MOISTURE %	PENETRATION N	DEPTH IN FEET	MATERIAL SYMBOL	UNIFIED SOIL CLASSIFICATION	
	128		7.5		2	FILL	SM	SAND, silty, fine, brown, moist soft, pieces of glass and brick
108	124	87	12.0		4	FILL	CL	CLAY, fine sandy, moist, moderately firm, brown
114			14.0		6		CL	CLAY, fine sandy, moist, greenish, numerous caliche nodules, porous, organics, moderately firm
					8			
105			22.5		10			very moist, mottled
					12			
					14		SP	SAND, coarse, moist, moderately dense
107			2.5		16			
								Bottom of Test Pit 16' No Ground Water No Caving

KENNETH G. OSBORNE & ASSOCIATES

TEST PIT LOG

TEST HOLE NO. TP-1

JOB NO. 3888 | DATE 12/13/84 | SHEET 1 OF 1

SURFACE ELEVATION

DRY DENSITY lbs./cu.ft.	MAX. DENSITY lbs./cu.ft.	RELATIVE COMPACTION	MOISTURE %	PENETRATION N	DEPTH IN FEET	MATERIAL SYMBOL	UNIFIED SOIL CLASSIFICATION	
103	127	81	7.0		2	FILL	CL	CLAY, fine sandy, slightly moist, brown, gravelly, pieces of brick
					4			
121	128	95	10.0		6			
					8		CL	CLAY, sandy, moist, grayish green, porous, numerous caliche nodules, moderately firm
115	129	89	8.0		10			
					12			Bottom of Test Pit 12' No Ground Water No Caving

KENNETH G. OSBORNE & ASSOCIATES

TEST PIT LOG

TEST HOLE NO. TP-2

JOB NO.	DATE	SHEET 1 OF 1
3888	12/13/84	

B-9

SURFACE ELEVATION

DRY DENSITY lbs./cu.ft.	MAX. DENSITY lbs./cu.ft.	RELATIVE COMPACTION	MOISTURE %	PENETRATION N	DEPTH IN FEET	MATERIAL SYMBOL	UNIFIED SOIL CLASSIFICATION	
			5.5		2	FILL	SC	SAND, gravelly, clayey, coarse damp, loose, pieces of brick
			14.5		4	FILL	ML	SILT, sandy, moist, soft, light tan, pieces of AC and concrete
			14.5		6			
					8			slight caving
101			7.0		10			SAND, clayey, coarse, moist moderately dense, reddish brown
					12			
					14			
			3.0		16			

Bottom of Test Pit 16'
No Ground Water
Slight Caving 7'

KENNETH G. OSBORNE & ASSOCIATES

TEST PIT LOG
TEST HOLE NO. TP-3

JOB NO. 3888 | DATE 12/13/84 | SHEET 1 OF 1

SURFACE ELEVATION

DRY DENSITY lbs./cu.ft.	MAX. DENSITY lbs./cu.ft.	RELATIVE COMPACTION	MOISTURE %	PENETRATION N	DEPTH IN FEET	MATERIAL SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION
			9.5			FILL	CL	CLAY, fine sandy, moist, firm light brown, pieces of AC and concrete
107			14.5		2			
					4			
97			13.5				CL	CLAY, fine sandy, grayish green moist, moderately firm
					6			
					8			
					10			Bottom of Test Pit 10' No Ground Water No Caving

KENNETH G. OSBORNE & ASSOCIATES

TEST PIT LOG
TEST HOLE NO. TP-4

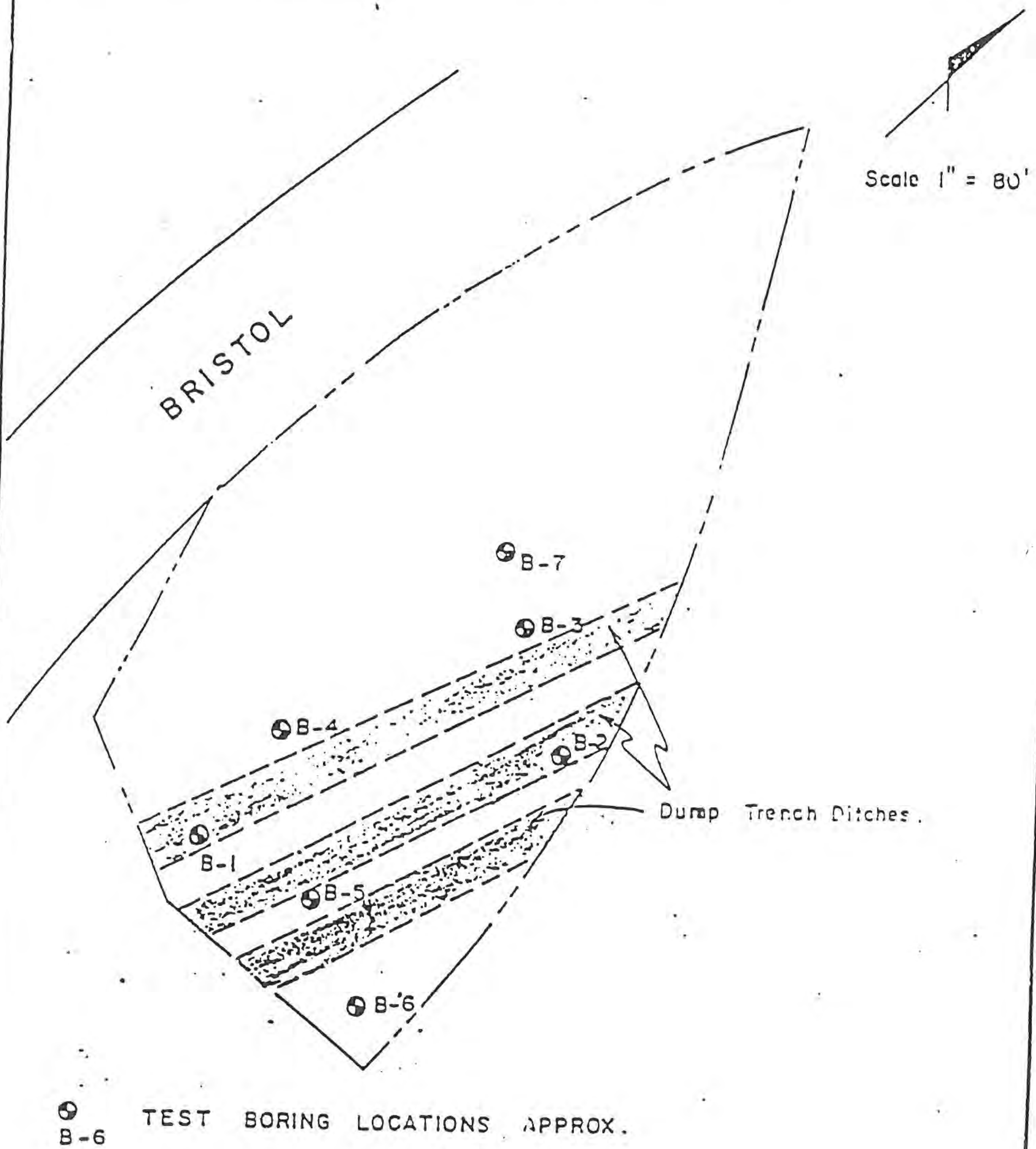
JOB NO. 3888 | DATE 12/13/84 | SHEET 1 OF 1

APPENDIX B.2

MAP AND BORING LOGS BY SOILS INTERNATIONAL
WITHIN AREA M OF FIGURE 4 IN APPENDIX A

TRC
Customer-Focused Solutions

PLOT PLAN AND BORING LOCATIONS



SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No.	S-0889-F
PLATE	A

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 1

DATE DRILLED 11/8/84	DRILLING EQUIPMENT 24" dia. Bucket Auger
DRIVING WEIGHT 2000 Lbs-12" drop	SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU.FT.	SHEAR RESISTANCE @ ANTICIPAT PRESSURE-KIPS PER SQUARE FO ● 1 2 3 4 / MOISTURE CONTENT-% DRY WEI ▲ 10 20 30 40
			FILL SAND fine, silty w/moderate debris 2" rocks, A.C, concrete, glass, etc. fragments	brown	sl. dry	mod. loose		
	●	3		mott. brown		mod. comp.	107	
5			fine-med. clayey			mod. loose		
	●	1	med., sl. clayey w/wood, metal, concrete, & rock debris (mod)				102	
10			increased amounts of same debris est. 60-70%	dk. gray				
	●	2					83	
15			same debris, added wire & brick est. 80%±					
			large rocks and concrete					
20			End of boring due to refusal on concrete					
			No groundwater Caving in bottom No detectable noxious odor					
25								

● Core sample
○ Bulk sample

SMC Motor Inns Improvement 2750 Bristol Avenue Costa Mesa, California	PROJECT No.	S-0889-F
	PLATE	B

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 2

DATE DRILLED 11/8/84	DRILLING EQUIPMENT 24" dia. Bucket Auger
DRIVING WEIGHT 2000 Lbs-12" drop	SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPATE PRESSURE - KIPS PER SQUARE FOO ● 1 2 3 4 / MOISTURE CONTENT - % DRY WEIGH ▲ 10 20 30 40
			FILL SAND fine, silty w/minor to heavy debris content A.C., concrete, wood, glass, brick fragments-debris increases w/depth est.30-40%	brown	sl. dry	mod. loose		
				mott. brown			58	▲
					moist			
5				dk gray black			86	▲
			wire added					
10			w/heavy amounts of metal debris					
15								
			w/est. 80% metal debris(tin cans)					
20		1	SAND, med-coarse, gravelly	brown	▽ wet		101	
			End of boring @ 22'. ▽ perched g.w.l. Caving @ 16-17' No detectable noxious odor					
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No.	S-0889-F
PLATE	C

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 3

DATE DRILLED 11/9/84 | DRILLING EQUIPMENT 24" dia. Bucket Auger

DRIVING WEIGHT 2000 Lbs-12" drop | SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPATE[D] PRESSURE - KIPS PER SQUARE FOO[T] 0 1 2 3 4 / MOISTURE CONTENT - % DRY WEIGH[T] 10 20 30 40
			FILL — SAND, fine, silty w/occasional rocks to 2"	brown	sl. dry	mod. loose		
5		2	SAND, fine-med. sl. clayey		moist	mod. comp.	110	
			CLAY, sandy, silty	gray		stiff		
		4	SAND, medium, clayey w/pebbles to 3/4"	gray lt. brown		comp.	122	
10		4					90	
			End of Boring @ 10.0' No caving No groundwater					
15								
20								
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No. S-0889-F

PLATE D

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING № 4

DATE DRILLED 11/9/84 | DRILLING EQUIPMENT 18" Bucket Auger

DRIVING WEIGHT 2000 Lbs-12" drop | SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPA[TED] PRESSURE - KIPS PER SQUARE F[OOT] 0 1 2 3 4 / MOISTURE CONTENT - % DRY WEI[GHT] ▲ 10 20 30 40
			FILL SAND, fine, silty w/small rocks to 3"	brown	sl. dry	mod. loose		
	◘	4					115	
			SAND, clayey w/pebbles	mott brown	moist			
5			med, clay binder	brown				
	◘	6	CLAY, silty	gray		stiff	108	
			SAND, fine-med. w/clay binder 10% gravelly	brown & gray		comp.		
10	◘	5					115	
			End of boring @ 10.0'					
			No caving					
			No groundwater					
15								
20								
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No. S-0889-F

PLATE E

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 5

DATE DRILLED 11/9/84	DRILLING EQUIPMENT 18" dia. Bucket Auger
DRIVING WEIGHT 2000 Lbs-12" drop	SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPATED PRESSURE - KIPS PER SQUARE FOOT ● 1 2 3 4 / MOISTURE CONTENT - % DRY WEIGHT ▲ 10 20 30 40 5
			FILL SAND, fine, silty w/minor debris 3" rocks & glass, concrete fragments	brown / gray & brown	sl. dry / moist	mod. loose		
5			silty, no debris	gray				
	■	3	SAND, medium w/clay binder	brown & gray		mod. comp.	110	
10	■	4					114	
			End of boring @ 10.0'					
			No caving					
			No groundwater					
15								
20								
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No.	S-0889-F
PLATE	F

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 6

DATE DRILLED 11/9/84 | DRILLING EQUIPMENT 18" dia. Bucket auger

DRIVING WEIGHT 2000 Lbs-12" drop | SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPA[TED] PRESSURE - KIPS PER SQUARE F[OOT] / MOISTURE CONTENT - % DRY WEI[GHT]
			FILL SAND, fine silty w/minor to mod. debris A.C., glass & metal fragments	brown / dk. gray to black	sl. dry	mod. loose to mod. comp.		
5	■	3	SAND, fine, silty	gray brown	moist		110	
			medium W/clay binder	brown				
10	■	4					116	
			End of boring @ 12.0'					
			No caving					
15			No groundwater					
20								
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No. S-08890[illegible]

PLATE G

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 7

DATE DRILLED 11/9/84 | DRILLING EQUIPMENT 18" Bucket Auger

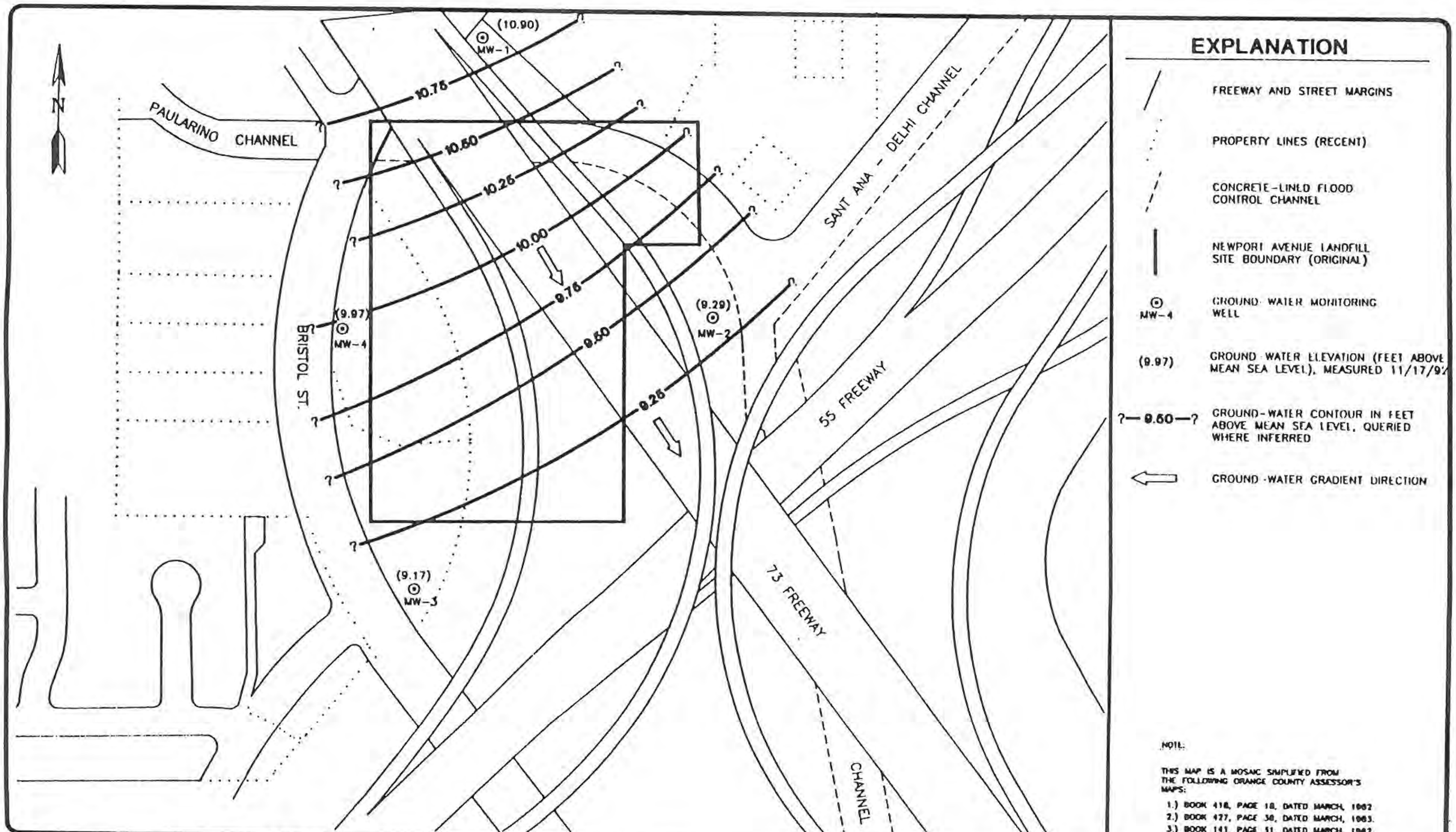
DRIVING WEIGHT 2000 Lbs-12" drop | SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPATED PRESSURE - KIPS PER SQUARE FOOT (0 1 2 3 4) / MOISTURE CONTENT - % DRY WEIGHT (10 20 30 40 5)
			FILL SAND, fine gravelly w/minor debris, glass, etc fragments	brown / lt. gray with white	sl. dry	mod. loose		
		1					74	
5								
		3	SAND, medium w/clay binder	gray brown	moist	mod. comp.	120	
10							110	
				brown				
			fine w/clay binder					
15		3					114	
			End of boring @ 15.0'					
			No caving					
			No groundwater					
20								
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No.	S-0889-F
PLATE	H

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS



EMCON Associates

0	12/28/92	REV. SITE PLAN		ZB	ZB	
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE	DWN BY J. BORNTRAEGER	CHK BY				
12/28/92	DES BY	APP BY				

0 200 400 FEET
SCALE

SWAT REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

SITE PLAN

FIGURE
2

PROJECT NO
0C11-003 06

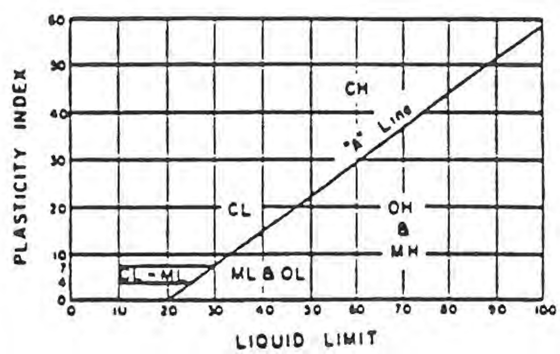
C110 MAP DWG

MAJOR DIVISIONS		SYMBOLS	TYPICAL SOIL DESCRIPTIONS
COARSE GRAINED SOILS (More than 1/2 of soil > no. 200 sieve size)	GRAVELS (More than 1/2 of coarse fraction > no. 4 sieve size)	GW	Well graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS (More than 1/2 of coarse fraction < no. 4 sieve size)	SW	Well graded sands or gravelly sands, little or no fines
		SP	Poorly graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOILS (More than 1/2 of soil < no. 200 sieve size)	SILTS & CLAYS LL < 50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
	SILTS & CLAYS LL > 50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silty clays, organic silts
HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils

CLASSIFICATION CHART
(Unified Soil Classification System)

CLASSIFICATION	RANGE OF GRAIN SIZES	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL	3" to No. 4	76.2 to 4.76
coarse	3" to 3/4"	76.2 to 19.1
fine	3/4" to No. 4	19.1 to 4.76
SAND	No. 4 to No. 200	4.76 to 0.074
coarse	No 4 to No. 10	4.76 to 2.00
medium	No. 10 to No. 40	2.00 to 0.420
fine	No. 40 to No. 200	0.420 to 0.074
SILT & CLAY	Below No. 200	Below 0.074

GRAIN SIZE CHART



PLASTICITY CHART

METHOD OF SOIL CLASSIFICATION

C-1

EMCON ASSOCIATES

APPENDIX B.3

BORING LOGS AND WELL CONSTRUCTION DETAILS
FOR SWAT MONITORING WELLS

EXPLANATION OF SYMBOLS ON EXPLORATORY BORING LOGS

Sample Column

BAG/BULK SAMPLES

5 FT. SPLIT BARREL SAMPLER (CONTINUOUS SAMPLER)

MODIFIED CALIFORNIA SPLIT SPOON

OTHER SAMPLERS (SEE REMARKS FOR TYPE AND SIZE)

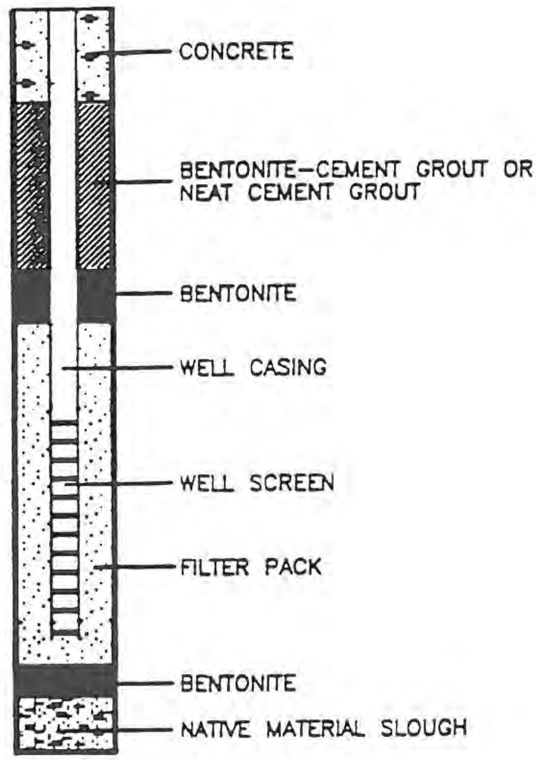
PITCHER BARREL

ROCK CORE (SEE REMARKS FOR TYPE AND SIZE)

SHELBY TUBE SAMPLER

STANDARD PENETRATION TEST SPLIT SPOON SAMPLER (2" OD)

Well Details Column



Other Notations

	Denotes depth to first observed ground water
	Denotes depth to static ground water
	Denotes depth to product observed in monitoring well
Penetration (Blow Count)	Blows required to drive sampler 6 inches (or 12 inches, as noted) into soil are indicated on the logs. Drive hammer weight = 140 lbs., drop = 30 inches.
(2.5YR, 6/2)	Denotes color as field checked to Munsell Soil Color Charts (1975 Edition) or GSA Rock Color Chart
OVM	Organic Vapor Meter
TSF	Tons per Square Foot
(ppm)	Parts Per Million

LOG OF EXPLORATORY BORING

PROJECT NUMBER C11-03.04 BORING NO. MW-1

PROJECT NAME NEWPORT AVE. LANDFILL PAGE 1 OF 2

BY K.M.E. DATE 10/7/91 SURFACE ELEV. ~35 ft. MSL

OVM Reading (ppm)	Penetrometer (TSF)	Penetration Blows/Ft.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOGRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							Asphalt.	
							SILT (ML), light yellowish brown (2.5Y, 6/4); low plasticity fines; damp; stiff; micaceous; no odor.	
0		16		5			As above.	
0		23		10			As above.	
							SAND (SP), grayish brown (2.5Y, 5/2); trace to 10% non-plastic fines; damp; medium dense; micaceous; no odor.	
1		80		15			At 15 feet: silt lens	
							At 16.5 feet: 20 to 40% fine gravel; damp; very dense; iron oxide staining.	
0		60		20			At 21 feet: silty sand lens; 20 to 30% fines.	
							SAND (SP), dark yellowish brown (10YR, 4/6); 95% fine sand; 5% non-plastic fines; damp; very dense; micaceous; strong iron oxide staining; no odor.	
				25				

REMARKS

Well drilled and installed by Tonto Drilling using a Mobile Drill rig. Ground water encountered at a depth of 23.8 feet during drilling. Surface elevation is approximate.

EMCON ASSOCIATES

LOG OF EXPLORATORY BORING

PROJECT NUMBER C11-03.04 BORING NO. MW-1

PROJECT NAME NEWPORT AVE. LANDFILL

BY K.M.E. DATE 10/7/91 SURFACE ELEV. ~ 35 ft. MSL

OVM Reading (ppm)	Penetrometer (TSF)	Penetration Blows/Ft.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOGRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
		32					SAND (SW), olive brown (2.5Y, 4/4); fine to coarse sand (1:1:1); wet; dense.	
		21		30			CLAY (CH), olive gray (5Y, 5/2) to mottled brown; 90 to 95% high plasticity fines; 5 to 10% fine sand; damp; very stiff; micaceous; iron oxide staining; no odor.	
							At 34.5 feet: sandy clay lens; 10 to 20% fine sand.	
		8		35			At 36 feet: same as at 29 feet; mottled brown to gray; firm; rootholes.	
		16		40			At 40 feet: light gray (5Y, 7/2); damp; stiff.	
							Bottom of Boring at 43 feet.	
				45				
				50				

REMARKS

Well drilled and installed by Tonto Drilling using a Mobile Drill rig. Ground water encountered at a depth of 23.8 feet during drilling. Surface elevation is approximate.

EMCON ASSOCIATES

LOG OF EXPLORATORY BORING

PROJECT NUMBER C11-03.04 BORING NO. MW-2

PROJECT NAME NEWPORT AVE. LANDFILL

BY K.M.E. DATE 10/9/91 SURFACE ELEV. ~ 30 ft. MSL

OVM Reading (ppm)	Penetro-meter (TSF)	Penetra-tion Blows/Ft.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							Topsoil.	
							CLAY (CH), pale olive (5Y, 6/3); moderate to high-plasticity fines; 5 to 10% fine to medium sand; damp; stiff; no odor.	
0	--	11		5			At 5.5 feet: mottled gray.	
0	--	20		10			SAND (SP), pale olive (5Y, 6/3); trace to 5% fines; fine to medium sand (4:1); damp; medium dense; no odor.	
0	--	34		15			At 15 feet: 5 to 10% fines; 90 to 95% fine sand; damp; dense; no odor.	
0.50	--	15	▽	20			At approx. 19 feet: perched water. CLAY (CH), light yellowish brown (2.5Y, 6/4); moderate to high plasticity fines; damp; stiff; no odor.	
				25				

REMARKS

Well drilled and installed by Tonto Drilling using a Mobile Drill rig. Ground water encountered at a depth of 21 feet during drilling. Surface elevation is approximate.

EMCON ASSOCIATES

LOG OF EXPLORATORY BORING

PROJECT NUMBER C11-03.04 — BORING NO. MW-2
PROJECT NAME NEWPORT AVE. LANDFILL — PAGE 2 OF 2
BY K.M.E. — DATE 10/9/91 — SURFACE ELEV. ~30 ft. MSL

OVM Reading (ppm)	Penetrometer (TSF)	Penetration Blows/Ft.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOGRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
--	--	15					CLAYEY SAND (SC), light yellowish brown (2.5Y, 6/4); 20 to 30% low to moderate plasticity fines; 70 to 80% fine sand; wet; medium dense; no odor.	
--	--	13		30			CLAY (CL), light gray (2.5Y, N7/); low plasticity fines; damp; stiff; no odor; rootholes; iron oxide staining.	
--	--	14		35			SAND (SP), light yellowish brown (2.5Y, 6/4); 5 to 10% fines; 90 to 95% fine sand; wet; medium dense; no odor; iron oxide staining; clam shells.	
--	--	14		40			As above.	
				45			Bottom of Boring at 44 feet.	
				50				

REMARKS
Well drilled and installed by Tonto Drilling using a Mobile Drill rig. Ground water encountered at a depth of 21 feet during drilling. Surface elevation is approximate.

EMCON ASSOCIATES

LOG OF EXPLORATORY BORING

PROJECT NUMBER C11-03.04 | BORING NO. MW-3

PROJECT NAME NEWPORT AVE. LANDFILL | PAGE 1 OF 2

BY K.M.E. | DATE 10/8/91 | SURFACE ELEV. ~35 ft. MSL

OVM Reading (ppm)	Penetrometer (TSF)	Penetration Blows/Ft.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOGRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							Topsoil and gravel fill.	
0	--	50/6"		5			As above.	
0	--	50/5"		10			As above.	
0	--	59		15			SAND (SP), light yellowish brown (2.5Y, 6/4); fine grained; damp; very dense; no odor.	
							SANDY GRAVEL (GW), 20 to 30% fine to medium sand; 70 to 80% fine to medium gravel; damp; very dense.	
0	--	68		20			SAND (SW), olive (5Y, 5/4); fine to medium sand (4:1); wet at 21.5 feet; very dense; no odor.	
			▽					
				25				

EMCON ASSOCIATES

REMARKS

Well drilled and installed by Tonto Drilling using a Mobile Drill rig. Ground water encountered at a depth of 22.5 feet during drilling. Surface elevation is approximate.

LOG OF EXPLORATORY BORING

PROJECT NUMBER C11-03.04 BORING NO. MW-3

PROJECT NAME NEWPORT AVE. LANDFILL PAGE 2 OF 2

BY K.M.E. DATE 10/8/91 SURFACE ELEV. ~35 ft. MSL

OVM Reading (ppm)	Penetrometer (TSF)	Penetration Blows/Ft.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOGRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
--	--	30					As above.	
--	--	23		30			At 30 feet: fine to coarse sand (4:1:1).	
--	--	34		35			At 35 feet: gray silt lens. SILTY SAND (SM), light olive gray (5Y, 6/2); 10 to 20% silt; 80 to 90% fine sand; wet; dense; iron oxide staining.	
--	--	50/5"		40			SAND (SP), olive (5Y, 4/3); fine grained; trace silt; wet.	
				45			Bottom of Boring at 44 feet.	
				50				

REMARKS

Well drilled and installed by Tonto Drilling using a Mobile Drill rig. Ground water encountered at a depth of 22.5 feet during drilling. Surface elevation is approximate.

EMCON ASSOCIATES

LOG OF EXPLORATORY BORING

PROJECT NUMBER C11-03.04 BORING NO. MW-4

PROJECT NAME NEWPORT AVE. LANDFILL PAGE 1 OF 2

BY R.J.B. DATE 8/10/92 SURFACE ELEV. ft.MSL

TLV Reading (ppm)	Penetro-meter (TSF)	Penetra-tion Blows/Ft.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
--	--	30		5			GRAVELLY SILT (ML), dark grayish brown (10YR, 4/2); 10% gravel (0.5 - 1"); 40% fine to coarse-grained sand; 50% silt; low plasticity; very poorly sorted; slightly clayey; very stiff; slightly moist; not enough material for sample.	
50	--	46		10			SILTY SAND (SM), dark yellowish brown (10YR, 4/6); 10% medium-plastic fines; 10% fine sand; 80% coarse sand; poorly sorted; rounded; dense; very moist; no odor.	
40	--	34		15			SAND (SM), as above; pebbly.	
40	--	52		20			GRAVELLY SAND (SW), light yellowish brown (10YR, 6/4); 10% fine and medium sand; 25% gravel (0.5"); 65% coarse sand; poorly sorted; angular; very dense; very moist.	

REMARKS

1.) Well drilled and installed by Beylik Drilling using a B-61 Mobil-Drill drill rig. 2.) Ground water first encountered at 23 feet bgs. 3.) No trash encountered. 4.) Well located east of Bristol St. between 55 & 73 freeways.

EMCON SOUTHWEST

LOG OF EXPLORATORY BORING

PROJECT NUMBER C11-03.04 — BORING NO. MW-4

PROJECT NAME NEWPORT AVE. LANDFILL — PAGE 2 OF 2

BY R.J.B. — DATE 8/10/92 — SURFACE ELEV. ft.MSL

TLV Reading (ppm)	Penetrometer (TSF)	Penetration Blows/Ft.	Ground Water Levels	Depth in Ft.	Description
			∇ (23 ft)		
130	--	29		25	SAND (SW), as before; 10% gravel (0.5"); wet.
60	--	28		30	SAND (SW), light olive brown (2.5Y, 5/4); 25% fine; 25% coarse; 50% medium-grained sand; poorly sorted; slightly silty; strong iron oxide staining at 30.5 feet; medium dense; wet.
70	2.60	29		35	CLAY (CL), gray (2.5Y, N4/0); 100% medium-plastic clay; trace fine sand; mottled; shell fragments; homogeneous; very stiff; slightly moist.
60	2.80	37		40	CLAY (CL), as above; abundant claystone at 40.5 to 41 feet; slightly moist.
					Bottom of boring at 40 feet. Sampled to a depth of 41 feet.

REMARKS

1.) Well drilled and installed by Beylik Drilling using a B-61 Mobil-Drill drill rig. 2.) Ground water first encountered at 23 feet bgs. 3.) No trash encountered. 4.) Well located east of Bristol St. between 55 & 73 freeways.

EMCON SOUTHWEST

BORING NO. MW-5

COORDINATES N 2192495.59 E 6063686.32

FIELD ENGINEER	P. Smith	DATE BEGAN	5-6-96
EDITED BY	P. Smith	DATE FINISHED	5-7-96
CHECKED BY	M. Shayegan	GROUND SURFACE EL.	40.82'
		TOP OF CASING EL.	40.10'

LABORATORY TEST DATA: PERMEABILITY (cm/s), BENZENE (ppm), TOLUENE (ppm), XYLENE (ppm), TOTAL PETROLEUM HYDROCARBONS (ppm) — no entries.

SAMPLE	DEPTH IN FEET	PID READING (ppm)	PENETRATION RESISTANCE (BLOWS/6 INCHES)
MW5-05	5	0	58
MW5-10	10	0	43
MW5-15	15	0	75
MW5-20	20	0	49
MW5-25	25	0	59
MW5-30	30	0	99
MW5-35	35	0	45
MW5-40	40	0	92

USCS	DESCRIPTION	DEPTH
	ASPHALT, 2 inches thick.	0.16'
Af	Very dark grayish brown (10YR 3/2) sandy, lean CLAY, moist, 10-20% fine gravel, no odor or petroleum hydrocarbon stain, artificial fill.	6.0'
Af	Very dense, olive gray (5Y 4/2), SAND, moist, fine to coarse grained, mostly medium), poorly graded, 10% fine rounded gravel, no odor oR stain, fill.	9.0'
cl	Stiff, olive gray to grayish brown (5Y 4/2-10YR 3/2) sandy CLAY, moist, fill, asphalt at 9.5 feet. Bottom of fill.	9.5'
cl	Firm, very dark gray (5Y 3/1) lean CLAY with silt, moist, low plasticity, mottled. Soft, very dark gray (5Y 3/1) lean CLAY, very moist to wet, low to medium plasticity, 5% fine to medium grained sand, mottled.	15.0'
sw	Dense, brown (10YR 4/3) SAND with clay, very moist, fine to coarse grained, subangular to subrounded, well graded, trace gravel.	17.0'
sc	Dense, dark yellowish brown (10YR 3/4) clayey SAND, moist, no odor.	19.5'
cl	Firm, olive (5Y 4/3) lean CLAY, moist, low plasticity, faintly laminated, iron oxide stain common.	20.0'
sw	Olive gray (5Y 5/2) SAND, very moist, fine to coarse grained, well graded, no odor.	23.0'
ml	Soft, olive (5Y 4/3) SILT, very moist to wet.	24.25'
sp	Dense, olive gray (5Y 5/2) SAND, wet, fine to medium grained (mostly medium), subrounded, poorly graded. Groundwater first encountered at approximately 29.5 feet. Olive gray (5Y 5/2) SAND, wet. Groundwater measured at 30 feet on 5/7/96.	34.0'
ml	Firm to hard, dark yellowish brown (10YR 4/4) SILT, moist, faintly laminated locally, some clay, low plasticity, no odor. Wet.	39.0'
ch	Hard, olive gray (5Y 4/2) fat CLAY, moist, faint laminae to 1mm, no odor.	

TOTAL DEPTH = 41.5 FEET

NOTES:

1. Borehole drilled with a CME 95 drill rig equipped with 10-inch diameter hollow stem auger.
2. Soil samples collected every 5 feet using a 3.0-inch O.D. by 18-inch long California modified split spoon sampler equipped with 2.5-inch diameter by 6-inch long brass rings. Sampler driven with a 140 pound downhole hammer dropped 30 inches.
3. Headspace measurements taken with a HNU Photoionization Detector (PID).
4. Monitoring well constructed with 4.5" I.D., schedule 40, 0.020" slot PVC screen from 11' to 41', blank PVC casing from 0-11' BGS; Lonestar #3 sand from 10'-41.5'; medium betonite chips from 5-10'; and concrete from 0-5' with a flush mounted well box at ground surface.

PROJECT NO. 763080

CLIENT: COUNTY OF ORANGE IWMD
NEWPORT AVENUE LANDFILL

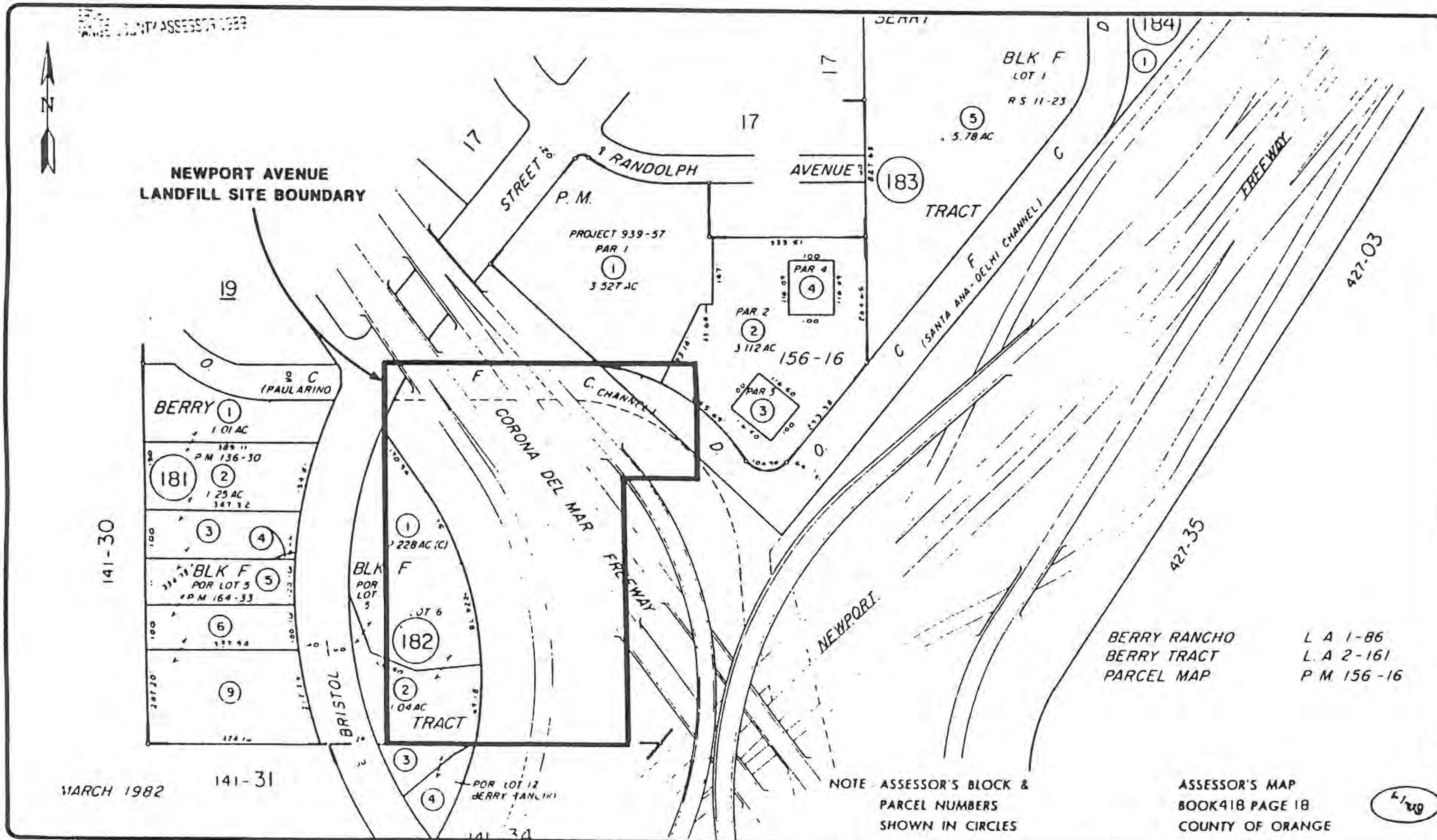
SEE LEGEND FOR LOGS AND TEST PITS FOR EXPLANATION OF SYMBOLS AND TERMS

INTERNATIONAL TECHNOLOGY CORPORATION

APPENDIX C

LAND OWNERSHIP DATA
(REF. 1-2, FIGURE 3)

TRC
Customer-Focused Solutions



EMCON Associates

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE	DWN BY		CHK BY			
	DES BY		APP BY			

SWAT REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

LAND OWNERSHIP MAP

FIGURE 3

PROJECT NO 0C11 003 06

```
*---      ---------------------:     MetroScan / Orange      :----------------------------*
Owner    :Saunders John                                      Parcel    :418 181 01
CoOwner  :                                                   Land      :$182,142
Site     :2831 Bristol St Costa Mesa 92626                   Struct    :$553,156
Mail     :4525-A Macarthur Blvd Newport Beach Ca 92660       Other     :
Xfered   :05/25/1999        Doc # :386198                    Total     :$735,298
Price    :                  Deed  :Interspousal              Exempt    :
LoanAmt  :$660,000          Loan  :Conventional              Type      :
VestTyp  :Sole And Separ    IntTy :Fixed                     % Imprv   :75
Lender   :Quaker City Financial                              % Owned   :100
LandUse  :32 Com,Miscellaneous Uses                          TaxArea   :15036
Legal    :BERRY TR LOT 5 BLK F IRREG 1.01 AC                 98-99 Tx  :$9,255.06
         :IN LOT                                             Phone     :
         :                                                   MapGrid   :859 C6
Census   :Tract:639.04      Block:3
.............               .............                    .............
Bedrooms    :               Bldg SqFt    :22,024             YearBuilt    :1962
Bathrooms   :               Stories      :2                  Lot Acres    :1.00
Total Rms   :               Fireplace    :                   Lot SqFt     :43,560
Air Cond    :No             Garage Type  :                   Units        :3
Heating     :               Pool         :No                 Spa          :
*---------------------------:     MetroScan / Orange      :----------------------------*
Owner    :Weber Harry J Trust                                Parcel    :418 181 02
CoOwner  :                                                   Land      :$76,428
Site     :2801 Bristol St Costa Mesa 92626                   Struct    :
Mail     :3200 Park Center Dr #1170 Costa Mesa Ca 92626      Other     :
Xfered   :12/13/1984        Doc # :21818                     Total     :$76,428
Price    :                  Deed  :                          Exempt    :
LoanAmt  :                  Loan  :                          Type      :
VestTyp  :                  IntTy :                          % Imprv   :
Lender   :                                                   % Owned   :
LandUse  :28 Vacant,Commercial Acreage                       TaxArea   :15036
Legal    :BERRY TR BLK F LOT 5 POR OF LOT                    98-99 Tx  :$800.66
         :                                                   Phone     :
         :                                                   MapGrid   :859 C6
Census   :Tract:639.04      Block:3
.............               .............                    .............
Bedrooms    :               Bldg SqFt    :                   YearBuilt    :
Bathrooms   :               Stories      :                   Lot Acres    :1.30
Total Rms   :               Fireplace    :                   Lot SqFt     :56,628
Air Cond    :No             Garage Type  :                   Units        :
Heating     :               Pool         :No                 Spa          :
*---------------------------:     MetroScan / Orange      :----------------------------*
Owner    :Tennison Lance/Maribeth                            Parcel    :418 181 03
CoOwner  :                                                   Land      :$408,000
Site     :2787 Bristol St Costa Mesa 92626                   Struct    :$330,000
Mail     :2787 Bristol St Costa Mesa Ca 92626                Other     :
Xfered   :09/04/1997        Doc # :429046                    Total     :$738,000
Price    :$738,500 Full     Deed  :Grant Deed                Exempt    :
LoanAmt  :$369,013          Loan  :Conventional              Type      :
VestTyp  :Communit Ppty     IntTy :Fixed                     % Imprv   :45
Lender   :Wells Fargo Bank                                   % Owned   :100
LandUse  :32 Com,Miscellaneous Uses                          TaxArea   :15036
Legal    :P M 136-30 PAR 3 POR OF PAR                        98-99 Tx  :$7,649.26
         :                                                   Phone     :
```

```
*----     ---------------------:     MetroScan / Orange       :----------------------------*
Owner     :Weber Harry J Trust                            Parcel     :418 181 04
CoOwner   :                                               Land       :
Site      :*No Site Address*                              Struct     :
Mail      :                                               Other      :
Xfered    :03/31/1987        Doc # :172362                Total      :
Price     :                  Deed  :                      Exempt     :
LoanAmt   :                  Loan  :                      Type       :
VestTyp   :                  IntTy :                      % Imprv    :
Lender    :                                               % Owned    :100
LandUse   :31 Com,Commercial Lot                          TaxArea    :15036
Legal     :BERRY TR LOT 5 BLK F IRREG LOT IN              98-99 Tx   :
          :LOT                                            Phone      :
          :                                               MapGrid    :
Census    :Tract:           Block:
.............              .............                    .............
Bedrooms    :              Bldg SqFt    :                   YearBuilt    :
Bathrooms   :              Stories      :                   Lot Acres    :.02
Total Rms   :              Fireplace    :                   Lot SqFt     :1,000
Air Cond    :No            Garage Type  :                   Units        :
Heating     :              Pool         :No                 Spa          :
*-----------------------------:     MetroScan / Orange       :----------------------------*
Owner     :Deacon Amos R L Jr Tr                          Parcel     :418 181 05
CoOwner   :                                               Land       :$455,979
Site      :2777 Bristol St Costa Mesa 92626               Struct     :$1,301
Mail      :9702 Windes Dr Orange Ca 92869                 Other      :
Xfered    :                  Doc # :                      Total      :$457,280
Price     :                  Deed  :                      Exempt     :
LoanAmt   :                  Loan  :                      Type       :
VestTyp   :                  IntTy :                      % Imprv    :
Lender    :                                               % Owned    :
LandUse   :29 Com,Commercial Building                     TaxArea    :15036
Legal     :BERRY TR LOT 5 BLK F RECTANG LOT IN            98-99 Tx   :$4,660.46
          :LOT                                            Phone      :714-633-0413
          :                                               MapGrid    :859 C6
Census    :Tract:639.04     Block:3
.............              .............                    .............
Bedrooms    :              Bldg SqFt    :                   YearBuilt    :1958
Bathrooms   :              Stories      :1                  Lot Acres    :5.80
Total Rms   :              Fireplace    :                   Lot SqFt     :252,648
Air Cond    :No            Garage Type  :                   Units        :
Heating     :              Pool         :No                 Spa          :
*-----------------------------:     MetroScan / Orange       :----------------------------*
Owner     :Deacon Amos R L Jr Tr                          Parcel     :418 181 06
CoOwner   :                                               Land       :$461,203
Site      :2765 Bristol St Costa Mesa 92626               Struct     :
Mail      :9702 Windes Dr Orange Ca 92869                 Other      :
Xfered    :                  Doc # :                      Total      :$461,203
Price     :                  Deed  :                      Exempt     :
LoanAmt   :                  Loan  :                      Type       :
VestTyp   :                  IntTy :                      % Imprv    :
Lender    :                                               % Owned    :
LandUse   :31 Com,Commercial Lot                          TaxArea    :15036
Legal     :BERRY TR LOT 5 BLK F RECTANG LOT IN            98-99 Tx   :$4,695.88
          :LOT                                            Phone      :714-633-0413
```

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*----  ----------------------:     MetroScan / Orange      :----------------------------*
Owner    :Bristol Berry Tract Ltd                          Parcel    :418 181 09
CoOwner  :                                                 Land      :$809,880
Site     :2755 Bristol St Costa Mesa 92626                 Struct    :$1,026,120
Mail     :8455 Jackson Rd #210 Sacramento Ca 95826         Other     :
Xfered   :                 Doc # :                         Total     :$1,836,000
Price    :                 Deed  :                         Exempt    :
LoanAmt  :                 Loan  :                         Type      :
VestTyp  :                 IntTy :                         % Imprv   :56
Lender   :                                                 % Owned   :
LandUse  :32 Com,Miscellaneous Uses                        TaxArea   :15036
Legal    :BERRY TR BLK F LOT 5 POR OF LOT                  98-99 Tx  :$20,631.54
         :                                                 Phone     :
         :                                                 MapGrid   :859 D6
Census   :Tract:639.04     Block:3
.............                .............                 .............
Bedrooms     :               Bldg SqFt    :                  YearBuilt    :
Bathrooms    :               Stories      :                  Lot Acres    :
Total Rms    :               Fireplace    :                  Lot SqFt     :
Air Cond     :No             Garage Type  :                  Units        :
Heating      :               Pool         :No                Spa          :
*----------------------------:     MetroScan / Orange      :----------------------------*
Owner    :South Cnty Prop                                  Parcel    :418 182 01
CoOwner  :                                                 Land      :$2,173,128
Site     :2750 Bristol St Costa Mesa 92626                 Struct    :$1,170,432
Mail     :2125 San Joaquin Hills Rd Newport Beach Ca 92660Other     :
Xfered   :02/16/1994       Doc # :117011                   Total     :$3,343,560
Price    :                 Deed  :Grant Deed               Exempt    :
LoanAmt  :                 Loan  :                         Type      :
VestTyp  :                 IntTy :                         % Imprv   :35
Lender   :                                                 % Owned   :100
LandUse  :29 Com,Commercial Building                       TaxArea   :15036
Legal    :BERRY TR LOT 5 BLK F POR OF LOT AND              98-99 Tx  :$35,269.06
         :POR OF LOT 6 BLK F                               Phone     :
         :                                                 MapGrid   :859 D6
Census   :Tract:639.04     Block:3
.............                .............                 .............
Bedrooms     :               Bldg SqFt    :                  YearBuilt    :
Bathrooms    :               Stories      :                  Lot Acres    :2.20
Total Rms    :               Fireplace    :                  Lot SqFt     :95,832
Air Cond     :No             Garage Type  :                  Units        :
Heating      :               Pool         :No                Spa          :
*----------------------------:     MetroScan / Orange      :----------------------------*
Owner    :Crum Charles S Tr                                Parcel    :418 182 02
CoOwner  :                                                 Land      :$173,627
Site     :2700 Bristol St Costa Mesa 92626                 Struct    :$148,942
Mail     :2718 Dayna St Santa Ana Ca 92705                 Other     :
Xfered   :01/27/1982       Doc # :42136                    Total     :$322,569
Price    :                 Deed  :                         Exempt    :
LoanAmt  :                 Loan  :                         Type      :
VestTyp  :                 IntTy :                         % Imprv   :46
Lender   :                                                 % Owned   :
LandUse  :82 Com,Nursery                                   TaxArea   :15036
Legal    :BERRY TR BLK F LOT 6 POR OF LOT                  98-99 Tx  :$3,345.68
         :                                                 Phone     :714-997-0444
```

```
*-----------------------------: MetroScan / Orange :----------------------------*
Owner     :Crum Charles S Tr                         Parcel   :418 182 03
CoOwner   :                                          Land     :$15,877
Site      :*No Site Address*                         Struct   :
Mail      :2718 Dayna St Santa Ana Ca 92705          Other    :
Xfered    :01/27/1982      Doc # :42136              Total    :$15,877
Price     :                Deed  :                   Exempt   :
LoanAmt   :                Loan  :                   Type     :
VestTyp   :                IntTy :                   % Imprv  :
Lender    :                                          % Owned  :
LandUse   :31 Com,Commercial Lot                     TaxArea  :15064
Legal     :BERRY RANCHO LOT 12 POR OF LOT            98-99 Tx :$204.86
          :                                          Phone    :714-997-0444
          :                                          MapGrid  :
Census    :Tract:          Block:
.............              .............               .............
Bedrooms    :              Bldg SqFt    :               YearBuilt    :
Bathrooms   :              Stories      :               Lot Acres    :.22
Total Rms   :              Fireplace    :               Lot SqFt     :9,583
Air Cond    :No            Garage Type  :               Units        :
Heating     :              Pool         :No             Spa          :
*-----------------------------: MetroScan / Orange :----------------------------*
Owner     :Oviatt Joel                               Parcel   :418 182 04
CoOwner   :Oviatt Virginia                           Land     :$354,595
Site      :2698 Bristol St Costa Mesa 92626          Struct   :$87,795
Mail      :4812 Hermanson Cir Huntington Beach Ca 92649  Other :$33,180
Xfered    :10/29/1986      Doc # :514334             Total    :$475,570
Price     :$290,000 Full   Deed  :                   Exempt   :
LoanAmt   :                Loan  :                   Type     :
VestTyp   :                IntTy :                   % Imprv  :20
Lender    :                                          % Owned  :
LandUse   :32 Com,Miscellaneous Uses                 TaxArea  :15064
Legal     :BERRY RANCHO LOT 12 POR OF LOT            98-99 Tx :$5,018.44
          :                                          Phone    :714-840-7986
          :                                          MapGrid  :859 D6
Census    :Tract:631.01    Block:1
.............              .............               .............
Bedrooms    :              Bldg SqFt    :               YearBuilt    :
Bathrooms   :              Stories      :               Lot Acres    :.26
Total Rms   :              Fireplace    :               Lot SqFt     :11,400
Air Cond    :No            Garage Type  :               Units        :
Heating     :              Pool         :No             Spa          :
*-----------------------------: MetroScan / Orange :----------------------------*
Owner     :Brazos Ptnrs                              Parcel   :418 183 02
CoOwner   :                                          Land     :$1,105,680
Site      :2900 Bristol St Costa Mesa 92626          Struct   :$732,360
Mail      :PO Box 141749 Irving Tx 75014             Other    :
Xfered    :01/25/1994      Doc # :57774 Multi-Parcel Total    :$1,838,040
Price     :                Deed  :Grant Deed         Exempt   :
LoanAmt   :                Loan  :                   Type     :
VestTyp   :                IntTy :                   % Imprv  :40
Lender    :                                          % Owned  :100
LandUse   :32 Com,Miscellaneous Uses                 TaxArea  :15036
Legal     :P BK 156 PG 16 PAR 2                      98-99 Tx :$22,176.30
          :                                          Phone    :
```

MetroScan / Orange

Owner	:Brazos Ptnrs			Parcel	:418 183 03
CoOwner	:			Land	:$204,000
Site	:2900 Bristol St Costa Mesa 92626			Struct	:$226,440
Mail	:PO Box 141749 Irving Tx 75014			Other	:
Xfered	:01/25/1994	Doc #	:57774 Multi-Parcel	Total	:$430,440
Price	:	Deed	:Grant Deed	Exempt	:
LoanAmt	:	Loan	:	Type	:
VestTyp	:	IntTy	:	% Imprv	:53
Lender	:			% Owned	:100
LandUse	:32 Com,Miscellaneous Uses			TaxArea	:15036
Legal	:P BK 156 PG 16 PAR 3			98-99 Tx	:$4,981.72
	:			Phone	:
	:			MapGrid	:859 D6
Census	:Tract:639.08	Block:1			

Bedrooms	:	Bldg SqFt	:	YearBuilt	:
Bathrooms	:	Stories	:	Lot Acres	:.27
Total Rms	:	Fireplace	:	Lot SqFt	:11,650
Air Cond	:No	Garage Type	:	Units	:
Heating	:	Pool	:No	Spa	:

418 183 01 - NEED PROJECT INFORMATION ON THIS SITE

APPENDIX D

GROUND WATER ELEVATIONS, GRADIENT AND FLOW DIRECTION DATA
(REF. 1-7)

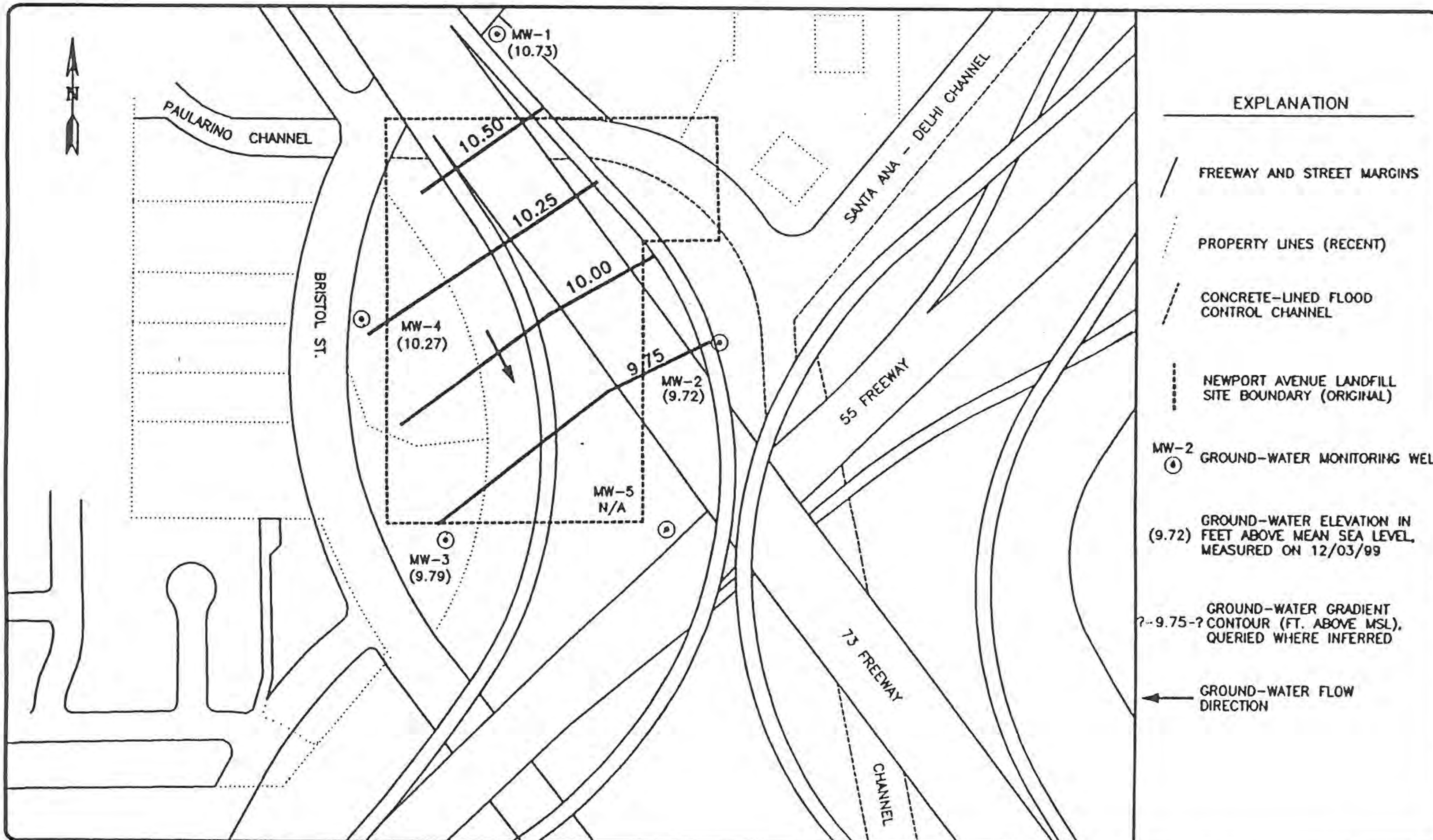
Table 1

County of Orange IWMD — 12/30/99

GROUNDWATER LEVEL MEASUREMENTS FOR NEWPORT AVENUE LANDFILL

DATE MEASURED		02/22/99		06/22/99		08/04/99		12/03/99	
WELL ID	ELEVATIONS** FT(MSL)	DEPTH TO GROUND WATER (FT)	GROUND WATER ELEV. FT(MSL)	DEPTH TO GROUND WATER (FT)	GROUND WATER ELEV. FT(MSL)	DEPTH TO GROUND WATER (FT)	GROUND WATER ELEV. FT(MSL)	DEPTH TO GROUND WATER (FT)	GROUND WATER ELEV. FT(MSL)
MW-1	33.21	21.95	11.26	22.10	11.11	22.10	11.11	22.48	10.73
MW-2	32.02	21.80	10.22	21.80	10.22	22.04	9.98	22.30	9.72
MW-3	34.99	24.65	10.34	24.70	10.29	24.90	10.09	25.20	9.79
MW-4	34.67	23.85	10.82	23.94	10.73	24.08	10.59	24.40	10.27
MW-5	39.79	29.40	10.39	28.60	11.19	29.70	10.09	(1)	

* Top of P.V.C. Casing before installation of dedicated system (7/96)
** Top of water level measurement pipe after installation of dedicated system (7/96)
(1) Well inaccessible



IWMD

0 300 600 FEET
SCALE

QUARTERLY GROUND-WATER REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

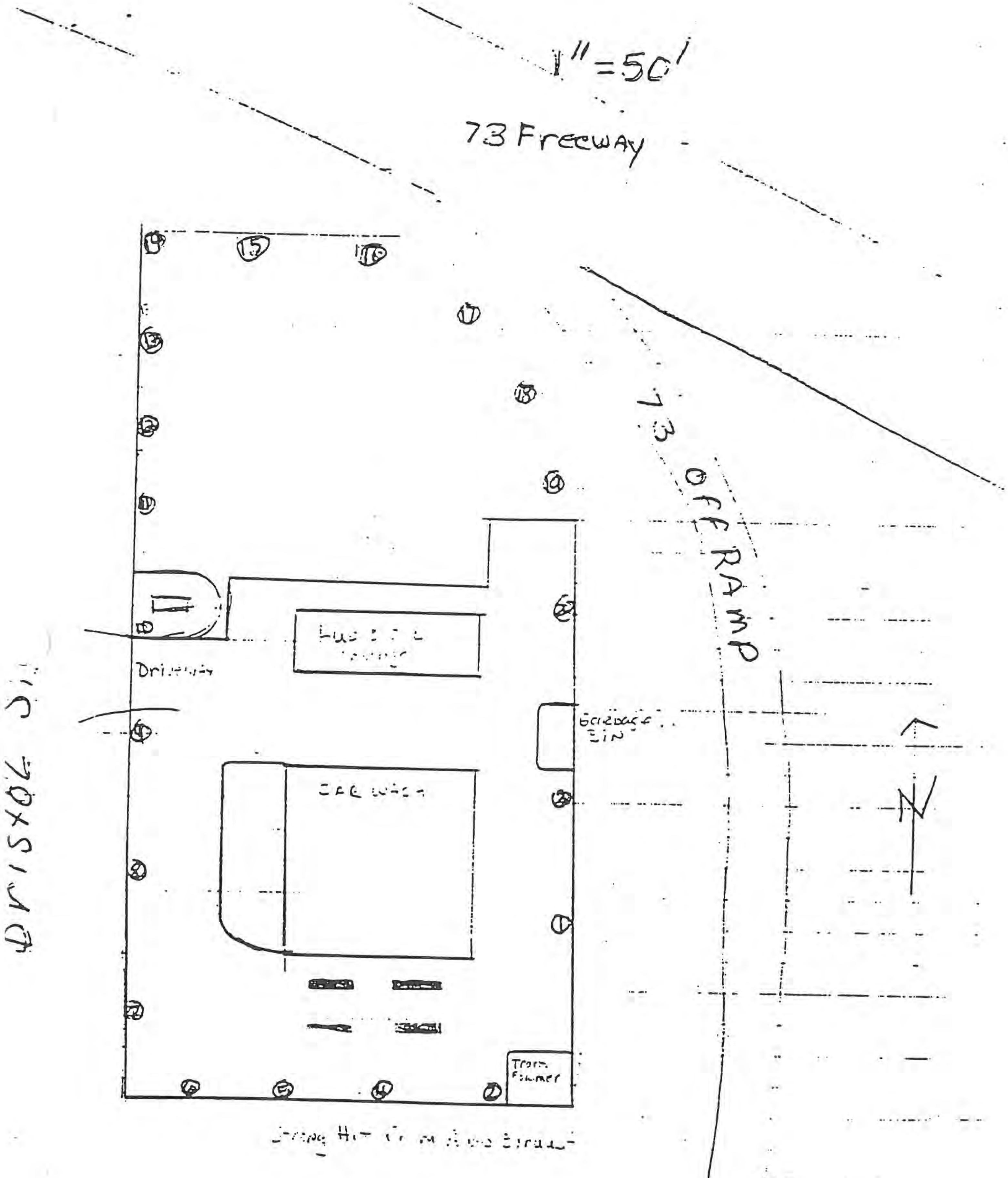
GROUND-WATER GRADIENT MAP

FIGURE
2

APPENDIX E

GAS PROBE LOCATIONS AND MONITORING RESULTS
(REF. G-41)

TRC
Customer-Focused Solutions



1" = 50'
73 Freeway
73 OFF RAMP
Driveway
Garbage Bin
Car Wash
Trans Former

FIGURE 1

SOIL GAS SAMPLE RESULTS SUMMARY

Newport Av.

SITE NAME: Costa Mesa Landfill, Orange County, California (Project 9551)
LAB NAME: InterPhase Environmental, Inc.
DATE: 2/22/96

Sample ID:	SG-1	SG-2	SG-3	SG-4	SG-5	SG-6	SG-7	SG-8	SG-9	SG-10	SG-11	duplicate SG-11
Sampling Depth (ft):	5	5	5	5	5	5	5	4	5	4	5	5
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
1,1,1-trichloroethane (1,1,1-TCA)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene (TCE)	ND	ND	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene (PCE)	ND	ND	0.21	0.034	ND	ND	ND	ND	ND	ND	0.018	0.017
	%	%	%	%	%	%	%	%	%	%	%	%
oxygen	20.9	18.4	19.4	16.4	20.4	19.7	20.8	6.1	18.6	15.0	13.2	13.8
carbon dioxide	<0.1	2.2	0.5	3.3	0.6	0.4	<0.1	2.6	0.7	0.9	5.0	4.9
methane	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

ND: not detected at detection limits of 0.01 ug/l for TCA, TCE and PCE
NOTE: Undetected compounds not listed

SITE NAME: Costa Mesa Landfill, Orange County, California (Project 9551)
LAB NAME: InterPhase Environmental, Inc.
DATE: 2/22/96

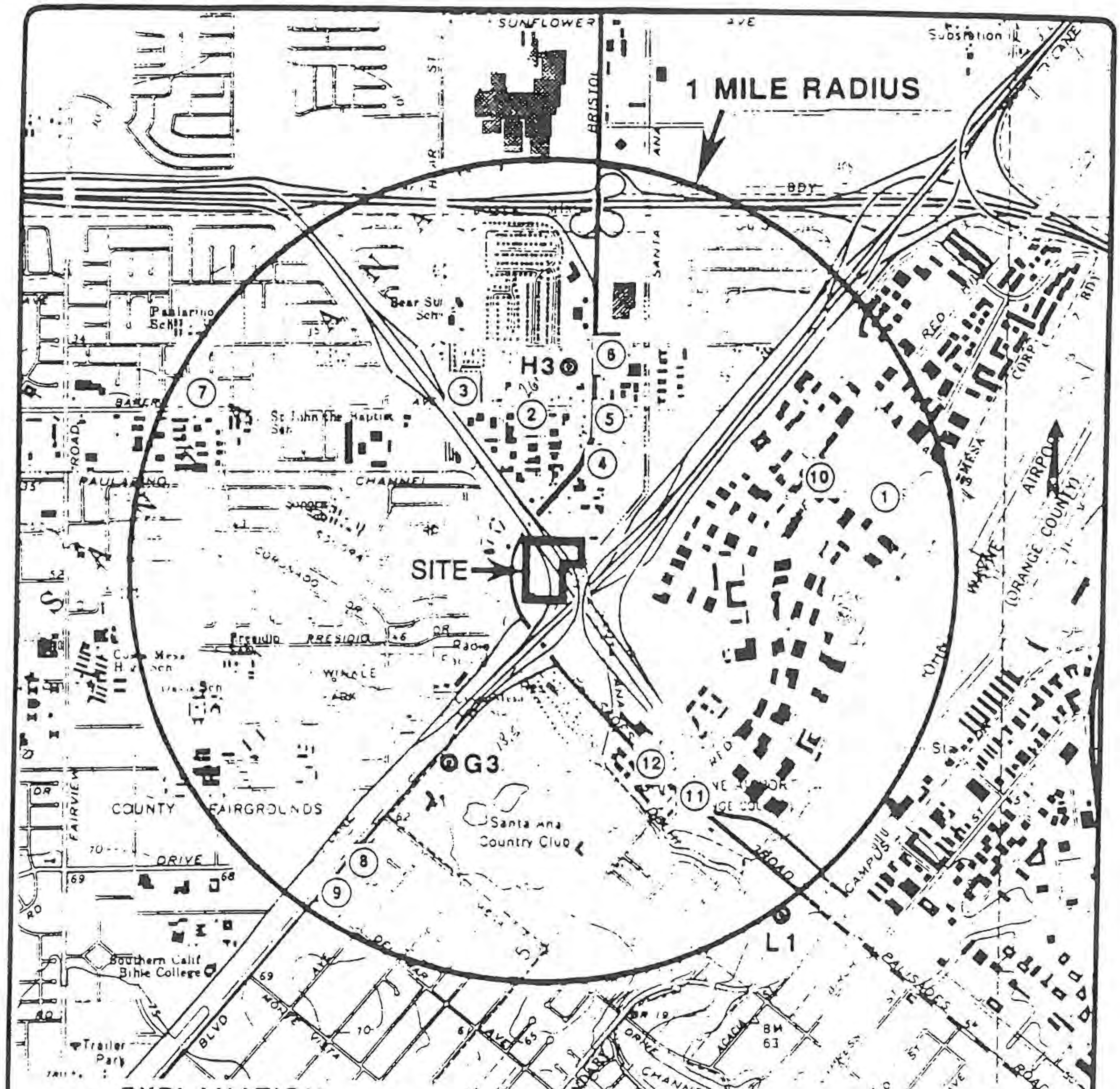
Sample ID:	SG-12	SG-13	SG-14	SG-15	SG-16	SG-17	SG-18	SG-19	SG-20
Sampling Depth (ft):	5	5	5	5	5	5	5	5	5
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
1,1,1-trichloroethane (1,1,1-TCA)	0.011	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene (TCE)	0.38	0.15	0.012	ND	ND	ND	ND	ND	ND
tetrachloroethene (PCE)	0.03	ND	ND	ND	ND	0.028	ND	ND	ND
	%	%	%	%	%	%	%	%	%
oxygen	13.5	14.4	19.2	13.9	17.1	13.2	13.3	20.5	19.4
carbon dioxide	5.4	4.2	0.6	4.3	1.7	9.8	7.5	<0.1	1.2
methane	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

ND: not detected at detection limits of 0.01 ug/l for TCA, TCE and PCE
NOTE: Undetected compounds not listed

APPENDIX F

LOCATIONS AND DESCRIPTIONS OF WATER WELLS AND UNDERGROUND STORAGE TANKS WITHIN 1 MILE OF THE FORMER REFUSE DISPOSAL STATION (REF. 1-2)

131783



EXPLANATION

(9) SITE OF MONITORING WELLS, SEE TABLE 4 FOR DATA

⊙ G3 WATER WELL. SEE TABLE 3 FOR DATA

Ref: Newport Beach Quadrangle
USGS
Photorevised 1981

EMCON Associates

SWAT REPORT
NEWPORT AVENUE LANDFILL
COUNTY OF ORANGE
INTEGRATED WASTE MANAGEMENT DEPARTMENT

EXISTING WATER WELL LOCATION MAP

FIGURE 12

PROJECT NO. 0C11-003.06

TABLE 3
WATER WELLS IN THE VICINITY OF NEWPORT AVENUE LANDFILL

Well ID On Map (3)	Standard or State Well Number	Total Depth (ft)	Screened Interval (ft)	Completion Date	Depth To Water/Date	Owner	Use	Status	Reference
G-3	06S/10W-05B03S	518	205-401	12-62	18.5'/5-14-85	Santa Ana Country Club	Irrigation	NA	(1,2)
L-1	6S/10W-12L1	498	192-218	1-3-76	NA	Newport Bch Golf Course	Irrigation	NA	(2)
→ H-3	6S/10W-2H3	450	NA	1911	NA	Paularino Water Assoc.	Domestic	NA	(2)

Footnotes
NA = Not available
(1) DWR, 1988
(2) Orange County Water District, 1990. Other well details and chemical data given in Appendix C of this report.
(3) See Figure 10

OCWD GC ANALYSIS FOR VOLATILE ORGANICS

6/10 - 2H3
State Well Number
Sample Site Information:
PAULARINO WATER USERS, COSTA MESA

DATE SAMPLED	10-10-88	1-19-89	1-19-89				
DATE ANALYZED	10-12-88	1-25-89	1-25-89				
SAMPLED BY	PS	SO	SO				
EPA METHOD USED FOR ANALYSIS	502.2	601/602	601/602				
CONSTITUENTS (µg/L)			*				
Chloromethane	ND	ND	ND				
Bromomethane	ND	ND	ND				
Vinyl Chloride	ND	ND	ND				
Chloroethane	ND	ND	ND				
Methylene Chloride	ND	ND	ND				
1,1 Dichloroethylene (DCE)	ND	ND	ND				
1,1 Dichloroethane	ND	ND	ND				
Chloroform	ND	ND	ND				
Carbon Tetrachloride	ND	ND	ND				
1,2-Dichloropropane	ND	ND	ND				
Trichloroethylene (TCE)	0.5	0.9	0.9				
1,1,2- Trichloroethane	ND	ND	ND				
Dibromochloromethane	ND	ND	ND				
Tetrachloroethylene (PCE)	TR*	ND	ND				
Chlorobenzene	ND	ND	ND				
1,2 Dichlorobenzene	ND	ND	ND				
1,3 Dichlorobenzene	ND	ND	ND				
1,4 Dichlorobenzene	ND	ND	ND				
Trichlorofluoromethane	ND	ND	ND				
t- 1,2- Dichloroethylene	ND	ND	ND				
1,2 Dichloroethane	ND	ND	ND				
1,1,1 Trichloroethane (TCA)	ND	ND	ND				
Bromodichloromethane	ND	ND	ND				
t- 1,3-Dichloropropene	ND	ND	ND				
c- 1,3-Dichloropropene	ND	ND	ND				
Benzene	ND	ND	ND				
Bromoform	ND	ND	ND				
1,1,2,2-Tetrachloroethane	ND	ND	ND				
Toluene	ND	ND	ND				
Ethylbenzene	ND	ND	ND				
EC @ 25°C (µmho/cm)	–	NA	378				
TOC (mg/L)	–	NA	0.9				

ENTERED APR 10 1989

0.5 µg/L as reportable detection limit on all constituents listed on this page
Remarks on other side.

LAB:GCform:REV 10/13/88
ocwd lab-21

N.D.- non-detect
N.A.- not analyzed
TR.- Trace-constituent was seen, but below reportable detection limit.

TABLE 4

UNDERGROUND TANK SITES IN THE VICINITY OF NEWPORT AVE. LANDFILL (1)

Site ID On Map	Well ID	Total Well Depth (ft)	Completion Date	Depth To Water (ft)	Site Owner	Known Contaminants	Direction of Ground-Water Flow
1	NA (2)	NA	NA	NA	Sigma Circuits, Inc.	Copper, Lead in soil	NA
2	MW-1,-2,-3	45	8/86	26	Thrifty Oil	Gasoline in GW	Northeast
3	NA	NA	NA	NA	Costa Mesa Fire Sta. #2	Diesel in soil	NA
4	NA	NA	NA	NA	Vista Paint Centers	Aliphatic Hydrocarbon in soil	NA
5	GTW-1,-2,-3, -4,-5,-6,-7,-8	50	8/88	25	Arco Service Station	Gasoline in GW	South
6	NA	NA	NA	NA	Unocal Service Station	Gasoline in GW	NA
7	NA	NA	NA	NA	Adept Mfg., Inc.	Gasoline in soil	NA
8	NA	NA	NA	NA	City of Costa Mesa	TCE in soil	NA
9	NA	NA	NA	NA	Chevron Service Sta.	Gasoline, Waste-oil in soil	NA
10	NA	NA	NA	NA	Western Digital	Gasoline in soil	NA
11	NA	NA	NA	NA	Shell Service Station	Gasoline in GW	NA
12	NA	NA	NA	NA	J. Ray Construction	Gasoline in GW	NA

Footnotes:

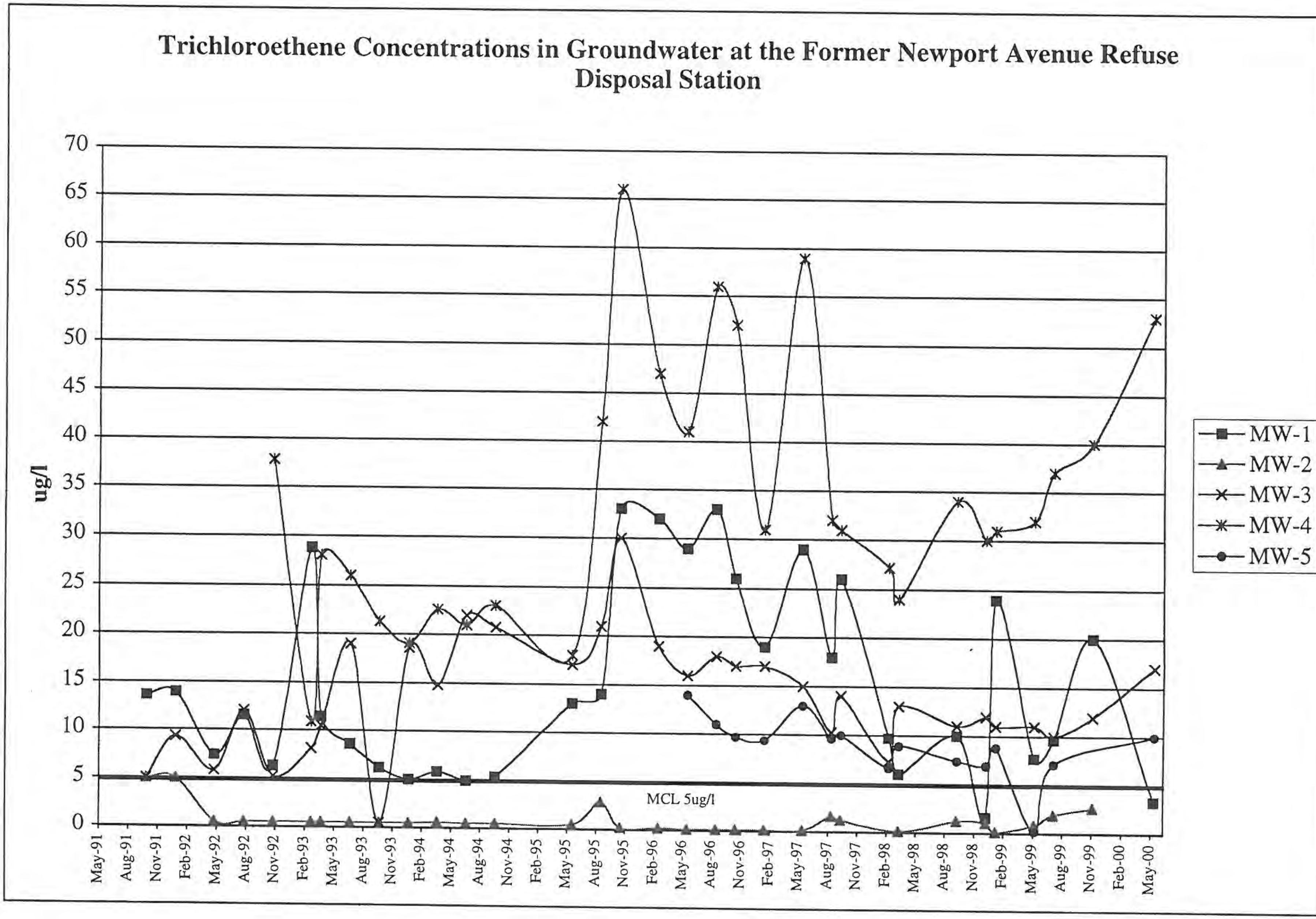
(1) See Figure 10 for site locations. Data is from SARWQCB's underground tanks list dated 8/31/90.

(2) NA = Data not available at time of this writing.
GW = Ground water

APPENDIX G

TIME HISTORY PLOTS
FOR SELECTED CONSTITUENTS
(REF. 1-1)

TRC
Customer-Focused Solutions


Trichloroethene Concentrations in Groundwater at the Former Newport Avenue Refuse Disposal Station
ug/l
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
MCL 5ug/l
May-91
Aug-91
Nov-91
Feb-92
May-92
Aug-92
Nov-92
Feb-93
May-93
Aug-93
Nov-93
Feb-94
May-94
Aug-94
Nov-94
Feb-95
May-95
Aug-95
Nov-95
Feb-96
May-96
Aug-96
Nov-96
Feb-97
May-97
Aug-97
Nov-97
Feb-98
May-98
Aug-98
Nov-98
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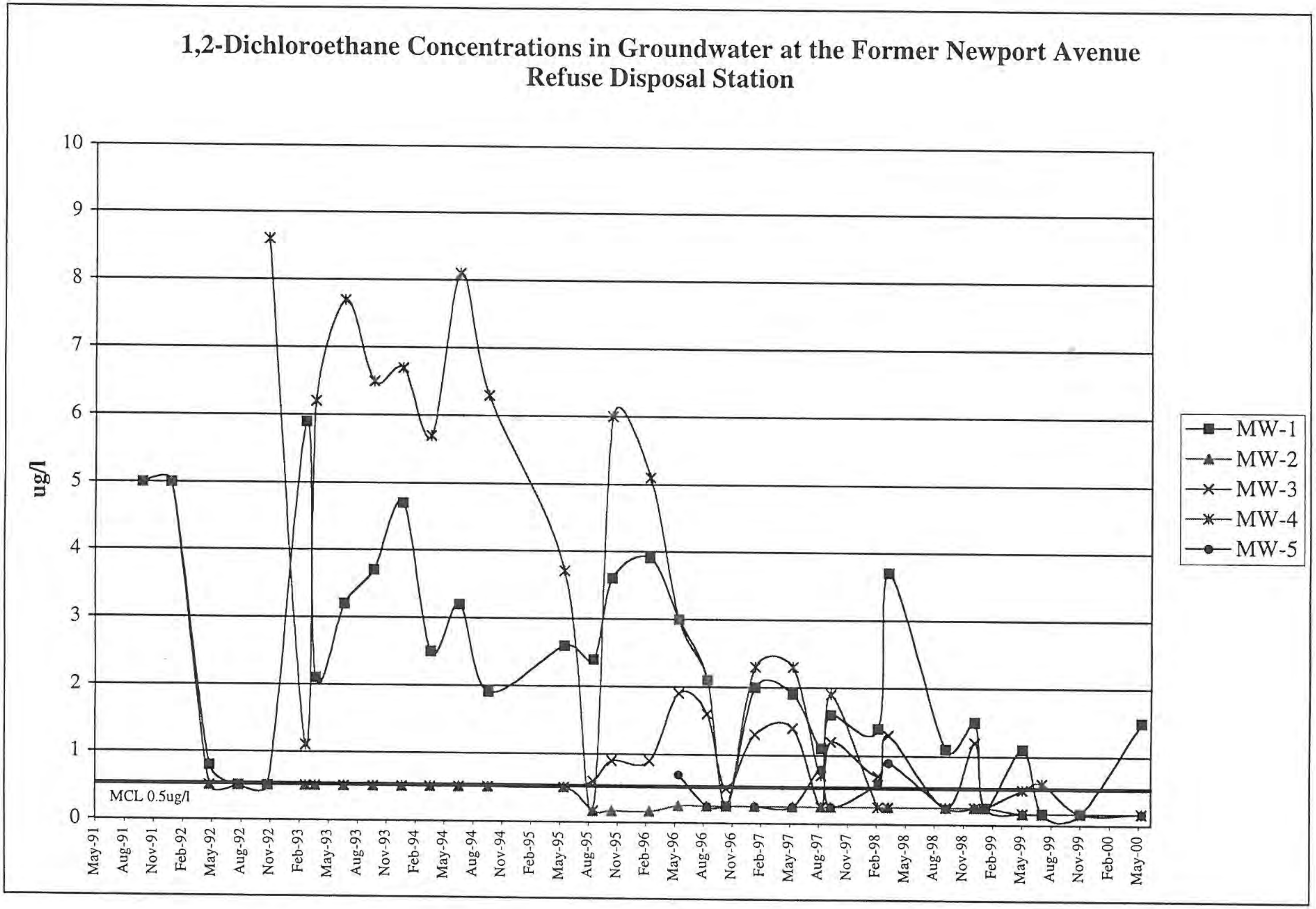
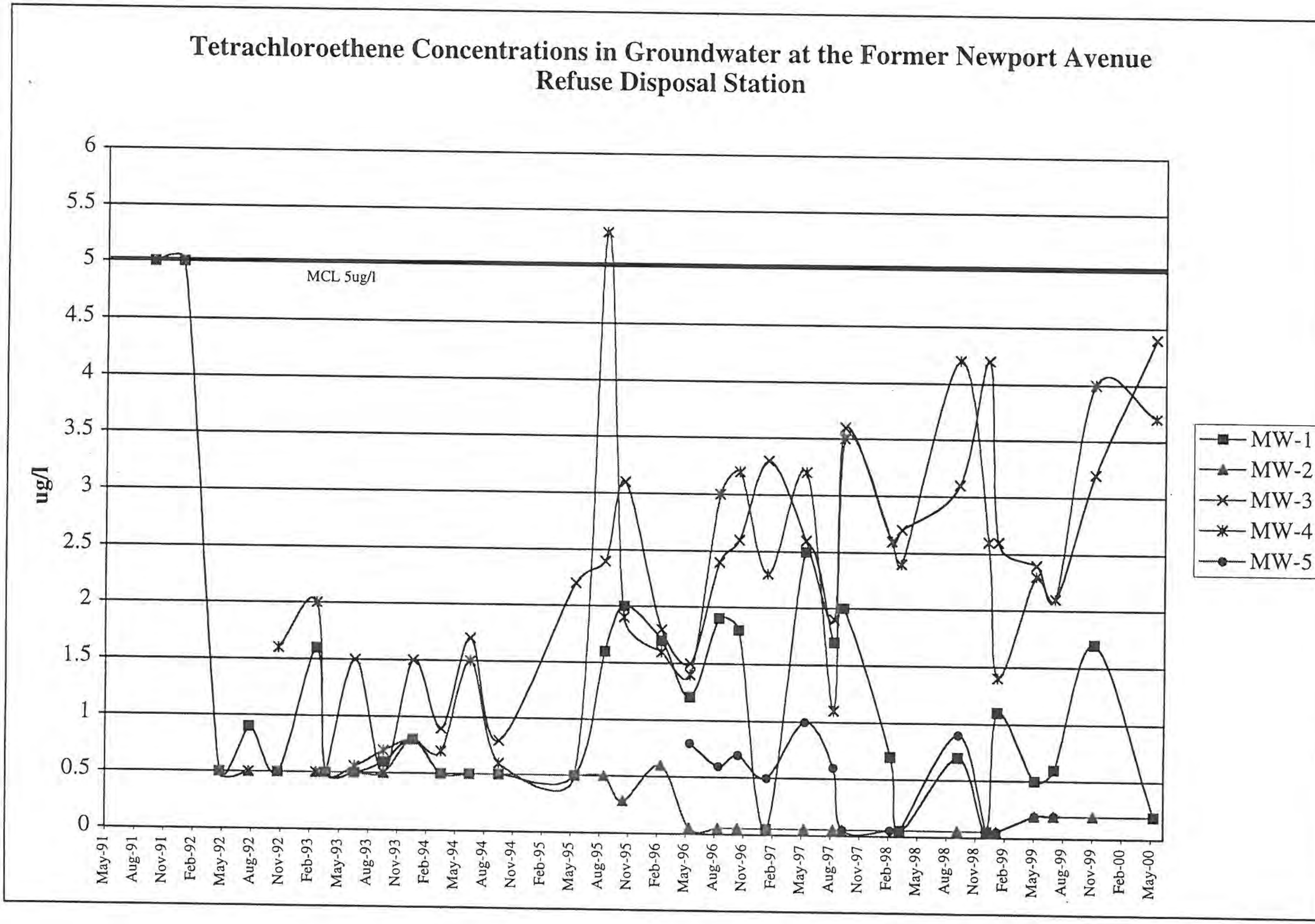
Aug-99
Nov-99
Feb-00
May-00
MW-1
MW-2
MW-3
MW-4
MW-5

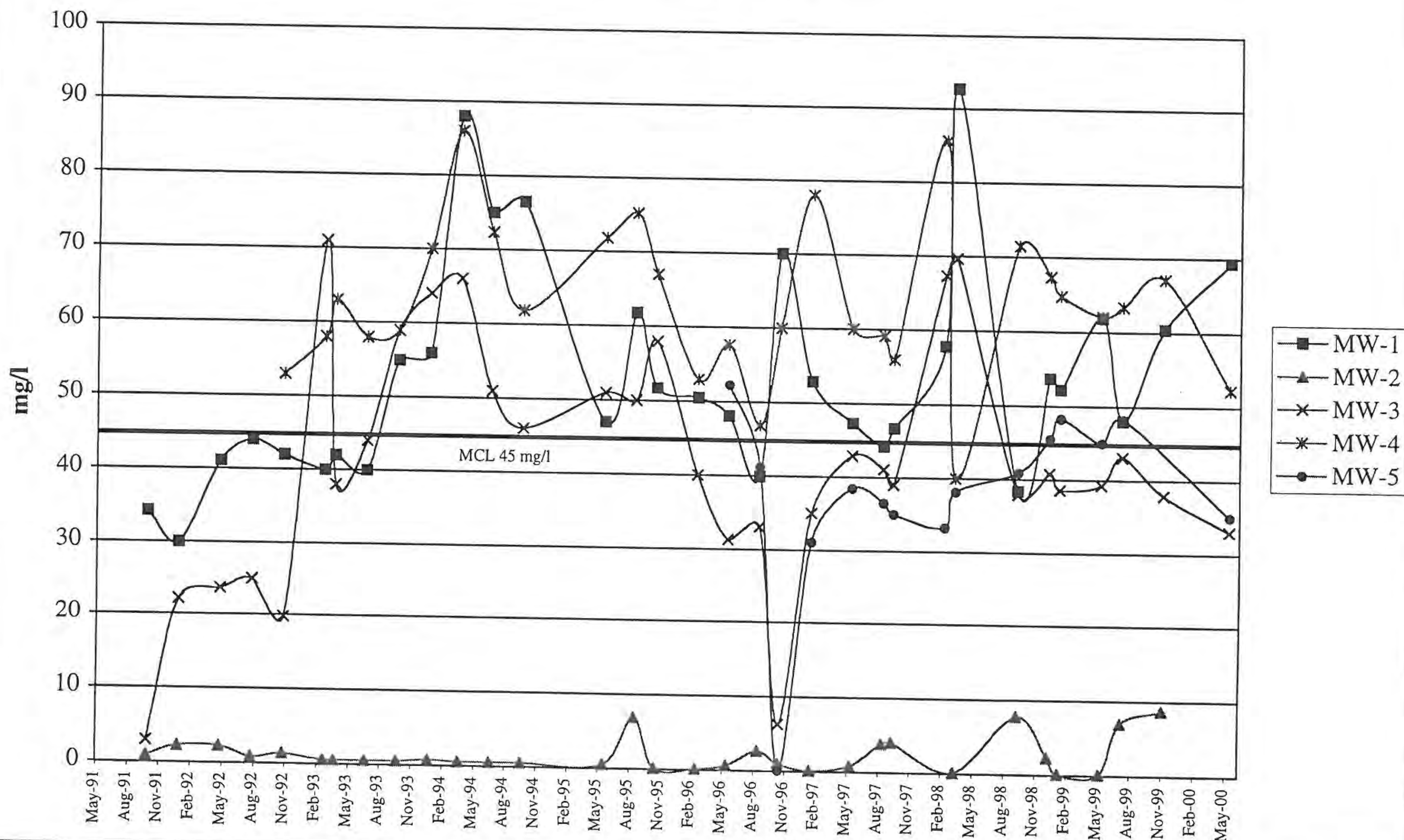


1,2-Dichloroethane Concentrations in Groundwater at the Former Newport Avenue Refuse Disposal Station
ug/l
10
9
8
7
6
5
4
3
2
1
0
MCL 0.5ug/l
May-91
Aug-91
Nov-91
Feb-92
May-92
Aug-92
Nov-92
Feb-93
May-93
Aug-93
Nov-93
Feb-94
May-94
Aug-94
Nov-94
Feb-95
May-95
Aug-95
Nov-95
Feb-96
May-96
Aug-96
Nov-96
Feb-97
May-97
Aug-97
Nov-97
Feb-98
May-98
Aug-98
Nov-98
Feb-99
May-99
Aug-99
Nov-99
Feb-00
May-00
MW-1
MW-2
MW-3
MW-4
MW-5

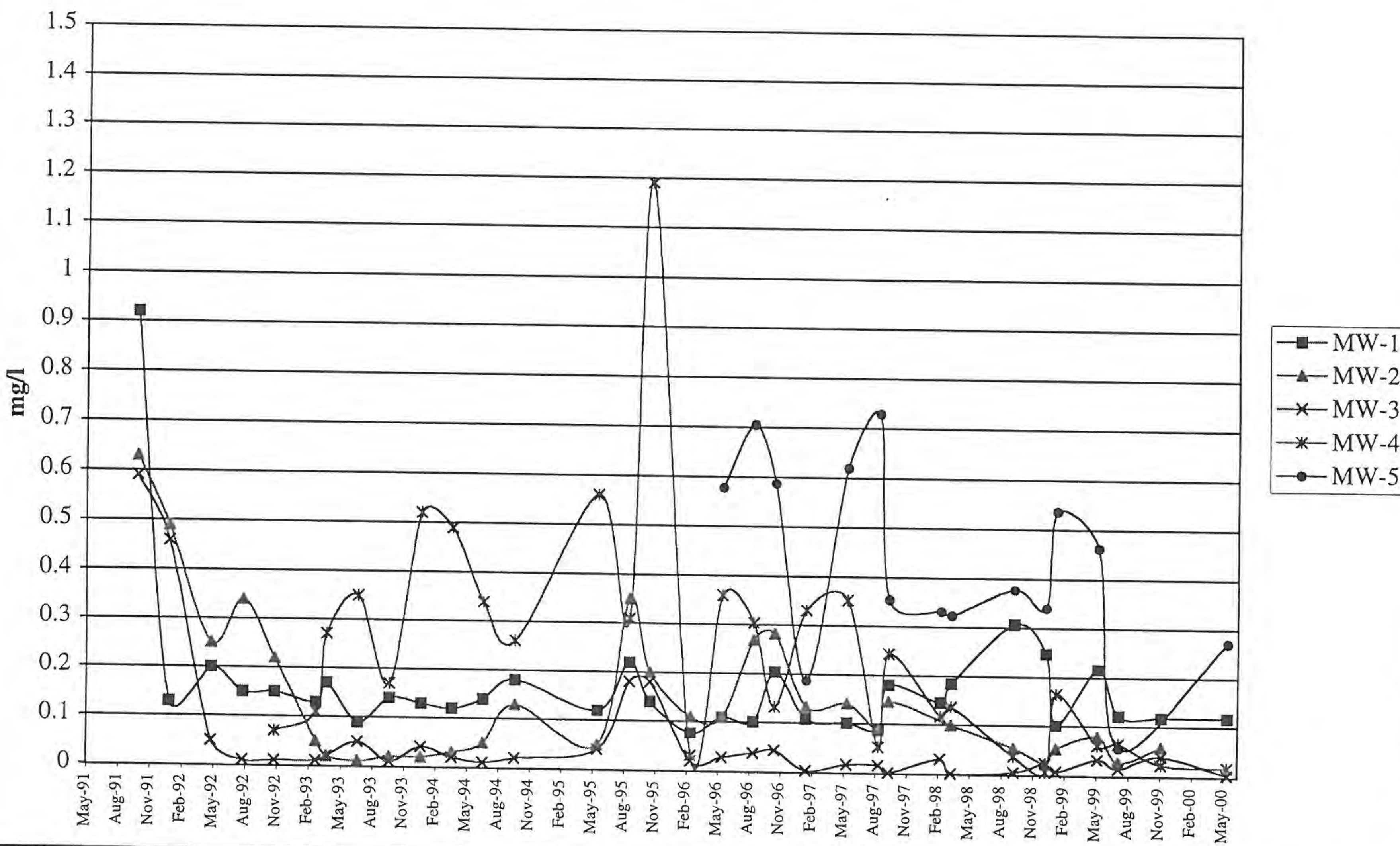


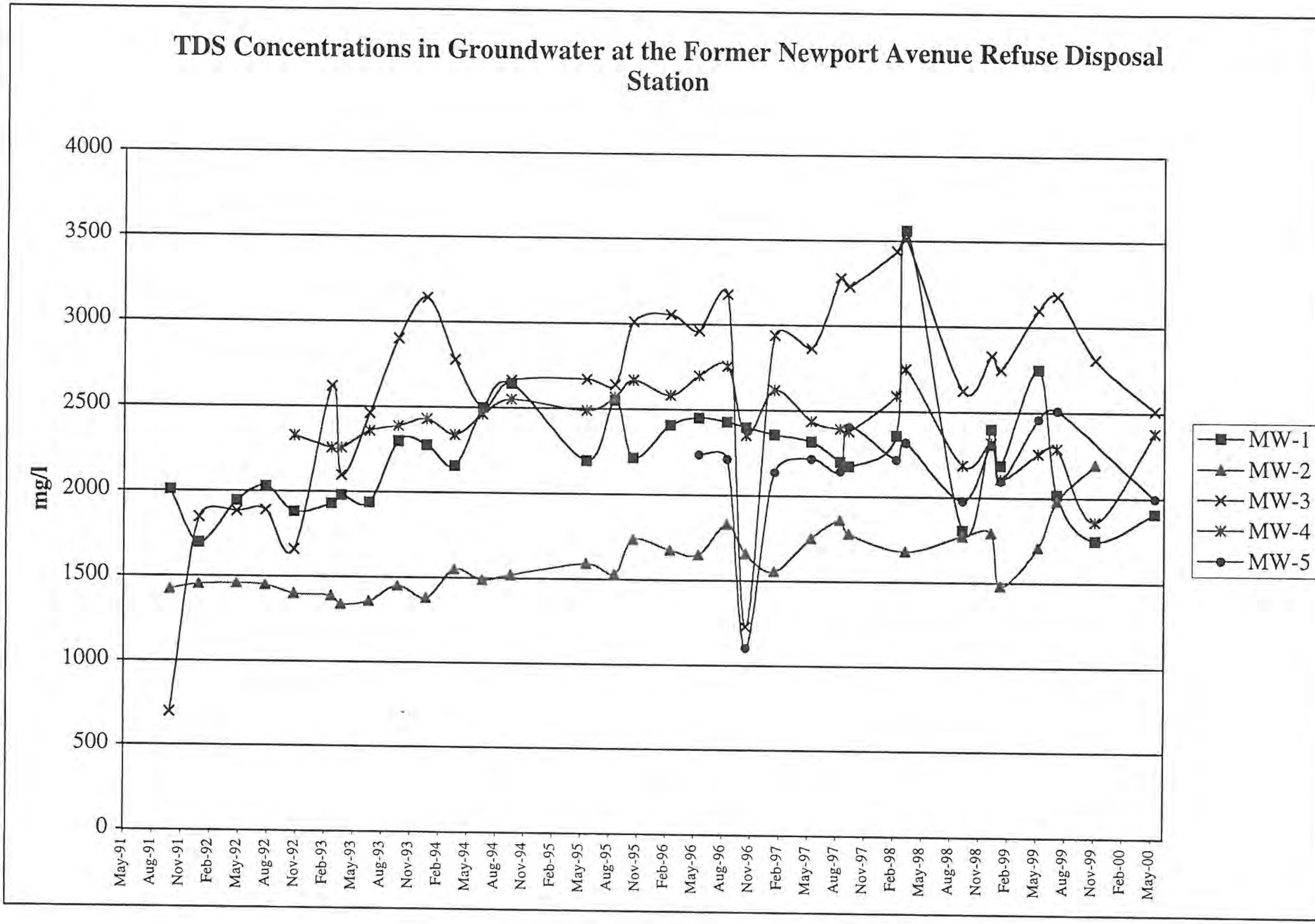
Tetrachloroethene Concentrations in Groundwater at the Former Newport Avenue Refuse Disposal Station
ug/l
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
MCL 5ug/l
May-91
Aug-91
Nov-91
Feb-92
May-92
Aug-92
Nov-92
Feb-93
May-93
Aug-93
Nov-93
Feb-94
May-94
Aug-94
Nov-94
Feb-95
May-95
Aug-95
Nov-95
Feb-96
May-96
Aug-96
Nov-96
Feb-97
May-97
Aug-97
Nov-97
Feb-98
May-98
Aug-98
Nov-98
Feb-99
May-99
Aug-99
Nov-99
Feb-00
May-00
MW-1
MW-2
MW-3
MW-4
MW-5

Nitrate (as NO3) Concentrations in Groundwater at the Former Newport Avenue Refuse Disposal Station



Manganese Concentrations in Groundwater at the Former Newport Avenue Refuse Disposal Station





TDS Concentrations in Groundwater at the Former Newport Avenue Refuse Disposal Station
mg/l
4000
3500
3000
2500
2000
1500
1000
500
0
May-91
Aug-91
Nov-91
Feb-92
May-92
Aug-92
Nov-92
Feb-93
May-93
Aug-93
Nov-93
Feb-94
May-94
Aug-94
Nov-94
Feb-95
May-95
Aug-95
Nov-95
Feb-96
May-96
Aug-96
Nov-96
Feb-97
May-97
Aug-97
Nov-97
Feb-98
May-98
Aug-98
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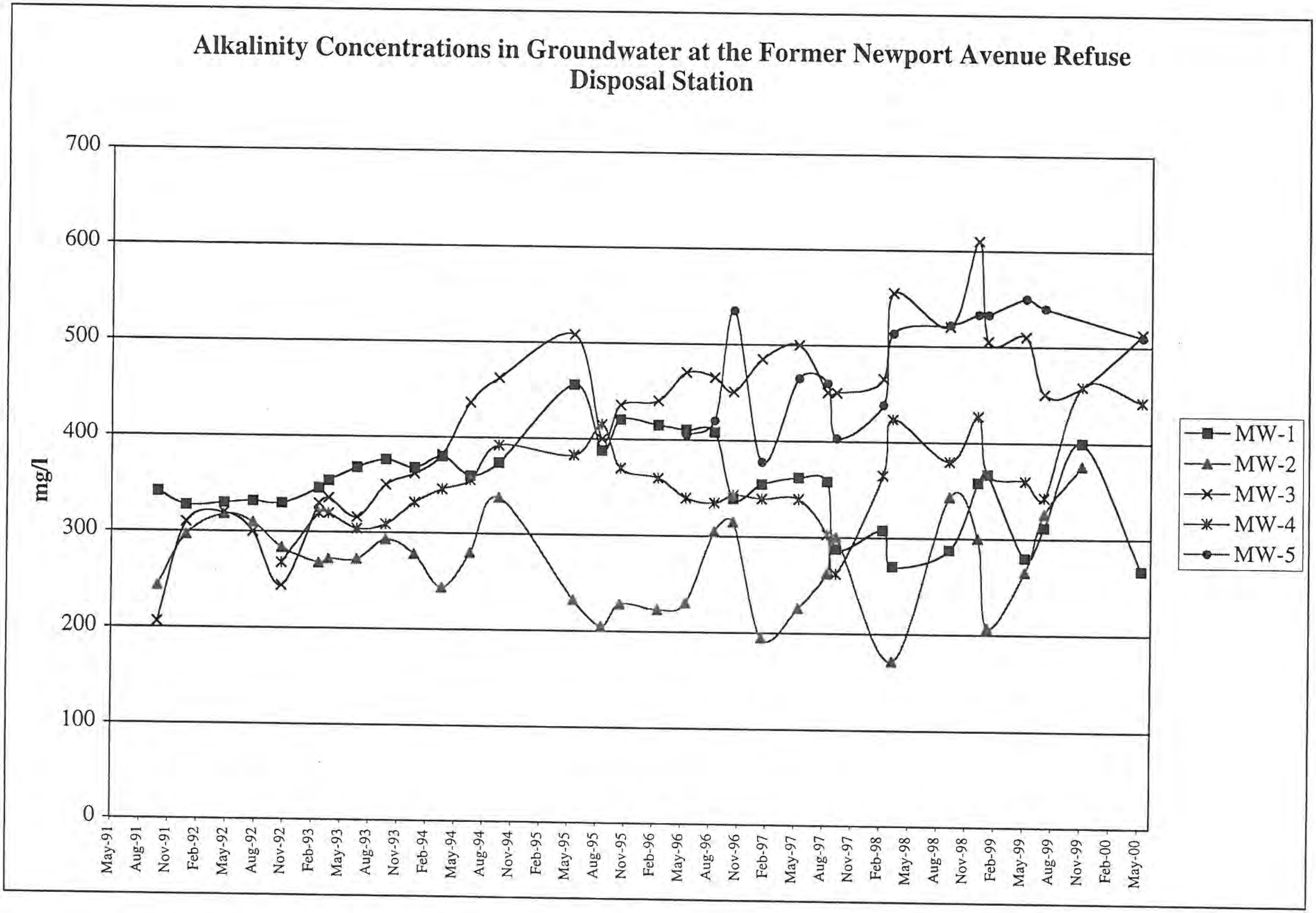
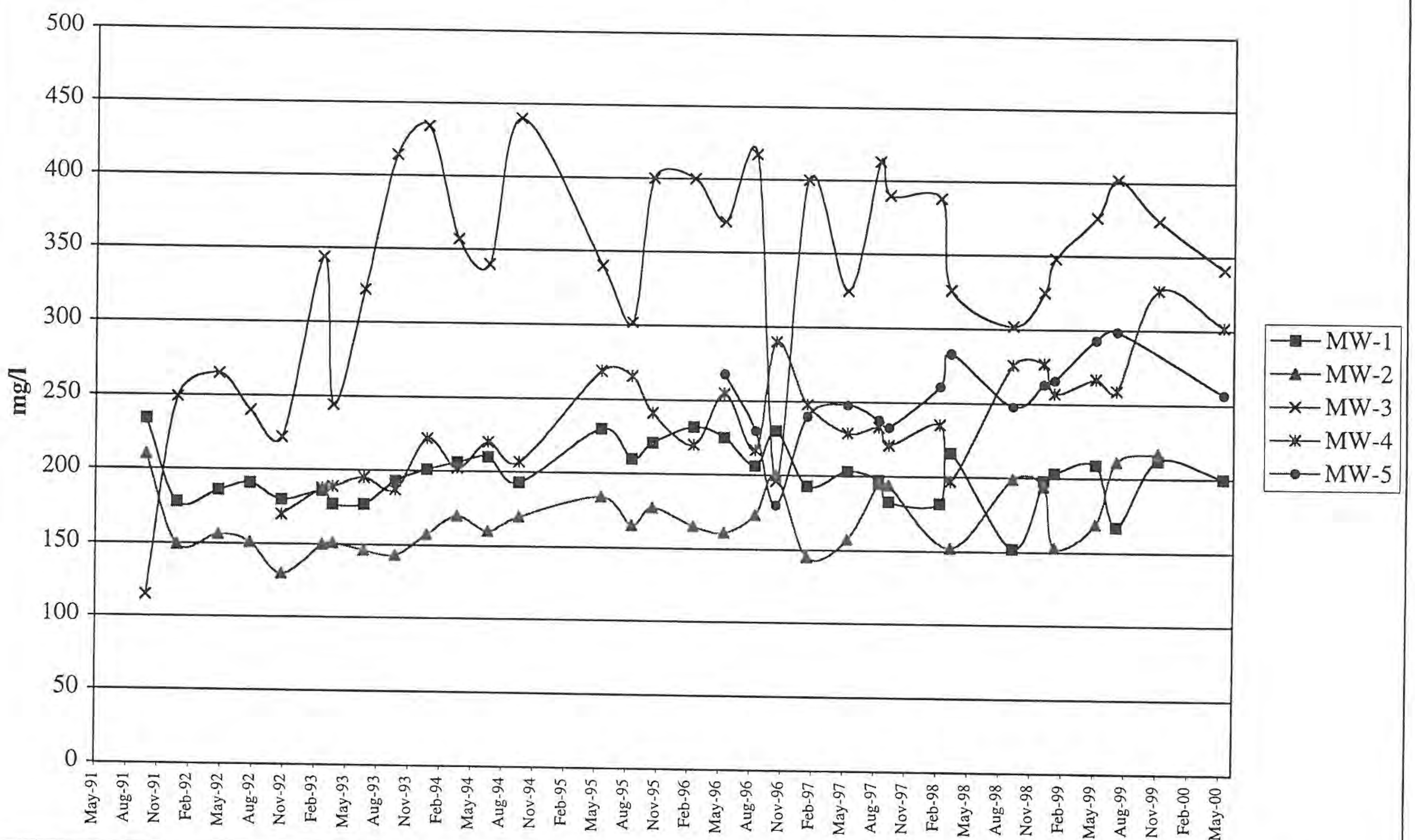
MW-2
MW-3
MW-4
MW-5



Alkalinity Concentrations in Groundwater at the Former Newport Avenue Refuse Disposal Station
mg/l
700
600
500
400
300
200
100
0
May-91
Aug-91
Nov-91
Feb-92
May-92
Aug-92
Nov-92
Feb-93
May-93
Aug-93
Nov-93
Feb-94
May-94
Aug-94
Nov-94
Feb-95
May-95
Aug-95
Nov-95
Feb-96
May-96
Aug-96
Nov-96
Feb-97
May-97
Aug-97
Nov-97
Feb-98
May-98
Aug-98
Nov-98
Feb-99
May-99
Aug-99
Nov-99
Feb-00
May-00
MW-1
MW-2
MW-3
MW-4
MW-5

Chloride Concentrations in Groundwater at the Former Newport Avenue Refuse Disposal Station



Appendix B

Landfill Soil Characterization and Landfill Gas Assessment Reports

DRAFT (FOR CONSTRUCTION PURPOSES)

LANDFILL SOIL CHARACTERIZATION REPORT
2750-2770 Bristol Street
Costa Mesa, California
Assessor's Parcel Number (APN): 418-182-06

Walker Group Companies
11100 Cambie Road, Unit 105
Richmond, BC V6X 1K9

SCS ENGINEERS

Project No. 01222204.00 Task 1 | February 24, 2023

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806
(562) 426-9544

Table of Contents

Figures

Tables

Appendices

This Landfill Soil Characterization Report was prepared for property located at 2750-2770 Bristol Street, Costa Mesa, California and was prepared and reviewed by the following:

Kenneth H. Lister, PhD., CEG, GHg
Technical Advisor
SCS ENGINEERS

Jeffrey T. Sieg, PG
Sr. Project Manager
SCS ENGINEERS

PROFESSIONAL GEOLOGIST
JEFFREY T. SIEG
No. 9523
Exp: 8/2024
STATE OF CALIFORNIA

DISCLAIMER

This report has been prepared for Walker Group Companies with specific application to investigation of subsurface soil conditions and characterization at property located at 2750-2770 Bristol Street, Costa Mesa, California. This report has been prepared in accordance with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. No other warranty, express or implied, is made as to the professional opinions presented herein. No other party, known or unknown to SCS Engineers, is intended as a beneficiary of this work product, its content or information embedded therein. Third parties use this report at their own risk.

Changes in site conditions may occur due to variation in rainfall, temperature, water usage, or other factors. Additional information that was not available to the consultant at the time of this investigation or changes that may occur on the site or in the surrounding area may result in modification to the site that would impact the summary and recommendations presented herein. This report is not a legal opinion.

1 INTRODUCTION

SCS Engineers (SCS) was retained by Walker Group Companies (WGC) to conduct subsurface soil investigation activities at 2750-2770 Bristol Street, Costa Mesa California (APN: 418-182-06 [the "Property'). The investigation was conducted to evaluate the horizontal and vertical limits of waste associated with the former Newport Avenue No. 1 dump (SWIS No.30-CR-071) over which a portion of the Property lies.

Activities were conducted in accordance with SCS's *Landfill Soil Characterization Workplan* (October 2022), and the Orange County Health Care Agency (OCHCA), Environmental Health Local Enforcement Agency (LEA), conditional approval letter dated December 8, 2022. A map showing the general location of the Property is provided as Figure 1.

2 GENERAL BACKGROUND

The Property is approximately 1.5 acres, a portion of which overlies a former 15—acre landfill listed on the CalRecylce website as Newport Avenue Station #1 (30-CR-0071) (the Landfill). The current "Site Operation Status" of the Landfill is "Closed" and the "Site Regulatory Status" "Pre-regulation."

Based on review of topographic maps the Property appears to have been vacant land from 1896 to 1965. In the 1935 and 1942 topographic maps the Property is depicted within a wetlands or area of significant ponding. This area of ponding/low-lying area can additionally be identified in the 1938 aerial photograph. A 1947 aerial photograph of the Property and surrounding area shows evidence of earth moving activities and the 1948 topographic map no longer depicts a wetland or ponded area at or in the vicinity of the Property. Between 1963 and 1977, historical topographic maps and aerial photographs show that a portion of the Property was incorporated into a mobile home park.

By 1990, the Property was redeveloped as a car wash and gasoline service station. An additional light automotive maintenance "lube" center was constructed on the Site in 1993.

A Solid Waste Assessment Test (SWAT) investigation of the Landfill was conducted in 1997, results of which showed that metals and volatile organic compounds (VOCs) were not detected in groundwater at concentrations exceeding their maximum contaminant levels (MCLs) for California drinking water standards (Partner, June 19, 2019).

On behalf of the County of Orange Integrated Waste Management Department an Environmental Assessment Report (EAR) for the Landfill was prepared by TRC, dated July 2000. The EAR (available on the State Water Resource Control Board's GeoTracker website), in which numerous documents and investigation reports associated with the Landfill were complied, concluded the following with respect to the landfill footprint and physical component, landfill gas (LFG) generation and migration potential, and groundwater quality:

- Most (approximately 80%) of the refuse material from the Landfill was removed during the development of the Corona Del Mar/Newport Freeway interchange. Developments to the west (including the Property) contain fill sand with minor to heavy amounts of debris (identified primarily as rock, asphaltic concrete [AC], concrete fragments, glass, wood, brick fragments, and metal fragments) ranging between 0 to 20 feet below ground surface (bgs).

- Potential for LFG generation and migration was considered very low since the majority of refuse had been removed during the freeway interchange construction and that remaining deposited material was mostly inert rubbish and burn residue. Furthermore, in a study conducted by Clements Environmental in 1996, methane was not detected in 20 probes that surrounded the Property to the north, south, east and, west. During the Clements investigation the probes were installed at approximately 5 feet bgs and the monitoring equipment used was capable of detecting methane at a concentration of 1,000 parts per million by volume (ppmv) or greater.

- Groundwater quality investigations have shown that water quality both up- and down-gradient of the Landfill is poor and not suitable for drinking water. Constituents of concern (COCs), specifically VOCs are greater in concentration in up-gradient wells than in down-gradient wells, indicating the primary source of COCs was an up-gradient off-site source.

In 2003, the service station was decommissioned, which included the removal of four underground storage tanks (USTs) for fuel and six dispenser islands. These activities were conducted under regulatory oversight of the OCHCA, case #03UT012. Following several environmental investigations of soil, soil vapor, and groundwater, associated with a release from the former USTs, remediation was conducted which included air-sparge, soil vapor extraction, and groundwater monitoring. The OCHCA issued a "Remedial Action Certification" on June 4, 2010. Documents regarding the investigations, remediation, and subsequent OCHCA Completion Certification are available on the State Water Resource Control Board's GeoTracker website.

Following WGC's acquisition of the Property, permits were issued by the City of Costa Mesa Department of Building Safety (CMDBS) in 2021, for demolition and grading, without reference to restrictions regarding Title 27 requirements.

On February 2, 2022, demolition activities began at the Site in accordance with CMDBS-approved permits. Following demolition activities, grading and earth work proceeded in accordance with the proposed redevelopment plans that had been provided to the CMDBS. Redevelopment activities commenced with routine inspections conducted by the CMDBS.

In April 2022, an LEA representative conducted a routine inspection of the Landfill and surrounding areas. This routine inspection resulted in notification to WGC that a Post Closure Land Use Plan (PCLUP) would be required in accordance with Title 27 CCR §21190. In response to the LEA notification, Mearns Consulting LLC prepared a PCLUP, dated July 7, 2022, which documented a methane gas assessment report prepared by DL Science, Inc. (DLS), dated June 4, 2022. As part of their investigation, DLS installed temporary vapor probes across the Property for the evaluation of methane gas, which included the installation and monitoring of seven shallow (4-feet bgs) and four deep multi-nested probe sets (implants set at 5, 10, and 20 feet bgs). Each of the probes was monitored during two separate events on May 31, and June 1, 2022. The highest positive pressure detected during the two monitoring events was 0.02 inches of water (i.w.). Methane was detected, above the monitoring equipment's detection limit of 1,000 ppmv, in six of the 19 probes installed across the Property. During the two monitoring events, the highest concentration of methane was detected at 5,000 ppmv in probe DP-3 at 20 feet bgs.

On August 11, 2022, an email from Joanne Lee of the California Regional Water Quality Control Board, Santa Ana Region, was sent to Robert Walker of WGC stating that "currently, the former Newport Avenue Landfill is not regulated by the Santa Ana Water Board because no groundwater impacts from the landfill has been found based on groundwater monitoring data collected from 1993 to 2017." A copy of this correspondence is included in Appendix C.

In August 2022, the LEA conducted a routine inspection of the Landfill in accordance with CCR Title 27. At the time of the inspection, the development team was notified that the activities being conducted were not compliant with Title 27 requirements. Subsequently, on September 1, 2022, the LEA issued a formal notice of violation, after which construction activities ceased.

WGC's consultants and counsel met with representatives of the LEA and CalRecycle on September 22, 2022. During this meeting the LEA stated that additional soil characterization and methane gas assessments would be required prior to their review of a Post Closure Land Use Plan (PCLUP), regardless of the previous work and numerous investigations that had been conducted on the Property and the Landfill as early as 1993.

As stated above, investigation activities, as documented in this report, were conducted to meet the LEA requirements with respect to landfill soil characterization.

3 PHYSICAL SETTING

GEOLOGY AND SOILS

The Site is located within the Orange County area of the Pacific Border physiographic province, in which the dominant geologic formations are of Tertiary and Quarternary age. Numerous investigations have been conducted at the Site. The investigations have predominantly been focused on geotechnical evaluations of soil conditions and environmental impacts at focused areas of previous features (such as clarifiers and USTs). Soil investigations conducted from 2000 to 2020 have provided information regarding the nature and extent of the fill associated with Newport Avenue Station No.1.

Partner Engineering & Science, Inc. (Partner) conducted both geotechnical and environmental investigations in 2019. Partner described soil conditions as fill materials comprised of sandy/silty soils to a depth of 25 feet bgs and native soils below a depth of 25 feet. Sandy alluvium was present between 25 to 40 feet bgs, clayey alluvium present between 40 and 45 feet bgs, and dense sandy alluvium between 45 to 50 feet bgs. Two of the six boring advanced by Partner identified limited amounts of debris within the soil. The reported debris encountered in these borings consisted of glass fragments to a depth of approximately 20 feet bgs.

NorCal Engineering (Norcal) conducted a geotechnical investigation in August 2020. Based on results of the Norcal investigation, the site is underlain by approximately 10 to 25 feet of stiff undocumented fill.

Review of previous investigations at the Property have documented that soil fill is present beneath the site between 10 and 25 feet bgs. Beneath this fill, native soil is present to depths up to 51.5 feet bgs, which is composed of alluvial material consisting of sands and silty sands with lenses or discrete layers of clayey materials in the depth range of 40 to 45 feet bgs.

During this current investigation, fill soils were identified from ground surface to depths between 10 and 24.5 feet bgs, below which, native soil, consisting predominantly of sands with varying amounts of silt, were identified. In borings C1, D1, and D2, located in the western portion of the Property, outside of the designated Landfill boundary, undocumented fill soils (primarily a mixture of sand, silt, and gravel) were identified at depths between 10 and 15 feet bgs. In borings A1, A2, A3, B1, and B2, located within the designated footprint of the former Landfill, fill soils were identified that contained limited amounts (5-20%) of inert debris such as brick, glass, concrete, and rock. Boring logs from this investigation are included in Appendix A.

HYDROGEOLOGY

The Property is located within the Coastal Plain, Orange County Basin, which is an approximately 360 square mile basin drained primarily by the Santa Ana River. The main water bearing units in this area are comprised of younger alluvium. Due to extensive extraction from water bearing units for irrigation, municipal, and industrial use, and intermittent recharge, depth to groundwater has fluctuated. During investigation activities conducted by NorCal in 2020, groundwater was detected between 24 and 25 feet bgs beneath the Site. Based on results of the last monitoring event conducted by WEECO during the first quarter of 2010, groundwater flow direction at the Site was variable with flow directions interpreted to be both to the southeast and northwest (WEECO, March, 4, 2010). During this current investigation, groundwater was encountered at a depth of approximately 27 feet bgs.

4 SITE INVESTIGATION

PRE-INVESTIGATION ACTIVITIES

In December 2022, SCS conducted investigation activities consisting of the collection and analysis of soil from eight borings at the Property. As required by law, SCS marked areas of investigation and contacted Underground Service Alert prior to conducting any subsurface work (Dig Alert No. A223530816). SCS also obtained a well installation permit from the OCHCA, which was approved on December 15, 2022 (HSO No. 425175).

SOIL SAMPLE COLLECTION AND OBSERVATION

On December 27 through 29, 2022, under direction of SCS, ABC Liovin Drilling, Inc. (ABC) of Signal Hill, California, conducted drilling activities using a CME 75 hollow stem auger track-mounted drill rig to advance borings, collect soil samples, and construct soil gas probes (for future monitoring) at eight locations throughout the Property. The location and designations of the borings are presented on Figure 2.

At each boring, soil samples were collected at 5-foot intervals using a split-spoon sampler. Each boring was advanced until native soil and/or groundwater was encountered. At each sample interval, a 1.5-foot split-spoon sampler was driven into the soils ahead of the auger. The split-spoon sampler was fitted with pre-cleaned stainless steel sleeves (three 6-inch long tubes) placed within the sampler. From each recoverable sample, the lead or bottom sample sleeve was capped at each end, labeled, and placing within a chilled ice chest for transport to Enthalpy Analytical Laboratory (EAL) for analysis of total petroleum hydrocarbons (TPH) by EPA Method 8015M, VOCs) by EPA Method 8260B, semi-volatile organic compounds (SVOCs) by EPA Method 8270/8270 SIM, and Title 22 metals by EPA Methods 6010B/7471A. EAL is certified by the California State Water Resource Control Board's Environmental Laboratory Accreditation Program (CA ELAP) to perform the requested analyses. Samples were tracked from the point of collection through the laboratory using proper chain-of-custody protocol. Samples were collected using generally accepted regulatory procedures.

Remaining drive samples were visually inspected for indications of discoloration and debris, as well as for classification of soil types using the Unified Soil Classification System (USCS). Boring logs documenting field observations of soil types are provided in Appendix A.

As shown, five of eight borings (designated A1, A2, A3, B1, and B2) contained a limited amount of debris (less than 5 percent up to approximately 20 percent), which was sporadically detected at varying depths of 5 to 24.5 feet bgs. The debris encountered in these five borings consisted predominantly of inert materials such as glass, metal, concrete, and brick fragments. These boring were installed in the central and eastern portions of the Property within the documented footprint of the former Landfill.

In the remaining three borings (designated C1, D1, and D2) fill soils were encountered to depths between 12 and 17 feet bgs. With the exception of a trace amount of inert debris identified in boring D1, these borings did not contain waste and appear to be outside the documented footprint of the former Landfill.

During this investigation, boring B2 was advanced to a depth a depth of 29 feet bgs to verify current depth to groundwater. Groundwater was encountered at a depth of approximately 27 feet bgs. None of the eight borings contained fill soil, refuse or debris at depths below 24.5 feet bgs.

Upon reaching total depth, each of the borings was converted to a dual-nested soil gas probe for further LFG evaluation. Construction details are provided on boring logs in Appendix A. Further discussion of probe construction and probe monitoring will be submitted separately as a Landfill Gas Assessment Report.

5 DISCUSSION OF ANALYTICAL RESULTS AND REGULATORY LIMITS

Laboratory reports, chain-of-custody documentation, and quality assurance/quality control (QA/QC) data from EAL are provided in Appendix B. A summary of analytical results for TPH, VOCs, and SVOCs are provided in Table 1. A summary analytical results for metals in soil is provided in Table 2.

Constituents detected during this investigation are compared to applicable screening levels and/or cleanup goals. Screening levels and/or cleanup goals can vary based on a number of factors including the nature of the contamination, depth to groundwater, the beneficial uses of groundwater, soil type, human health risks (i.e., land use, residential vs. commercial/industrial scenarios), and regulatory oversight agency requirements. Actual cleanup goals are site-specific and based on applicable regulatory guidelines. Generally, regulatory guidelines that apply to the cleanup of specific chemical constituents in soil and soil vapor are related to one or more of the following issues:

- Potential impacts to groundwater
- Human health risks
- Waste disposal restrictions

While the Santa Ana Regional Water Control Board (SARWQCB) has not established screening levels for TPH in soil they have generally accepted the Los Angeles Regional Water Quality Control Board's (LARWQCB) established Soil Screening Levels (SSLs) for TPH in soils above drinking water aquifers (Interim Site Assessment & Cleanup Guidebook, May 1996). The SSLs for TPH in soils less than 20 feet above groundwater are as follows:

- TPH as gasoline range organics (TPH-g) – 100 milligrams per kilogram (mg/kg)
- TPH as diesel range organics (TPH-d) – 100 mg/kg
- TPH as oil/heavy range organics (TPH-o) – 1,000 mg/kg

In HERO Note No. 3, the DTSC recommends the use of U.S. Environmental Protection Agency (U.S. EPA) Regional Screening Levels (RSLs), except in cases where a DTSC-modified screening level differs by a factor of three-fold or more. Whether using RSL or DTSC-modified screening level, the applicable (most stringent) screening levels are described herein as the DTSC-Recommended SLs.

TPH in Soil

As shown in Table 1, 38 soil samples were analyzed for TPH. TPH-g was not detected in any of the samples analyzed. TPH-d was detected in five samples at concentrations between 12 and 24 mg/kg. TPH-o was detected was detected in eight samples at concentrations between 21 and 91 mg/kg. Results of this investigation have been compared to the LARWQCB SSLs in Table 1.

As shown in Table 1, during this investigation, all detected concentrations of TPH were well below their respective SSLs.

VOCs in Soil

As shown in Table 1, 38 soil samples were analyzed for VOCs. Three VOC species were detected including acetone, methylene chloride, and cis-1,2-dichloroethene. Results of this investigation have been compared to DTSC-Recommended SLs in Table 1.

As shown in Table 1, during this investigation, all detected concentrations of VOCs were well below their respective DTSC-Recommended SLs for both residential and commercial land use scenarios.

SVOCs in Soil

As shown in Table 1, 38 soil samples were analyzed for SVOCs. Eighteen SVOCs species were detected. Soil samples with the highest detectable concentration and number of SVOC species were recovered from borings A2 and B1, located within the suspect fill area in the central and southern portion of the Property, respectively. Results of this investigation have been compared to DTSC-Recommended SLs in Table 1.

As shown in Table 1, during this investigation, all detected concentrations of SVOCs were well below their respective DTSC-Recommended SLs for both residential and commercial land use scenarios.

Metals

As shown in Table 2, 38 soil samples were analyzed for Title 22 Metals. Seventeen metals were analyzed for under California Code of Regulations Title 22. Each of the 17 metals analyzed were detected in one or more of the soil samples. Soil samples with the highest detectable concentrations and distribution of metals in soil were recovered from borings A2 and B1, located within the suspect fill area in the central and southern portion of the Property, respectively.

Results of this investigation have been compared to the DTSC-Recommended SLs in Table 2. As shown, lead and arsenic were the only metals detected at concentrations exceeding their respective DTSC-Recommended SLs for commercial land use.

Lead was detected in 36 samples at concentrations between 1.1 and 730 mg/kg. Three soil samples contained lead at concentrations above its DTSC-Recommended SL for commercial land use of 500 mg/kg. Lead was detected above 500 mg/kg in samples A2-15, A2-20, and B1-20, at concentrations of 580, 660, and 730 mg/kg, respectively.

Arsenic was detected in 37 samples at concentrations between 0.70 and 24 mg/kg, all exceeding the DTSC-Recommended SL for commercial use of 0.36 mg/kg. However, with respect to arsenic, the U.S. EPA has acknowledged that, in some cases, the predictive risk-based models generate screening levels that lie within or even below typical background concentrations. If natural background concentrations are higher than the risk-based screening levels, an adjustment is probably needed. U.S. EPA uses naturally occurring arsenic in soils as an example. Further, the DTSC has acknowledged that the strict use of RSLs is impractical and has set acceptable levels of arsenic in soil in the range of 8 to 12 mg/kg for school sites in California. Arsenic was detected in samples A2-10, A2-15, A2-20, and B1-20 at concentrations between 14 and 24 mg/kg, exceeding the 12 mg/kg upper limit for a school site scenario accepted by DTSC.

6 CONCLUSIONS AND RECOMMENDATIONS

Summary and Conclusions

On December 27 through 29, 2022, SCS conducted a landfill soil characterization investigation in accordance with the LEA approved Workplan and Title 27 requirements. Based on results of this investigation, SCS concludes the following:

- Eight borings were advanced throughout the Property with soil samples collected for visual observation and laboratory analysis to evaluate the lateral and vertical extent of waste and characterize the material for COCs. With the exception of borings A3 and D1, in which soil samples could not be recovered at 10 and 25 feet bgs, respectively, soil samples were recovered from each boring at 5-foot intervals. A total of 38 soil samples were collected for observation and analysis. Boring B2 was advanced to a depth of approximately 29 feet bgs, in which groundwater was observed at a depth of approximately 27 feet bgs. In order to prevent encroachment into groundwater, the remaining borings were limited to a depth of 25 feet bgs.
- Physical observations of the material recovered from the eight borings identified limited amounts (5-20%) of inert debris, such as brick, glass, concrete, and rock, sporadically located throughout the Property, particularly within the area of the designated landfill footprint (central and eastern portions of the Property). These results are consistent with the observations documented in other environmental and geotechnical investigation reports from 2000 to 2022. The current results confirm previous observations suggesting that there is an insufficient amount of subsurface decomposable material to generate significant amounts of methane. The current results also confirm the general accuracy of the limits of debris fill, as presented in previous documents.
- TPH, VOCs, and SVOCs were not detected at concentrations exceeding their respective DTSC-Recommended SLs, and therefore do not present a significant risk to human-health or groundwater.
- Lead and arsenic were the only metals detected at concentrations exceeding DTSC-Recommended SLs. Lead was detected, above the DTSC-Recommended SL of 500 mg/kg, in samples A2-15, A2-20, and B1-20, at concentrations of 580, 660, and 730 mg/kg, respectively. Arsenic was detected above the DTSC acceptable limit for school sites of 12 mg/kg in samples A2-10, A2-15, A2-20, and B1-20 at concentrations between 14 and 24 mg/kg.

  Soil samples containing lead and arsenic at concentrations above screening levels were detected at depths between 10 and 20 feet bgs. Based on these depths and the proposed development of the Property (completely capped with buildings and/or pavement) there is no significant exposure risk by direct contact or through the atmosphere and therefore no significant risk to human health. In addition, the proposed redevelopment plans, which include complete capping in the area of borings A2 and B1, will restrict infiltration of water into the subsurface and remove the potential for downward migration of COCs. As stated above, the SARWQCB conducted or oversaw groundwater monitoring of the Landfill perimeter from 1993 to 2017 with the result that no groundwater impacts from the landfill were found. This affirms that the COCs are relatively insoluble and do not present a risk to groundwater.

Recommendations

SCS recommends that results of this investigation be incorporated, along with the numerous previous investigations, into a PCLUP for submittal to and approval by the LEA and/or CalRecylce. Further soil investigation of the Property is not recommended.

7 REFERENCES

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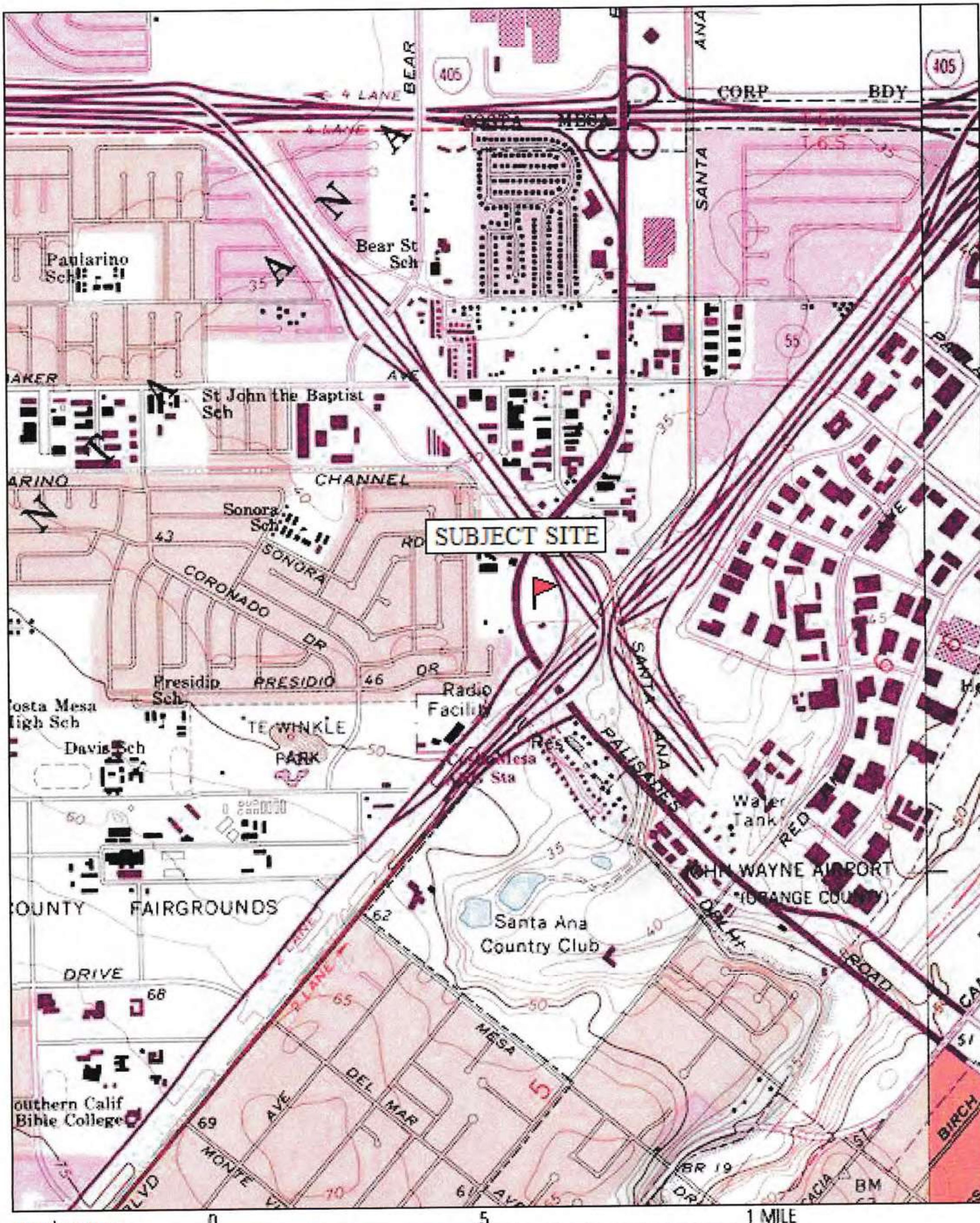
Figures 1 and 2

Figure 1: Vicinity Map



TN MN 13°

0 .5 1 MILE

0 1000 FEET 0 500 1000 METERS

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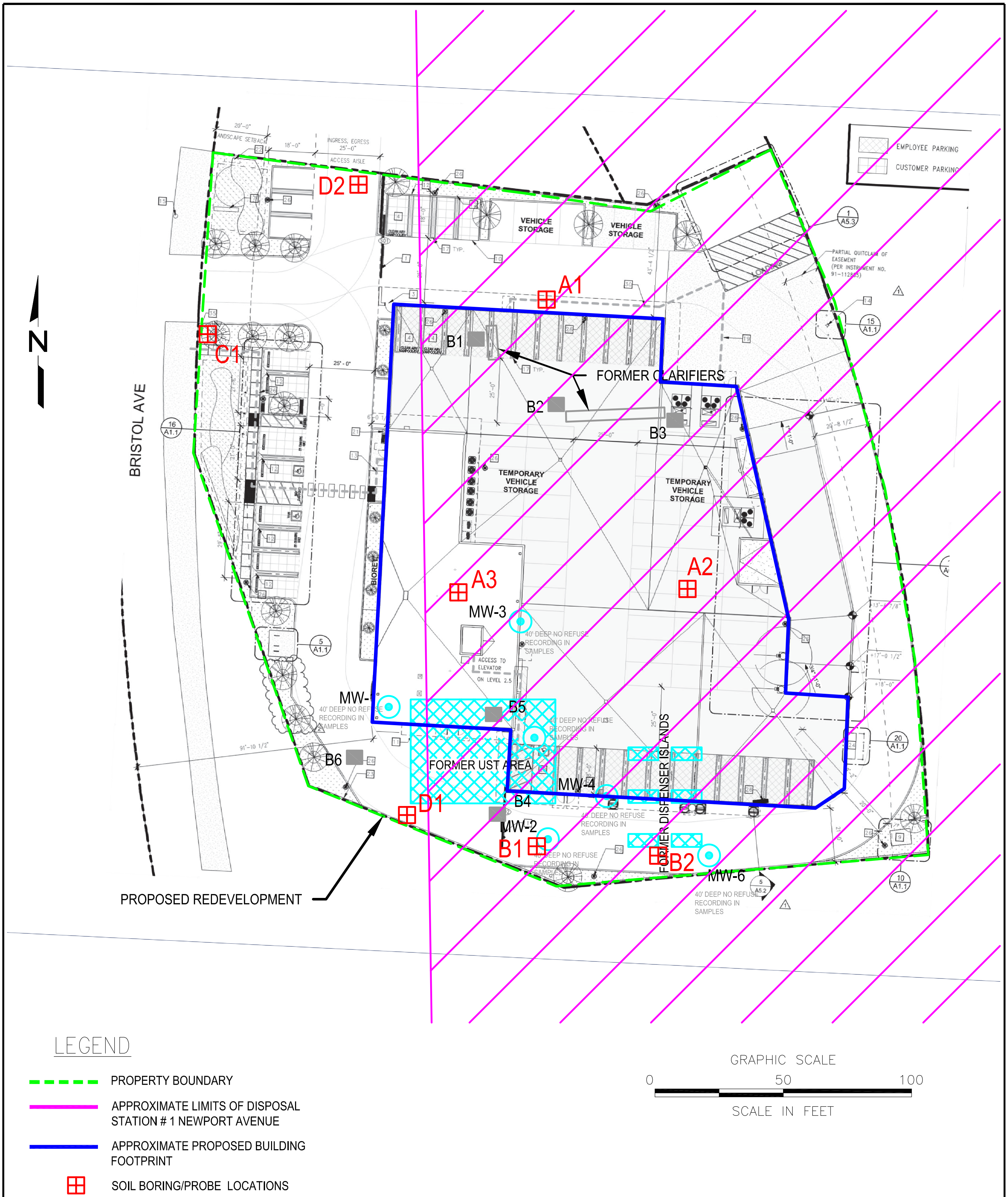


SCS ENGINEERS ENVIRONMENTAL CONSULTANTS 3900 KILROY AIRPORT WAY, SUITE 100 LONG BEACH, CA 90806 PH. (562) 426-9544 FAX. (562) 427-0805	CLIENT: WALKER GROUP VENTURES 11100 CAMBIE ROAD, UNIT 105 RICHMOND, BC V6X 1K9	SHEET TITLE: SITE MAP SHOWING BORING/PROBE LOCATIONS	DATE: 2/24/2023
PROJ. NO. 01222204.00 / DWN. BY: J.SIEG / ACAD FILE: N/A		PROJECT TITLE: 2750-2770 BRISTOL STREET COSTA MESA, CALIFORNIA	SCALE: 1"=50'
DSN. BY: SCS / CHK. BY: R.HUFF / APP. BY: R.HUFF			FIGURE NO. 2

Tables 1 and 2

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS FOR
TPH, VOCs, AND SEMI-VOCs
2750-2770 BRISTOL STREET, COSTA MESA, CA

Sample Location	Sample Depth	Date of Collection	EPA Method 8015			VOCs by EPA Method 8260B			SVOCs by EPA Method 8270C/8270C SIM																	
			TPH as Gasoline Range Organics (C8 - C10)	TPH as Diesel Range Organics (C10 - C28)	TPH as Heavy Range Organics (C28 - C44)	Acetone	Methylene Chloride	Cis-1,2-Dichloroethene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Acenaphthylene	Flourene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluorathene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene	Benzo(g,h,i)perylene	Diethylphthalate
			mg/kg			ug/kg			ug/kg																	
	5		<10	**15**	**52**	<100	**3.1 J**	<5.0	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<6,200
	10		<10	<10	<20	<100	**2.8 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
A1	15	12/28/2022	<10	<10	<20	<100	**3.4 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<100	**3.9 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	25		<9.9	<9.9	<20	<100	**4.0 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	5		<10	<10	<20	<100	**3.9 J**	<5.0	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	10		<20	**24**	**91**	**32 J**	**2.5 J**	**2.6 J**	<40	<40	<40	<40	<40	**21 J**	<40	**27 J**	**22 J**	<40	**15 J**	<40	<40	<40	<40	<40	<40	<990
A2	15	2/28/2022	<10	<10	<20	<100	**2.4 J**	**2.4 J**	<10	<10	**6.1 J**	<10	<10	**11**	<10	**22**	**19**	**10**	**16**	**14**	**10**	**8.5 J**	**8.6 J**	<10	**8.8 J**	<250
	20		<10	**12**	<20	<99	<5.0	**2.6 J**	<10	<10	**14**	<10	<10	**23**	**4.7 J**	**44**	**42**	**23**	**32**	**22**	**23**	**21**	**17**	**5.4 J**	**22**	<250
	25		<10	<10	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	5		<10	<10	<20	<100	**3.2 J**	<5.0	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<1,000
	10		<10	**16**	**22**	<100	**3.8 J**	<5.0	<9.9	<9.9	<9.9	<9.9	<9.9	**10**	<9.9	**18**	**15**	**6.7 J**	**7.2 J**	**5.8 J**	<9.9	**5.4 J**	<9.9	<9.9	<9.9	<250
A3	15	12/28/2022	<10	<10	<20	<100	**4.0 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<100	**4.6 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	25		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5		<9.9	<9.9	**21**	<100	**2.3 J**	<5.0	<10	<10	<10	**6.1 J**	**7.8 J**	**70**	**22**	**89**	**70**	**35**	**34**	**27**	**24**	**27**	**17**	<10	**15**	<250
	10		<10	<10	**21**	<100	**2.8 J**	<5.0	<10	<10	**5.0 J**	<9.9	<9.9	**5.4 J**	<9.9	**4.9 J**	<9.9	<9.9	**4.9 J**	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
B1	15	2/27/2022	<10	<10	**24**	<100	**2.4 J**	**2.2 J**	<10	<10	**14**	<10	<10	**35**	**7.7 J**	**38**	**30**	**16**	**20**	**17**	**13**	**13**	**9.8 J**	<10	**11**	<250
	20		<10	<10	<20	<100	**4.1 J**	**2.1 J**	**22.0**	**46**	**110**	<10	**12**	**34**	**5.1 J**	**15**	**12**	**4.3 J**	**6.7 J**	<10	<10	<10	<10	<10	<10	**94 J**
	25		<10	<10	<20	<100	**3.5 J**	**5.1**	**31**	**63**	**180**	<10	<10	**15**	<10	**4.7 J**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	5		<10	<10	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	10		<9.9	<99	**25**	**21 J**	<5.0	**1.5 J**	<10	<10	**8.6 J**	<10	<10	**11**	<10	**8.1 J**	**7.2 J**	**4.5 J**	**7.7 J**	**5.8 J**	<10	<10	<10	<10	**4.9 J**	<250
B2	15	2/27/2022	<9.9	<9.9	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	25		<9.9	<9.9	<20	<100	**2.2 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	5		<10	<10	<20	<100	<5.0	<5.0	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	10		<9.9	<9.9	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
C1	15	12/29/2022	<9.9	<9.9	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	25		<10	<10	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	5		<9.9	<9.9	<20	<100	**3.1 J**	<5.0	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	**3.9 J**	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	10		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D1	15	2/27/2022	<10	<10	<20	<100	**4.0 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	**5.7 J**	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<100	**3.7 J**	<5.0	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	25		<9.9	<9.9	<20	<100	**4.3 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	5		<10	**20**	**46**	<100	**1.9 J**	<5.1	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<2,500
	10		<10	<10	<20	<96	<4.8	<4.8	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<500
D2	15	12/28/2022	<10	<10	<20	<100	<5.1	<5.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<99	<4.9	<4.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	25		<10	<10	<20	<100	<5.1	<5.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
RWQCB SSLs (<20 feet above groundwater)			**100**	**100**	**1,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DTSC-Recommended SLs (Residential)			--	--	--	**70,000,000**	**2,200**	**18,000**	**9,900**	**190,000**	**2,000**	**3,300,000**	**2,300,000**	--	**17,000,000**	**2,400,000**	**1,800,000**	**1,100**	**110,000**	**1,100**	**11,000**	**110**	**1,100**	--	--	**51,000,000**
DTSC-Recommended SLs (Commercial/Industrial)			--	--	--	**1,100,000,000**	**26,000**	**84,000**	**30,000**	**1,300,000**	**6,500**	**23,000,000**	**17,000,000**	--	**130,000,000**	**18,000,000**	**13,000,000**	**12,000**	**1,300,000**	**13,000**	**130,000**	**1,300**	**13,000**	--	--	**420,000,000**

Notes:
ug/kg = micrograms per kilogram; equivalent to parts per billion
mg/kg = milligrams per kilogram; equivalent to parts per billion
J = Analyte detected between Method Detection Limit and the Practical Quantitation Limit
TPH = Total Petroleum Hydrocarbons
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
-- = not analyzed for or not applicable
RWQCB SSLs = Los Angeles Regional Water Quality Control Board Soil Screening Levels for Sandy Soils
DTSC-Recommended SL = Screening Level as recommended in the California Department of Toxic Substances Control (DTSC), Office of Human and Ecological Risk (HERO), Human Health Risk Assessment (HHRA) Note No. 3 (June 2020 - Revised May 2022)

TABLE 2

SUMMARY OF ANALYTICAL RESULTS FOR METALS

2750-2770 BRISTOL STREET, COSTA MESA, CALIFORNIA

Sample (or Boring) ID	Sample Depth (feet bgs)	Sampling Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
			Title 22 Metals (EPA Method 6010B, except Mercury by EPA Method 7471A)																
			milligrams per kilogram (mg/kg), equivalent to parts per million																
A1	5	12/28/2022	<3.0	4.0	76	0.43 J	0.18 J	19	6.4	19	14	0.019 J	0.45 J	12	0.47 J	<0.50	<3.0	37	65
	10		<3.0	0.70 J	46	0.27 J	<0.50	11	3.3	9.0	2.4	<0.15	0.78 J	5.9	0.46 J	<0.50	<3.0	24	29
	15		<2.9	2.1	37	0.30 J	0.12 J	9.0	3.3	8.7	2.2	<0.16	<0.96	7.7	0.65 J	<0.48	<2.9	22	26
	20		0.55 J	3.1	29	<0.48	<0.48	7.1	2.3	5.2	3.0	<0.15	1.1	4.6	0.45 J	<0.48	0.77 J	19	17
	25		1.6 J	2.0	33	<0.50	<0.50	5.6	2.1	5.0	1.4	<0.15	0.20 J	4.0	0.93 J	<0.50	0.58 J	14	15
A2	5	12/28/2022	1.5 J	4.1	63	<0.49	<0.49	14	4.9	10	5.0	<0.15	1.6	9.6	<2.9	<0.49	1.1 J	34	45
	10		4.6	14	270	<0.48	2.8	31	8.9	390	350	0.36	5.0	33	<2.9	1.2	<2.9	25	720
	15		32	24	280	<0.50	1.7	47	10	270	580	0.17	8.3	42	<3.0	0.45 J	<3.0	17	4,600
	20		7.5	23	430	<0.49	3.4	55	15	350	660	1.0	5.6	60	<2.9	1.2	<2.9	22	1,200
	25		0.59 J	2.5	27	<0.48	<0.48	7.1	2.1	9.5	11	0.049 J	<0.95	5.7	<2.9	<0.48	<2.9	16	34
A3	5	12/28/2022	1.6 J	5.1	93	<0.50	<0.50	22	7.1	17	11	0.019	<0.99	15	<3.0	<0.50	1.2 J	38	55
	10		1.1 J	3.5	78	<0.49	<0.49	12	3.9	22	30	0.040 J	0.90 J	8.0	<2.9	<0.49	0.76 J	24	82
	15		0.98 J	4.1	53	<0.50	<0.50	11	6.0	12	3.7	<0.16	<0.99	7.0	<3.0	<0.50	<3.0	24	45
	20		0.88 J	1.6	22	<0.48	<0.48	5.1	2.0	4.5	1.8	<0.16	<0.96	4.1	<2.9	<0.48	<2.9	11	14
	25		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1	5	12/27/2022	<2.9	4.8	80	0.38 J	0.43 J	18	6.0	12	7.5	<0.14	1.1	12	0.57 J	<0.49	<2.9	35	44
	10		<2.9	4.6	180	0.34 J	1.2	21	6.0	100	330	0.2	1.6	20	0.77 J	<0.48	<2.9	28	430
	15		0.94 J	7.8	220	0.37 J	2.4	24	9.1	180	240	0.069 J	2.6	2.9	2.5 J	0.52	0.56	27	680
	20		19	23	260	0.14 J	5.1	68	18	1,200	730	0.22	11	100	8.2	1.5	2.9	12	4,600
	25		7.0	8.2	340	0.11J	1.0	16	8.4	55	150	0.078 J	2.7	21	2.8 J	<0.49	<2.9	12	560
B2	5	12/27/2022	<3.0	7.4	100	0.31 J	0.25 J	12	4.1	32	18	0.041 J	0.99	7.8	0.51 J	<0.50	<3.0	25	96
	10		1.8 J	12	320	0.30 J	3.8	38	7.6	370	480	0.23	4.4	36	1.9 J	0.56	<2.9	27	870
	15		<2.9	8.3	40	0.24J	<0.49	8.9	3.2	8.8	1.4	<0.16	0.66	7.3	0.52 J	<0.49	<2.9	25	22
	20		<2.9	6.1	73	0.48 J	0.079 J	14	5.9	14	3.5	<0.16	0.30 J	9.7	<2.9	<0.49	<2.9	40	43
	25		<3.0	2.2	17	0.097 J	<0.50	4.6	1.4	3.3	1.1	<0.15	<0.99	3.2	<3.0	<0.50	<3.0	11	11
C1	5	12/29/2022	<2.9	2.2	50	<0.49	<0.49	12	5.0	9.6	18	<0.14	<0.97	7.9	<2.9	<0.49	<2.9	27	44
	10		<2.9	2.5	84	0.74	<0.49	25	8.4	11	4.0	<0.16	1.8	18	<2.9	<0.49	<2.9	36	62
	15		<3.0	<1.0	11	<0.50	<0.50	8.1	1.4	2.5	<1.0	<0.16	<1.0	2.2	<3.0	<0.50	<3.0	11	11
	20		<2.9	2.8	36	<0.49	<0.49	7.8	3.8	6.7	<0.97	<0.16	<0.97	7.5	<2.9	<0.49	<2.9	22	23
	25		<2.9	1.3	110	<0.48	<0.48	3.9	1.4	3.7	1.0	<0.17	<0.95	3.6	<2.9	<0.48	<2.9	11	10
D1	5	12/27/2022	<2.9	4.7	99	0.42 J	0.76	17	6.6	35	41	0.016 J	1.1	14	0.38 J	<0.49	<2.9	35	120
	10		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	15		<2.9	3.5	18	0.32 J	<0.49	5.9	3.1	5.7	3.5	<0.16	0.29 J	5.0	0.49 J	<0.49	<2.9	20	18
	20		<2.9	4.4	42	0.33 J	0.10 J	12	4.9	11	2.4	<0.15	0.76 J	9.2	1.1 J	<0.49	<2.9	46	32
	25		<2.9	1.4	18	0.084 J	<0.49	6.3	1.5	3.3	1.3	<0.15	0.19 J	3.9	0.40 J	<0.49	<2.9	12	12
D2	5	12/28/2022	1.3 J	5.4	100	<0.49	<0.49	17	6.0	19	17	0.055 J	0.73 J	13	<2.9	<0.49	1.2 J	34	61
	10		1.2 J	3.6	100	<0.50	<0.50	15	5.4	19	25	0.0086 J	<0.99	11	<3.0	<0.50	1.2 J	35	69
	15		<2.9	1.0	19	<0.49	<0.49	11	1.9	4.5	1.4	<0.16	<0.97	2.9	<2.9	<0.49	<2.9	42	13
	20		<2.9	3.8	35	<0.49	<0.49	4.6	2.8	4.7	1.8	<0.14	<0.97	3.6	<2.9	<0.49	<2.9	15	30
	25		0.69 J	2.1	22	<0.49	<0.49	5.4	1.5	4.1	1.9	<0.15	<0.97	<0.97	<2.9	<0.49	<2.9	11	27
DTSC-Recommended SL (Commercial/Industrial)			470	0.36	220,000	230	79	1,800,000/6.2±	350	47,000	500	4.4	5,800	11,000	5,800	5,800	120	5,800	350,000

Notes:

bgs = below ground surface

-- = Not Analyzed

± = Value for Chromium (III) / Value for Chromium (IV)

DTSC-Recommended SL = Screening Level as recommended in California Department Substances Control (DTSC), Office of Human and Ecological Risk (HERO), Human Health Risk Assessment (HHRA) Note No. 3, May 2022

"J" Indicates analyte was detedted. However, analyte concentration is an estimated value which is between the method detection limit (MDL) and the practical quantitation limit (PQL).

NA = Not Applicable

Appendix A

Boring Logs

SCS ENGINEERS — BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: A1

Walker Group
2750 Bristol Street
Costa Mesa, CA

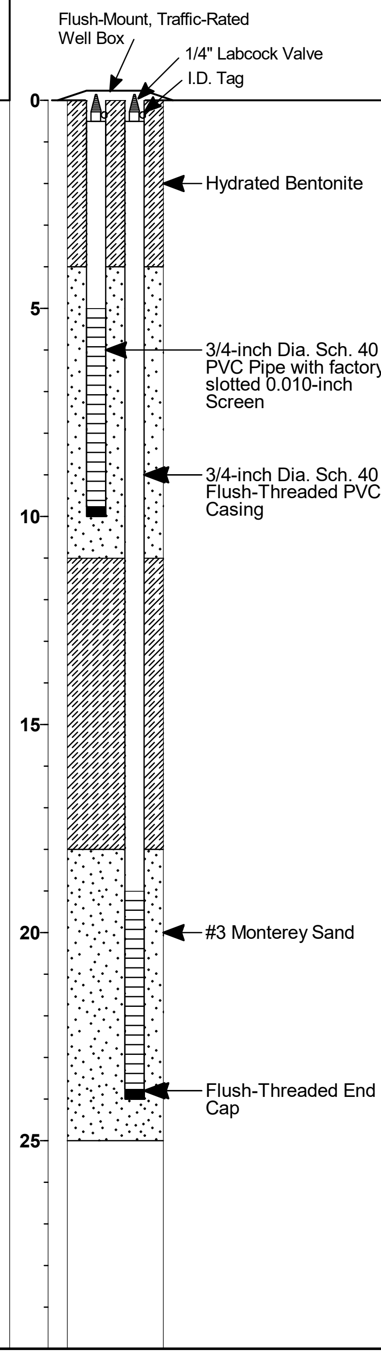
JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
5	X	A1-5	14 15 15				Mixture of Silt, Sand, and Clay with Some (approx. 15%) Gravel, Glass, and Concrete Fragments, Moist
10	X	A1-10	15 16 16				Mixture of Silt, Sand, and Clay with Some (approx. 15%) Gravel, Glass, and Concrete Fragments, Moist
15	X	A1-15	14 16 16	SM			Brown, Silty Fine to Coarse Sand, Moist
20	X	A1-20	12 15 17	SM			Brown, Silty Fine Sand, Very Moist
25	X		18 50 5x3	SW			Light Brown, Fine to Coarse Sand with Some Gravel, Moist

Depth scale: meters 0–9; feet 0–30.

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**		
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/28/22**	Total Depth:	**25.0 ft.**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**		
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**		

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: A2

Walker Group
2750 Bristol Street
Costa Mesa, CA

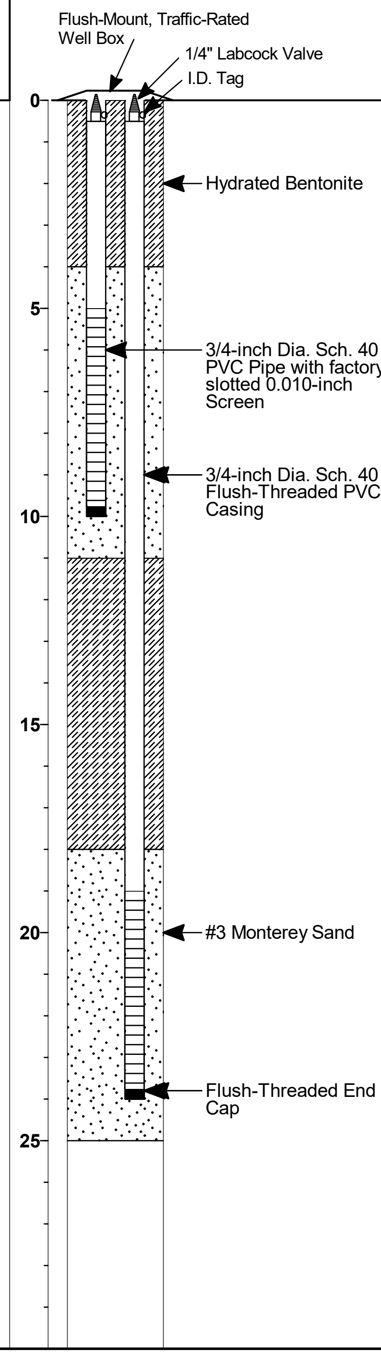
JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
5		A2-5	11 11 13				Dark Brown, Silt, Sand, and Clay Mixture with Trace (<5%) Glass Fragments, Moist
10		A2-10	12 14 16				Dark Brown to Black, Silt, Sand, and Clay Mixture with Some (approx. 20%) Glass, Concrete, and Wood Fragments, Moist
15		A2-15	12 14 16				Dark Brown, Silt, Sand, and Clay Mixture with Some (Approx. 10-15%) Glass and Brick Fragments, Moist
20		A2-20	13 15 17				Dark Brown, Silt, Sand, and Clay Mixture with Some (Approx. 10-15%) Glass and Brick Fragments, Moist
25		A2-25	14 18 18		SW		Orangish Brown, Fine to Coarse Sand, Poorly Sorted, Moist

Depth scale: meters 0–9; feet 0–30.

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/28/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: A3

Walker Group
2750 Bristol Street
Costa Mesa, CA

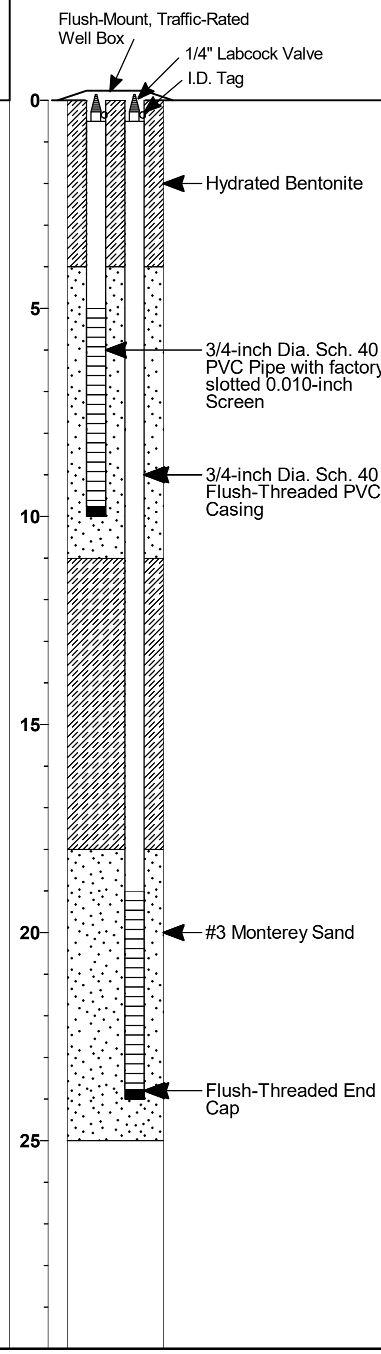
JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0–2.5						Trace Brick and Wood Fragments in Cuttings
5	X	A3-5	11 13 14			Dark Brown, Silty Sand and Clay with Some (approx. 10%) Wood and Glass Fragments, Moist
10	X	A3-10	12 12 15			Dark Brown, Silt, Sand and Clay with Some (approx. 20%) Concrete and Brick Fragments
15	X	A3-15	11 13 16		SM	Orangish Brown, Silty Fine to Coarse Sand, Moist, Well Graded
20	X	A3-20	13 14 16		SP	Orangish Brown, Fine to Medium Sand, Moist, Moderately Sorted
25	X					No Recovery

Depth scale: meters 0–9; feet 0–30.

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/28/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: B1

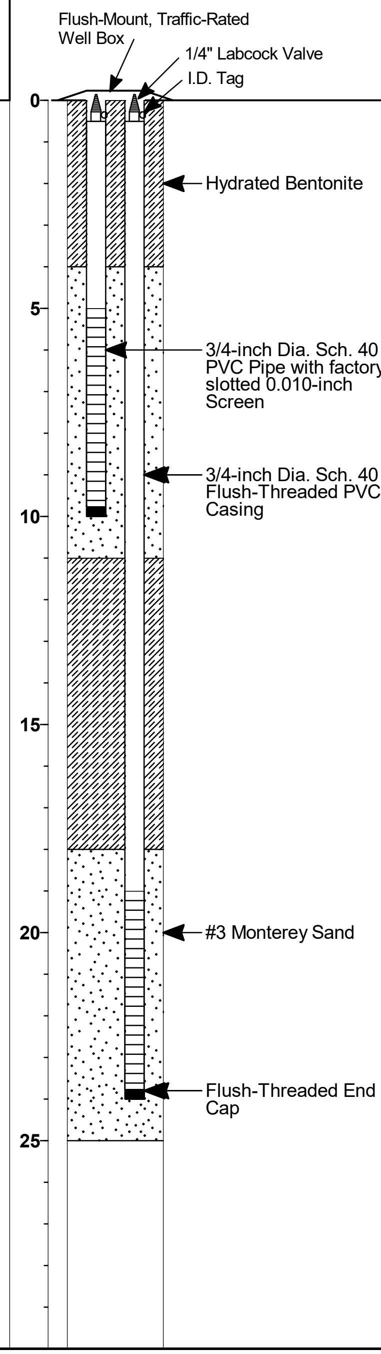
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0	0					
1.5	5	B1-5	11 12 14			Light Brown, Silt, Sand, and Clay Mixture with Some Gravel
3	10	B1-10	15 17 18			Dark Brown, Silty Sand with Some (appox. 10%) concrete, brick and glass Fragments
4.5	15	B1-15	28 50 50X4			Dark Brown, Silty Sand with Trace (<5%) Glass Fragments
6	20	B1-20	21 50 50X3			Black, Silty Sand with Some (approx. 20%) Metal, Glass, and Brick Fragments
7.5	25	B1-25	14 16 18		SW	Black, Silty Sand with Some (approx. 20%) Metal, Glass, and Brick Fragments Light Brown, Fine to Coarse Sand, Slightly Moist, Poorly Sorted
9	30					

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/27/22**	Total Depth:	**25.0 ft.**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/27/22**		
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**		
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**		

STANDARD_LOG 01222204 BORING LOGS2.GPJ STD_LOG.GDT 2/19/23

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: B2

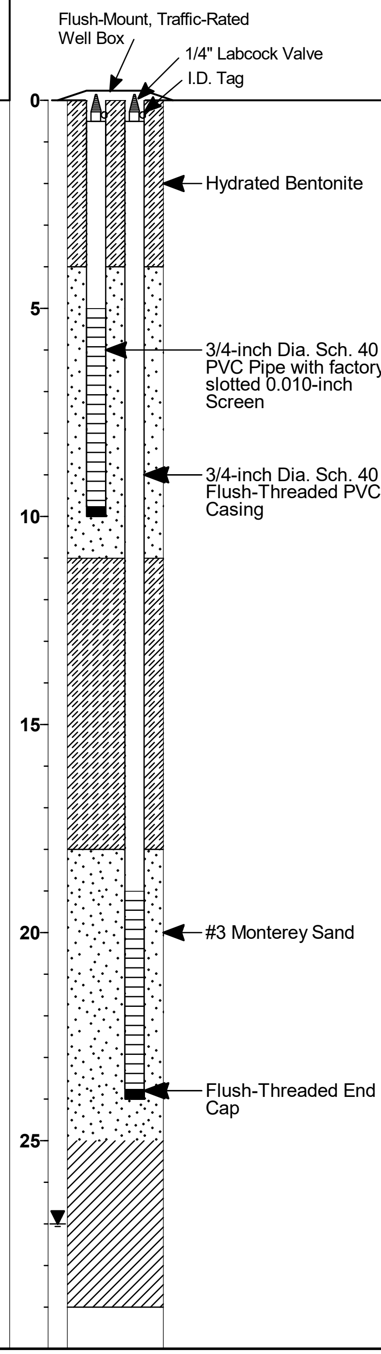
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0–5					Silt and Sand Mixture with Trace (<5%) brick, and glass fragments
5	B2-5	5 16 16		SM	Brown, Sand, Silt and Clay Mixture the Trace (<5%) concrete, glass, and brick fragements, Slightly Moist
10	B2-10	24 50X5		SM	Dark Brown and Greenish Gray, Sand, Silt and Clay with Some (approximately 10%) glass, brick and wood fragments, Slightly Moist
15	B2-15	16 17 21		SP	Orangish Brown, Very Fine to FIne Sand with Some Silt, Slightly Moist, Well Sorted
20	B2-20	16 16 27		SW	Light Brown, Fine to Coarse Sand with Some Gravel, Slightly Moist, Poorly Sorted
25	B2-25	16 16 18		SW	Light Brown, Fine to Coarse Sand with Some Gravel, Moist, Poorly Sorted

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/27/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/27/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Depth to Water: **27.0 ft.**
Total Depth: **29.0 ft.**

SCS ENGINEERS

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING LOG

BORING NUMBER: C1

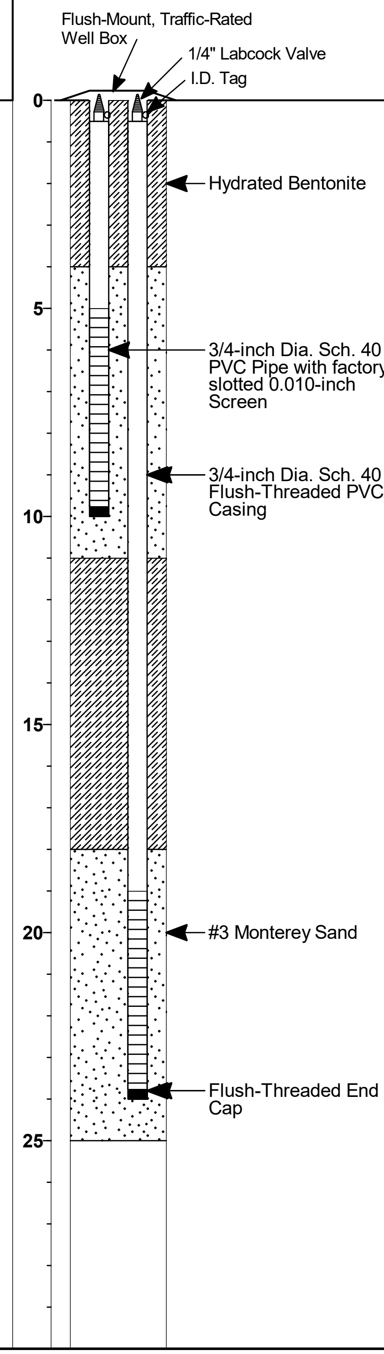
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
5	C1-5	12 14 16			Light Brown, Sand, Silt and Clay Mixture, Moist
10	C1-10	16 16 17			Light Brown, Sand, Silt and Clay Mixture, Moist
15	C1-15	14 14 16		SP	Orangish Brown, Medium to Coarse Sand, Well Sorted
20	C1-20	13 14 15		SP	Light Brown, Very Fine to FIne Sand, Moist, Well Sorted
25	C1-25	11 12 14		SP	Light Brown, Very Coarse Sand with Some Gravel, Very Moist

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/29/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/29/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: D1

Walker Group
2750 Bristol Street
Costa Mesa, CA

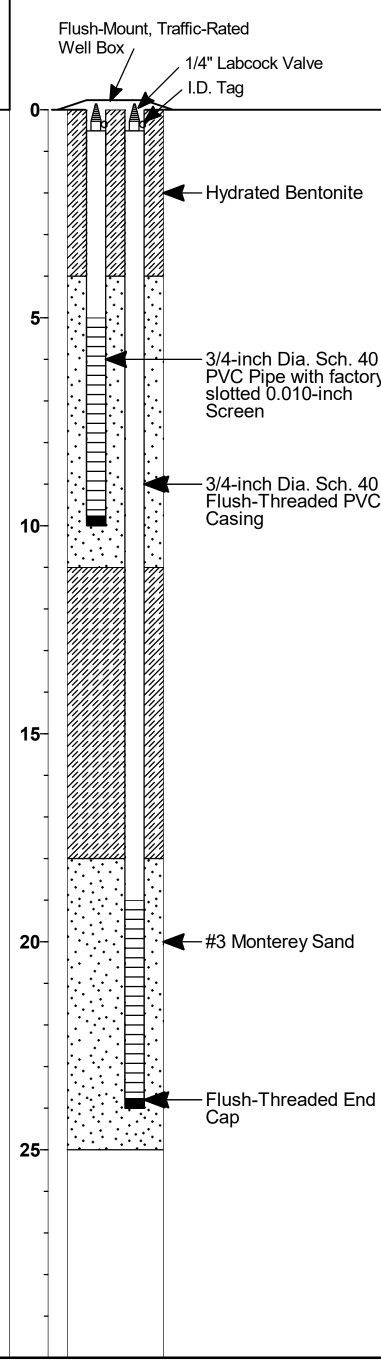
JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0						
5	X	D1-5	14 14 16			Brown, Clayey Silt with Some Sand and Gravel and Trace (<5%) Glass Fragments
10	X					No Recovery. Loose Gravel in Cuttings
15	X	D1-15	14 16 18			Gravel with Some Sand
19.5					SM	Grayish Brown, Silty Fine Sand with Trace Gravel
20	X	D1-20	14 17 17		SP	Orangish Brown, Fine Sand, Slightly Moist, Well Sorted
25	X	D1-25	13 14 14		SP	Orangish Brown, Medium Sand, Moist, Well Sorted
30						

Depth scale: meters 0–9; feet 0–30.

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/27/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/27/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

STANDARD_LOG 01222204 BORING LOGS2.GPJ STD_LOG.GDT 2/19/23

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: D2

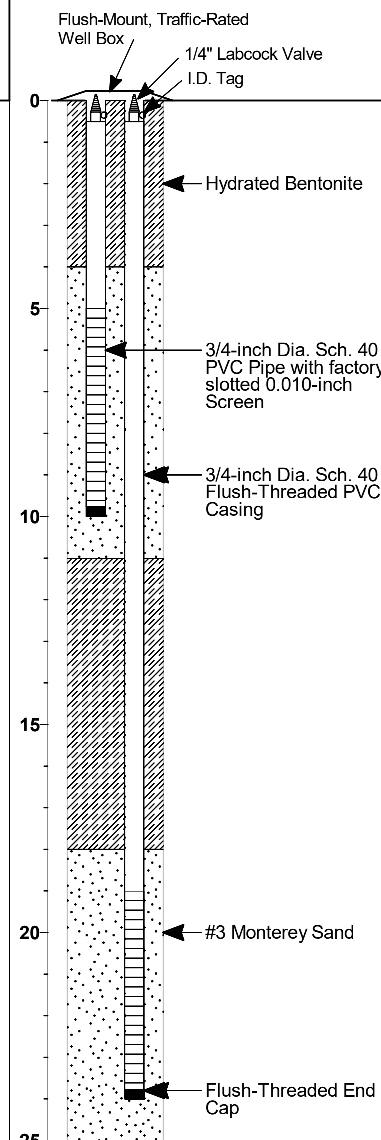
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0	0					
1.5	5	D2-5	4 9 12			Light Brown, Silt, Sand, and Clay Mixture with Trace Gravel
3	10	D2-10	10 11 13			Light Brown, sand Silt and Clay Mixture, Moist
4.5	15	D2-15	11 12 19		SM	Orangish Brown, Silty Fine to Medium Sand
6	20	D2-20	13 14 16		SW	Orangish Brown, Gravelly Fine Sand
7.5	25	D2-25	12 14 16		SW	Orangish Brown, Gravelly Fine Sand
9	30					

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/29/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

STANDARD_LOG 01222204 BORING LOGS2.GPJ STD_LOG.GDT 2/19/23

Appendix B

EAL Laboratory Reports

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number: 476005
Report Level: II
Report Date: 01/09/2023

Analytical Report *prepared for:*

Jeff Sieg
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Location: 2750 Bristol Street, Costa Mesa, CA

Authorized for release by:

Jim Lin, Service Center Manager
Jim.lin@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Jeff Sieg		Lab Job #:	476005
SCS Engineers - Long Beach		Location:	2750 Bristol Street, Costa Mesa, CA
3900 Kilroy Airport Way		Date Received:	12/27/22
Suite 100			
Long Beach, CA 90806			

Sample ID	Lab ID	Collected	Matrix
B2-5	476005-001	12/27/22 08:40	Soil
B2-10	476005-002	12/27/22 08:48	Soil
B2-15	476005-003	12/27/22 08:53	Soil
B2-20	476005-004	12/27/22 09:01	Soil
B2-25	476005-005	12/27/22 09:06	Soil
B1-5	476005-006	12/27/22 10:45	Soil
B1-10	476005-007	12/27/22 10:52	Soil
B1-15	476005-008	12/27/22 10:57	Soil
B1-20	476005-009	12/27/22 11:02	Soil
B1-25	476005-010	12/27/22 11:09	Soil
D1-5	476005-011	12/27/22 13:22	Soil
D1-15	476005-012	12/27/22 13:40	Soil
D1-20	476005-013	12/27/22 13:46	Soil
D1-25	476005-014	12/27/22 13:50	Soil

Case Narrative

SCS Engineers - Long Beach	Lab Job Number:	476005
3900 Kilroy Airport Way	Location:	2750 Bristol Street, Costa Mesa, CA
Suite 100	Date Received:	12/27/22
Long Beach, CA 90806		
Jeff Sieg		

This data package contains sample and QC results for fourteen soil samples, requested for the above referenced project on 12/27/22. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):

- High surrogate recovery was observed for terphenyl-d14 in D1-5 (lab # 476005-011); no target analytes were detected in the sample.
- No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):

- Responses exceeding the instrument's linear range were observed for nitrobenzene-d5, 2-fluorobiphenyl, and terphenyl-d14 in many samples; affected data was qualified with "E".
- No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

- Low recoveries were observed for antimony in the MS/MSD for batch 304125; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits.
- Low recoveries were observed for antimony in the MS/MSD of B2-25 (lab # 476005-005); the associated RPD was within limits.
- Lead and selenium were detected between the MDL and the RL in the method blank for batch 304246.
- No other analytical problems were encountered.

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Chain of Custody Record

Lab No: 476005

Page: 1 of 2

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Turn Around Time (rush by advanced notice only)

Standard:	✓	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS ENGINEERS	Quote #:	
Report To:	Jeff Sieg	Proj. Name:	
Email:	jsieg@scsengineers.com	Proj. #:	01222204.00
Address:	3900 Kilroy Airport Way Suite 100	P.O. #:	
	Long Beach, CA 90806	Address:	
Phone:	562-572-4461	Global ID:	
Fax:		Sampled By:	

Analysis Request: 8015M - Carbon Chain; 8270 SIM-PAHs (Low Level); 8270 - SVOCs; 8260B - VOCs; 6010B/7471A - CAM17 metals

#	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	8015M - Carbon Chain	8270 SIM-PAHs (Low Level)	8270 - SVOCs	8260B - VOCs	6010B/7471A - CAM17 metals					Test Instructions / Comments
1	B2-5	12/27/22	0840	SOIL	(1) 6" sleeve	N/a	X	X	X	X	X					COOL 3.4
2	B2-10	↓	0848	↓	↓	↓	↓	↓	↓	↓	↓					SAMP 5.0
3	B2-15		0853													
4	B2-20		0901													
5	B2-25		0906													
6	B1-5		1045													
7	B1-10		1052													
8	B1-15		1057													
9	B1-20		1102													
10	B1-25		1109													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Thomas Brren	SCS	12/27/22 15:17
1 Received By:		MICHAEL DANWANGCO	EA	12/27/22 1517
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange
931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

Chain of Custody Record

Lab No:
Page: 2 of 2

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Turn Around Time (rush by advanced notice only)

Standard:	✓	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS	Quote #:	
Report To:	Jeff Sieg	Proj. Name:	
Email:		Proj. #:	01222204.00
Address:		P.O. #:	
		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	

Analysis Request

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	8015M - (Carbon Chain)	8270 SIM - PAHs (low level)	8270 - SVOCs	8260B - VOCs	6010B / 7471A CAM 17						Test Instructions / Comments
1	D1-5	12/27/22	1322	Soil	(1) 6" sleeve	N/a	X	X	X	X	X						
2	D1-15		1340														
3	D1-20		1346														COOL 3.4
4	D1-25		1350														SAMP 5.0
5																	
6																	
7																	
8																	
9																	
10																	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Thomas Birren	SCS	12/27/22 15:17
1 Received By:	[signature]	MICHAEL TANWANGCO	EA	12/27/22 1517
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY
ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: SCS Engineering   Project: 01222204.00

Date Received: 12/27/22   Sampler's Name Present: [✔] Yes [ ] No

Section 2

Sample(s) received in a cooler? [✔] Yes, How many? 1   [ ] No (skip section 2)   Sample Temp (°C) (No Cooler): ____

Sample Temp (°C), One from each cooler: #1: 5.0 #2: ____ #3: ____ #4: ____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: ____

Section 3

Was the cooler packed with: [✔] Ice [ ] Ice Packs [ ] Bubble Wrap [ ] Styrofoam [ ] Paper [ ] None [ ] Other ____

Cooler Temp (°C): #1: 3.4 #2: ____ #3: ____ #4: ____

Section 4	YES	NO	N/A
Was a COC received?	✔		
Are sample IDs present?	✔		
Are sampling dates & times present?	✔		
Is a relinquished signature present?	✔		
Are the tests required clearly indicated on the COC?	✔		
Are custody seals present?		✔	
If custody seals are present, were they intact?			✔
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✔
Did all samples arrive intact? If no, indicate in Section 4 below.	✔		
Did all bottle labels agree with COC? (ID, dates and times)	✔		
Were the samples collected in the correct containers for the required tests?	✔		
Are the containers labeled with the correct preservatives?			✔
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✔
Was a sufficient amount of sample submitted for the requested tests?	✔		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? [ ] Verbal PM Initials: ____ Date/Time ____
[ ] Email (email sent to/on): ____ / ____

Project Manager's response:

Completed By: [signature]   Date: 12/27/22

Analysis Results for 476005

Jeff Sieg
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Lab Job #: 476005
Location: 2750 Bristol Street, Costa Mesa, CA
Date Received: 12/27/22

Sample ID: B2-5 **Lab ID: 476005-001** **Collected: 12/27/22 08:40**
Matrix: Soil

476005-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	3.0	0.77	0.99	304125	12/28/22	12/30/22	SBW
Arsenic	**7.4**		mg/Kg	0.99	0.47	0.99	304125	12/28/22	12/30/22	SBW
Barium	**100**		mg/Kg	0.99	0.12	0.99	304125	12/28/22	12/30/22	SBW
Beryllium	**0.31**	J	mg/Kg	0.50	0.030	0.99	304125	12/28/22	12/30/22	SBW
Cadmium	**0.25**	J	mg/Kg	0.50	0.035	0.99	304125	12/28/22	12/30/22	SBW
Chromium	**12**		mg/Kg	0.99	0.094	0.99	304125	12/28/22	12/30/22	SBW
Cobalt	**4.1**		mg/Kg	0.50	0.11	0.99	304125	12/28/22	12/30/22	SBW
Copper	**32**		mg/Kg	0.99	0.25	0.99	304125	12/28/22	12/30/22	SBW
Lead	**18**		mg/Kg	0.99	0.14	0.99	304125	12/28/22	12/30/22	SBW
Molybdenum	**0.99**		mg/Kg	0.99	0.18	0.99	304125	12/28/22	12/30/22	SBW
Nickel	**7.8**		mg/Kg	0.99	0.18	0.99	304125	12/28/22	12/30/22	SBW
Selenium	**0.51**	J	mg/Kg	3.0	0.37	0.99	304125	12/28/22	12/30/22	SBW
Silver	ND		mg/Kg	0.50	0.24	0.99	304125	12/28/22	12/30/22	SBW
Thallium	ND		mg/Kg	3.0	0.51	0.99	304125	12/28/22	12/30/22	SBW
Vanadium	**25**		mg/Kg	0.99	0.080	0.99	304125	12/28/22	12/30/22	SBW
Zinc	**96**		mg/Kg	5.0	0.17	0.99	304125	12/28/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.041**	J	mg/Kg	0.15	0.0053	1.1	304253	12/28/22	01/02/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
ORO C28-C44	ND		mg/Kg	20		1	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	104%		%REC	70-130		1	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304197	12/29/22	12/29/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304197	12/29/22	12/29/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Methylene Chloride	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304197	12/29/22	12/29/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304197	12/29/22	12/29/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304197	12/29/22	12/29/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304197	12/29/22	12/29/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	97%		%REC	70-145	6.1	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane-d4	98%		%REC	70-145	7.7	1	304197	12/29/22	12/29/22	LYZ
Toluene-d8	97%		%REC	70-145	1.2	1	304197	12/29/22	12/29/22	LYZ
Bromofluorobenzene	105%		%REC	70-145	2.6	1	304197	12/29/22	12/29/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	10	4.0	1	304135	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	10	3.4	1	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	75%	E	%REC	27-125		1	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	68%	E	%REC	30-120		1	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	84%	E	%REC	33-155		1	304135	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8270C Prep Method: EPA 3546										
Carbazole	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
Pyridine	ND		ug/Kg	250	110	1	304035	12/28/22	12/29/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304035	12/28/22	12/29/22	HQN
Phenol	ND		ug/Kg	250	69	1	304035	12/28/22	12/29/22	HQN
Aniline	ND		ug/Kg	250	81	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304035	12/28/22	12/29/22	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304035	12/28/22	12/29/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304035	12/28/22	12/29/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304035	12/28/22	12/29/22	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304035	12/28/22	12/29/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304035	12/28/22	12/29/22	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304035	12/28/22	12/29/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304035	12/28/22	12/29/22	HQN
Isophorone	ND		ug/Kg	250	67	1	304035	12/28/22	12/29/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304035	12/28/22	12/29/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304035	12/28/22	12/29/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304035	12/28/22	12/29/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304035	12/28/22	12/29/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304035	12/28/22	12/29/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304035	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304035	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304035	12/28/22	12/29/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304035	12/28/22	12/29/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Diethylphthalate	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	250	43	1	304035	12/28/22	12/29/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304035	12/28/22	12/29/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304035	12/28/22	12/29/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304035	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304035	12/28/22	12/29/22	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304035	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	250	44	1	304035	12/28/22	12/29/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304035	12/28/22	12/29/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304035	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304035	12/28/22	12/29/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304035	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	85%		%REC	29-120		1	304035	12/28/22	12/29/22	HQN
Phenol-d6	92%		%REC	30-120		1	304035	12/28/22	12/29/22	HQN
2,4,6-Tribromophenol	79%		%REC	32-120		1	304035	12/28/22	12/29/22	HQN
Nitrobenzene-d5	80%		%REC	33-120		1	304035	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	83%		%REC	39-120		1	304035	12/28/22	12/29/22	HQN
Terphenyl-d14	105%		%REC	44-125		1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: B2-10	Lab ID: 476005-002	Collected: 12/27/22 08:48
	Matrix: Soil	

476005-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**1.8**	J	mg/Kg	2.9	0.74	0.95	304125	12/28/22	12/30/22	SBW
Arsenic	**12**		mg/Kg	0.95	0.45	0.95	304125	12/28/22	12/30/22	SBW
Barium	**320**		mg/Kg	0.95	0.11	0.95	304125	12/28/22	12/30/22	SBW
Beryllium	**0.30**	J	mg/Kg	0.48	0.029	0.95	304125	12/28/22	12/30/22	SBW
Cadmium	**3.8**		mg/Kg	0.48	0.034	0.95	304125	12/28/22	12/30/22	SBW
Chromium	**38**		mg/Kg	0.95	0.091	0.95	304125	12/28/22	12/30/22	SBW
Cobalt	**7.6**		mg/Kg	0.48	0.10	0.95	304125	12/28/22	12/30/22	SBW
Copper	**370**		mg/Kg	0.95	0.24	0.95	304125	12/28/22	12/30/22	SBW
Lead	**480**		mg/Kg	0.95	0.14	0.95	304125	12/28/22	12/30/22	SBW
Molybdenum	**4.4**		mg/Kg	0.95	0.18	0.95	304125	12/28/22	12/30/22	SBW
Nickel	**36**		mg/Kg	0.95	0.18	0.95	304125	12/28/22	12/30/22	SBW
Selenium	**1.9**	J	mg/Kg	2.9	0.36	0.95	304125	12/28/22	12/30/22	SBW
Silver	**0.56**		mg/Kg	0.48	0.24	0.95	304125	12/28/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.49	0.95	304125	12/28/22	12/30/22	SBW
Vanadium	**27**		mg/Kg	0.95	0.077	0.95	304125	12/28/22	12/30/22	SBW
Zinc	**870**		mg/Kg	4.8	0.16	0.95	304125	12/28/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.23**		mg/Kg	0.16	0.0059	1.2	304253	12/28/22	01/02/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
ORO C28-C44	**25**		mg/Kg	20		0.99	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	103%		%REC	70-130		0.99	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304197	12/29/22	12/29/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304197	12/29/22	12/29/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Acetone	**21**	J	ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Methylene Chloride	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
cis-1,2-Dichloroethene	**1.5**	J	ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304197	12/29/22	12/29/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304197	12/29/22	12/29/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304197	12/29/22	12/29/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304197	12/29/22	12/29/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	97%		%REC	70-145	6.1	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane-d4	96%		%REC	70-145	7.7	1	304197	12/29/22	12/29/22	LYZ
Toluene-d8	98%		%REC	70-145	1.2	1	304197	12/29/22	12/29/22	LYZ
Bromofluorobenzene	105%		%REC	70-145	2.6	1	304197	12/29/22	12/29/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Naphthalene	**8.6**	J	ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Phenanthrene	**11**		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	10	4.0	1	304135	12/28/22	12/29/22	HQN
Fluoranthene	**8.1**	J	ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Pyrene	**7.2**	J	ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	**4.5**	J	ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Chrysene	**7.7**	J	ug/Kg	10	3.4	1	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	**5.8**	J	ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	**4.9**	J	ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	94%	E	%REC	27-125		1	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	90%	E	%REC	30-120		1	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	103%	E	%REC	33-155		1	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
Pyridine	ND		ug/Kg	250	110	1	304035	12/28/22	12/29/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304035	12/28/22	12/29/22	HQN
Phenol	ND		ug/Kg	250	70	1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	82	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304035	12/28/22	12/29/22	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304035	12/28/22	12/29/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304035	12/28/22	12/29/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304035	12/28/22	12/29/22	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	70	1	304035	12/28/22	12/29/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304035	12/28/22	12/29/22	HQN
Hexachloroethane	ND		ug/Kg	250	79	1	304035	12/28/22	12/29/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304035	12/28/22	12/29/22	HQN
Isophorone	ND		ug/Kg	250	67	1	304035	12/28/22	12/29/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304035	12/28/22	12/29/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304035	12/28/22	12/29/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304035	12/28/22	12/29/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
4-Chloroaniline	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	63	1	304035	12/28/22	12/29/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304035	12/28/22	12/29/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304035	12/28/22	12/29/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304035	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304035	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304035	12/28/22	12/29/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304035	12/28/22	12/29/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
Diethylphthalate	ND		ug/Kg	250	58	1	304035	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	250	43	1	304035	12/28/22	12/29/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
4-Nitroaniline	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304035	12/28/22	12/29/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304035	12/28/22	12/29/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304035	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304035	12/28/22	12/29/22	HQN
Benzidine	ND		ug/Kg	1,200	82	1	304035	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	250	45	1	304035	12/28/22	12/29/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304035	12/28/22	12/29/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304035	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304035	12/28/22	12/29/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	52	1	304035	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304035	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	101%		%REC	29-120		1	304035	12/28/22	12/29/22	HQN
Phenol-d6	110%		%REC	30-120		1	304035	12/28/22	12/29/22	HQN
2,4,6-Tribromophenol	98%		%REC	32-120		1	304035	12/28/22	12/29/22	HQN
Nitrobenzene-d5	96%		%REC	33-120		1	304035	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	98%		%REC	39-120		1	304035	12/28/22	12/29/22	HQN
Terphenyl-d14	120%		%REC	44-125		1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: B2-15	Lab ID: 476005-003	Collected: 12/27/22 08:53
	Matrix: Soil	

476005-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.76	0.97	304125	12/28/22	12/30/22	SBW
Arsenic	**8.3**		mg/Kg	0.97	0.46	0.97	304125	12/28/22	12/30/22	SBW
Barium	**40**		mg/Kg	0.97	0.11	0.97	304125	12/28/22	12/30/22	SBW
Beryllium	**0.24**	J	mg/Kg	0.49	0.029	0.97	304125	12/28/22	12/30/22	SBW
Cadmium	ND		mg/Kg	0.49	0.035	0.97	304125	12/28/22	12/30/22	SBW
Chromium	**8.9**		mg/Kg	0.97	0.092	0.97	304125	12/28/22	12/30/22	SBW
Cobalt	**3.2**		mg/Kg	0.49	0.11	0.97	304125	12/28/22	12/30/22	SBW
Copper	**8.8**		mg/Kg	0.97	0.24	0.97	304125	12/28/22	12/30/22	SBW
Lead	**1.4**		mg/Kg	0.97	0.14	0.97	304125	12/28/22	12/30/22	SBW
Molybdenum	**0.66**	J	mg/Kg	0.97	0.18	0.97	304125	12/28/22	12/30/22	SBW
Nickel	**7.3**		mg/Kg	0.97	0.18	0.97	304125	12/28/22	12/30/22	SBW
Selenium	**0.52**	J	mg/Kg	2.9	0.36	0.97	304125	12/28/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.24	0.97	304125	12/28/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.50	0.97	304125	12/28/22	12/30/22	SBW
Vanadium	**25**		mg/Kg	0.97	0.078	0.97	304125	12/28/22	12/30/22	SBW
Zinc	**22**		mg/Kg	4.9	0.16	0.97	304125	12/28/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.16	0.0056	1.1	304253	12/28/22	01/02/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
ORO C28-C44	ND		mg/Kg	20		0.99	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	93%		%REC	70-130		0.99	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304197	12/29/22	12/29/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304197	12/29/22	12/29/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Methylene Chloride	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304197	12/29/22	12/29/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304197	12/29/22	12/29/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304197	12/29/22	12/29/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304197	12/29/22	12/29/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	94%		%REC	70-145	6.1	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane-d4	95%		%REC	70-145	7.7	1	304197	12/29/22	12/29/22	LYZ
Toluene-d8	99%		%REC	70-145	1.2	1	304197	12/29/22	12/29/22	LYZ
Bromofluorobenzene	104%		%REC	70-145	2.6	1	304197	12/29/22	12/29/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	10	4.0	1	304135	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	10	3.4	1	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	93%	E	%REC	27-125		1	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	82%	E	%REC	30-120		1	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	98%	E	%REC	33-155		1	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
Pyridine	ND		ug/Kg	250	110	1	304035	12/28/22	12/29/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304035	12/28/22	12/29/22	HQN
Phenol	ND		ug/Kg	250	69	1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304035	12/28/22	12/29/22	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304035	12/28/22	12/29/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304035	12/28/22	12/29/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304035	12/28/22	12/29/22	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304035	12/28/22	12/29/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304035	12/28/22	12/29/22	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304035	12/28/22	12/29/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304035	12/28/22	12/29/22	HQN
Isophorone	ND		ug/Kg	250	67	1	304035	12/28/22	12/29/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304035	12/28/22	12/29/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304035	12/28/22	12/29/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304035	12/28/22	12/29/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304035	12/28/22	12/29/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304035	12/28/22	12/29/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304035	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304035	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304035	12/28/22	12/29/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304035	12/28/22	12/29/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	250	43	1	304035	12/28/22	12/29/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304035	12/28/22	12/29/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304035	12/28/22	12/29/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304035	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304035	12/28/22	12/29/22	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304035	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	250	44	1	304035	12/28/22	12/29/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304035	12/28/22	12/29/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304035	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304035	12/28/22	12/29/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304035	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	90%		%REC	29-120		1	304035	12/28/22	12/29/22	HQN
Phenol-d6	96%		%REC	30-120		1	304035	12/28/22	12/29/22	HQN
2,4,6-Tribromophenol	82%		%REC	32-120		1	304035	12/28/22	12/29/22	HQN
Nitrobenzene-d5	87%		%REC	33-120		1	304035	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	85%		%REC	39-120		1	304035	12/28/22	12/29/22	HQN
Terphenyl-d14	97%		%REC	44-125		1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: B2-20	Lab ID: 476005-004	Collected: 12/27/22 09:01
	Matrix: Soil	

476005-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.77	0.98	304125	12/28/22	12/30/22	SBW
Arsenic	**6.1**		mg/Kg	0.98	0.46	0.98	304125	12/28/22	12/30/22	SBW
Barium	**73**		mg/Kg	0.98	0.11	0.98	304125	12/28/22	12/30/22	SBW
Beryllium	**0.48**	J	mg/Kg	0.49	0.030	0.98	304125	12/28/22	12/30/22	SBW
Cadmium	**0.079**	J	mg/Kg	0.49	0.035	0.98	304125	12/28/22	12/30/22	SBW
Chromium	**14**		mg/Kg	0.98	0.093	0.98	304125	12/28/22	12/30/22	SBW
Cobalt	**5.9**		mg/Kg	0.49	0.11	0.98	304125	12/28/22	12/30/22	SBW
Copper	**14**		mg/Kg	0.98	0.25	0.98	304125	12/28/22	12/30/22	SBW
Lead	**3.5**		mg/Kg	0.98	0.14	0.98	304125	12/28/22	12/30/22	SBW
Molybdenum	**0.30**	J	mg/Kg	0.98	0.18	0.98	304125	12/28/22	12/30/22	SBW
Nickel	**9.7**		mg/Kg	0.98	0.18	0.98	304125	12/28/22	12/30/22	SBW
Selenium	ND		mg/Kg	2.9	0.37	0.98	304125	12/28/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.24	0.98	304125	12/28/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.50	0.98	304125	12/28/22	12/30/22	SBW
Vanadium	**40**		mg/Kg	0.98	0.079	0.98	304125	12/28/22	12/30/22	SBW
Zinc	**43**		mg/Kg	4.9	0.16	0.98	304125	12/28/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.16	0.0056	1.1	304253	12/28/22	01/02/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
ORO C28-C44	ND		mg/Kg	20		1	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	97%		%REC	70-130		1	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304197	12/29/22	12/29/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304197	12/29/22	12/29/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Methylene Chloride	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304197	12/29/22	12/29/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304197	12/29/22	12/29/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304197	12/29/22	12/29/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304197	12/29/22	12/29/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	92%		%REC	70-145	6.1	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane-d4	95%		%REC	70-145	7.7	1	304197	12/29/22	12/29/22	LYZ
Toluene-d8	99%		%REC	70-145	1.2	1	304197	12/29/22	12/29/22	LYZ
Bromofluorobenzene	105%		%REC	70-145	2.6	1	304197	12/29/22	12/29/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	10	4.0	1	304135	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	10	3.4	1	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	61%	E	%REC	27-125		1	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	56%	E	%REC	30-120		1	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	67%	E	%REC	33-155		1	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
Pyridine	ND		ug/Kg	250	110	1	304035	12/28/22	12/29/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304035	12/28/22	12/29/22	HQN
Phenol	ND		ug/Kg	250	70	1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	82	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304035	12/28/22	12/29/22	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304035	12/28/22	12/29/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Benzyl alcohol	ND		ug/Kg	250	79	1	304035	12/28/22	12/29/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304035	12/28/22	12/29/22	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	70	1	304035	12/28/22	12/29/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304035	12/28/22	12/29/22	HQN
Hexachloroethane	ND		ug/Kg	250	79	1	304035	12/28/22	12/29/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304035	12/28/22	12/29/22	HQN
Isophorone	ND		ug/Kg	250	67	1	304035	12/28/22	12/29/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304035	12/28/22	12/29/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304035	12/28/22	12/29/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304035	12/28/22	12/29/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
4-Chloroaniline	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	63	1	304035	12/28/22	12/29/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	65	1	304035	12/28/22	12/29/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304035	12/28/22	12/29/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	65	1	304035	12/28/22	12/29/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	87	1	304035	12/28/22	12/29/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304035	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
3-Nitroaniline	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304035	12/28/22	12/29/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304035	12/28/22	12/29/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
Diethylphthalate	ND		ug/Kg	250	58	1	304035	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	250	43	1	304035	12/28/22	12/29/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
4-Nitroaniline	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304035	12/28/22	12/29/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304035	12/28/22	12/29/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304035	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304035	12/28/22	12/29/22	HQN
Benzidine	ND		ug/Kg	1,200	82	1	304035	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	250	45	1	304035	12/28/22	12/29/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304035	12/28/22	12/29/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304035	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	90	1	304035	12/28/22	12/29/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	52	1	304035	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304035	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	78%		%REC	29-120		1	304035	12/28/22	12/29/22	HQN
Phenol-d6	82%		%REC	30-120		1	304035	12/28/22	12/29/22	HQN
2,4,6-Tribromophenol	62%		%REC	32-120		1	304035	12/28/22	12/29/22	HQN
Nitrobenzene-d5	69%		%REC	33-120		1	304035	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	65%		%REC	39-120		1	304035	12/28/22	12/29/22	HQN
Terphenyl-d14	74%		%REC	44-125		1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: B2-25	Lab ID: 476005-005	Collected: 12/27/22 09:06
	Matrix: Soil	

476005-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	3.0	0.77	0.99	304246	12/29/22	12/30/22	SBW
Arsenic	**2.2**		mg/Kg	0.99	0.47	0.99	304246	12/29/22	12/30/22	SBW
Barium	**17**		mg/Kg	0.99	0.12	0.99	304246	12/29/22	12/30/22	SBW
Beryllium	**0.097**	J	mg/Kg	0.50	0.030	0.99	304246	12/29/22	12/30/22	SBW
Cadmium	ND		mg/Kg	0.50	0.035	0.99	304246	12/29/22	12/30/22	SBW
Chromium	**4.6**		mg/Kg	0.99	0.094	0.99	304246	12/29/22	12/30/22	SBW
Cobalt	**1.4**		mg/Kg	0.50	0.11	0.99	304246	12/29/22	12/30/22	SBW
Copper	**3.3**		mg/Kg	0.99	0.25	0.99	304246	12/29/22	12/30/22	SBW
Lead	**1.1**	B	mg/Kg	0.99	0.14	0.99	304246	12/29/22	12/30/22	SBW
Molybdenum	ND		mg/Kg	0.99	0.18	0.99	304246	12/29/22	12/30/22	SBW
Nickel	**3.2**		mg/Kg	0.99	0.18	0.99	304246	12/29/22	12/30/22	SBW
Selenium	ND		mg/Kg	3.0	0.37	0.99	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.50	0.24	0.99	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	3.0	0.51	0.99	304246	12/29/22	12/30/22	SBW
Vanadium	**11**		mg/Kg	0.99	0.080	0.99	304246	12/29/22	12/30/22	SBW
Zinc	**11**		mg/Kg	5.0	0.17	0.99	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.15	0.0054	1.1	304368	12/30/22	01/03/23	SBW
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
ORO C28-C44	ND		mg/Kg	20		0.99	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	112%		%REC	70-130		0.99	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304197	12/29/22	12/29/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304197	12/29/22	12/29/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Methylene Chloride	**2.2**	J	ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304197	12/29/22	12/29/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304197	12/29/22	12/29/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304197	12/29/22	12/29/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304197	12/29/22	12/29/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	93%		%REC	70-145	6.1	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane-d4	90%		%REC	70-145	7.7	1	304197	12/29/22	12/29/22	LYZ
Toluene-d8	99%		%REC	70-145	1.2	1	304197	12/29/22	12/29/22	LYZ
Bromofluorobenzene	103%		%REC	70-145	2.6	1	304197	12/29/22	12/29/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	9.9	3.7	0.99	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	9.9	4.9	0.99	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	9.9	4.0	0.99	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	9.9	4.1	0.99	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	9.9	5.0	0.99	304135	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	9.9	4.0	0.99	304135	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	9.9	4.9	0.99	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	9.9	4.1	0.99	304135	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	9.9	3.4	0.99	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	9.9	5.0	0.99	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	5.2	0.99	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	95%	E	%REC	27-125		0.99	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	81%	E	%REC	30-120		0.99	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	103%	E	%REC	33-155		0.99	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/29/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	63	0.99	304035	12/28/22	12/29/22	HQN
Pyridine	ND		ug/Kg	250	110	0.99	304035	12/28/22	12/29/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	84	0.99	304035	12/28/22	12/29/22	HQN
Phenol	ND		ug/Kg	250	69	0.99	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	0.99	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	88	0.99	304035	12/28/22	12/29/22	HQN
2-Chlorophenol	ND		ug/Kg	250	74	0.99	304035	12/28/22	12/29/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	71	0.99	304035	12/28/22	12/29/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/29/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	0.99	304035	12/28/22	12/29/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	0.99	304035	12/28/22	12/29/22	HQN
2-Methylphenol	ND		ug/Kg	250	70	0.99	304035	12/28/22	12/29/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	0.99	304035	12/28/22	12/29/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	0.99	304035	12/28/22	12/29/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	70	0.99	304035	12/28/22	12/29/22	HQN
Hexachloroethane	ND		ug/Kg	250	78	0.99	304035	12/28/22	12/29/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	0.99	304035	12/28/22	12/29/22	HQN
Isophorone	ND		ug/Kg	250	67	0.99	304035	12/28/22	12/29/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/29/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	60	0.99	304035	12/28/22	12/29/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	0.99	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	0.99	304035	12/28/22	12/29/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/29/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/29/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/29/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/29/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/29/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	0.99	304035	12/28/22	12/29/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/29/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	0.99	304035	12/28/22	12/29/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/29/22	HQN
2-Nitroaniline	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/29/22	HQN
Dimethylphthalate	ND		ug/Kg	250	83	0.99	304035	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/29/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/29/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	0.99	304035	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/29/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	0.99	304035	12/28/22	12/29/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	0.99	304035	12/28/22	12/29/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	0.99	304035	12/28/22	12/29/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/29/22	HQN
Diethylphthalate	ND		ug/Kg	250	57	0.99	304035	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	250	43	0.99	304035	12/28/22	12/29/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/29/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/29/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	0.99	304035	12/28/22	12/29/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/29/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/29/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/29/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	0.99	304035	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	250	45	0.99	304035	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/29/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	0.99	304035	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	250	53	0.99	304035	12/28/22	12/29/22	HQN
Benzidine	ND		ug/Kg	1,200	81	0.99	304035	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	250	44	0.99	304035	12/28/22	12/29/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/29/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	0.99	304035	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/29/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	0.99	304035	12/28/22	12/29/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	0.99	304035	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	0.99	304035	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	0.99	304035	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	0.99	304035	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	93%		%REC	29-120		0.99	304035	12/28/22	12/29/22	HQN
Phenol-d6	99%		%REC	30-120		0.99	304035	12/28/22	12/29/22	HQN
2,4,6-Tribromophenol	89%		%REC	32-120		0.99	304035	12/28/22	12/29/22	HQN
Nitrobenzene-d5	91%		%REC	33-120		0.99	304035	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	93%		%REC	39-120		0.99	304035	12/28/22	12/29/22	HQN
Terphenyl-d14	111%		%REC	44-125		0.99	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: B1-5	Lab ID: 476005-006	Collected: 12/27/22 10:45
	Matrix: Soil	

476005-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.77	0.98	304246	12/29/22	12/30/22	SBW
Arsenic	**4.8**		mg/Kg	0.98	0.46	0.98	304246	12/29/22	12/30/22	SBW
Barium	**80**		mg/Kg	0.98	0.11	0.98	304246	12/29/22	12/30/22	SBW
Beryllium	**0.38**	J	mg/Kg	0.49	0.030	0.98	304246	12/29/22	12/30/22	SBW
Cadmium	**0.43**	J	mg/Kg	0.49	0.035	0.98	304246	12/29/22	12/30/22	SBW
Chromium	**18**		mg/Kg	0.98	0.093	0.98	304246	12/29/22	12/30/22	SBW
Cobalt	**6.0**		mg/Kg	0.49	0.11	0.98	304246	12/29/22	12/30/22	SBW
Copper	**12**		mg/Kg	0.98	0.25	0.98	304246	12/29/22	12/30/22	SBW
Lead	**7.5**		mg/Kg	0.98	0.14	0.98	304246	12/29/22	12/30/22	SBW
Molybdenum	**1.1**		mg/Kg	0.98	0.18	0.98	304246	12/29/22	12/30/22	SBW
Nickel	**12**		mg/Kg	0.98	0.18	0.98	304246	12/29/22	12/30/22	SBW
Selenium	**0.57**	B,J	mg/Kg	2.9	0.37	0.98	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.24	0.98	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.50	0.98	304246	12/29/22	12/30/22	SBW
Vanadium	**35**		mg/Kg	0.98	0.079	0.98	304246	12/29/22	12/30/22	SBW
Zinc	**44**		mg/Kg	4.9	0.16	0.98	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.14	0.0052	1	304295	12/29/22	01/03/23	JCP
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
ORO C28-C44	**21**		mg/Kg	20		0.99	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	90%		%REC	70-130		0.99	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304197	12/29/22	12/29/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304197	12/29/22	12/29/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Methylene Chloride	**2.3**	J	ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304197	12/29/22	12/29/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304197	12/29/22	12/29/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304197	12/29/22	12/29/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304197	12/29/22	12/29/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	95%		%REC	70-145	6.1	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane-d4	95%		%REC	70-145	7.7	1	304197	12/29/22	12/29/22	LYZ
Toluene-d8	97%		%REC	70-145	1.2	1	304197	12/29/22	12/29/22	LYZ
Bromofluorobenzene	101%		%REC	70-145	2.6	1	304197	12/29/22	12/29/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Acenaphthene	**6.1**	J	ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Fluorene	**7.8**	J	ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Phenanthrene	**70**		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Anthracene	**22**		ug/Kg	10	4.0	1	304135	12/28/22	12/29/22	HQN
Fluoranthene	**89**		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Pyrene	**70**		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	**35**		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Chrysene	**34**		ug/Kg	10	3.4	1	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	**27**		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	**24**		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	**27**		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	**17**		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	**15**		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	77%	E	%REC	27-125		1	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	75%	E	%REC	30-120		1	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	99%	E	%REC	33-155		1	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
Pyridine	ND		ug/Kg	250	110	1	304035	12/28/22	12/29/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304035	12/28/22	12/29/22	HQN
Phenol	ND		ug/Kg	250	69	1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304035	12/28/22	12/29/22	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304035	12/28/22	12/29/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304035	12/28/22	12/29/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304035	12/28/22	12/29/22	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304035	12/28/22	12/29/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304035	12/28/22	12/29/22	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304035	12/28/22	12/29/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304035	12/28/22	12/29/22	HQN
Isophorone	ND		ug/Kg	250	67	1	304035	12/28/22	12/29/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304035	12/28/22	12/29/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304035	12/28/22	12/29/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304035	12/28/22	12/29/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304035	12/28/22	12/29/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304035	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304035	12/28/22	12/29/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304035	12/28/22	12/29/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304035	12/28/22	12/29/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304035	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304035	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304035	12/28/22	12/29/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304035	12/28/22	12/29/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	250	43	1	304035	12/28/22	12/29/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304035	12/28/22	12/29/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304035	12/28/22	12/29/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304035	12/28/22	12/29/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304035	12/28/22	12/29/22	HQN
Phenanthrene	**78**	J	ug/Kg	250	46	1	304035	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Fluoranthene	**100**	J	ug/Kg	250	53	1	304035	12/28/22	12/29/22	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304035	12/28/22	12/29/22	HQN
Pyrene	**80**	J	ug/Kg	250	44	1	304035	12/28/22	12/29/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304035	12/28/22	12/29/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304035	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	250	56	1	304035	12/28/22	12/29/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304035	12/28/22	12/29/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304035	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304035	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304035	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304035	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	81%		%REC	29-120		1	304035	12/28/22	12/29/22	HQN
Phenol-d6	92%		%REC	30-120		1	304035	12/28/22	12/29/22	HQN
2,4,6-Tribromophenol	89%		%REC	32-120		1	304035	12/28/22	12/29/22	HQN
Nitrobenzene-d5	81%		%REC	33-120		1	304035	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	82%		%REC	39-120		1	304035	12/28/22	12/29/22	HQN
Terphenyl-d14	110%		%REC	44-125		1	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: B1-10	Lab ID: 476005-007	Collected: 12/27/22 10:52
	Matrix: Soil	

476005-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.75	0.96	304246	12/29/22	12/30/22	SBW
Arsenic	**4.6**		mg/Kg	0.96	0.45	0.96	304246	12/29/22	12/30/22	SBW
Barium	**180**		mg/Kg	0.96	0.11	0.96	304246	12/29/22	12/30/22	SBW
Beryllium	**0.34**	J	mg/Kg	0.48	0.029	0.96	304246	12/29/22	12/30/22	SBW
Cadmium	**1.2**		mg/Kg	0.48	0.034	0.96	304246	12/29/22	12/30/22	SBW
Chromium	**21**		mg/Kg	0.96	0.092	0.96	304246	12/29/22	12/30/22	SBW
Cobalt	**6.0**		mg/Kg	0.48	0.10	0.96	304246	12/29/22	12/30/22	SBW
Copper	**100**		mg/Kg	0.96	0.24	0.96	304246	12/29/22	12/30/22	SBW
Lead	**330**		mg/Kg	0.96	0.14	0.96	304246	12/29/22	12/30/22	SBW
Molybdenum	**1.6**		mg/Kg	0.96	0.18	0.96	304246	12/29/22	12/30/22	SBW
Nickel	**20**		mg/Kg	0.96	0.18	0.96	304246	12/29/22	12/30/22	SBW
Selenium	**0.77**	B,J	mg/Kg	2.9	0.36	0.96	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.48	0.24	0.96	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.49	0.96	304246	12/29/22	12/30/22	SBW
Vanadium	**28**		mg/Kg	0.96	0.078	0.96	304246	12/29/22	12/30/22	SBW
Zinc	**430**		mg/Kg	4.8	0.16	0.96	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.20**		mg/Kg	0.15	0.0054	1.1	304295	12/29/22	01/03/23	JCP
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
ORO C28-C44	**21**		mg/Kg	20		1	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	88%		%REC	70-130		1	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304197	12/29/22	12/29/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304197	12/29/22	12/29/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Methylene Chloride	**2.8**	J	ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304197	12/29/22	12/29/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304197	12/29/22	12/29/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304197	12/29/22	12/29/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304197	12/29/22	12/29/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	94%		%REC	70-145	6.1	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane-d4	92%		%REC	70-145	7.7	1	304197	12/29/22	12/29/22	LYZ
Toluene-d8	98%		%REC	70-145	1.2	1	304197	12/29/22	12/29/22	LYZ
Bromofluorobenzene	102%		%REC	70-145	2.6	1	304197	12/29/22	12/29/22	LYZ
Method: EPA 8270C-SIM Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	9.9	3.7	0.99	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Naphthalene	**5.0**	J	ug/Kg	9.9	4.9	0.99	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	9.9	4.0	0.99	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	9.9	4.1	0.99	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Phenanthrene	**5.4**	J	ug/Kg	9.9	5.0	0.99	304135	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	9.9	4.0	0.99	304135	12/28/22	12/29/22	HQN
Fluoranthene	**4.9**	J	ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	9.9	4.9	0.99	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	9.9	4.1	0.99	304135	12/28/22	12/29/22	HQN
Chrysene	**4.9**	J	ug/Kg	9.9	3.4	0.99	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	9.9	5.0	0.99	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	5.2	0.99	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	77%	E	%REC	27-125		0.99	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	74%	E	%REC	30-120		0.99	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	89%	E	%REC	33-155		0.99	304135	12/28/22	12/29/22	HQN
Method: EPA 8270C Prep Method: EPA 3546										
Carbazole	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/29/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	63	0.99	304035	12/28/22	12/29/22	HQN
Pyridine	ND		ug/Kg	250	110	0.99	304035	12/28/22	12/29/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	84	0.99	304035	12/28/22	12/29/22	HQN
Phenol	ND		ug/Kg	250	69	0.99	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	0.99	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	0.99	304035	12/28/22	12/29/22	HQN
2-Chlorophenol	ND		ug/Kg	250	74	0.99	304035	12/28/22	12/29/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	71	0.99	304035	12/28/22	12/29/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/29/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	0.99	304035	12/28/22	12/29/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	0.99	304035	12/28/22	12/29/22	HQN
2-Methylphenol	ND		ug/Kg	250	70	0.99	304035	12/28/22	12/29/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	0.99	304035	12/28/22	12/29/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	0.99	304035	12/28/22	12/29/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	70	0.99	304035	12/28/22	12/29/22	HQN
Hexachloroethane	ND		ug/Kg	250	78	0.99	304035	12/28/22	12/29/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	0.99	304035	12/28/22	12/29/22	HQN
Isophorone	ND		ug/Kg	250	67	0.99	304035	12/28/22	12/29/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/29/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	60	0.99	304035	12/28/22	12/29/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	0.99	304035	12/28/22	12/29/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	0.99	304035	12/28/22	12/29/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/29/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/29/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/29/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/29/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/29/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	0.99	304035	12/28/22	12/29/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/29/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	0.99	304035	12/28/22	12/29/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/29/22	HQN
2-Nitroaniline	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/29/22	HQN
Dimethylphthalate	ND		ug/Kg	250	83	0.99	304035	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/29/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/29/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	0.99	304035	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/29/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	0.99	304035	12/28/22	12/29/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	0.99	304035	12/28/22	12/29/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	0.99	304035	12/28/22	12/29/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/29/22	HQN
Diethylphthalate	ND		ug/Kg	250	57	0.99	304035	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	250	43	0.99	304035	12/28/22	12/29/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/29/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/29/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	0.99	304035	12/28/22	12/29/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/29/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/29/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/29/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	0.99	304035	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	250	45	0.99	304035	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/29/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	0.99	304035	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	250	53	0.99	304035	12/28/22	12/29/22	HQN
Benzidine	ND		ug/Kg	1,200	81	0.99	304035	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	250	44	0.99	304035	12/28/22	12/29/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/29/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	0.99	304035	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/29/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	0.99	304035	12/28/22	12/29/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	0.99	304035	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	0.99	304035	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	0.99	304035	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	0.99	304035	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	97%		%REC	29-120		0.99	304035	12/28/22	12/29/22	HQN
Phenol-d6	106%		%REC	30-120		0.99	304035	12/28/22	12/29/22	HQN
2,4,6-Tribromophenol	95%		%REC	32-120		0.99	304035	12/28/22	12/29/22	HQN
Nitrobenzene-d5	93%		%REC	33-120		0.99	304035	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	95%		%REC	39-120		0.99	304035	12/28/22	12/29/22	HQN
Terphenyl-d14	116%		%REC	44-125		0.99	304035	12/28/22	12/29/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: B1-15	Lab ID: 476005-008	Collected: 12/27/22 10:57
	Matrix: Soil	

476005-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**0.94**	J	mg/Kg	2.9	0.77	0.98	304246	12/29/22	12/30/22	SBW
Arsenic	**7.8**		mg/Kg	0.98	0.46	0.98	304246	12/29/22	12/30/22	SBW
Barium	**220**		mg/Kg	0.98	0.11	0.98	304246	12/29/22	12/30/22	SBW
Beryllium	**0.37**	J	mg/Kg	0.49	0.030	0.98	304246	12/29/22	12/30/22	SBW
Cadmium	**2.4**		mg/Kg	0.49	0.035	0.98	304246	12/29/22	12/30/22	SBW
Chromium	**24**		mg/Kg	0.98	0.093	0.98	304246	12/29/22	12/30/22	SBW
Cobalt	**9.1**		mg/Kg	0.49	0.11	0.98	304246	12/29/22	12/30/22	SBW
Copper	**180**		mg/Kg	0.98	0.25	0.98	304246	12/29/22	12/30/22	SBW
Lead	**240**		mg/Kg	0.98	0.14	0.98	304246	12/29/22	12/30/22	SBW
Molybdenum	**2.6**		mg/Kg	0.98	0.18	0.98	304246	12/29/22	12/30/22	SBW
Nickel	**29**		mg/Kg	0.98	0.18	0.98	304246	12/29/22	12/30/22	SBW
Selenium	**2.5**	B,J	mg/Kg	2.9	0.37	0.98	304246	12/29/22	12/30/22	SBW
Silver	**0.52**		mg/Kg	0.49	0.24	0.98	304246	12/29/22	12/30/22	SBW
Thallium	**0.56**	J	mg/Kg	2.9	0.50	0.98	304246	12/29/22	12/30/22	SBW
Vanadium	**27**		mg/Kg	0.98	0.079	0.98	304246	12/29/22	12/30/22	SBW
Zinc	**680**		mg/Kg	4.9	0.16	0.98	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.069**	J	mg/Kg	0.16	0.0057	1.1	304295	12/29/22	01/03/23	JCP
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
ORO C28-C44	**24**		mg/Kg	20		1	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	88%		%REC	70-130		1	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304197	12/29/22	12/29/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304197	12/29/22	12/29/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Methylene Chloride	**2.4**	J	ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304197	12/29/22	12/29/22	LYZ
cis-1,2-Dichloroethene	**2.2**	J	ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304197	12/29/22	12/29/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304197	12/29/22	12/29/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304197	12/29/22	12/29/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304197	12/29/22	12/29/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304197	12/29/22	12/29/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304197	12/29/22	12/29/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304197	12/29/22	12/29/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304197	12/29/22	12/29/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	95%		%REC	70-145	6.1	1	304197	12/29/22	12/29/22	LYZ
1,2-Dichloroethane-d4	96%		%REC	70-145	7.7	1	304197	12/29/22	12/29/22	LYZ
Toluene-d8	97%		%REC	70-145	1.2	1	304197	12/29/22	12/29/22	LYZ
Bromofluorobenzene	104%		%REC	70-145	2.6	1	304197	12/29/22	12/29/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Naphthalene	**14**		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Phenanthrene	**35**		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Anthracene	**7.7**	J	ug/Kg	10	4.0	1	304135	12/28/22	12/29/22	HQN
Fluoranthene	**38**		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Pyrene	**30**		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	**16**		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Chrysene	**20**		ug/Kg	10	3.4	1	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	**17**		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	**13**		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	**13**		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	**9.8**	J	ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	**11**		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	93%	E	%REC	27-125		1	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	88%	E	%REC	30-120		1	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	104%	E	%REC	33-155		1	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	110	1	304035	12/28/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304035	12/28/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	70	1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	82	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304035	12/28/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304035	12/28/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304035	12/28/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304035	12/28/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	70	1	304035	12/28/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304035	12/28/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	79	1	304035	12/28/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304035	12/28/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	67	1	304035	12/28/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304035	12/28/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304035	12/28/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304035	12/28/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	63	1	304035	12/28/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304035	12/28/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	65	1	304035	12/28/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	87	1	304035	12/28/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304035	12/28/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304035	12/28/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304035	12/28/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Diethylphthalate	ND		ug/Kg	250	58	1	304035	12/28/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	43	1	304035	12/28/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304035	12/28/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304035	12/28/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304035	12/28/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304035	12/28/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	82	1	304035	12/28/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	45	1	304035	12/28/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304035	12/28/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304035	12/28/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	90	1	304035	12/28/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	52	1	304035	12/28/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304035	12/28/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	96%		%REC	29-120		1	304035	12/28/22	12/30/22	HQN
Phenol-d6	105%		%REC	30-120		1	304035	12/28/22	12/30/22	HQN
2,4,6-Tribromophenol	96%		%REC	32-120		1	304035	12/28/22	12/30/22	HQN
Nitrobenzene-d5	95%		%REC	33-120		1	304035	12/28/22	12/30/22	HQN
2-Fluorobiphenyl	93%		%REC	39-120		1	304035	12/28/22	12/30/22	HQN
Terphenyl-d14	117%		%REC	44-125		1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

Sample ID: B1-20	Lab ID: 476005-009	Collected: 12/27/22 11:02
	Matrix: Soil	

476005-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B										
Prep Method: EPA 3050B										
Antimony	**19**		mg/Kg	2.9	0.77	0.98	304246	12/29/22	12/30/22	SBW
Arsenic	**23**		mg/Kg	0.98	0.46	0.98	304246	12/29/22	12/30/22	SBW
Barium	**260**		mg/Kg	0.98	0.11	0.98	304246	12/29/22	12/30/22	SBW
Beryllium	**0.14**	J	mg/Kg	0.49	0.030	0.98	304246	12/29/22	12/30/22	SBW
Cadmium	**5.1**		mg/Kg	0.49	0.035	0.98	304246	12/29/22	12/30/22	SBW
Chromium	**68**		mg/Kg	0.98	0.093	0.98	304246	12/29/22	12/30/22	SBW
Cobalt	**18**		mg/Kg	0.49	0.11	0.98	304246	12/29/22	12/30/22	SBW
Copper	**1,200**		mg/Kg	9.8	2.5	9.8	304246	12/29/22	01/03/23	SBW
Lead	**730**		mg/Kg	0.98	0.14	0.98	304246	12/29/22	12/30/22	SBW
Molybdenum	**11**		mg/Kg	0.98	0.18	0.98	304246	12/29/22	12/30/22	SBW
Nickel	**100**		mg/Kg	0.98	0.18	0.98	304246	12/29/22	12/30/22	SBW
Selenium	**8.2**		mg/Kg	2.9	0.37	0.98	304246	12/29/22	12/30/22	SBW
Silver	**1.5**		mg/Kg	0.49	0.24	0.98	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.50	0.98	304246	12/29/22	12/30/22	SBW
Vanadium	**12**		mg/Kg	0.98	0.079	0.98	304246	12/29/22	12/30/22	SBW
Zinc	**4,600**		mg/Kg	49	2.7	9.8	304246	12/29/22	01/04/23	SBW
Method: EPA 7471A										
Prep Method: METHOD										
Mercury	**0.22**		mg/Kg	0.15	0.0053	1.1	304368	12/30/22	01/03/23	SBW
Method: EPA 8015B										
Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
ORO C28-C44	ND		mg/Kg	20		1	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	92%		%REC	70-130		1	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/29/22	12/29/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/29/22	12/29/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/29/22	12/29/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/29/22	12/29/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/29/22	12/29/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/29/22	12/29/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/29/22	12/29/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Methylene Chloride	**4.1**	J	ug/Kg	5.0	1.8	1	304299	12/29/22	12/29/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/29/22	12/29/22	LYZ
cis-1,2-Dichloroethene	**2.1**	J	ug/Kg	5.0	1.2	1	304299	12/29/22	12/29/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/29/22	12/29/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/29/22	12/29/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/29/22	12/29/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/29/22	12/29/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/29/22	12/29/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/29/22	12/29/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/29/22	12/29/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/29/22	12/29/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/29/22	12/29/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	92%		%REC	70-145	6.1	1	304299	12/29/22	12/29/22	LYZ
1,2-Dichloroethane-d4	95%		%REC	70-145	7.7	1	304299	12/29/22	12/29/22	LYZ
Toluene-d8	99%		%REC	70-145	1.2	1	304299	12/29/22	12/29/22	LYZ
Bromofluorobenzene	105%		%REC	70-145	2.6	1	304299	12/29/22	12/29/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	**22**		ug/Kg	10	3.7	1	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	**46**		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Naphthalene	**110**		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Fluorene	**12**		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Phenanthrene	**34**		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Anthracene	**5.1**	J	ug/Kg	10	4.0	1	304135	12/28/22	12/29/22	HQN
Fluoranthene	**15**		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Pyrene	**12**		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	**4.3**	J	ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Chrysene	**6.7**	J	ug/Kg	10	3.4	1	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	52%	E	%REC	27-125		1	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	75%	E	%REC	30-120		1	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	90%	E	%REC	33-155		1	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	110	1	304035	12/28/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304035	12/28/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	69	1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304035	12/28/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304035	12/28/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304035	12/28/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304035	12/28/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304035	12/28/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304035	12/28/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	79	1	304035	12/28/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304035	12/28/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	67	1	304035	12/28/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304035	12/28/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304035	12/28/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304035	12/28/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
Naphthalene	**130**	J	ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304035	12/28/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304035	12/28/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304035	12/28/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304035	12/28/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304035	12/28/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304035	12/28/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Diethylphthalate	**94**	J	ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	43	1	304035	12/28/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304035	12/28/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304035	12/28/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304035	12/28/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304035	12/28/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304035	12/28/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	45	1	304035	12/28/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304035	12/28/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304035	12/28/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304035	12/28/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304035	12/28/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	74%		%REC	29-120		1	304035	12/28/22	12/30/22	HQN
Phenol-d6	84%		%REC	30-120		1	304035	12/28/22	12/30/22	HQN
2,4,6-Tribromophenol	88%		%REC	32-120		1	304035	12/28/22	12/30/22	HQN
Nitrobenzene-d5	57%		%REC	33-120		1	304035	12/28/22	12/30/22	HQN
2-Fluorobiphenyl	80%		%REC	39-120		1	304035	12/28/22	12/30/22	HQN
Terphenyl-d14	98%		%REC	44-125		1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: B1-25	Lab ID: 476005-010	Collected: 12/27/22 11:09
	Matrix: Soil	

476005-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**7.0**		mg/Kg	2.9	0.76	0.97	304246	12/29/22	12/30/22	SBW
Arsenic	**8.2**		mg/Kg	0.97	0.46	0.97	304246	12/29/22	12/30/22	SBW
Barium	**340**		mg/Kg	0.97	0.11	0.97	304246	12/29/22	12/30/22	SBW
Beryllium	**0.11**	J	mg/Kg	0.49	0.029	0.97	304246	12/29/22	12/30/22	SBW
Cadmium	**1.0**		mg/Kg	0.49	0.035	0.97	304246	12/29/22	12/30/22	SBW
Chromium	**16**		mg/Kg	0.97	0.092	0.97	304246	12/29/22	12/30/22	SBW
Cobalt	**8.4**		mg/Kg	0.49	0.11	0.97	304246	12/29/22	12/30/22	SBW
Copper	**55**		mg/Kg	0.97	0.24	0.97	304246	12/29/22	12/30/22	SBW
Lead	**150**		mg/Kg	0.97	0.14	0.97	304246	12/29/22	12/30/22	SBW
Molybdenum	**2.7**		mg/Kg	0.97	0.18	0.97	304246	12/29/22	12/30/22	SBW
Nickel	**21**		mg/Kg	0.97	0.18	0.97	304246	12/29/22	12/30/22	SBW
Selenium	**2.8**	B,J	mg/Kg	2.9	0.36	0.97	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.24	0.97	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.50	0.97	304246	12/29/22	12/30/22	SBW
Vanadium	**12**		mg/Kg	0.97	0.078	0.97	304246	12/29/22	12/30/22	SBW
Zinc	**560**		mg/Kg	4.9	0.16	0.97	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.078**	J	mg/Kg	0.16	0.0059	1.2	304368	12/30/22	01/03/23	SBW
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
ORO C28-C44	ND		mg/Kg	20		0.99	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	95%		%REC	70-130		0.99	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**3.5**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	**5.1**		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	94%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	94%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	99%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	104%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	**31**		ug/Kg	10	3.7	1	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	**63**		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Naphthalene	**180**		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Phenanthrene	**15**		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	10	4.0	1	304135	12/28/22	12/29/22	HQN
Fluoranthene	**4.7**	J	ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	10	3.4	1	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	76%	E	%REC	27-125		1	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	75%	E	%REC	30-120		1	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	98%	E	%REC	33-155		1	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	110	1	304035	12/28/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304035	12/28/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	69	1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304035	12/28/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304035	12/28/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304035	12/28/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304035	12/28/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304035	12/28/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304035	12/28/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304035	12/28/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304035	12/28/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	67	1	304035	12/28/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304035	12/28/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304035	12/28/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	1	304035	12/28/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
Naphthalene	**210**	J	ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
2-Methylnaphthalene	**68**	J	ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304035	12/28/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304035	12/28/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304035	12/28/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304035	12/28/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304035	12/28/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304035	12/28/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	43	1	304035	12/28/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304035	12/28/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304035	12/28/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304035	12/28/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304035	12/28/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304035	12/28/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	44	1	304035	12/28/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304035	12/28/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304035	12/28/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304035	12/28/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304035	12/28/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	1	304035	12/28/22	12/30/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	93%		%REC	29-120		1	304035	12/28/22	12/30/22	HQN
Phenol-d6	102%		%REC	30-120		1	304035	12/28/22	12/30/22	HQN
2,4,6-Tribromophenol	100%		%REC	32-120		1	304035	12/28/22	12/30/22	HQN
Nitrobenzene-d5	86%		%REC	33-120		1	304035	12/28/22	12/30/22	HQN
2-Fluorobiphenyl	88%		%REC	39-120		1	304035	12/28/22	12/30/22	HQN
Terphenyl-d14	117%		%REC	44-125		1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

Sample ID: D1-5	Lab ID: 476005-011	Collected: 12/27/22 13:22
	Matrix: Soil	

476005-011 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.76	0.97	304246	12/29/22	12/30/22	SBW
Arsenic	**4.7**		mg/Kg	0.97	0.46	0.97	304246	12/29/22	12/30/22	SBW
Barium	**99**		mg/Kg	0.97	0.11	0.97	304246	12/29/22	12/30/22	SBW
Beryllium	**0.42**	J	mg/Kg	0.49	0.029	0.97	304246	12/29/22	12/30/22	SBW
Cadmium	**0.76**		mg/Kg	0.49	0.035	0.97	304246	12/29/22	12/30/22	SBW
Chromium	**17**		mg/Kg	0.97	0.092	0.97	304246	12/29/22	12/30/22	SBW
Cobalt	**6.6**		mg/Kg	0.49	0.11	0.97	304246	12/29/22	12/30/22	SBW
Copper	**35**		mg/Kg	0.97	0.24	0.97	304246	12/29/22	12/30/22	SBW
Lead	**41**		mg/Kg	0.97	0.14	0.97	304246	12/29/22	12/30/22	SBW
Molybdenum	**1.1**		mg/Kg	0.97	0.18	0.97	304246	12/29/22	12/30/22	SBW
Nickel	**14**		mg/Kg	0.97	0.18	0.97	304246	12/29/22	12/30/22	SBW
Selenium	**0.38**	B,J	mg/Kg	2.9	0.36	0.97	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.24	0.97	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.50	0.97	304246	12/29/22	12/30/22	SBW
Vanadium	**35**		mg/Kg	0.97	0.078	0.97	304246	12/29/22	12/30/22	SBW
Zinc	**120**		mg/Kg	4.9	0.16	0.97	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.016**	J	mg/Kg	0.16	0.0056	1.1	304295	12/29/22	01/03/23	JCP
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
ORO C28-C44	ND		mg/Kg	20		0.99	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	96%		%REC	70-130		0.99	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**3.1**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-011 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-011 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	96%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	99%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	95%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	103%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	9.9	3.7	0.99	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	9.9	4.9	0.99	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	9.9	4.0	0.99	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	9.9	4.1	0.99	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	9.9	5.0	0.99	304135	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	9.9	4.0	0.99	304135	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	9.9	4.9	0.99	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	9.9	4.1	0.99	304135	12/28/22	12/29/22	HQN
Chrysene	**3.9**	J	ug/Kg	9.9	3.4	0.99	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	9.9	5.0	0.99	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	5.2	0.99	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	84%	E	%REC	27-125		0.99	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	85%	E	%REC	30-120		0.99	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	104%	E	%REC	33-155		0.99	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	63	0.99	304035	12/28/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	110	0.99	304035	12/28/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	84	0.99	304035	12/28/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	69	0.99	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-011 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	0.99	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	88	0.99	304035	12/28/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	74	0.99	304035	12/28/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	71	0.99	304035	12/28/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	0.99	304035	12/28/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	0.99	304035	12/28/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	70	0.99	304035	12/28/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	0.99	304035	12/28/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	0.99	304035	12/28/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	70	0.99	304035	12/28/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	78	0.99	304035	12/28/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	0.99	304035	12/28/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	67	0.99	304035	12/28/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	60	0.99	304035	12/28/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	0.99	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	0.99	304035	12/28/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	0.99	304035	12/28/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	0.99	304035	12/28/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	83	0.99	304035	12/28/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	0.99	304035	12/28/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	0.99	304035	12/28/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	0.99	304035	12/28/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	0.99	304035	12/28/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/30/22	HQN
Diethylphthalate	ND		ug/Kg	250	57	0.99	304035	12/28/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	43	0.99	304035	12/28/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	0.99	304035	12/28/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-011 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	0.99	304035	12/28/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	45	0.99	304035	12/28/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	0.99	304035	12/28/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	53	0.99	304035	12/28/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	81	0.99	304035	12/28/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	44	0.99	304035	12/28/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	0.99	304035	12/28/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	0.99	304035	12/28/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	0.99	304035	12/28/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	0.99	304035	12/28/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	0.99	304035	12/28/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	0.99	304035	12/28/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/30/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	101%		%REC	29-120		0.99	304035	12/28/22	12/30/22	HQN
Phenol-d6	116%		%REC	30-120		0.99	304035	12/28/22	12/30/22	HQN
2,4,6-Tribromophenol	105%		%REC	32-120		0.99	304035	12/28/22	12/30/22	HQN
Nitrobenzene-d5	106%		%REC	33-120		0.99	304035	12/28/22	12/30/22	HQN
2-Fluorobiphenyl	104%		%REC	39-120		0.99	304035	12/28/22	12/30/22	HQN
Terphenyl-d14	131%	*	%REC	44-125		0.99	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: D1-15	Lab ID: 476005-012	Collected: 12/27/22 13:40
	Matrix: Soil	

476005-012 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.77	0.98	304246	12/29/22	12/30/22	SBW
Arsenic	**3.5**		mg/Kg	0.98	0.46	0.98	304246	12/29/22	12/30/22	SBW
Barium	**18**		mg/Kg	0.98	0.11	0.98	304246	12/29/22	12/30/22	SBW
Beryllium	**0.32**	J	mg/Kg	0.49	0.030	0.98	304246	12/29/22	12/30/22	SBW
Cadmium	ND		mg/Kg	0.49	0.035	0.98	304246	12/29/22	12/30/22	SBW
Chromium	**5.9**		mg/Kg	0.98	0.093	0.98	304246	12/29/22	12/30/22	SBW
Cobalt	**3.1**		mg/Kg	0.49	0.11	0.98	304246	12/29/22	12/30/22	SBW
Copper	**5.7**		mg/Kg	0.98	0.25	0.98	304246	12/29/22	12/30/22	SBW
Lead	**3.5**		mg/Kg	0.98	0.14	0.98	304246	12/29/22	12/30/22	SBW
Molybdenum	**0.29**	J	mg/Kg	0.98	0.18	0.98	304246	12/29/22	12/30/22	SBW
Nickel	**5.0**		mg/Kg	0.98	0.18	0.98	304246	12/29/22	12/30/22	SBW
Selenium	**0.49**	B,J	mg/Kg	2.9	0.37	0.98	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.24	0.98	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.50	0.98	304246	12/29/22	12/30/22	SBW
Vanadium	**20**		mg/Kg	0.98	0.079	0.98	304246	12/29/22	12/30/22	SBW
Zinc	**18**		mg/Kg	4.9	0.16	0.98	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.16	0.0056	1.1	304295	12/29/22	01/03/23	JCP
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
ORO C28-C44	ND		mg/Kg	20		1	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	106%		%REC	70-130		1	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**4.0**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-012 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-012 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	93%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	93%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	97%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	103%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	10	4.0	1	304135	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	10	4.6	1	304135	12/28/22	12/29/22	HQN
Pyrene	**5.7**	J	ug/Kg	10	4.9	1	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	10	3.4	1	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	63%	E	%REC	27-125		1	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	63%	E	%REC	30-120		1	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	96%	E	%REC	33-155		1	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	110	1	304035	12/28/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304035	12/28/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	69	1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-012 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304035	12/28/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304035	12/28/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304035	12/28/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304035	12/28/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304035	12/28/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304035	12/28/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304035	12/28/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304035	12/28/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	67	1	304035	12/28/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304035	12/28/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304035	12/28/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	1	304035	12/28/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304035	12/28/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304035	12/28/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304035	12/28/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304035	12/28/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304035	12/28/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304035	12/28/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	43	1	304035	12/28/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304035	12/28/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-012 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304035	12/28/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304035	12/28/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304035	12/28/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304035	12/28/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	44	1	304035	12/28/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304035	12/28/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304035	12/28/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304035	12/28/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304035	12/28/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	1	304035	12/28/22	12/30/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	76%		%REC	29-120		1	304035	12/28/22	12/30/22	HQN
Phenol-d6	87%		%REC	30-120		1	304035	12/28/22	12/30/22	HQN
2,4,6-Tribromophenol	87%		%REC	32-120		1	304035	12/28/22	12/30/22	HQN
Nitrobenzene-d5	80%		%REC	33-120		1	304035	12/28/22	12/30/22	HQN
2-Fluorobiphenyl	78%		%REC	39-120		1	304035	12/28/22	12/30/22	HQN
Terphenyl-d14	114%		%REC	44-125		1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: D1-20	Lab ID: 476005-013	Collected: 12/27/22 13:46
	Matrix: Soil	

476005-013 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.77	0.98	304246	12/29/22	12/30/22	SBW
Arsenic	**4.4**		mg/Kg	0.98	0.46	0.98	304246	12/29/22	12/30/22	SBW
Barium	**42**		mg/Kg	0.98	0.11	0.98	304246	12/29/22	12/30/22	SBW
Beryllium	**0.33**	J	mg/Kg	0.49	0.030	0.98	304246	12/29/22	12/30/22	SBW
Cadmium	**0.10**	J	mg/Kg	0.49	0.035	0.98	304246	12/29/22	12/30/22	SBW
Chromium	**12**		mg/Kg	0.98	0.093	0.98	304246	12/29/22	12/30/22	SBW
Cobalt	**4.9**		mg/Kg	0.49	0.11	0.98	304246	12/29/22	12/30/22	SBW
Copper	**11**		mg/Kg	0.98	0.25	0.98	304246	12/29/22	12/30/22	SBW
Lead	**2.4**	B	mg/Kg	0.98	0.14	0.98	304246	12/29/22	12/30/22	SBW
Molybdenum	**0.76**	J	mg/Kg	0.98	0.18	0.98	304246	12/29/22	12/30/22	SBW
Nickel	**9.2**		mg/Kg	0.98	0.18	0.98	304246	12/29/22	12/30/22	SBW
Selenium	**1.1**	B,J	mg/Kg	2.9	0.37	0.98	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.24	0.98	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.50	0.98	304246	12/29/22	12/30/22	SBW
Vanadium	**46**		mg/Kg	0.98	0.079	0.98	304246	12/29/22	12/30/22	SBW
Zinc	**32**		mg/Kg	4.9	0.16	0.98	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.15	0.0055	1.1	304295	12/29/22	01/03/23	JCP
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	10		1	304228	12/29/22	12/30/22	BJG
ORO C28-C44	ND		mg/Kg	20		1	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	108%		%REC	70-130		1	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**3.7**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-013 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-013 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	96%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	100%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	98%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	101%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	9.9	3.7	0.99	304135	12/28/22	12/29/22	HQN
2-Methylnaphthalene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Naphthalene	ND		ug/Kg	9.9	4.9	0.99	304135	12/28/22	12/29/22	HQN
Acenaphthylene	ND		ug/Kg	9.9	4.0	0.99	304135	12/28/22	12/29/22	HQN
Acenaphthene	ND		ug/Kg	9.9	4.1	0.99	304135	12/28/22	12/29/22	HQN
Fluorene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Phenanthrene	ND		ug/Kg	9.9	5.0	0.99	304135	12/28/22	12/29/22	HQN
Anthracene	ND		ug/Kg	9.9	4.0	0.99	304135	12/28/22	12/29/22	HQN
Fluoranthene	ND		ug/Kg	9.9	4.5	0.99	304135	12/28/22	12/29/22	HQN
Pyrene	ND		ug/Kg	9.9	4.9	0.99	304135	12/28/22	12/29/22	HQN
Benzo(a)anthracene	ND		ug/Kg	9.9	4.1	0.99	304135	12/28/22	12/29/22	HQN
Chrysene	ND		ug/Kg	9.9	3.4	0.99	304135	12/28/22	12/29/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	9.9	5.0	0.99	304135	12/28/22	12/29/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Benzo(a)pyrene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	4.7	0.99	304135	12/28/22	12/29/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	5.2	0.99	304135	12/28/22	12/29/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	4.6	0.99	304135	12/28/22	12/29/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	73%	E	%REC	27-125		0.99	304135	12/28/22	12/29/22	HQN
2-Fluorobiphenyl	73%	E	%REC	30-120		0.99	304135	12/28/22	12/29/22	HQN
Terphenyl-d14	87%	E	%REC	33-155		0.99	304135	12/28/22	12/29/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	63	0.99	304035	12/28/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	110	0.99	304035	12/28/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	84	0.99	304035	12/28/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	69	0.99	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-013 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	0.99	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	88	0.99	304035	12/28/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	74	0.99	304035	12/28/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	71	0.99	304035	12/28/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	0.99	304035	12/28/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	0.99	304035	12/28/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	70	0.99	304035	12/28/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	0.99	304035	12/28/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	70	0.99	304035	12/28/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	78	0.99	304035	12/28/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	0.99	304035	12/28/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	67	0.99	304035	12/28/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	60	0.99	304035	12/28/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	0.99	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	0.99	304035	12/28/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	61	0.99	304035	12/28/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	0.99	304035	12/28/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	60	0.99	304035	12/28/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	0.99	304035	12/28/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	0.99	304035	12/28/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	83	0.99	304035	12/28/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	0.99	304035	12/28/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	0.99	304035	12/28/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	0.99	304035	12/28/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/30/22	HQN
Diethylphthalate	ND		ug/Kg	250	57	0.99	304035	12/28/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	43	0.99	304035	12/28/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	0.99	304035	12/28/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	0.99	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-013 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	0.99	304035	12/28/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	45	0.99	304035	12/28/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	0.99	304035	12/28/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	52	0.99	304035	12/28/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	81	0.99	304035	12/28/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	44	0.99	304035	12/28/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	48	0.99	304035	12/28/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	0.99	304035	12/28/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	0.99	304035	12/28/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	55	0.99	304035	12/28/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	0.99	304035	12/28/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	0.99	304035	12/28/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	0.99	304035	12/28/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	0.99	304035	12/28/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	0.99	304035	12/28/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	0.99	304035	12/28/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	0.99	304035	12/28/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	0.99	304035	12/28/22	12/30/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	87%		%REC	29-120		0.99	304035	12/28/22	12/30/22	HQN
Phenol-d6	94%		%REC	30-120		0.99	304035	12/28/22	12/30/22	HQN
2,4,6-Tribromophenol	87%		%REC	32-120		0.99	304035	12/28/22	12/30/22	HQN
Nitrobenzene-d5	87%		%REC	33-120		0.99	304035	12/28/22	12/30/22	HQN
2-Fluorobiphenyl	86%		%REC	39-120		0.99	304035	12/28/22	12/30/22	HQN
Terphenyl-d14	103%		%REC	44-125		0.99	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

Sample ID: D1-25	Lab ID: 476005-014	Collected: 12/27/22 13:50
	Matrix: Soil	

476005-014 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.76	0.97	304246	12/29/22	12/30/22	SBW
Arsenic	**1.4**		mg/Kg	0.97	0.46	0.97	304246	12/29/22	12/30/22	SBW
Barium	**18**		mg/Kg	0.97	0.11	0.97	304246	12/29/22	12/30/22	SBW
Beryllium	**0.084**	J	mg/Kg	0.49	0.029	0.97	304246	12/29/22	12/30/22	SBW
Cadmium	ND		mg/Kg	0.49	0.035	0.97	304246	12/29/22	12/30/22	SBW
Chromium	**6.3**		mg/Kg	0.97	0.092	0.97	304246	12/29/22	12/30/22	SBW
Cobalt	**1.5**		mg/Kg	0.49	0.11	0.97	304246	12/29/22	12/30/22	SBW
Copper	**3.3**		mg/Kg	0.97	0.24	0.97	304246	12/29/22	12/30/22	SBW
Lead	**1.3**	B	mg/Kg	0.97	0.14	0.97	304246	12/29/22	12/30/22	SBW
Molybdenum	**0.19**	J	mg/Kg	0.97	0.18	0.97	304246	12/29/22	12/30/22	SBW
Nickel	**3.9**		mg/Kg	0.97	0.18	0.97	304246	12/29/22	12/30/22	SBW
Selenium	**0.40**	B,J	mg/Kg	2.9	0.36	0.97	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.24	0.97	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.50	0.97	304246	12/29/22	12/30/22	SBW
Vanadium	**12**		mg/Kg	0.97	0.078	0.97	304246	12/29/22	12/30/22	SBW
Zinc	**12**		mg/Kg	4.9	0.16	0.97	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.15	0.0054	1.1	304368	12/30/22	01/03/23	SBW
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
DRO C10-C28	ND		mg/Kg	9.9		0.99	304228	12/29/22	12/30/22	BJG
ORO C28-C44	ND		mg/Kg	20		0.99	304228	12/29/22	12/30/22	BJG
Surrogates				**Limits**						
n-Triacontane	108%		%REC	70-130		0.99	304228	12/29/22	12/30/22	BJG
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**4.3**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-014 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476005

476005-014 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	95%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	98%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	98%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	102%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304135	12/28/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/30/22	HQN
Fluorene	ND		ug/Kg	10	4.5	1	304135	12/28/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/30/22	HQN
Anthracene	ND		ug/Kg	10	4.0	1	304135	12/28/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	10	4.6	1	304135	12/28/22	12/30/22	HQN
Pyrene	ND		ug/Kg	10	4.9	1	304135	12/28/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304135	12/28/22	12/30/22	HQN
Chrysene	ND		ug/Kg	10	3.4	1	304135	12/28/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304135	12/28/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304135	12/28/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304135	12/28/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304135	12/28/22	12/30/22	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	93%	E	%REC	27-125		1	304135	12/28/22	12/30/22	HQN
2-Fluorobiphenyl	85%	E	%REC	30-120		1	304135	12/28/22	12/30/22	HQN
Terphenyl-d14	105%	E	%REC	33-155		1	304135	12/28/22	12/30/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	110	1	304035	12/28/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304035	12/28/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	69	1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-014 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304035	12/28/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304035	12/28/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304035	12/28/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304035	12/28/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304035	12/28/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304035	12/28/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304035	12/28/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304035	12/28/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	67	1	304035	12/28/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304035	12/28/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304035	12/28/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304035	12/28/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304035	12/28/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304035	12/28/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304035	12/28/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304035	12/28/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304035	12/28/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304035	12/28/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304035	12/28/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304035	12/28/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304035	12/28/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304035	12/28/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	43	1	304035	12/28/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304035	12/28/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476005

476005-014 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304035	12/28/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304035	12/28/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304035	12/28/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304035	12/28/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304035	12/28/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	44	1	304035	12/28/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304035	12/28/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304035	12/28/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	56	1	304035	12/28/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304035	12/28/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304035	12/28/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304035	12/28/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304035	12/28/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304035	12/28/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304035	12/28/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304035	12/28/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304035	12/28/22	12/30/22	HQN
Surrogates				**Limits**						
2-Fluorophenol	109%		%REC	29-120		1	304035	12/28/22	12/30/22	HQN
Phenol-d6	117%		%REC	30-120		1	304035	12/28/22	12/30/22	HQN
2,4,6-Tribromophenol	99%		%REC	32-120		1	304035	12/28/22	12/30/22	HQN
Nitrobenzene-d5	106%		%REC	33-120		1	304035	12/28/22	12/30/22	HQN
2-Fluorobiphenyl	104%		%REC	39-120		1	304035	12/28/22	12/30/22	HQN
Terphenyl-d14	117%		%REC	44-125		1	304035	12/28/22	12/30/22	HQN

*	Value is outside QC limits
B	Contamination found in associated Method Blank
E	Response exceeds instrument's linear range
J	Estimated value
ND	Not Detected

Results for any subcontracted analyses are not included in this section.

Batch QC

Type: Blank	Lab ID: QC1035317	Batch: 304246
Matrix: Miscell.	Method: EPA 6010B	Prep Method: EPA 3050B

QC1035317 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Antimony	ND		mg/Kg	3.0	0.78	12/29/22	12/30/22
Arsenic	ND		mg/Kg	1.0	0.47	12/29/22	12/30/22
Barium	ND		mg/Kg	1.0	0.12	12/29/22	12/30/22
Beryllium	ND		mg/Kg	0.50	0.030	12/29/22	12/30/22
Cadmium	ND		mg/Kg	0.50	0.036	12/29/22	12/30/22
Chromium	ND		mg/Kg	1.0	0.095	12/29/22	12/30/22
Cobalt	ND		mg/Kg	0.50	0.11	12/29/22	12/30/22
Copper	ND		mg/Kg	1.0	0.25	12/29/22	12/30/22
Lead	0.25	J	mg/Kg	1.0	0.14	12/29/22	12/30/22
Molybdenum	ND		mg/Kg	1.0	0.18	12/29/22	12/30/22
Nickel	ND		mg/Kg	1.0	0.18	12/29/22	12/30/22
Selenium	0.41	J	mg/Kg	3.0	0.37	12/29/22	12/30/22
Silver	ND		mg/Kg	0.50	0.25	12/29/22	12/30/22
Thallium	ND		mg/Kg	3.0	0.51	12/29/22	12/30/22
Vanadium	ND		mg/Kg	1.0	0.081	12/29/22	12/30/22
Zinc	ND		mg/Kg	5.0	0.17	12/29/22	12/30/22

Type: Lab Control Sample	Lab ID: QC1035318	Batch: 304246
Matrix: Miscell.	Method: EPA 6010B	Prep Method: EPA 3050B

QC1035318 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Antimony	93.43	100.0	mg/Kg	93%		80-120
Arsenic	90.24	100.0	mg/Kg	90%		80-120
Barium	92.32	100.0	mg/Kg	92%		80-120
Beryllium	95.99	100.0	mg/Kg	96%		80-120
Cadmium	92.01	100.0	mg/Kg	92%		80-120
Chromium	92.25	100.0	mg/Kg	92%		80-120
Cobalt	95.03	100.0	mg/Kg	95%		80-120
Copper	91.70	100.0	mg/Kg	92%		80-120
Lead	91.06	100.0	mg/Kg	91%		80-120
Molybdenum	96.20	100.0	mg/Kg	96%		80-120
Nickel	92.43	100.0	mg/Kg	92%		80-120
Selenium	83.49	100.0	mg/Kg	83%		80-120
Silver	44.36	50.00	mg/Kg	89%		80-120
Thallium	101.3	100.0	mg/Kg	101%		80-120
Vanadium	93.29	100.0	mg/Kg	93%		80-120
Zinc	92.90	100.0	mg/Kg	93%		80-120

ENTHALPY ANALYTICAL

Batch QC

Type:	Matrix Spike	Lab ID:	QC1035319	Batch:	304246
Matrix (Source ID):	Soil (476005-005)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1035319 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	70.33	ND	100.0	mg/Kg	70%	*	75-125	1
Arsenic	90.67	2.201	100.0	mg/Kg	88%		75-125	1
Barium	111.7	17.37	100.0	mg/Kg	94%		75-125	1
Beryllium	93.00	0.09725	100.0	mg/Kg	93%		75-125	1
Cadmium	87.78	ND	100.0	mg/Kg	88%		75-125	1
Chromium	93.15	4.615	100.0	mg/Kg	89%		75-125	1
Cobalt	92.86	1.444	100.0	mg/Kg	91%		75-125	1
Copper	96.88	3.274	100.0	mg/Kg	94%		75-125	1
Lead	87.76	1.100	100.0	mg/Kg	87%		75-125	1
Molybdenum	92.63	ND	100.0	mg/Kg	93%		75-125	1
Nickel	93.74	3.171	100.0	mg/Kg	91%		75-125	1
Selenium	80.85	ND	100.0	mg/Kg	81%		75-125	1
Silver	42.75	ND	50.00	mg/Kg	86%		75-125	1
Thallium	95.87	ND	100.0	mg/Kg	96%		75-125	1
Vanadium	107.0	11.18	100.0	mg/Kg	96%		75-125	1
Zinc	106.3	11.34	100.0	mg/Kg	95%		75-125	1

Type:	Matrix Spike Duplicate	Lab ID:	QC1035320	Batch:	304246
Matrix (Source ID):	Soil (476005-005)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1035320 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Antimony	72.04	ND	97.09	mg/Kg	74%	*	75-125	5	41	0.97
Arsenic	89.32	2.201	97.09	mg/Kg	90%		75-125	1	35	0.97
Barium	108.0	17.37	97.09	mg/Kg	93%		75-125	1	20	0.97
Beryllium	92.72	0.09725	97.09	mg/Kg	95%		75-125	3	20	0.97
Cadmium	88.02	ND	97.09	mg/Kg	91%		75-125	3	20	0.97
Chromium	92.09	4.615	97.09	mg/Kg	90%		75-125	2	20	0.97
Cobalt	91.94	1.444	97.09	mg/Kg	93%		75-125	2	20	0.97
Copper	92.95	3.274	97.09	mg/Kg	92%		75-125	1	20	0.97
Lead	87.09	1.100	97.09	mg/Kg	89%		75-125	2	20	0.97
Molybdenum	92.14	ND	97.09	mg/Kg	95%		75-125	2	20	0.97
Nickel	89.78	3.171	97.09	mg/Kg	89%		75-125	1	20	0.97
Selenium	81.77	ND	97.09	mg/Kg	84%		75-125	4	20	0.97
Silver	42.95	ND	48.54	mg/Kg	88%		75-125	3	20	0.97
Thallium	95.44	ND	97.09	mg/Kg	98%		75-125	3	20	0.97
Vanadium	102.8	11.18	97.09	mg/Kg	94%		75-125	1	20	0.97
Zinc	99.12	11.34	97.09	mg/Kg	90%		75-125	4	20	0.97

Batch QC

Type: Blank	Lab ID: QC1034949	Batch: 304125
Matrix: Soil	Method: EPA 6010B	Prep Method: EPA 3050B

QC1034949 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Antimony	ND		mg/Kg	3.0	0.78	12/28/22	12/30/22
Arsenic	ND		mg/Kg	1.0	0.47	12/28/22	12/30/22
Barium	ND		mg/Kg	1.0	0.12	12/28/22	12/30/22
Beryllium	ND		mg/Kg	0.50	0.030	12/28/22	12/30/22
Cadmium	ND		mg/Kg	0.50	0.036	12/28/22	12/30/22
Chromium	ND		mg/Kg	1.0	0.095	12/28/22	12/30/22
Cobalt	ND		mg/Kg	0.50	0.11	12/28/22	12/30/22
Copper	ND		mg/Kg	1.0	0.25	12/28/22	12/30/22
Lead	ND		mg/Kg	1.0	0.14	12/28/22	12/30/22
Molybdenum	ND		mg/Kg	1.0	0.18	12/28/22	12/30/22
Nickel	ND		mg/Kg	1.0	0.18	12/28/22	12/30/22
Selenium	ND		mg/Kg	3.0	0.37	12/28/22	12/30/22
Silver	ND		mg/Kg	0.50	0.25	12/28/22	12/30/22
Thallium	ND		mg/Kg	3.0	0.51	12/28/22	12/30/22
Vanadium	ND		mg/Kg	1.0	0.081	12/28/22	12/30/22
Zinc	ND		mg/Kg	5.0	0.17	12/28/22	12/30/22

Type: Lab Control Sample	Lab ID: QC1034950	Batch: 304125
Matrix: Soil	Method: EPA 6010B	Prep Method: EPA 3050B

QC1034950 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Antimony	92.09	100.0	mg/Kg	92%		80-120
Arsenic	88.47	100.0	mg/Kg	88%		80-120
Barium	90.74	100.0	mg/Kg	91%		80-120
Beryllium	94.56	100.0	mg/Kg	95%		80-120
Cadmium	90.10	100.0	mg/Kg	90%		80-120
Chromium	91.07	100.0	mg/Kg	91%		80-120
Cobalt	93.55	100.0	mg/Kg	94%		80-120
Copper	90.43	100.0	mg/Kg	90%		80-120
Lead	89.73	100.0	mg/Kg	90%		80-120
Molybdenum	94.34	100.0	mg/Kg	94%		80-120
Nickel	90.93	100.0	mg/Kg	91%		80-120
Selenium	81.41	100.0	mg/Kg	81%		80-120
Silver	43.59	50.00	mg/Kg	87%		80-120
Thallium	99.77	100.0	mg/Kg	100%		80-120
Vanadium	91.66	100.0	mg/Kg	92%		80-120
Zinc	91.04	100.0	mg/Kg	91%		80-120

Batch QC

Type:	Matrix Spike	Lab ID:	QC1034951	Batch:	304125
Matrix (Source ID):	Miscell. (475896-001)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1034951 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	62.99	ND	100.0	mg/Kg	63%	*	75-125	1
Arsenic	89.41	1.853	100.0	mg/Kg	88%		75-125	1
Barium	370.9	260.6	100.0	mg/Kg	110%		75-125	1
Beryllium	92.69	0.07225	100.0	mg/Kg	93%		75-125	1
Cadmium	84.84	0.1073	100.0	mg/Kg	85%		75-125	1
Chromium	94.45	5.743	100.0	mg/Kg	89%		75-125	1
Cobalt	95.28	12.78	100.0	mg/Kg	82%		75-125	1
Copper	108.3	9.153	100.0	mg/Kg	99%		75-125	1
Lead	89.39	6.216	100.0	mg/Kg	83%		75-125	1
Molybdenum	90.42	0.5043	100.0	mg/Kg	90%		75-125	1
Nickel	89.68	5.043	100.0	mg/Kg	85%		75-125	1
Selenium	81.51	ND	100.0	mg/Kg	82%		75-125	1
Silver	45.49	ND	50.00	mg/Kg	91%		75-125	1
Thallium	91.97	ND	100.0	mg/Kg	92%		75-125	1
Vanadium	101.4	8.965	100.0	mg/Kg	92%		75-125	1
Zinc	132.1	39.13	100.0	mg/Kg	93%		75-125	1

Type:	Matrix Spike Duplicate	Lab ID:	QC1034952	Batch:	304125
Matrix (Source ID):	Miscell. (475896-001)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1034952 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Antimony	62.06	ND	100.0	mg/Kg	62%	*	75-125	1	41	1
Arsenic	87.83	1.853	100.0	mg/Kg	86%		75-125	2	35	1
Barium	337.1	260.6	100.0	mg/Kg	77%		75-125	10	20	1
Beryllium	91.39	0.07225	100.0	mg/Kg	91%		75-125	1	20	1
Cadmium	83.55	0.1073	100.0	mg/Kg	83%		75-125	2	20	1
Chromium	92.85	5.743	100.0	mg/Kg	87%		75-125	2	20	1
Cobalt	96.99	12.78	100.0	mg/Kg	84%		75-125	2	20	1
Copper	107.1	9.153	100.0	mg/Kg	98%		75-125	1	20	1
Lead	88.18	6.216	100.0	mg/Kg	82%		75-125	1	20	1
Molybdenum	88.54	0.5043	100.0	mg/Kg	88%		75-125	2	20	1
Nickel	88.89	5.043	100.0	mg/Kg	84%		75-125	1	20	1
Selenium	80.04	ND	100.0	mg/Kg	80%		75-125	2	20	1
Silver	44.60	ND	50.00	mg/Kg	89%		75-125	2	20	1
Thallium	90.96	ND	100.0	mg/Kg	91%		75-125	1	20	1
Vanadium	100.3	8.965	100.0	mg/Kg	91%		75-125	1	20	1
Zinc	127.6	39.13	100.0	mg/Kg	89%		75-125	3	20	1

Batch QC

Type: Blank	Lab ID: QC1035364	Batch: 304253
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC1035364 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	0.0050	12/28/22	01/02/23

Type: Lab Control Sample	Lab ID: QC1035365	Batch: 304253
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC1035365 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.7694	0.8333	mg/Kg	92%		80-120

Type: Matrix Spike	Lab ID: QC1035366	Batch: 304253
Matrix (Source ID): Soil (475180-120)	Method: EPA 7471A	Prep Method: METHOD

QC1035366 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.8458	0.01442	0.9434	mg/Kg	88%		75-125	1.1

Type: Matrix Spike Duplicate	Lab ID: QC1035367	Batch: 304253
Matrix (Source ID): Soil (475180-120)	Method: EPA 7471A	Prep Method: METHOD

QC1035367 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	0.8708	0.01442	0.9434	mg/Kg	91%		75-125	3	20	1.1

Type: Blank	Lab ID: QC1035508	Batch: 304295
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC1035508 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	0.0050	12/29/22	01/03/23

Type: Lab Control Sample	Lab ID: QC1035509	Batch: 304295
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC1035509 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.8024	0.8333	mg/Kg	96%		80-120

Batch QC

Type:	Matrix Spike	Lab ID:	QC1035510	Batch:	304295
Matrix (Source ID):	Soil (475459-014)	Method:	EPA 7471A	Prep Method:	METHOD

QC1035510 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.8992	0.1006	0.8621	mg/Kg	93%		75-125	1

Type:	Matrix Spike Duplicate	Lab ID:	QC1035511	Batch:	304295
Matrix (Source ID):	Soil (475459-014)	Method:	EPA 7471A	Prep Method:	METHOD

QC1035511 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	0.9943	0.1006	0.9259	mg/Kg	97%		75-125	4	20	1.1

Type:	Blank	Lab ID:	QC1035767	Batch:	304368
Matrix:	Miscell.	Method:	EPA 7471A	Prep Method:	METHOD

QC1035767 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	0.0050	12/30/22	01/03/23

Type:	Lab Control Sample	Lab ID:	QC1035768	Batch:	304368
Matrix:	Miscell.	Method:	EPA 7471A	Prep Method:	METHOD

QC1035768 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.8148	0.8333	mg/Kg	98%		80-120

Type:	Matrix Spike	Lab ID:	QC1035769	Batch:	304368
Matrix (Source ID):	Soil (476048-001)	Method:	EPA 7471A	Prep Method:	METHOD

QC1035769 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.8841	ND	0.9434	mg/Kg	94%		75-125	1.1

Type:	Matrix Spike Duplicate	Lab ID:	QC1035770	Batch:	304368
Matrix (Source ID):	Soil (476048-001)	Method:	EPA 7471A	Prep Method:	METHOD

QC1035770 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	0.8795	ND	0.9434	mg/Kg	93%		75-125	1	20	1.1

Batch QC

Type: Blank	Lab ID: QC1035258	Batch: 304228
Matrix: Soil	Method: EPA 8015B	Prep Method: EPA 3580M

QC1035258 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
GRO C8-C10	ND		mg/Kg	10		12/29/22	12/30/22
DRO C10-C28	ND		mg/Kg	10		12/29/22	12/30/22
ORO C28-C44	ND		mg/Kg	20		12/29/22	12/30/22
Surrogates				**Limits**			
n-Triacontane	106%		%REC	70-130		12/29/22	12/30/22

Type: Lab Control Sample	Lab ID: QC1035259	Batch: 304228
Matrix: Soil	Method: EPA 8015B	Prep Method: EPA 3580M

QC1035259 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Diesel C10-C28	204.7	249.3	mg/Kg	82%		76-122
Surrogates						
n-Triacontane	8.288	9.970	mg/Kg	83%		70-130

Type: Matrix Spike	Lab ID: QC1035260	Batch: 304228
Matrix (Source ID): Soil (476005-005)	Method: EPA 8015B	Prep Method: EPA 3580M

QC1035260 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Diesel C10-C28	199.3	1.266	249.0	mg/Kg	80%		62-126	1
Surrogates								
n-Triacontane	7.198		9.960	mg/Kg	72%		70-130	1

Type: Matrix Spike Duplicate	Lab ID: QC1035261	Batch: 304228
Matrix (Source ID): Soil (476005-005)	Method: EPA 8015B	Prep Method: EPA 3580M

QC1035261 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Diesel C10-C28	196.1	1.266	248.0	mg/Kg	79%		62-126	1	35	0.99
Surrogates										
n-Triacontane	7.207		9.921	mg/Kg	73%		70-130			0.99

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Batch QC

Type:	Blank	Lab ID:	QC1035146	Batch:	304197
Matrix:	Soil	Method:	EPA 8260B	Prep Method:	EPA 5030B

QC1035146 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
3-Chloropropene	ND		ug/Kg	5.0	1.3	12/29/22	12/29/22
Freon 12	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Chloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Vinyl Chloride	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromomethane	ND		ug/Kg	5.0	1.5	12/29/22	12/29/22
Chloroethane	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Acetone	ND		ug/Kg	100	20	12/29/22	12/29/22
Freon 113	ND		ug/Kg	5.0	1.1	12/29/22	12/29/22
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Methylene Chloride	ND		ug/Kg	5.0	1.8	12/29/22	12/29/22
MTBE	ND		ug/Kg	5.0	1.1	12/29/22	12/29/22
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
2-Butanone	ND		ug/Kg	100	20	12/29/22	12/29/22
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Chloroform	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromochloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Benzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Trichloroethene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromodichloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Dibromomethane	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	12/29/22	12/29/22
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Toluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Tetrachloroethene	ND		ug/Kg	5.0	1.9	12/29/22	12/29/22
Dibromochloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Chlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Ethylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
m,p-Xylenes	ND		ug/Kg	10	1.4	12/29/22	12/29/22
o-Xylene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22

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Batch QC

QC1035146 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Styrene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromoform	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Isopropylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Propylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
n-Butylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	12/29/22	12/29/22
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Naphthalene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	12/29/22	12/29/22
Xylene (total)	ND		ug/Kg	5.0		12/29/22	12/29/22
Surrogates				**Limits**			
Dibromofluoromethane	92%		%REC	70-130	6.1	12/29/22	12/29/22
1,2-Dichloroethane-d4	90%		%REC	70-145	7.7	12/29/22	12/29/22
Toluene-d8	99%		%REC	70-145	1.2	12/29/22	12/29/22
Bromofluorobenzene	102%		%REC	70-145	2.6	12/29/22	12/29/22

Batch QC

Type: Lab Control Sample	Lab ID: QC1035147	Batch: 304197
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC1035147 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Dichloroethene	46.07	50.00	ug/Kg	92%		70-131
MTBE	43.46	50.00	ug/Kg	87%		69-130
Benzene	49.27	50.00	ug/Kg	99%		70-130
Trichloroethene	47.60	50.00	ug/Kg	95%		70-130
Toluene	50.17	50.00	ug/Kg	100%		70-130
Chlorobenzene	49.38	50.00	ug/Kg	99%		70-130
Surrogates						
Dibromofluoromethane	46.32	50.00	ug/Kg	93%		70-130
1,2-Dichloroethane-d4	43.97	50.00	ug/Kg	88%		70-145
Toluene-d8	51.37	50.00	ug/Kg	103%		70-145
Bromofluorobenzene	51.05	50.00	ug/Kg	102%		70-145

Type: Lab Control Sample Duplicate	Lab ID: QC1035148	Batch: 304197
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC1035148 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Dichloroethene	42.64	50.00	ug/Kg	85%		70-131	8	33
MTBE	41.77	50.00	ug/Kg	84%		69-130	4	30
Benzene	46.02	50.00	ug/Kg	92%		70-130	7	30
Trichloroethene	45.27	50.00	ug/Kg	91%		70-130	5	30
Toluene	46.35	50.00	ug/Kg	93%		70-130	8	30
Chlorobenzene	46.03	50.00	ug/Kg	92%		70-130	7	30
Surrogates								
Dibromofluoromethane	46.63	50.00	ug/Kg	93%		70-130		
1,2-Dichloroethane-d4	44.78	50.00	ug/Kg	90%		70-145		
Toluene-d8	50.68	50.00	ug/Kg	101%		70-145		
Bromofluorobenzene	50.38	50.00	ug/Kg	101%		70-145		

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Batch QC

Type:	**Lab Control Sample**	**Lab ID:**	**QC1035521**	**Batch:**	**304299**
Matrix:	**Soil**	**Method:**	**EPA 8260B**	**Prep Method:**	**EPA 5030B**

QC1035521 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Dichloroethene	47.53	50.00	ug/Kg	95%		70-131
MTBE	46.68	50.00	ug/Kg	93%		69-130
Benzene	51.85	50.00	ug/Kg	104%		70-130
Trichloroethene	48.76	50.00	ug/Kg	98%		70-130
Toluene	52.21	50.00	ug/Kg	104%		70-130
Chlorobenzene	51.24	50.00	ug/Kg	102%		70-130
Surrogates						
Dibromofluoromethane	47.48	50.00	ug/Kg	95%		70-130
1,2-Dichloroethane-d4	45.55	50.00	ug/Kg	91%		70-145
Toluene-d8	51.02	50.00	ug/Kg	102%		70-145
Bromofluorobenzene	50.41	50.00	ug/Kg	101%		70-145

Type:	**Lab Control Sample Duplicate**	**Lab ID:**	**QC1035522**	**Batch:**	**304299**
Matrix:	**Soil**	**Method:**	**EPA 8260B**	**Prep Method:**	**EPA 5030B**

QC1035522 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Dichloroethene	46.80	50.00	ug/Kg	94%		70-131	2	33
MTBE	46.02	50.00	ug/Kg	92%		69-130	1	30
Benzene	50.96	50.00	ug/Kg	102%		70-130	2	30
Trichloroethene	48.92	50.00	ug/Kg	98%		70-130	0	30
Toluene	50.52	50.00	ug/Kg	101%		70-130	3	30
Chlorobenzene	50.90	50.00	ug/Kg	102%		70-130	1	30
Surrogates								
Dibromofluoromethane	47.19	50.00	ug/Kg	94%		70-130		
1,2-Dichloroethane-d4	44.91	50.00	ug/Kg	90%		70-145		
Toluene-d8	50.61	50.00	ug/Kg	101%		70-145		
Bromofluorobenzene	50.56	50.00	ug/Kg	101%		70-145		

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Batch QC

Type:	Blank	Lab ID:	QC1035526	Batch:	304299
Matrix:	Soil	Method:	EPA 8260B	Prep Method:	EPA 5030B

QC1035526 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
3-Chloropropene	ND		ug/Kg	5.0	1.3	12/29/22	12/29/22
Freon 12	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Chloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Vinyl Chloride	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromomethane	ND		ug/Kg	5.0	1.5	12/29/22	12/29/22
Chloroethane	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Acetone	ND		ug/Kg	100	20	12/29/22	12/29/22
Freon 113	ND		ug/Kg	5.0	1.1	12/29/22	12/29/22
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Methylene Chloride	ND		ug/Kg	5.0	1.8	12/29/22	12/29/22
MTBE	ND		ug/Kg	5.0	1.1	12/29/22	12/29/22
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
2-Butanone	ND		ug/Kg	100	20	12/29/22	12/29/22
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Chloroform	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromochloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Benzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Trichloroethene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromodichloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Dibromomethane	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	12/29/22	12/29/22
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Toluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Tetrachloroethene	ND		ug/Kg	5.0	1.9	12/29/22	12/29/22
Dibromochloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Chlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Ethylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
m,p-Xylenes	ND		ug/Kg	10	1.4	12/29/22	12/29/22
o-Xylene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22

Batch QC

QC1035526 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Styrene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromoform	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Isopropylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Propylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
n-Butylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	12/29/22	12/29/22
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Naphthalene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	12/29/22	12/29/22
Xylene (total)	ND		ug/Kg	5.0		12/29/22	12/29/22
Surrogates				**Limits**			
Dibromofluoromethane	92%		%REC	70-130	6.1	12/29/22	12/29/22
1,2-Dichloroethane-d4	92%		%REC	70-145	7.7	12/29/22	12/29/22
Toluene-d8	100%		%REC	70-145	1.2	12/29/22	12/29/22
Bromofluorobenzene	104%		%REC	70-145	2.6	12/29/22	12/29/22

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Batch QC

Type:	Blank	Lab ID:	QC1034981	Batch:	304035
Matrix:	Soil	Method:	EPA 8270C	Prep Method:	EPA 3546

QC1034981 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Carbazole	ND		ug/Kg	250	50	12/28/22	12/29/22
1-Methylnaphthalene	ND		ug/Kg	250	64	12/28/22	12/29/22
Pyridine	ND		ug/Kg	250	110	12/28/22	12/29/22
N-Nitrosodimethylamine	ND		ug/Kg	250	85	12/28/22	12/29/22
Phenol	ND		ug/Kg	250	70	12/28/22	12/29/22
Aniline	ND		ug/Kg	250	82	12/28/22	12/29/22
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	90	12/28/22	12/29/22
2-Chlorophenol	ND		ug/Kg	250	75	12/28/22	12/29/22
1,3-Dichlorobenzene	ND		ug/Kg	250	72	12/28/22	12/29/22
1,4-Dichlorobenzene	ND		ug/Kg	250	73	12/28/22	12/29/22
Benzyl alcohol	ND		ug/Kg	250	79	12/28/22	12/29/22
1,2-Dichlorobenzene	ND		ug/Kg	250	65	12/28/22	12/29/22
2-Methylphenol	ND		ug/Kg	250	71	12/28/22	12/29/22
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	12/28/22	12/29/22
3-,4-Methylphenol	ND		ug/Kg	400	70	12/28/22	12/29/22
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	12/28/22	12/29/22
Hexachloroethane	ND		ug/Kg	250	79	12/28/22	12/29/22
Nitrobenzene	ND		ug/Kg	1,200	71	12/28/22	12/29/22
Isophorone	ND		ug/Kg	250	68	12/28/22	12/29/22
2-Nitrophenol	ND		ug/Kg	250	55	12/28/22	12/29/22
2,4-Dimethylphenol	ND		ug/Kg	250	61	12/28/22	12/29/22
Benzoic acid	ND		ug/Kg	1,200	120	12/28/22	12/29/22
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	12/28/22	12/29/22
2,4-Dichlorophenol	ND		ug/Kg	250	73	12/28/22	12/29/22
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	12/28/22	12/29/22
Naphthalene	ND		ug/Kg	250	65	12/28/22	12/29/22
4-Chloroaniline	ND		ug/Kg	250	73	12/28/22	12/29/22
Hexachlorobutadiene	ND		ug/Kg	250	63	12/28/22	12/29/22
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	12/28/22	12/29/22
2-Methylnaphthalene	ND		ug/Kg	250	65	12/28/22	12/29/22
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	12/28/22	12/29/22
2,4,6-Trichlorophenol	ND		ug/Kg	250	65	12/28/22	12/29/22
2,4,5-Trichlorophenol	ND		ug/Kg	250	87	12/28/22	12/29/22
2-Chloronaphthalene	ND		ug/Kg	250	57	12/28/22	12/29/22
2-Nitroaniline	ND		ug/Kg	250	57	12/28/22	12/29/22
Dimethylphthalate	ND		ug/Kg	250	84	12/28/22	12/29/22
Acenaphthylene	ND		ug/Kg	250	48	12/28/22	12/29/22
2,6-Dinitrotoluene	ND		ug/Kg	250	49	12/28/22	12/29/22
3-Nitroaniline	ND		ug/Kg	250	62	12/28/22	12/29/22
Acenaphthene	ND		ug/Kg	250	50	12/28/22	12/29/22
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	12/28/22	12/29/22
4-Nitrophenol	ND		ug/Kg	250	130	12/28/22	12/29/22

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Batch QC

QC1034981 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Dibenzofuran	ND		ug/Kg	250	51	12/28/22	12/29/22
2,4-Dinitrotoluene	ND		ug/Kg	250	56	12/28/22	12/29/22
Diethylphthalate	ND		ug/Kg	250	58	12/28/22	12/29/22
Fluorene	ND		ug/Kg	250	43	12/28/22	12/29/22
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	12/28/22	12/29/22
4-Nitroaniline	ND		ug/Kg	250	51	12/28/22	12/29/22
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	12/28/22	12/29/22
N-Nitrosodiphenylamine	ND		ug/Kg	250	49	12/28/22	12/29/22
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	51	12/28/22	12/29/22
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	12/28/22	12/29/22
Hexachlorobenzene	ND		ug/Kg	250	55	12/28/22	12/29/22
Pentachlorophenol	ND		ug/Kg	1,200	37	12/28/22	12/29/22
Phenanthrene	ND		ug/Kg	250	46	12/28/22	12/29/22
Anthracene	ND		ug/Kg	250	48	12/28/22	12/29/22
Di-n-butylphthalate	ND		ug/Kg	250	74	12/28/22	12/29/22
Fluoranthene	ND		ug/Kg	250	53	12/28/22	12/29/22
Benzidine	ND		ug/Kg	1,200	82	12/28/22	12/29/22
Pyrene	ND		ug/Kg	250	45	12/28/22	12/29/22
Butylbenzylphthalate	ND		ug/Kg	250	49	12/28/22	12/29/22
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	12/28/22	12/29/22
Benzo(a)anthracene	ND		ug/Kg	250	56	12/28/22	12/29/22
Chrysene	ND		ug/Kg	250	56	12/28/22	12/29/22
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	90	12/28/22	12/29/22
Di-n-octylphthalate	ND		ug/Kg	250	73	12/28/22	12/29/22
Benzo(b)fluoranthene	ND		ug/Kg	250	52	12/28/22	12/29/22
Benzo(k)fluoranthene	ND		ug/Kg	250	57	12/28/22	12/29/22
Benzo(a)pyrene	ND		ug/Kg	250	53	12/28/22	12/29/22
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	47	12/28/22	12/29/22
Dibenz(a,h)anthracene	ND		ug/Kg	250	48	12/28/22	12/29/22
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	12/28/22	12/29/22
Surrogates				**Limits**			
2-Fluorophenol	91%		%REC	29-120		12/28/22	12/29/22
Phenol-d6	97%		%REC	30-120		12/28/22	12/29/22
2,4,6-Tribromophenol	71%		%REC	32-120		12/28/22	12/29/22
Nitrobenzene-d5	85%		%REC	33-120		12/28/22	12/29/22
2-Fluorobiphenyl	82%		%REC	39-120		12/28/22	12/29/22
Terphenyl-d14	89%		%REC	44-125		12/28/22	12/29/22

Batch QC

Type:	Lab Control Sample	Lab ID:	QC1034982	Batch:	304035
Matrix:	Soil	Method:	EPA 8270C	Prep Method:	EPA 3546

QC1034982 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phenol	2,862	3735	ug/Kg	77%		42-120
2-Chlorophenol	2,746	3735	ug/Kg	74%		41-120
1,4-Dichlorobenzene	2,555	3735	ug/Kg	68%		36-120
3-,4-Methylphenol	2,943	3735	ug/Kg	79%		42-120
N-Nitroso-di-n-propylamine	2,934	3735	ug/Kg	79%		43-121
2,4-Dimethylphenol	2,840	3735	ug/Kg	76%		25-120
1,2,4-Trichlorobenzene	2,666	3735	ug/Kg	71%		38-120
4-Chloro-3-methylphenol	2,899	3735	ug/Kg	78%		40-125
2,4,5-Trichlorophenol	3,151	3735	ug/Kg	84%		40-124
Acenaphthene	2,533	3735	ug/Kg	68%		35-126
4-Nitrophenol	2,729	3735	ug/Kg	73%		24-128
2,4-Dinitrotoluene	2,907	3735	ug/Kg	78%		40-131
Pentachlorophenol	2,196	3735	ug/Kg	59%		35-120
Pyrene	2,686	3735	ug/Kg	72%		37-135
Chrysene	2,569	3735	ug/Kg	69%		38-132
Benzo(b)fluoranthene	2,737	3735	ug/Kg	73%		38-135
Surrogates						
2-Fluorophenol	1,500	1992	ug/Kg	75%		29-120
Phenol-d6	1,633	1992	ug/Kg	82%		30-120
2,4,6-Tribromophenol	1,479	1992	ug/Kg	74%		32-120
Nitrobenzene-d5	1,504	1992	ug/Kg	76%		33-120
2-Fluorobiphenyl	1,473	1992	ug/Kg	74%		39-120
Terphenyl-d14	1,739	1992	ug/Kg	87%		44-125

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Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1034983**	**Batch:**	**304035**
Matrix (Source ID):	**Soil (476005-005)**	**Method:**	**EPA 8270C**	**Prep Method:**	**EPA 3546**

QC1034983 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phenol	3,038	ND	3754	ug/Kg	81%		37-120	1
2-Chlorophenol	2,902	ND	3754	ug/Kg	77%		33-120	1
1,4-Dichlorobenzene	2,792	ND	3754	ug/Kg	74%		32-120	1
3-,4-Methylphenol	3,235	ND	3754	ug/Kg	86%		37-120	1
N-Nitroso-di-n-propylamine	3,198	ND	3754	ug/Kg	85%		32-120	1
2,4-Dimethylphenol	3,174	ND	3754	ug/Kg	85%		32-120	1
1,2,4-Trichlorobenzene	2,876	ND	3754	ug/Kg	77%		33-120	1
4-Chloro-3-methylphenol	3,107	ND	3754	ug/Kg	83%		41-121	1
2,4,5-Trichlorophenol	3,457	ND	3754	ug/Kg	92%		40-120	1
Acenaphthene	2,905	ND	3754	ug/Kg	77%		37-120	1
4-Nitrophenol	2,923	ND	3754	ug/Kg	78%		20-141	1
2,4-Dinitrotoluene	3,282	ND	3754	ug/Kg	87%		33-128	1
Pentachlorophenol	2,397	ND	3754	ug/Kg	64%		28-132	1
Pyrene	3,074	ND	3754	ug/Kg	82%		39-135	1
Chrysene	2,985	ND	3754	ug/Kg	80%		37-135	1
Benzo(b)fluoranthene	3,189	ND	3754	ug/Kg	85%		34-139	1
Surrogates								
2-Fluorophenol	1,577		2002	ug/Kg	79%		29-120	1
Phenol-d6	1,699		2002	ug/Kg	85%		30-120	1
2,4,6-Tribromophenol	1,687		2002	ug/Kg	84%		32-120	1
Nitrobenzene-d5	1,609		2002	ug/Kg	80%		33-120	1
2-Fluorobiphenyl	1,574		2002	ug/Kg	79%		39-120	1
Terphenyl-d14	1,978		2002	ug/Kg	99%		44-125	1

Batch QC

Type:	Matrix Spike Duplicate	Lab ID:	QC1034984	Batch:	304035
Matrix (Source ID):	Soil (476005-005)	Method:	EPA 8270C	Prep Method:	EPA 3546

QC1034984 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phenol	3,134	ND	3739	ug/Kg	84%		37-120	4	49	1
2-Chlorophenol	3,011	ND	3739	ug/Kg	81%		33-120	4	52	1
1,4-Dichlorobenzene	2,864	ND	3739	ug/Kg	77%		32-120	3	50	1
3-,4-Methylphenol	3,305	ND	3739	ug/Kg	88%		37-120	3	54	1
N-Nitroso-di-n-propylamine	3,328	ND	3739	ug/Kg	89%		32-120	4	50	1
2,4-Dimethylphenol	3,283	ND	3739	ug/Kg	88%		32-120	4	50	1
1,2,4-Trichlorobenzene	2,959	ND	3739	ug/Kg	79%		33-120	3	50	1
4-Chloro-3-methylphenol	3,328	ND	3739	ug/Kg	89%		41-121	7	43	1
2,4,5-Trichlorophenol	3,640	ND	3739	ug/Kg	97%		40-120	6	47	1
Acenaphthene	3,034	ND	3739	ug/Kg	81%		37-120	5	48	1
4-Nitrophenol	3,135	ND	3739	ug/Kg	84%		20-141	7	30	1
2,4-Dinitrotoluene	3,468	ND	3739	ug/Kg	93%		33-128	6	50	1
Pentachlorophenol	2,574	ND	3739	ug/Kg	69%		28-132	8	30	1
Pyrene	3,245	ND	3739	ug/Kg	87%		39-135	6	41	1
Chrysene	3,055	ND	3739	ug/Kg	82%		37-135	3	46	1
Benzo(b)fluoranthene	3,288	ND	3739	ug/Kg	88%		34-139	3	47	1
Surrogates										
2-Fluorophenol	1,630		1994	ug/Kg	82%		29-120			1
Phenol-d6	1,778		1994	ug/Kg	89%		30-120			1
2,4,6-Tribromophenol	1,754		1994	ug/Kg	88%		32-120			1
Nitrobenzene-d5	1,671		1994	ug/Kg	84%		33-120			1
2-Fluorobiphenyl	1,668		1994	ug/Kg	84%		39-120			1
Terphenyl-d14	2,072		1994	ug/Kg	104%		44-125			1

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Batch QC

Type:	**Blank**	**Lab ID:**	**QC1034985**	**Batch:**	**304135**
Matrix:	**Soil**	**Method:**	**EPA 8270C-SIM**	**Prep Method:**	**EPA 3546**

QC1034985 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
1-Methylnaphthalene	ND		ug/Kg	10	3.7	12/28/22	12/29/22
2-Methylnaphthalene	ND		ug/Kg	10	4.6	12/28/22	12/29/22
Naphthalene	ND		ug/Kg	10	4.9	12/28/22	12/29/22
Acenaphthylene	ND		ug/Kg	10	4.1	12/28/22	12/29/22
Acenaphthene	ND		ug/Kg	10	4.1	12/28/22	12/29/22
Fluorene	ND		ug/Kg	10	4.5	12/28/22	12/29/22
Phenanthrene	ND		ug/Kg	10	5.0	12/28/22	12/29/22
Anthracene	ND		ug/Kg	10	4.0	12/28/22	12/29/22
Fluoranthene	ND		ug/Kg	10	4.6	12/28/22	12/29/22
Pyrene	ND		ug/Kg	10	4.9	12/28/22	12/29/22
Benzo(a)anthracene	ND		ug/Kg	10	4.1	12/28/22	12/29/22
Chrysene	ND		ug/Kg	10	3.4	12/28/22	12/29/22
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	12/28/22	12/29/22
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	12/28/22	12/29/22
Benzo(a)pyrene	ND		ug/Kg	10	4.8	12/28/22	12/29/22
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	12/28/22	12/29/22
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	12/28/22	12/29/22
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	12/28/22	12/29/22
Surrogates				**Limits**			
Nitrobenzene-d5	81%		%REC	27-125		12/28/22	12/29/22
2-Fluorobiphenyl	79%		%REC	30-120		12/28/22	12/29/22
Terphenyl-d14	91%		%REC	33-155		12/28/22	12/29/22

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Batch QC

Type:	**Lab Control Sample**	**Lab ID:**	**QC1034986**	**Batch:**	**304135**
Matrix:	**Soil**	**Method:**	**EPA 8270C-SIM**	**Prep Method:**	**EPA 3546**

QC1034986 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1-Methylnaphthalene	89.60	200.6	ug/Kg	45%		28-130
2-Methylnaphthalene	102.2	200.6	ug/Kg	51%		33-130
Naphthalene	98.66	200.6	ug/Kg	49%		25-130
Acenaphthylene	99.95	200.6	ug/Kg	50%		28-130
Acenaphthene	97.71	200.6	ug/Kg	49%		32-130
Fluorene	103.0	200.6	ug/Kg	51%		35-130
Phenanthrene	105.7	200.6	ug/Kg	53%		35-132
Anthracene	101.0	200.6	ug/Kg	50%		34-136
Fluoranthene	101.0	200.6	ug/Kg	50%		34-139
Pyrene	97.93	200.6	ug/Kg	49%		35-134
Benzo(a)anthracene	104.0	200.6	ug/Kg	52%		30-132
Chrysene	93.99	200.6	ug/Kg	47%		29-130
Benzo(b)fluoranthene	102.9	200.6	ug/Kg	51%		32-137
Benzo(k)fluoranthene	98.25	200.6	ug/Kg	49%		32-130
Benzo(a)pyrene	94.88	200.6	ug/Kg	47%		10-138
Indeno(1,2,3-cd)pyrene	102.5	200.6	ug/Kg	51%		34-132
Dibenz(a,h)anthracene	99.43	200.6	ug/Kg	50%		32-130
Benzo(g,h,i)perylene	94.94	200.6	ug/Kg	47%		27-130
Surrogates						
Nitrobenzene-d5	110.0	200.6	ug/Kg	55%		27-125
2-Fluorobiphenyl	108.4	200.6	ug/Kg	54%		30-120
Terphenyl-d14	139.5	200.6	ug/Kg	70%		33-155

Batch QC

Type:	Matrix Spike	Lab ID:	QC1035207	Batch:	304135
Matrix (Source ID):	Soil (476005-001)	Method:	EPA 8270C-SIM	Prep Method:	EPA 3546

QC1035207 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
1-Methylnaphthalene	120.1	ND	198.3	ug/Kg	61%		25-130	0.99
2-Methylnaphthalene	133.2	ND	198.3	ug/Kg	67%		32-133	0.99
Naphthalene	129.0	ND	198.3	ug/Kg	65%		33-130	0.99
Acenaphthylene	134.0	ND	198.3	ug/Kg	68%		14-157	0.99
Acenaphthene	130.4	ND	198.3	ug/Kg	66%		28-134	0.99
Fluorene	131.5	ND	198.3	ug/Kg	66%		27-140	0.99
Phenanthrene	139.9	ND	198.3	ug/Kg	71%		29-147	0.99
Anthracene	130.5	ND	198.3	ug/Kg	66%		24-156	0.99
Fluoranthene	137.2	ND	198.3	ug/Kg	69%		28-160	0.99
Pyrene	131.7	ND	198.3	ug/Kg	66%		26-153	0.99
Benzo(a)anthracene	143.8	ND	198.3	ug/Kg	72%		26-174	0.99
Chrysene	128.4	ND	198.3	ug/Kg	65%		40-139	0.99
Benzo(b)fluoranthene	138.6	ND	198.3	ug/Kg	70%		36-164	0.99
Benzo(k)fluoranthene	134.4	ND	198.3	ug/Kg	68%		36-161	0.99
Benzo(a)pyrene	125.1	ND	198.3	ug/Kg	63%		18-173	0.99
Indeno(1,2,3-cd)pyrene	131.7	ND	198.3	ug/Kg	66%		26-154	0.99
Dibenz(a,h)anthracene	123.4	ND	198.3	ug/Kg	62%		38-132	0.99
Benzo(g,h,i)perylene	121.0	ND	198.3	ug/Kg	61%		36-130	0.99
Surrogates								
Nitrobenzene-d5	144.2		198.3	ug/Kg	73%		27-125	0.99
2-Fluorobiphenyl	144.1		198.3	ug/Kg	73%		30-120	0.99
Terphenyl-d14	173.0		198.3	ug/Kg	87%		33-155	0.99

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Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1035208**	**Batch:**	**304135**
Matrix (Source ID):	**Soil (476005-001)**	**Method:**	**EPA 8270C-SIM**	**Prep Method:**	**EPA 3546**

QC1035208 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
1-Methylnaphthalene	142.6	ND	200.7	ug/Kg	71%		25-130	16	35	1
2-Methylnaphthalene	157.4	ND	200.7	ug/Kg	78%		32-133	15	35	1
Naphthalene	152.4	ND	200.7	ug/Kg	76%		33-130	15	35	1
Acenaphthylene	150.3	ND	200.7	ug/Kg	75%		14-157	10	35	1
Acenaphthene	149.4	ND	200.7	ug/Kg	74%		28-134	12	35	1
Fluorene	149.3	ND	200.7	ug/Kg	74%		27-140	12	35	1
Phenanthrene	168.9	ND	200.7	ug/Kg	84%		29-147	18	35	1
Anthracene	160.4	ND	200.7	ug/Kg	80%		24-156	19	35	1
Fluoranthene	162.9	ND	200.7	ug/Kg	81%		28-160	16	35	1
Pyrene	156.3	ND	200.7	ug/Kg	78%		26-153	16	35	1
Benzo(a)anthracene	167.8	ND	200.7	ug/Kg	84%		26-174	14	35	1
Chrysene	150.8	ND	200.7	ug/Kg	75%		40-139	15	35	1
Benzo(b)fluoranthene	160.4	ND	200.7	ug/Kg	80%		36-164	13	35	1
Benzo(k)fluoranthene	157.9	ND	200.7	ug/Kg	79%		36-161	15	35	1
Benzo(a)pyrene	144.1	ND	200.7	ug/Kg	72%		18-173	13	35	1
Indeno(1,2,3-cd)pyrene	154.3	ND	200.7	ug/Kg	77%		26-154	15	35	1
Dibenz(a,h)anthracene	146.0	ND	200.7	ug/Kg	73%		38-132	16	35	1
Benzo(g,h,i)perylene	153.1	ND	200.7	ug/Kg	76%		36-130	22	35	1
Surrogates										
Nitrobenzene-d5	174.2		200.7	ug/Kg	87%		27-125			1
2-Fluorobiphenyl	167.0		200.7	ug/Kg	83%		30-120			1
Terphenyl-d14	205.6		200.7	ug/Kg	102%		33-155			1

* Value is outside QC limits
J Estimated value
ND Not Detected

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number: 476113
Report Level: II
Report Date: 01/09/2023

Analytical Report *prepared for:*

Jeff Sieg
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Location: 2750 Bristol Street, Costa Mesa, CA

Authorized for release by:

Jim Lin, Service Center Manager
Jim.lin@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Jeff Sieg	Lab Job #:	476113
SCS Engineers - Long Beach	Location:	2750 Bristol Street, Costa Mesa, CA
3900 Kilroy Airport Way	Date Received:	12/28/22
Suite 100		
Long Beach, CA 90806		

Sample ID	Lab ID	Collected	Matrix
A1-5	476113-001	12/28/22 07:35	Soil
A1-10	476113-002	12/28/22 07:41	Soil
A1-15	476113-003	12/28/22 07:46	Soil
A1-20	476113-004	12/28/22 07:52	Soil
A1-25	476113-005	12/28/22 07:58	Soil
A3-5	476113-006	12/28/22 09:38	Soil
A3-10	476113-007	12/28/22 09:45	Soil
A3-15	476113-008	12/28/22 09:51	Soil
A3-20	476113-009	12/28/22 09:59	Soil
A2-5	476113-010	12/28/22 12:30	Soil
A2-10	476113-011	12/28/22 12:37	Soil
A2-15	476113-012	12/28/22 12:47	Soil
A2-20	476113-013	12/28/22 12:57	Soil
A2-25	476113-014	12/28/22 13:07	Soil
D2-5	476113-015	12/28/22 14:18	Soil
D2-10	476113-016	12/28/22 14:26	Soil
D2-15	476113-017	12/28/22 14:31	Soil
D2-20	476113-018	12/28/22 14:38	Soil
D2-25	476113-019	12/28/22 14:44	Soil

Case Narrative

SCS Engineers - Long Beach 3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806 Jeff Sieg	Lab Job Number: Location: Date Received:	476113 2750 Bristol Street, Costa Mesa, CA 12/28/22

This data package contains sample and QC results for nineteen soil samples, requested for the above referenced project on 12/28/22. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):

- A2-10 (lab # 476113-011) was diluted due to the dark color of the sample extract.
- No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):

- A1-5 (lab # 476113-001) and A2-10 (lab # 476113-011) were diluted due to the dark color of the sample extracts.
- A3-5 (lab # 476113-006), D2-5 (lab # 476113-015), and D2-10 (lab # 476113-016) were diluted due to the dark and viscous nature of the sample extracts.
- No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):

- Responses exceeding the instrument's linear range were observed for nitrobenzene-d5, 2-fluorobiphenyl, and terphenyl-d14 in many samples; affected data was qualified with "E".
- A number of samples were diluted due to the dark color of the sample extracts.
- No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

- Low recoveries were observed for antimony in the MS/MSD of B2-25 (lab # 476005-005); the associated RPD was within limits.
- Low recoveries were observed for antimony in the MS/MSD of A1-20 (lab # 476113-004); the associated RPD was within limits.
- Lead and selenium were detected between the MDL and the RL in the method blank for batch 304246.
- Antimony was detected between the MDL and the RL in the method blank for batch 304325.
- No other analytical problems were encountered.

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange
931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

Chain of Custody Record

Lab No: 476113
Page: 1 of 2

Turn Around Time (rush by advanced notice only)

Standard:	✓	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS Engineers	Quote #:	
Report To:	Jeff Sieg	Proj. Name:	
Email:	jsieg@scsengineers.com	Proj. #:	01222204.00
Address:	3900 Kilroy Airport Way Ste 100	P.O. #:	
	Long Beach, CA 90806	Address:	
Phone:	562-572-4461	Global ID:	
Fax:		Sampled By:	Thomas Birren

Analysis Request: 8015M - Carbon Chain; 8270SIM - PAHs (low level); 8270 - SVOCs; 8260B - VOCs; 6010B / 7471A (CAM17)

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	8015M - Carbon Chain	8270SIM - PAHs (low level)	8270 - SVOCs	8260B - VOCs	6010B / 7471A (CAM17)	Test Instructions / Comments
1	A1-5	12/28/22	0735	Soil	(1) Sleeve 6"	none	X	X	X	X	X	
2	A1-10		0741									
3	A1-15		0746									
4	A1-20		0752									
5	A1-25		0758									
6	A3-5		0938									
7	A3-10		0945									
8	A3-15		0951									
9	A3-20		0959									
10												

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Thomas Birren	SCS Engineers	12/28/22 15:21
1 Received By:	Ricardo Canales	Ricardo Canales	Enthalpy Analytical/SR	12-28-22 @ 15:21
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

3.9° / 579

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Chain of Custody Record

Lab No: 476113

Page: 2 of 2

Turn Around Time (rush by advanced notice only)

Standard:	✓	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp:

(lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS Engineers	Quote #:	
Report To:	Jeff Sieg	Proj. Name:	
Email:	jsieg@scsengineers.com	Proj. #:	
Address:	3900 Kilroy Airport Way Ste 100	P.O. #:	
	Long Beach, CA 90806	Address:	
Phone:	562-572-4461	Global ID:	
Fax:		Sampled By:	Thomas Birren

Analysis Request / **Test Instructions / Comments**

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	8015M – Carbon Chain	8270 SIM - PAHs (low level)	8270 - SVOCs	8260B - VOCs	6010B/7471A CAM17 Metals						Test Instructions / Comments
1	A2-5	12/28/22	1230	Soil	(1) 6" sleeve	none	X	X	X	X	X						
2	A2-10		1237														
3	A2-15		1247														
4	A2-20		1257														
5	A2-25		1307														
6	D2-5		1418														
7	D2-10		1426														
8	D2-15		1431														
9	D2-20		1438														
10	D2-25		1444														

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Thomas Birren	SCS Engineers	12/28/22 1521
1 Received By:	Ricardo Canales	Ricardo Canales	Enthalpy Analytical / SR	12-28-22 @ 1521
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: SCS Engineers — Project: 01222204.00

Date Received: 12/28/22 — Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) — Sample Temp (°C) (No Cooler): ____

Sample Temp (°C), One from each cooler: #1: 5.7 #2: ____ #3: ____ #4: ____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: ____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other ____

Cooler Temp (°C): #1: 3.9 #2: ____ #3: ____ #4: ____

Section 4	YES	NO	N/A
Was a COC received?	✔		
Are sample IDs present?	✔		
Are sampling dates & times present?	✔		
Is a relinquished signature present?	✔		
Are the tests required clearly indicated on the COC?	✔		
Are custody seals present?		✔	
If custody seals are present, were they intact?			✔
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✔
Did all samples arrive intact? If no, indicate in Section 4 below.	✔		
Did all bottle labels agree with COC? (ID, dates and times)	✔		
Were the samples collected in the correct containers for the required tests?	✔		
Are the containers labeled with the correct preservatives?			✔
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✔
Was a sufficient amount of sample submitted for the requested tests?	✔		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: ____ Date/Time ____

☐ Email (email sent to/on): ____ / ____

Project Manager's response:

Completed By: [signature] Date: 12/28/22

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal
Sample Acceptance Checklist – Rev 4, 8/8/2017

ENTHALPY ANALYTICAL

Analysis Results for 476113

Jeff Sieg
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Lab Job #: 476113
Location: 2750 Bristol Street, Costa Mesa, CA
Date Received: 12/28/22

Sample ID: A1-5	Lab ID: 476113-001	Collected: 12/28/22 07:35
	Matrix: Soil	

476113-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	3.0	0.78	1	304246	12/29/22	12/30/22	SBW
Arsenic	**4.0**		mg/Kg	1.0	0.47	1	304246	12/29/22	12/30/22	SBW
Barium	**76**		mg/Kg	1.0	0.12	1	304246	12/29/22	12/30/22	SBW
Beryllium	**0.43**	J	mg/Kg	0.50	0.030	1	304246	12/29/22	12/30/22	SBW
Cadmium	**0.18**	J	mg/Kg	0.50	0.036	1	304246	12/29/22	12/30/22	SBW
Chromium	**19**		mg/Kg	1.0	0.095	1	304246	12/29/22	12/30/22	SBW
Cobalt	**6.4**		mg/Kg	0.50	0.11	1	304246	12/29/22	12/30/22	SBW
Copper	**19**		mg/Kg	1.0	0.25	1	304246	12/29/22	12/30/22	SBW
Lead	**14**		mg/Kg	1.0	0.14	1	304246	12/29/22	12/30/22	SBW
Molybdenum	**0.45**	J	mg/Kg	1.0	0.18	1	304246	12/29/22	12/30/22	SBW
Nickel	**12**		mg/Kg	1.0	0.18	1	304246	12/29/22	12/30/22	SBW
Selenium	**0.47**	B,J	mg/Kg	3.0	0.37	1	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.50	0.25	1	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	3.0	0.51	1	304246	12/29/22	12/30/22	SBW
Vanadium	**37**		mg/Kg	1.0	0.081	1	304246	12/29/22	12/30/22	SBW
Zinc	**65**		mg/Kg	5.0	0.17	1	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.019**	J	mg/Kg	0.16	0.0056	1.1	304368	12/30/22	01/03/23	SBW
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	**15**		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	**52**		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	110%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**3.1**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	96%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	95%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	97%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	108%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	250	92	25	304383	01/03/23	01/03/23	TJW
2-Methylnaphthalene	ND		ug/Kg	250	110	25	304383	01/03/23	01/03/23	TJW
Naphthalene	ND		ug/Kg	250	120	25	304383	01/03/23	01/03/23	TJW
Acenaphthylene	ND		ug/Kg	250	100	25	304383	01/03/23	01/03/23	TJW
Acenaphthene	ND		ug/Kg	250	100	25	304383	01/03/23	01/03/23	TJW
Fluorene	ND		ug/Kg	250	110	25	304383	01/03/23	01/03/23	TJW
Phenanthrene	ND		ug/Kg	250	120	25	304383	01/03/23	01/03/23	TJW
Anthracene	ND		ug/Kg	250	100	25	304383	01/03/23	01/03/23	TJW
Fluoranthene	ND		ug/Kg	250	110	25	304383	01/03/23	01/03/23	TJW
Pyrene	ND		ug/Kg	250	120	25	304383	01/03/23	01/03/23	TJW
Benzo(a)anthracene	ND		ug/Kg	250	100	25	304383	01/03/23	01/03/23	TJW
Chrysene	ND		ug/Kg	250	85	25	304383	01/03/23	01/03/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	250	120	25	304383	01/03/23	01/03/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	250	120	25	304383	01/03/23	01/03/23	TJW
Benzo(a)pyrene	ND		ug/Kg	250	120	25	304383	01/03/23	01/03/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	120	25	304383	01/03/23	01/03/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	250	130	25	304383	01/03/23	01/03/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	250	120	25	304383	01/03/23	01/03/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	66%		%REC	27-125		25	304383	01/03/23	01/03/23	TJW
2-Fluorobiphenyl	72%		%REC	30-120		25	304383	01/03/23	01/03/23	TJW
Terphenyl-d14	105%		%REC	33-155		25	304383	01/03/23	01/03/23	TJW

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8270C Prep Method: EPA 3546										
Carbazole	ND		ug/Kg	6,200	1,300	25	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	6,200	1,600	25	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	6,200	2,600	25	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	6,200	2,100	25	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	6,200	1,700	25	304382	01/03/23	01/03/23	HQN
Aniline	ND		ug/Kg	6,200	2,000	25	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	30,000	2,200	25	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	6,200	1,900	25	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	6,200	1,800	25	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	6,200	1,800	25	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	6,200	2,000	25	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	6,200	1,600	25	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	6,200	1,800	25	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	6,200	1,800	25	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	10,000	1,700	25	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	6,200	1,800	25	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	6,200	2,000	25	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	30,000	1,800	25	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	6,200	1,700	25	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	6,200	1,400	25	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	6,200	1,500	25	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	30,000	3,000	25	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	6,200	1,700	25	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	6,200	1,800	25	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	6,200	1,500	25	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	6,200	1,600	25	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	6,200	1,800	25	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	6,200	1,600	25	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	6,200	1,500	25	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	6,200	1,600	25	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	30,000	1,500	25	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	6,200	1,600	25	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	6,200	2,200	25	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	6,200	1,400	25	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	6,200	1,400	25	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	6,200	2,100	25	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	6,200	1,500	25	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	30,000	4,700	25	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	6,200	3,300	25	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	6,200	1,300	25	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	6,200	1,400	25	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Diethylphthalate	ND		ug/Kg	6,200	1,400	25	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	6,200	1,100	25	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	6,200	1,300	25	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	6,200	980	25	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	6,200	1,300	25	304382	01/03/23	01/03/23	HQN
4-Bromophenyl-phenylether	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	6,200	1,400	25	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	30,000	920	25	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	6,200	1,100	25	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	6,200	1,800	25	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	6,200	1,300	25	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	30,000	2,000	25	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	6,200	1,100	25	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	30,000	1,000	25	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	6,200	1,400	25	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	6,200	1,400	25	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	6,200	2,200	25	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	6,200	1,800	25	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	6,200	1,300	25	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	6,200	1,400	25	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	6,200	1,300	25	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	6,200	1,200	25	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	49%		%REC	29-120		25	304382	01/03/23	01/03/23	HQN
Phenol-d6	50%		%REC	30-120		25	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	46%		%REC	32-120		25	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	57%		%REC	33-120		25	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	59%		%REC	39-120		25	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	75%		%REC	44-125		25	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: A1-10	Lab ID: 476113-002	Collected: 12/28/22 07:41
	Matrix: Soil	

476113-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	3.0	0.78	1	304246	12/29/22	12/30/22	SBW
Arsenic	**0.70**	J	mg/Kg	1.0	0.47	1	304246	12/29/22	12/30/22	SBW
Barium	**46**		mg/Kg	1.0	0.12	1	304246	12/29/22	12/30/22	SBW
Beryllium	**0.27**	J	mg/Kg	0.50	0.030	1	304246	12/29/22	12/30/22	SBW
Cadmium	ND		mg/Kg	0.50	0.036	1	304246	12/29/22	12/30/22	SBW
Chromium	**11**		mg/Kg	1.0	0.095	1	304246	12/29/22	12/30/22	SBW
Cobalt	**3.3**		mg/Kg	0.50	0.11	1	304246	12/29/22	12/30/22	SBW
Copper	**9.0**		mg/Kg	1.0	0.25	1	304246	12/29/22	12/30/22	SBW
Lead	**2.4**	B	mg/Kg	1.0	0.14	1	304246	12/29/22	12/30/22	SBW
Molybdenum	**0.78**	J	mg/Kg	1.0	0.18	1	304246	12/29/22	12/30/22	SBW
Nickel	**5.9**		mg/Kg	1.0	0.18	1	304246	12/29/22	12/30/22	SBW
Selenium	**0.46**	B,J	mg/Kg	3.0	0.37	1	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.50	0.25	1	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	3.0	0.51	1	304246	12/29/22	12/30/22	SBW
Vanadium	**24**		mg/Kg	1.0	0.081	1	304246	12/29/22	12/30/22	SBW
Zinc	**29**		mg/Kg	5.0	0.17	1	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.15	0.0055	1.1	304368	12/30/22	01/03/23	SBW
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	118%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**2.8**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	95%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	98%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	96%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	101%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/03/23	TJW
2-Methylnaphthalene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Naphthalene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Fluorene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Phenanthrene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Anthracene	ND		ug/Kg	10	4.0	1	304383	01/03/23	01/03/23	TJW
Fluoranthene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Pyrene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Chrysene	ND		ug/Kg	10	3.4	1	304383	01/03/23	01/03/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304383	01/03/23	01/03/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	74%	E	%REC	27-125		1	304383	01/03/23	01/03/23	TJW
2-Fluorobiphenyl	63%	E	%REC	30-120		1	304383	01/03/23	01/03/23	TJW
Terphenyl-d14	95%	E	%REC	33-155		1	304383	01/03/23	01/03/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	250	70	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	82	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	70	1	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	250	79	1	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	63	1	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	250	58	1	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	1,200	82	1	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	250	45	1	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	90	1	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	52	1	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	76%		%REC	29-120		1	304382	01/03/23	01/03/23	HQN
Phenol-d6	79%		%REC	30-120		1	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	67%		%REC	32-120		1	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	72%		%REC	33-120		1	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	64%		%REC	39-120		1	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	80%		%REC	44-125		1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: A1-15	Lab ID: 476113-003	Collected: 12/28/22 07:46
	Matrix: Soil	

476113-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.75	0.96	304246	12/29/22	12/30/22	SBW
Arsenic	**2.1**		mg/Kg	0.96	0.45	0.96	304246	12/29/22	12/30/22	SBW
Barium	**37**		mg/Kg	0.96	0.11	0.96	304246	12/29/22	12/30/22	SBW
Beryllium	**0.30**	J	mg/Kg	0.48	0.029	0.96	304246	12/29/22	12/30/22	SBW
Cadmium	**0.12**	J	mg/Kg	0.48	0.034	0.96	304246	12/29/22	12/30/22	SBW
Chromium	**9.0**		mg/Kg	0.96	0.092	0.96	304246	12/29/22	12/30/22	SBW
Cobalt	**3.3**		mg/Kg	0.48	0.10	0.96	304246	12/29/22	12/30/22	SBW
Copper	**8.7**		mg/Kg	0.96	0.24	0.96	304246	12/29/22	12/30/22	SBW
Lead	**2.2**	B	mg/Kg	0.96	0.14	0.96	304246	12/29/22	12/30/22	SBW
Molybdenum	ND		mg/Kg	0.96	0.18	0.96	304246	12/29/22	12/30/22	SBW
Nickel	**7.7**		mg/Kg	0.96	0.18	0.96	304246	12/29/22	12/30/22	SBW
Selenium	**0.65**	B,J	mg/Kg	2.9	0.36	0.96	304246	12/29/22	12/30/22	SBW
Silver	ND		mg/Kg	0.48	0.24	0.96	304246	12/29/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.49	0.96	304246	12/29/22	12/30/22	SBW
Vanadium	**22**		mg/Kg	0.96	0.078	0.96	304246	12/29/22	12/30/22	SBW
Zinc	**26**		mg/Kg	4.8	0.16	0.96	304246	12/29/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.16	0.0056	1.1	304368	12/30/22	01/03/23	SBW
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	113%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**3.4**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	97%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	98%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	98%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	104%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/03/23	TJW
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/03/23	TJW
Naphthalene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Fluorene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/03/23	TJW
Phenanthrene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Anthracene	ND		ug/Kg	10	4.0	1	304383	01/03/23	01/03/23	TJW
Fluoranthene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Pyrene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Chrysene	ND		ug/Kg	10	3.4	1	304383	01/03/23	01/03/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304383	01/03/23	01/03/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	85%	E	%REC	27-125		1	304383	01/03/23	01/03/23	TJW
2-Fluorobiphenyl	79%	E	%REC	30-120		1	304383	01/03/23	01/03/23	TJW
Terphenyl-d14	114%	E	%REC	33-155		1	304383	01/03/23	01/03/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	250	69	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	1	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	250	44	1	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	86%		%REC	29-120		1	304382	01/03/23	01/03/23	HQN
Phenol-d6	94%		%REC	30-120		1	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	86%		%REC	32-120		1	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	87%		%REC	33-120		1	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	77%		%REC	39-120		1	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	98%		%REC	44-125		1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: A1-20	Lab ID: 476113-004	Collected: 12/28/22 07:52
	Matrix: Soil	

476113-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**0.55**	B,J	mg/Kg	2.9	0.50	0.96	304325	12/30/22	01/03/23	SBW
Arsenic	**3.1**		mg/Kg	0.96	0.24	0.96	304325	12/30/22	01/03/23	SBW
Barium	**29**		mg/Kg	0.96	0.078	0.96	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.48	0.33	0.96	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.48	0.064	0.96	304325	12/30/22	01/03/23	SBW
Chromium	**7.1**		mg/Kg	0.96	0.071	0.96	304325	12/30/22	01/03/23	SBW
Cobalt	**2.3**		mg/Kg	0.48	0.13	0.96	304325	12/30/22	01/03/23	SBW
Copper	**5.2**		mg/Kg	0.96	0.25	0.96	304325	12/30/22	01/03/23	SBW
Lead	**3.0**		mg/Kg	0.96	0.42	0.96	304325	12/30/22	01/04/23	SBW
Molybdenum	**1.1**		mg/Kg	0.96	0.18	0.96	304325	12/30/22	01/05/23	SBW
Nickel	**4.6**		mg/Kg	0.96	0.26	0.96	304325	12/30/22	01/03/23	SBW
Selenium	**0.45**	J	mg/Kg	2.9	0.33	0.96	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.48	0.12	0.96	304325	12/30/22	01/03/23	SBW
Thallium	**0.77**	J	mg/Kg	2.9	0.55	0.96	304325	12/30/22	01/03/23	SBW
Vanadium	**19**		mg/Kg	0.96	0.30	0.96	304325	12/30/22	01/03/23	SBW
Zinc	**17**		mg/Kg	4.8	0.26	0.96	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.15	0.0054	1.1	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	120%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**3.9**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	96%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	97%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	98%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	103%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/03/23	TJW
2-Methylnaphthalene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Naphthalene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Fluorene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Phenanthrene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Anthracene	ND		ug/Kg	10	4.0	1	304383	01/03/23	01/03/23	TJW
Fluoranthene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Pyrene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Chrysene	ND		ug/Kg	10	3.4	1	304383	01/03/23	01/03/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304383	01/03/23	01/03/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	84%	E	%REC	27-125		1	304383	01/03/23	01/03/23	TJW
2-Fluorobiphenyl	79%	E	%REC	30-120		1	304383	01/03/23	01/03/23	TJW
Terphenyl-d14	118%	E	%REC	33-155		1	304383	01/03/23	01/03/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	250	70	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	82	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	70	1	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	250	79	1	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	63	1	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	87	1	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	250	58	1	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	1,200	82	1	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	250	45	1	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	90	1	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	52	1	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	81%		%REC	29-120		1	304382	01/03/23	01/03/23	HQN
Phenol-d6	90%		%REC	30-120		1	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	83%		%REC	32-120		1	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	83%		%REC	33-120		1	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	77%		%REC	39-120		1	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	100%		%REC	44-125		1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: A1-25	Lab ID: 476113-005	Collected: 12/28/22 07:58
	Matrix: Soil	

476113-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**1.6**	B,J	mg/Kg	3.0	0.52	1	304325	12/30/22	01/03/23	SBW
Arsenic	**2.0**		mg/Kg	1.0	0.25	1	304325	12/30/22	01/03/23	SBW
Barium	**33**		mg/Kg	1.0	0.081	1	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.50	0.34	1	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.50	0.067	1	304325	12/30/22	01/03/23	SBW
Chromium	**5.6**		mg/Kg	1.0	0.074	1	304325	12/30/22	01/03/23	SBW
Cobalt	**2.1**		mg/Kg	0.50	0.14	1	304325	12/30/22	01/03/23	SBW
Copper	**5.0**		mg/Kg	1.0	0.26	1	304325	12/30/22	01/03/23	SBW
Lead	**1.4**		mg/Kg	1.0	0.43	1	304325	12/30/22	01/04/23	SBW
Molybdenum	**0.20**	J	mg/Kg	1.0	0.18	1	304325	12/30/22	01/05/23	SBW
Nickel	**4.0**		mg/Kg	1.0	0.27	1	304325	12/30/22	01/03/23	SBW
Selenium	**0.93**	J	mg/Kg	3.0	0.34	1	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.50	0.12	1	304325	12/30/22	01/03/23	SBW
Thallium	**0.58**	J	mg/Kg	3.0	0.57	1	304325	12/30/22	01/03/23	SBW
Vanadium	**14**		mg/Kg	1.0	0.32	1	304325	12/30/22	01/03/23	SBW
Zinc	**15**		mg/Kg	5.0	0.28	1	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.15	0.0054	1.1	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	9.9		0.99	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	9.9		0.99	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		0.99	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	112%		%REC	70-130		0.99	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**4.0**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	94%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	95%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	99%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	102%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/03/23	TJW
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/03/23	TJW
Naphthalene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Fluorene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/03/23	TJW
Phenanthrene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Anthracene	ND		ug/Kg	10	4.0	1	304383	01/03/23	01/03/23	TJW
Fluoranthene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Pyrene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Chrysene	ND		ug/Kg	10	3.4	1	304383	01/03/23	01/03/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304383	01/03/23	01/03/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	89%	E	%REC	27-125		1	304383	01/03/23	01/03/23	TJW
2-Fluorobiphenyl	80%	E	%REC	30-120		1	304383	01/03/23	01/03/23	TJW
Terphenyl-d14	117%	E	%REC	33-155		1	304383	01/03/23	01/03/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	250	69	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	1	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	250	44	1	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	85%		%REC	29-120		1	304382	01/03/23	01/03/23	HQN
Phenol-d6	91%		%REC	30-120		1	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	85%		%REC	32-120		1	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	84%		%REC	33-120		1	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	76%		%REC	39-120		1	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	97%		%REC	44-125		1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: A3-5	Lab ID: 476113-006	Collected: 12/28/22 09:38
	Matrix: Soil	

476113-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**1.6**	B,J	mg/Kg	3.0	0.51	0.99	304325	12/30/22	01/03/23	SBW
Arsenic	**5.1**		mg/Kg	0.99	0.24	0.99	304325	12/30/22	01/03/23	SBW
Barium	**93**		mg/Kg	0.99	0.080	0.99	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.50	0.34	0.99	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.50	0.066	0.99	304325	12/30/22	01/03/23	SBW
Chromium	**22**		mg/Kg	0.99	0.073	0.99	304325	12/30/22	01/03/23	SBW
Cobalt	**7.1**		mg/Kg	0.50	0.14	0.99	304325	12/30/22	01/03/23	SBW
Copper	**17**		mg/Kg	0.99	0.26	0.99	304325	12/30/22	01/03/23	SBW
Lead	**11**		mg/Kg	0.99	0.43	0.99	304325	12/30/22	01/04/23	SBW
Molybdenum	ND		mg/Kg	0.99	0.36	0.99	304325	12/30/22	01/04/23	SBW
Nickel	**15**		mg/Kg	0.99	0.27	0.99	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	3.0	0.34	0.99	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.50	0.12	0.99	304325	12/30/22	01/03/23	SBW
Thallium	**1.2**	J	mg/Kg	3.0	0.57	0.99	304325	12/30/22	01/03/23	SBW
Vanadium	**38**		mg/Kg	0.99	0.31	0.99	304325	12/30/22	01/03/23	SBW
Zinc	**55**		mg/Kg	5.0	0.27	0.99	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.019**	J	mg/Kg	0.16	0.0058	1.2	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	108%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**3.2**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	97%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	101%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	97%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	103%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	40	15	4	304383	01/03/23	01/03/23	TJW
2-Methylnaphthalene	ND		ug/Kg	40	18	4	304383	01/03/23	01/03/23	TJW
Naphthalene	ND		ug/Kg	40	20	4	304383	01/03/23	01/03/23	TJW
Acenaphthylene	ND		ug/Kg	40	16	4	304383	01/03/23	01/03/23	TJW
Acenaphthene	ND		ug/Kg	40	16	4	304383	01/03/23	01/03/23	TJW
Fluorene	ND		ug/Kg	40	18	4	304383	01/03/23	01/03/23	TJW
Phenanthrene	ND		ug/Kg	40	20	4	304383	01/03/23	01/03/23	TJW
Anthracene	ND		ug/Kg	40	16	4	304383	01/03/23	01/03/23	TJW
Fluoranthene	ND		ug/Kg	40	18	4	304383	01/03/23	01/03/23	TJW
Pyrene	ND		ug/Kg	40	20	4	304383	01/03/23	01/03/23	TJW
Benzo(a)anthracene	ND		ug/Kg	40	16	4	304383	01/03/23	01/03/23	TJW
Chrysene	ND		ug/Kg	40	14	4	304383	01/03/23	01/03/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	20	4	304383	01/03/23	01/03/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	40	19	4	304383	01/03/23	01/03/23	TJW
Benzo(a)pyrene	ND		ug/Kg	40	19	4	304383	01/03/23	01/03/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	19	4	304383	01/03/23	01/03/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	21	4	304383	01/03/23	01/03/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	40	19	4	304383	01/03/23	01/03/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	64%		%REC	27-125		4	304383	01/03/23	01/03/23	TJW
2-Fluorobiphenyl	69%		%REC	30-120		4	304383	01/03/23	01/03/23	TJW
Terphenyl-d14	108%	E	%REC	33-155		4	304383	01/03/23	01/03/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	1,000	200	4	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	1,000	250	4	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	1,000	420	4	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	1,000	340	4	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	1,000	280	4	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	1,000	320	4	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	4,800	360	4	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	1,000	300	4	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	1,000	290	4	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	1,000	290	4	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	1,000	310	4	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	1,000	260	4	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	1,000	280	4	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	1,000	290	4	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	1,600	280	4	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	1,000	280	4	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	1,000	310	4	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	4,800	280	4	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	1,000	270	4	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	1,000	220	4	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	1,000	240	4	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	4,800	480	4	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	1,000	280	4	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	1,000	290	4	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	1,000	250	4	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	1,000	260	4	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	1,000	290	4	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	1,000	250	4	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	1,000	250	4	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	1,000	260	4	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	4,800	240	4	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	1,000	260	4	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	1,000	340	4	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	1,000	230	4	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	1,000	230	4	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	1,000	330	4	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	1,000	190	4	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	1,000	190	4	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	1,000	240	4	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	1,000	200	4	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	4,800	750	4	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	1,000	520	4	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	1,000	200	4	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	1,000	220	4	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	1,000	230	4	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	1,000	170	4	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	1,000	200	4	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	1,000	200	4	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	1,000	160	4	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	1,000	190	4	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	1,000	200	4	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	1,000	190	4	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	1,000	220	4	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	4,800	150	4	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	1,000	180	4	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	1,000	190	4	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	1,000	290	4	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	1,000	210	4	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	4,800	330	4	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	1,000	180	4	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	1,000	190	4	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	4,800	160	4	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	1,000	220	4	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	1,000	220	4	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	1,000	360	4	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	1,000	290	4	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	1,000	210	4	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	1,000	230	4	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	1,000	210	4	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	1,000	180	4	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	1,000	190	4	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	1,000	200	4	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	59%		%REC	29-120		4	304382	01/03/23	01/03/23	HQN
Phenol-d6	72%		%REC	30-120		4	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	66%		%REC	32-120		4	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	60%		%REC	33-120		4	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	60%		%REC	39-120		4	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	87%		%REC	44-125		4	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: A3-10	Lab ID: 476113-007	Collected: 12/28/22 09:45
	Matrix: Soil	

476113-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**1.1**	B,J	mg/Kg	2.9	0.51	0.98	304325	12/30/22	01/03/23	SBW
Arsenic	**3.5**		mg/Kg	0.98	0.24	0.98	304325	12/30/22	01/03/23	SBW
Barium	**78**		mg/Kg	0.98	0.079	0.98	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.49	0.33	0.98	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.49	0.065	0.98	304325	12/30/22	01/03/23	SBW
Chromium	**12**		mg/Kg	0.98	0.073	0.98	304325	12/30/22	01/03/23	SBW
Cobalt	**3.9**		mg/Kg	0.49	0.14	0.98	304325	12/30/22	01/03/23	SBW
Copper	**22**		mg/Kg	0.98	0.26	0.98	304325	12/30/22	01/03/23	SBW
Lead	**30**		mg/Kg	0.98	0.42	0.98	304325	12/30/22	01/04/23	SBW
Molybdenum	**0.90**	J	mg/Kg	0.98	0.18	0.98	304325	12/30/22	01/05/23	SBW
Nickel	**8.0**		mg/Kg	0.98	0.26	0.98	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	2.9	0.34	0.98	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.49	0.12	0.98	304325	12/30/22	01/03/23	SBW
Thallium	**0.76**	J	mg/Kg	2.9	0.56	0.98	304325	12/30/22	01/03/23	SBW
Vanadium	**24**		mg/Kg	0.98	0.31	0.98	304325	12/30/22	01/03/23	SBW
Zinc	**82**		mg/Kg	4.9	0.27	0.98	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.040**	J	mg/Kg	0.16	0.0059	1.2	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	**16**		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	**22**		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	118%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**3.8**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	95%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	102%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	97%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	103%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	9.9	3.7	0.99	304383	01/03/23	01/04/23	HQN
2-Methylnaphthalene	ND		ug/Kg	9.9	4.5	0.99	304383	01/03/23	01/04/23	HQN
Naphthalene	ND		ug/Kg	9.9	4.9	0.99	304383	01/03/23	01/04/23	HQN
Acenaphthylene	ND		ug/Kg	9.9	4.0	0.99	304383	01/03/23	01/04/23	HQN
Acenaphthene	ND		ug/Kg	9.9	4.1	0.99	304383	01/03/23	01/04/23	HQN
Fluorene	ND		ug/Kg	9.9	4.5	0.99	304383	01/03/23	01/04/23	HQN
Phenanthrene	**10**		ug/Kg	9.9	5.0	0.99	304383	01/03/23	01/04/23	HQN
Anthracene	ND		ug/Kg	9.9	4.0	0.99	304383	01/03/23	01/04/23	HQN
Fluoranthene	**18**		ug/Kg	9.9	4.5	0.99	304383	01/03/23	01/04/23	HQN
Pyrene	**15**		ug/Kg	9.9	4.9	0.99	304383	01/03/23	01/04/23	HQN
Benzo(a)anthracene	**6.7**	J	ug/Kg	9.9	4.1	0.99	304383	01/03/23	01/04/23	HQN
Chrysene	**7.2**	J	ug/Kg	9.9	3.4	0.99	304383	01/03/23	01/04/23	HQN
Benzo(b)fluoranthene	**5.8**	J	ug/Kg	9.9	5.0	0.99	304383	01/03/23	01/04/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	9.9	4.7	0.99	304383	01/03/23	01/04/23	HQN
Benzo(a)pyrene	**5.4**	J	ug/Kg	9.9	4.7	0.99	304383	01/03/23	01/04/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	4.7	0.99	304383	01/03/23	01/04/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	5.2	0.99	304383	01/03/23	01/04/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	4.6	0.99	304383	01/03/23	01/04/23	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	77%	E	%REC	27-125		0.99	304383	01/03/23	01/04/23	HQN
2-Fluorobiphenyl	72%	E	%REC	30-120		0.99	304383	01/03/23	01/04/23	HQN
Terphenyl-d14	100%	E	%REC	33-155		0.99	304383	01/03/23	01/04/23	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	63	0.99	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	250	110	0.99	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	84	0.99	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	250	69	0.99	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	0.99	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	88	0.99	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	250	74	0.99	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	71	0.99	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	0.99	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	0.99	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	250	70	0.99	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	0.99	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	70	0.99	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	250	78	0.99	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	0.99	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	250	67	0.99	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	60	0.99	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	0.99	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	0.99	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	61	0.99	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	250	64	0.99	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	0.99	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	0.99	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	0.99	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	60	0.99	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	0.99	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	0.99	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	0.99	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	250	56	0.99	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	250	83	0.99	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	0.99	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	0.99	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	250	49	0.99	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	0.99	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	0.99	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	250	57	0.99	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	250	43	0.99	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	0.99	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	0.99	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	0.99	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	0.99	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	250	45	0.99	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	0.99	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	250	52	0.99	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	1,200	81	0.99	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	250	44	0.99	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	48	0.99	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	0.99	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	0.99	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	0.99	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	0.99	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	0.99	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	0.99	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	0.99	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	0.99	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	80%		%REC	29-120		0.99	304382	01/03/23	01/03/23	HQN
Phenol-d6	87%		%REC	30-120		0.99	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	75%		%REC	32-120		0.99	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	78%		%REC	33-120		0.99	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	67%		%REC	39-120		0.99	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	84%		%REC	44-125		0.99	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

Sample ID: A3-15	Lab ID: 476113-008	Collected: 12/28/22 09:51
	Matrix: Soil	

476113-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**0.98**	B,J	mg/Kg	3.0	0.51	0.99	304325	12/30/22	01/03/23	SBW
Arsenic	**4.1**		mg/Kg	0.99	0.24	0.99	304325	12/30/22	01/03/23	SBW
Barium	**53**		mg/Kg	0.99	0.080	0.99	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.50	0.34	0.99	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.50	0.066	0.99	304325	12/30/22	01/03/23	SBW
Chromium	**11**		mg/Kg	0.99	0.073	0.99	304325	12/30/22	01/03/23	SBW
Cobalt	**6.0**		mg/Kg	0.50	0.14	0.99	304325	12/30/22	01/03/23	SBW
Copper	**12**		mg/Kg	0.99	0.26	0.99	304325	12/30/22	01/03/23	SBW
Lead	**3.7**		mg/Kg	0.99	0.43	0.99	304325	12/30/22	01/04/23	SBW
Molybdenum	ND		mg/Kg	0.99	0.36	0.99	304325	12/30/22	01/03/23	SBW
Nickel	**7.0**		mg/Kg	0.99	0.27	0.99	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	3.0	0.34	0.99	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.50	0.12	0.99	304325	12/30/22	01/03/23	SBW
Thallium	ND		mg/Kg	3.0	0.57	0.99	304325	12/30/22	01/03/23	SBW
Vanadium	**24**		mg/Kg	0.99	0.31	0.99	304325	12/30/22	01/03/23	SBW
Zinc	**45**		mg/Kg	5.0	0.27	0.99	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.16	0.0057	1.1	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/04/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/04/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/04/23	SME
Surrogates				**Limits**						
n-Triacontane	114%		%REC	70-130		1	304394	01/03/23	01/04/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**4.0**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	96%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	101%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	99%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	103%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/03/23	TJW
2-Methylnaphthalene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Naphthalene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Fluorene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Phenanthrene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Anthracene	ND		ug/Kg	10	4.0	1	304383	01/03/23	01/03/23	TJW
Fluoranthene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Pyrene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Chrysene	ND		ug/Kg	10	3.4	1	304383	01/03/23	01/03/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304383	01/03/23	01/03/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	103%	E	%REC	27-125		1	304383	01/03/23	01/03/23	TJW
2-Fluorobiphenyl	94%	E	%REC	30-120		1	304383	01/03/23	01/03/23	TJW
Terphenyl-d14	144%	E	%REC	33-155		1	304383	01/03/23	01/03/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	250	70	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	82	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	250	79	1	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	70	1	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	250	79	1	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	63	1	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	87	1	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	250	58	1	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	1,200	82	1	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	250	45	1	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	90	1	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	52	1	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	94%		%REC	29-120		1	304382	01/03/23	01/03/23	HQN
Phenol-d6	104%		%REC	30-120		1	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	102%		%REC	32-120		1	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	95%		%REC	33-120		1	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	87%		%REC	39-120		1	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	113%		%REC	44-125		1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

Sample ID: A3-20	Lab ID: 476113-009	Collected: 12/28/22 09:59
	Matrix: Soil	

476113-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**0.88**	B,J	mg/Kg	2.9	0.50	0.96	304325	12/30/22	01/03/23	SBW
Arsenic	**1.6**		mg/Kg	0.96	0.24	0.96	304325	12/30/22	01/03/23	SBW
Barium	**22**		mg/Kg	0.96	0.078	0.96	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.48	0.33	0.96	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.48	0.064	0.96	304325	12/30/22	01/03/23	SBW
Chromium	**5.1**		mg/Kg	0.96	0.071	0.96	304325	12/30/22	01/03/23	SBW
Cobalt	**2.0**		mg/Kg	0.48	0.13	0.96	304325	12/30/22	01/03/23	SBW
Copper	**4.5**		mg/Kg	0.96	0.25	0.96	304325	12/30/22	01/03/23	SBW
Lead	**1.8**		mg/Kg	0.96	0.42	0.96	304325	12/30/22	01/04/23	SBW
Molybdenum	ND		mg/Kg	0.96	0.35	0.96	304325	12/30/22	01/03/23	SBW
Nickel	**4.1**		mg/Kg	0.96	0.26	0.96	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	2.9	0.33	0.96	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.48	0.12	0.96	304325	12/30/22	01/03/23	SBW
Thallium	ND		mg/Kg	2.9	0.55	0.96	304325	12/30/22	01/03/23	SBW
Vanadium	**11**		mg/Kg	0.96	0.30	0.96	304325	12/30/22	01/03/23	SBW
Zinc	**14**		mg/Kg	4.8	0.26	0.96	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.16	0.0057	1.1	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	86%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304299	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304299	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Methylene Chloride	**4.6**	J	ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304299	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304299	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304299	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304299	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304299	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304299	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304299	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304299	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304299	12/30/22	12/30/22	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	95%		%REC	70-145	6.1	1	304299	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	95%		%REC	70-145	7.7	1	304299	12/30/22	12/30/22	LYZ
Toluene-d8	98%		%REC	70-145	1.2	1	304299	12/30/22	12/30/22	LYZ
Bromofluorobenzene	104%		%REC	70-145	2.6	1	304299	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/03/23	TJW
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/03/23	TJW
Naphthalene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Fluorene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/03/23	TJW
Phenanthrene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Anthracene	ND		ug/Kg	10	4.0	1	304383	01/03/23	01/03/23	TJW
Fluoranthene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/03/23	TJW
Pyrene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/03/23	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/03/23	TJW
Chrysene	ND		ug/Kg	10	3.4	1	304383	01/03/23	01/03/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/03/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/03/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304383	01/03/23	01/03/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/03/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	86%	E	%REC	27-125		1	304383	01/03/23	01/03/23	TJW
2-Fluorobiphenyl	78%	E	%REC	30-120		1	304383	01/03/23	01/03/23	TJW
Terphenyl-d14	119%	E	%REC	33-155		1	304383	01/03/23	01/03/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	250	69	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 476113

476113-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	250	45	1	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	87%		%REC	29-120		1	304382	01/03/23	01/03/23	HQN
Phenol-d6	96%		%REC	30-120		1	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	89%		%REC	32-120		1	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	88%		%REC	33-120		1	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	79%		%REC	39-120		1	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	99%		%REC	44-125		1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: A2-5	Lab ID: 476113-010	Collected: 12/28/22 12:30
	Matrix: Soil	

476113-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**1.5**	B,J	mg/Kg	2.9	0.50	0.97	304325	12/30/22	01/03/23	SBW
Arsenic	**4.1**		mg/Kg	0.97	0.24	0.97	304325	12/30/22	01/03/23	SBW
Barium	**63**		mg/Kg	0.97	0.078	0.97	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.49	0.33	0.97	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.49	0.065	0.97	304325	12/30/22	01/03/23	SBW
Chromium	**14**		mg/Kg	0.97	0.072	0.97	304325	12/30/22	01/03/23	SBW
Cobalt	**4.9**		mg/Kg	0.49	0.13	0.97	304325	12/30/22	01/03/23	SBW
Copper	**10**		mg/Kg	0.97	0.25	0.97	304325	12/30/22	01/03/23	SBW
Lead	**5.0**		mg/Kg	0.97	0.42	0.97	304325	12/30/22	01/04/23	SBW
Molybdenum	**1.6**		mg/Kg	0.97	0.18	0.97	304325	12/30/22	01/05/23	SBW
Nickel	**9.6**		mg/Kg	0.97	0.26	0.97	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	2.9	0.33	0.97	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.49	0.12	0.97	304325	12/30/22	01/03/23	SBW
Thallium	**1.1**	J	mg/Kg	2.9	0.56	0.97	304325	12/30/22	01/03/23	SBW
Vanadium	**34**		mg/Kg	0.97	0.31	0.97	304325	12/30/22	01/03/23	SBW
Zinc	**45**		mg/Kg	4.9	0.27	0.97	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.15	0.0054	1.1	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	88%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304372	01/02/23	01/02/23	LYZ
Freon 12	ND		ug/Kg	5.0	1.2	1	304372	01/02/23	01/02/23	LYZ
Chloromethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Bromomethane	ND		ug/Kg	5.0	1.5	1	304372	01/02/23	01/02/23	LYZ
Chloroethane	ND		ug/Kg	5.0	1.2	1	304372	01/02/23	01/02/23	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304372	01/02/23	01/02/23	LYZ
Acetone	ND		ug/Kg	100	20	1	304372	01/02/23	01/02/23	LYZ
Freon 113	ND		ug/Kg	5.0	1.1	1	304372	01/02/23	01/02/23	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Methylene Chloride	**3.9**	J	ug/Kg	5.0	1.8	1	304372	01/02/23	01/02/23	LYZ
MTBE	ND		ug/Kg	5.0	1.1	1	304372	01/02/23	01/02/23	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304372	01/02/23	01/02/23	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304372	01/02/23	01/02/23	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Chloroform	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Benzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Dibromomethane	ND		ug/Kg	5.0	1.2	1	304372	01/02/23	01/02/23	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304372	01/02/23	01/02/23	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304372	01/02/23	01/02/23	LYZ
Toluene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304372	01/02/23	01/02/23	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304372	01/02/23	01/02/23	LYZ
o-Xylene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Styrene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Bromoform	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304372	01/02/23	01/02/23	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
Naphthalene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304372	01/02/23	01/02/23	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304372	01/02/23	01/02/23	LYZ
Xylene (total)	ND		ug/Kg	5.0		1	304372	01/02/23	01/02/23	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	98%		%REC	70-145	6.1	1	304372	01/02/23	01/02/23	LYZ
1,2-Dichloroethane-d4	98%		%REC	70-145	7.7	1	304372	01/02/23	01/02/23	LYZ
Toluene-d8	96%		%REC	70-145	1.2	1	304372	01/02/23	01/02/23	LYZ
Bromofluorobenzene	104%		%REC	70-145	2.6	1	304372	01/02/23	01/02/23	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	9.9	3.7	0.99	304383	01/03/23	01/03/23	TJW
2-Methylnaphthalene	ND		ug/Kg	9.9	4.5	0.99	304383	01/03/23	01/03/23	TJW
Naphthalene	ND		ug/Kg	9.9	4.9	0.99	304383	01/03/23	01/03/23	TJW
Acenaphthylene	ND		ug/Kg	9.9	4.0	0.99	304383	01/03/23	01/03/23	TJW
Acenaphthene	ND		ug/Kg	9.9	4.1	0.99	304383	01/03/23	01/03/23	TJW
Fluorene	ND		ug/Kg	9.9	4.5	0.99	304383	01/03/23	01/03/23	TJW
Phenanthrene	ND		ug/Kg	9.9	5.0	0.99	304383	01/03/23	01/03/23	TJW
Anthracene	ND		ug/Kg	9.9	4.0	0.99	304383	01/03/23	01/03/23	TJW
Fluoranthene	ND		ug/Kg	9.9	4.5	0.99	304383	01/03/23	01/03/23	TJW
Pyrene	ND		ug/Kg	9.9	4.9	0.99	304383	01/03/23	01/03/23	TJW
Benzo(a)anthracene	ND		ug/Kg	9.9	4.1	0.99	304383	01/03/23	01/03/23	TJW
Chrysene	ND		ug/Kg	9.9	3.4	0.99	304383	01/03/23	01/03/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	9.9	5.0	0.99	304383	01/03/23	01/03/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	9.9	4.7	0.99	304383	01/03/23	01/03/23	TJW
Benzo(a)pyrene	ND		ug/Kg	9.9	4.7	0.99	304383	01/03/23	01/03/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	4.7	0.99	304383	01/03/23	01/03/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	5.2	0.99	304383	01/03/23	01/03/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	4.7	0.99	304383	01/03/23	01/03/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	75%	E	%REC	27-125		0.99	304383	01/03/23	01/03/23	TJW
2-Fluorobiphenyl	70%	E	%REC	30-120		0.99	304383	01/03/23	01/03/23	TJW
Terphenyl-d14	101%	E	%REC	33-155		0.99	304383	01/03/23	01/03/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	63	0.99	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	250	110	0.99	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	84	0.99	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	250	69	0.99	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	0.99	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	88	0.99	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	250	74	0.99	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	71	0.99	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	0.99	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	0.99	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	250	70	0.99	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	0.99	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	70	0.99	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	250	78	0.99	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	0.99	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	250	67	0.99	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	60	0.99	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	0.99	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	0.99	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	0.99	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	250	64	0.99	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	0.99	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	0.99	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	0.99	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	0.99	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	0.99	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	0.99	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	0.99	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	250	56	0.99	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	250	83	0.99	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	0.99	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	0.99	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	250	49	0.99	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	0.99	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	0.99	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	0.99	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	250	57	0.99	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	250	43	0.99	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	0.99	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	0.99	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	0.99	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	0.99	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	250	45	0.99	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	0.99	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	250	53	0.99	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	1,200	81	0.99	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	250	44	0.99	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	48	0.99	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	0.99	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	0.99	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	250	56	0.99	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	0.99	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	0.99	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	0.99	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	0.99	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	0.99	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	0.99	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	81%		%REC	29-120		0.99	304382	01/03/23	01/03/23	HQN
Phenol-d6	86%		%REC	30-120		0.99	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	76%		%REC	32-120		0.99	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	76%		%REC	33-120		0.99	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	69%		%REC	39-120		0.99	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	83%		%REC	44-125		0.99	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: A2-10	Lab ID: 476113-011	Collected: 12/28/22 12:37
	Matrix: Soil	

476113-011 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**4.6**	B	mg/Kg	2.9	0.50	0.96	304325	12/30/22	01/03/23	SBW
Arsenic	**14**		mg/Kg	0.96	0.24	0.96	304325	12/30/22	01/03/23	SBW
Barium	**270**		mg/Kg	0.96	0.078	0.96	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.48	0.33	0.96	304325	12/30/22	01/03/23	SBW
Cadmium	**2.8**		mg/Kg	0.48	0.064	0.96	304325	12/30/22	01/03/23	SBW
Chromium	**31**		mg/Kg	0.96	0.071	0.96	304325	12/30/22	01/03/23	SBW
Cobalt	**8.9**		mg/Kg	0.48	0.13	0.96	304325	12/30/22	01/03/23	SBW
Copper	**390**		mg/Kg	0.96	0.25	0.96	304325	12/30/22	01/03/23	SBW
Lead	**350**		mg/Kg	0.96	0.42	0.96	304325	12/30/22	01/04/23	SBW
Molybdenum	**5.0**		mg/Kg	0.96	0.18	0.96	304325	12/30/22	01/05/23	SBW
Nickel	**33**		mg/Kg	0.96	0.26	0.96	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	2.9	0.33	0.96	304325	12/30/22	01/03/23	SBW
Silver	**1.2**		mg/Kg	0.48	0.12	0.96	304325	12/30/22	01/03/23	SBW
Thallium	ND		mg/Kg	2.9	0.55	0.96	304325	12/30/22	01/03/23	SBW
Vanadium	**25**		mg/Kg	0.96	0.30	0.96	304325	12/30/22	01/03/23	SBW
Zinc	**720**		mg/Kg	4.8	0.26	0.96	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.36**		mg/Kg	0.16	0.0056	1.1	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	20		2	304394	01/03/23	01/03/23	SME
DRO C10-C28	**24**		mg/Kg	20		2	304394	01/03/23	01/03/23	SME
ORO C28-C44	**91**		mg/Kg	40		2	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	94%		%REC	70-130		2	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	4.8	1.2	0.96	304372	01/03/23	01/03/23	LYZ
Freon 12	ND		ug/Kg	4.8	1.2	0.96	304372	01/03/23	01/03/23	LYZ
Chloromethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Vinyl Chloride	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Bromomethane	ND		ug/Kg	4.8	1.4	0.96	304372	01/03/23	01/03/23	LYZ
Chloroethane	ND		ug/Kg	4.8	1.1	0.96	304372	01/03/23	01/03/23	LYZ
Trichlorofluoromethane	ND		ug/Kg	4.8	1.1	0.96	304372	01/03/23	01/03/23	LYZ
Acetone	**32**	J	ug/Kg	96	19	0.96	304372	01/03/23	01/03/23	LYZ
Freon 113	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Methylene Chloride	**2.5**	J	ug/Kg	4.8	1.8	0.96	304372	01/03/23	01/03/23	LYZ
MTBE	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-011 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
2-Butanone	ND		ug/Kg	96	19	0.96	304372	01/03/23	01/03/23	LYZ
cis-1,2-Dichloroethene	**2.6**	J	ug/Kg	4.8	1.1	0.96	304372	01/03/23	01/03/23	LYZ
2,2-Dichloropropane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Chloroform	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Bromochloromethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1-Dichloropropene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Carbon Tetrachloride	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Benzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Trichloroethene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dichloropropane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Bromodichloromethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Dibromomethane	ND		ug/Kg	4.8	1.1	0.96	304372	01/03/23	01/03/23	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	4.8	1.7	0.96	304372	01/03/23	01/03/23	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	4.8	1.1	0.96	304372	01/03/23	01/03/23	LYZ
Toluene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,3-Dichloropropane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Tetrachloroethene	ND		ug/Kg	4.8	1.8	0.96	304372	01/03/23	01/03/23	LYZ
Dibromochloromethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dibromoethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Chlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Ethylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
m,p-Xylenes	ND		ug/Kg	9.6	1.3	0.96	304372	01/03/23	01/03/23	LYZ
o-Xylene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Styrene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Bromoform	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Isopropylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Propylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Bromobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
2-Chlorotoluene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
4-Chlorotoluene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
tert-Butylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
sec-Butylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
para-Isopropyl Toluene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-011 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	4.8	1.3	0.96	304372	01/03/23	01/03/23	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Hexachlorobutadiene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Naphthalene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	4.8	3.1	0.96	304372	01/03/23	01/03/23	LYZ
Xylene (total)	ND		ug/Kg	4.8		0.96	304372	01/03/23	01/03/23	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	97%		%REC	70-145	5.9	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane-d4	99%		%REC	70-145	7.4	0.96	304372	01/03/23	01/03/23	LYZ
Toluene-d8	98%		%REC	70-145	1.2	0.96	304372	01/03/23	01/03/23	LYZ
Bromofluorobenzene	105%		%REC	70-145	2.5	0.96	304372	01/03/23	01/03/23	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	40	15	4	304383	01/03/23	01/03/23	TJW
2-Methylnaphthalene	ND		ug/Kg	40	18	4	304383	01/03/23	01/03/23	TJW
Naphthalene	ND		ug/Kg	40	20	4	304383	01/03/23	01/03/23	TJW
Acenaphthylene	ND		ug/Kg	40	16	4	304383	01/03/23	01/03/23	TJW
Acenaphthene	ND		ug/Kg	40	16	4	304383	01/03/23	01/03/23	TJW
Fluorene	ND		ug/Kg	40	18	4	304383	01/03/23	01/03/23	TJW
Phenanthrene	**21**	J	ug/Kg	40	20	4	304383	01/03/23	01/03/23	TJW
Anthracene	ND		ug/Kg	40	16	4	304383	01/03/23	01/03/23	TJW
Fluoranthene	**27**	J	ug/Kg	40	18	4	304383	01/03/23	01/03/23	TJW
Pyrene	**22**	J	ug/Kg	40	19	4	304383	01/03/23	01/03/23	TJW
Benzo(a)anthracene	ND		ug/Kg	40	16	4	304383	01/03/23	01/03/23	TJW
Chrysene	**15**	J	ug/Kg	40	14	4	304383	01/03/23	01/03/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	20	4	304383	01/03/23	01/03/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	40	19	4	304383	01/03/23	01/03/23	TJW
Benzo(a)pyrene	ND		ug/Kg	40	19	4	304383	01/03/23	01/03/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	19	4	304383	01/03/23	01/03/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	21	4	304383	01/03/23	01/03/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	40	19	4	304383	01/03/23	01/03/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	78%		%REC	27-125		4	304383	01/03/23	01/03/23	TJW
2-Fluorobiphenyl	82%		%REC	30-120		4	304383	01/03/23	01/03/23	TJW
Terphenyl-d14	107%	E	%REC	33-155		4	304383	01/03/23	01/03/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	990	200	4	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	990	250	4	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	990	420	4	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	990	340	4	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	990	280	4	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-011 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	990	320	4	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	4,800	350	4	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	990	300	4	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	990	290	4	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	990	290	4	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	990	310	4	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	990	260	4	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	990	280	4	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	990	290	4	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	1,600	280	4	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	990	280	4	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	990	310	4	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	4,800	280	4	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	990	270	4	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	990	220	4	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	990	240	4	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	4,800	480	4	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	990	280	4	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	990	290	4	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	990	250	4	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	990	260	4	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	990	290	4	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	990	250	4	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	990	250	4	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	990	260	4	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	4,800	240	4	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	990	260	4	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	990	340	4	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	990	220	4	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	990	220	4	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	990	330	4	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	990	190	4	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	990	190	4	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	990	240	4	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	990	200	4	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	4,800	740	4	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	990	520	4	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	990	200	4	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	990	220	4	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	990	230	4	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	990	170	4	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	990	200	4	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	990	200	4	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	990	160	4	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	990	190	4	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	990	200	4	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-011 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	990	190	4	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	990	220	4	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	4,800	150	4	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	990	180	4	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	990	190	4	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	990	290	4	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	990	210	4	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	4,800	320	4	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	990	180	4	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	990	190	4	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	4,800	160	4	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	990	220	4	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	990	220	4	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	990	360	4	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	990	290	4	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	990	200	4	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	990	230	4	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	990	210	4	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	990	180	4	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	990	190	4	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	990	200	4	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	64%		%REC	29-120		4	304382	01/03/23	01/03/23	HQN
Phenol-d6	75%		%REC	30-120		4	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	80%		%REC	32-120		4	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	70%		%REC	33-120		4	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	68%		%REC	39-120		4	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	95%		%REC	44-125		4	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: A2-15	Lab ID: 476113-012	Collected: 12/28/22 12:47
	Matrix: Soil	

476113-012 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**32**		mg/Kg	3.0	0.52	1	304325	12/30/22	01/03/23	SBW
Arsenic	**24**		mg/Kg	1.0	0.25	1	304325	12/30/22	01/03/23	SBW
Barium	**280**		mg/Kg	1.0	0.081	1	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.50	0.34	1	304325	12/30/22	01/03/23	SBW
Cadmium	**1.7**		mg/Kg	0.50	0.067	1	304325	12/30/22	01/03/23	SBW
Chromium	**47**		mg/Kg	1.0	0.074	1	304325	12/30/22	01/03/23	SBW
Cobalt	**10**		mg/Kg	0.50	0.14	1	304325	12/30/22	01/03/23	SBW
Copper	**270**		mg/Kg	1.0	0.26	1	304325	12/30/22	01/03/23	SBW
Lead	**580**		mg/Kg	1.0	0.43	1	304325	12/30/22	01/04/23	SBW
Molybdenum	**8.3**		mg/Kg	1.0	0.18	1	304325	12/30/22	01/05/23	SBW
Nickel	**42**		mg/Kg	1.0	0.27	1	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	3.0	0.34	1	304325	12/30/22	01/03/23	SBW
Silver	**0.45**	J	mg/Kg	0.50	0.12	1	304325	12/30/22	01/03/23	SBW
Thallium	ND		mg/Kg	3.0	0.57	1	304325	12/30/22	01/03/23	SBW
Vanadium	**17**		mg/Kg	1.0	0.32	1	304325	12/30/22	01/03/23	SBW
Zinc	**4,600**		mg/Kg	5.0	0.28	1	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.17**		mg/Kg	0.14	0.0051	1	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	92%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.2	1.3	1	304372	01/03/23	01/03/23	LYZ
Freon 12	ND		ug/Kg	5.2	1.2	1	304372	01/03/23	01/03/23	LYZ
Chloromethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Vinyl Chloride	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromomethane	ND		ug/Kg	5.2	1.5	1	304372	01/03/23	01/03/23	LYZ
Chloroethane	ND		ug/Kg	5.2	1.2	1	304372	01/03/23	01/03/23	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.2	1.2	1	304372	01/03/23	01/03/23	LYZ
Acetone	ND		ug/Kg	100	21	1	304372	01/03/23	01/03/23	LYZ
Freon 113	ND		ug/Kg	5.2	1.1	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Methylene Chloride	**2.4**	J	ug/Kg	5.2	1.9	1	304372	01/03/23	01/03/23	LYZ
MTBE	ND		ug/Kg	5.2	1.1	1	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-012 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
2-Butanone	ND		ug/Kg	100	21	1	304372	01/03/23	01/03/23	LYZ
cis-1,2-Dichloroethene	**2.4**	J	ug/Kg	5.2	1.2	1	304372	01/03/23	01/03/23	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.2	1.1	1	304372	01/03/23	01/03/23	LYZ
Chloroform	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromochloromethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Benzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Trichloroethene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromodichloromethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Dibromomethane	ND		ug/Kg	5.2	1.2	1	304372	01/03/23	01/03/23	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.2	1.8	1	304372	01/03/23	01/03/23	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.2	1.2	1	304372	01/03/23	01/03/23	LYZ
Toluene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Tetrachloroethene	ND		ug/Kg	5.2	1.9	1	304372	01/03/23	01/03/23	LYZ
Dibromochloromethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Chlorobenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Ethylbenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304372	01/03/23	01/03/23	LYZ
o-Xylene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Styrene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromoform	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Isopropylbenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Propylbenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromobenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
2-Chlorotoluene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
4-Chlorotoluene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
tert-Butylbenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
sec-Butylbenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-012 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.2	1.4	1	304372	01/03/23	01/03/23	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
Naphthalene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.2	1.0	1	304372	01/03/23	01/03/23	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.2	3.3	1	304372	01/03/23	01/03/23	LYZ
Xylene (total)	ND		ug/Kg	5.2		1	304372	01/03/23	01/03/23	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	97%		%REC	70-145	6.3	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane-d4	101%		%REC	70-145	7.9	1	304372	01/03/23	01/03/23	LYZ
Toluene-d8	97%		%REC	70-145	1.3	1	304372	01/03/23	01/03/23	LYZ
Bromofluorobenzene	104%		%REC	70-145	2.7	1	304372	01/03/23	01/03/23	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/04/23	HQN
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	HQN
Naphthalene	**6.1**	J	ug/Kg	10	4.9	1	304383	01/03/23	01/04/23	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	HQN
Fluorene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	HQN
Phenanthrene	**11**		ug/Kg	10	5.0	1	304383	01/03/23	01/04/23	HQN
Anthracene	ND		ug/Kg	10	4.0	1	304383	01/03/23	01/04/23	HQN
Fluoranthene	**22**		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	HQN
Pyrene	**19**		ug/Kg	10	4.9	1	304383	01/03/23	01/04/23	HQN
Benzo(a)anthracene	**10**		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	HQN
Chrysene	**16**		ug/Kg	10	3.4	1	304383	01/03/23	01/04/23	HQN
Benzo(b)fluoranthene	**14**		ug/Kg	10	5.0	1	304383	01/03/23	01/04/23	HQN
Benzo(k)fluoranthene	**10**		ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	HQN
Benzo(a)pyrene	**8.5**	J	ug/Kg	10	4.8	1	304383	01/03/23	01/04/23	HQN
Indeno(1,2,3-cd)pyrene	**8.6**	J	ug/Kg	10	4.8	1	304383	01/03/23	01/04/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304383	01/03/23	01/04/23	HQN
Benzo(g,h,i)perylene	**8.8**	J	ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	91%	E	%REC	27-125		1	304383	01/03/23	01/04/23	HQN
2-Fluorobiphenyl	86%	E	%REC	30-120		1	304383	01/03/23	01/04/23	HQN
Terphenyl-d14	118%	E	%REC	33-155		1	304383	01/03/23	01/04/23	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	84	1	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	250	69	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-012 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	250	70	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	1	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-012 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	250	44	1	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	88%		%REC	29-120		1	304382	01/03/23	01/03/23	HQN
Phenol-d6	100%		%REC	30-120		1	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	92%		%REC	32-120		1	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	89%		%REC	33-120		1	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	80%		%REC	39-120		1	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	105%		%REC	44-125		1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

Sample ID: A2-20	Lab ID: 476113-013	Collected: 12/28/22 12:57
	Matrix: Soil	

476113-013 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**7.5**		mg/Kg	2.9	0.50	0.97	304325	12/30/22	01/03/23	SBW
Arsenic	**23**		mg/Kg	0.97	0.24	0.97	304325	12/30/22	01/03/23	SBW
Barium	**430**		mg/Kg	0.97	0.078	0.97	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.49	0.33	0.97	304325	12/30/22	01/03/23	SBW
Cadmium	**3.4**		mg/Kg	0.49	0.065	0.97	304325	12/30/22	01/03/23	SBW
Chromium	**55**		mg/Kg	0.97	0.072	0.97	304325	12/30/22	01/03/23	SBW
Cobalt	**15**		mg/Kg	0.49	0.13	0.97	304325	12/30/22	01/03/23	SBW
Copper	**350**		mg/Kg	0.97	0.25	0.97	304325	12/30/22	01/03/23	SBW
Lead	**660**		mg/Kg	0.97	0.42	0.97	304325	12/30/22	01/04/23	SBW
Molybdenum	**5.6**		mg/Kg	0.97	0.18	0.97	304325	12/30/22	01/05/23	SBW
Nickel	**60**		mg/Kg	0.97	0.26	0.97	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	2.9	0.33	0.97	304325	12/30/22	01/03/23	SBW
Silver	**1.2**		mg/Kg	0.49	0.12	0.97	304325	12/30/22	01/03/23	SBW
Thallium	ND		mg/Kg	2.9	0.56	0.97	304325	12/30/22	01/03/23	SBW
Vanadium	**22**		mg/Kg	0.97	0.31	0.97	304325	12/30/22	01/03/23	SBW
Zinc	**1,200**		mg/Kg	4.9	0.27	0.97	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**1.0**		mg/Kg	0.16	0.0056	1.1	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	**12**		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	93%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	0.99	304464	01/04/23	01/04/23	ILK
Freon 12	ND		ug/Kg	5.0	1.2	0.99	304464	01/04/23	01/04/23	ILK
Chloromethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Vinyl Chloride	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Bromomethane	ND		ug/Kg	5.0	1.4	0.99	304464	01/04/23	01/04/23	ILK
Chloroethane	ND		ug/Kg	5.0	1.2	0.99	304464	01/04/23	01/04/23	ILK
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	0.99	304464	01/04/23	01/04/23	ILK
Acetone	ND		ug/Kg	99	20	0.99	304464	01/04/23	01/04/23	ILK
Freon 113	ND		ug/Kg	5.0	1.1	0.99	304464	01/04/23	01/04/23	ILK
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Methylene Chloride	ND		ug/Kg	5.0	1.8	0.99	304464	01/04/23	01/04/23	ILK
MTBE	ND		ug/Kg	5.0	1.1	0.99	304464	01/04/23	01/04/23	ILK

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-013 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
2-Butanone	ND		ug/Kg	99	20	0.99	304464	01/04/23	01/04/23	ILK
cis-1,2-Dichloroethene	**2.6**	J	ug/Kg	5.0	1.2	0.99	304464	01/04/23	01/04/23	ILK
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Chloroform	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Bromochloromethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Benzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Trichloroethene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Bromodichloromethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Dibromomethane	ND		ug/Kg	5.0	1.1	0.99	304464	01/04/23	01/04/23	ILK
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	0.99	304464	01/04/23	01/04/23	ILK
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	0.99	304464	01/04/23	01/04/23	ILK
Toluene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Tetrachloroethene	ND		ug/Kg	5.0	1.8	0.99	304464	01/04/23	01/04/23	ILK
Dibromochloromethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Chlorobenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Ethylbenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
m,p-Xylenes	ND		ug/Kg	9.9	1.3	0.99	304464	01/04/23	01/04/23	ILK
o-Xylene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Styrene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Bromoform	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Isopropylbenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Propylbenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Bromobenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-013 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	0.99	304464	01/04/23	01/04/23	ILK
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
Naphthalene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	0.99	304464	01/04/23	01/04/23	ILK
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	0.99	304464	01/04/23	01/04/23	ILK
Xylene (total)	ND		ug/Kg	5.0		0.99	304464	01/04/23	01/04/23	ILK
Surrogates				**Limits**						
Dibromofluoromethane	96%		%REC	70-145	6.1	0.99	304464	01/04/23	01/04/23	ILK
1,2-Dichloroethane-d4	98%		%REC	70-145	7.6	0.99	304464	01/04/23	01/04/23	ILK
Toluene-d8	96%		%REC	70-145	1.2	0.99	304464	01/04/23	01/04/23	ILK
Bromofluorobenzene	104%		%REC	70-145	2.6	0.99	304464	01/04/23	01/04/23	ILK

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/04/23	TJW
2-Methylnaphthalene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/04/23	TJW
Naphthalene	**14**		ug/Kg	10	4.9	1	304383	01/03/23	01/04/23	TJW
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	TJW
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	TJW
Fluorene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	TJW
Phenanthrene	**23**		ug/Kg	10	5.0	1	304383	01/03/23	01/04/23	TJW
Anthracene	**4.7**	J	ug/Kg	10	4.0	1	304383	01/03/23	01/04/23	TJW
Fluoranthene	**44**		ug/Kg	10	4.6	1	304383	01/03/23	01/04/23	TJW
Pyrene	**42**		ug/Kg	10	4.9	1	304383	01/03/23	01/04/23	TJW
Benzo(a)anthracene	**23**		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	TJW
Chrysene	**32**		ug/Kg	10	3.4	1	304383	01/03/23	01/04/23	TJW
Benzo(b)fluoranthene	**22**		ug/Kg	10	5.0	1	304383	01/03/23	01/04/23	TJW
Benzo(k)fluoranthene	**23**		ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	TJW
Benzo(a)pyrene	**21**		ug/Kg	10	4.8	1	304383	01/03/23	01/04/23	TJW
Indeno(1,2,3-cd)pyrene	**17**		ug/Kg	10	4.8	1	304383	01/03/23	01/04/23	TJW
Dibenz(a,h)anthracene	**5.4**	J	ug/Kg	10	5.2	1	304383	01/03/23	01/04/23	TJW
Benzo(g,h,i)perylene	**22**		ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	95%	E	%REC	27-125		1	304383	01/03/23	01/04/23	TJW
2-Fluorobiphenyl	91%	E	%REC	30-120		1	304383	01/03/23	01/04/23	TJW
Terphenyl-d14	117%	E	%REC	33-155		1	304383	01/03/23	01/04/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304382	01/03/23	01/03/23	HQN
Phenol	ND		ug/Kg	250	69	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-013 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/03/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/03/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/03/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304382	01/03/23	01/03/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/03/23	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	70	1	304382	01/03/23	01/03/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304382	01/03/23	01/03/23	HQN
Hexachloroethane	ND		ug/Kg	250	79	1	304382	01/03/23	01/03/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/03/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/03/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/03/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304382	01/03/23	01/03/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
4-Chloroaniline	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	63	1	304382	01/03/23	01/03/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/03/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/03/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304382	01/03/23	01/03/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304382	01/03/23	01/03/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304382	01/03/23	01/03/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/03/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304382	01/03/23	01/03/23	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/03/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/03/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/03/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
4-Nitroaniline	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/03/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	51	1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-013 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/03/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/03/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Anthracene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Benzidine	ND		ug/Kg	1,200	82	1	304382	01/03/23	01/03/23	HQN
Pyrene	ND		ug/Kg	250	45	1	304382	01/03/23	01/03/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/03/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/03/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/03/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304382	01/03/23	01/03/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/03/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	52	1	304382	01/03/23	01/03/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/03/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/03/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/03/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	48	1	304382	01/03/23	01/03/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304382	01/03/23	01/03/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	90%		%REC	29-120		1	304382	01/03/23	01/03/23	HQN
Phenol-d6	100%		%REC	30-120		1	304382	01/03/23	01/03/23	HQN
2,4,6-Tribromophenol	94%		%REC	32-120		1	304382	01/03/23	01/03/23	HQN
Nitrobenzene-d5	92%		%REC	33-120		1	304382	01/03/23	01/03/23	HQN
2-Fluorobiphenyl	82%		%REC	39-120		1	304382	01/03/23	01/03/23	HQN
Terphenyl-d14	113%		%REC	44-125		1	304382	01/03/23	01/03/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

Sample ID: A2-25	Lab ID: 476113-014	Collected: 12/28/22 13:07
	Matrix: Soil	

476113-014 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**0.59**	B,J	mg/Kg	2.9	0.49	0.95	304325	12/30/22	01/03/23	SBW
Arsenic	**2.5**		mg/Kg	0.95	0.23	0.95	304325	12/30/22	01/03/23	SBW
Barium	**27**		mg/Kg	0.95	0.077	0.95	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.48	0.32	0.95	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.48	0.064	0.95	304325	12/30/22	01/03/23	SBW
Chromium	**7.1**		mg/Kg	0.95	0.071	0.95	304325	12/30/22	01/03/23	SBW
Cobalt	**2.1**		mg/Kg	0.48	0.13	0.95	304325	12/30/22	01/03/23	SBW
Copper	**9.5**		mg/Kg	0.95	0.25	0.95	304325	12/30/22	01/03/23	SBW
Lead	**11**		mg/Kg	0.95	0.41	0.95	304325	12/30/22	01/04/23	SBW
Molybdenum	ND		mg/Kg	0.95	0.35	0.95	304325	12/30/22	01/03/23	SBW
Nickel	**5.7**		mg/Kg	0.95	0.26	0.95	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	2.9	0.33	0.95	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.48	0.12	0.95	304325	12/30/22	01/03/23	SBW
Thallium	ND		mg/Kg	2.9	0.55	0.95	304325	12/30/22	01/03/23	SBW
Vanadium	**16**		mg/Kg	0.95	0.30	0.95	304325	12/30/22	01/03/23	SBW
Zinc	**34**		mg/Kg	4.8	0.26	0.95	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.049**	J	mg/Kg	0.17	0.0060	1.2	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	91%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	1.3	1	304464	01/04/23	01/04/23	ILK
Freon 12	ND		ug/Kg	5.0	1.2	1	304464	01/04/23	01/04/23	ILK
Chloromethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Vinyl Chloride	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Bromomethane	ND		ug/Kg	5.0	1.5	1	304464	01/04/23	01/04/23	ILK
Chloroethane	ND		ug/Kg	5.0	1.2	1	304464	01/04/23	01/04/23	ILK
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	1	304464	01/04/23	01/04/23	ILK
Acetone	ND		ug/Kg	100	20	1	304464	01/04/23	01/04/23	ILK
Freon 113	ND		ug/Kg	5.0	1.1	1	304464	01/04/23	01/04/23	ILK
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Methylene Chloride	ND		ug/Kg	5.0	1.8	1	304464	01/04/23	01/04/23	ILK
MTBE	ND		ug/Kg	5.0	1.1	1	304464	01/04/23	01/04/23	ILK

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-014 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
2-Butanone	ND		ug/Kg	100	20	1	304464	01/04/23	01/04/23	ILK
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	1	304464	01/04/23	01/04/23	ILK
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Chloroform	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Bromochloromethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Benzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Trichloroethene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Bromodichloromethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Dibromomethane	ND		ug/Kg	5.0	1.1	1	304464	01/04/23	01/04/23	ILK
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	1	304464	01/04/23	01/04/23	ILK
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	1	304464	01/04/23	01/04/23	ILK
Toluene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Tetrachloroethene	ND		ug/Kg	5.0	1.9	1	304464	01/04/23	01/04/23	ILK
Dibromochloromethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Chlorobenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Ethylbenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
m,p-Xylenes	ND		ug/Kg	10	1.3	1	304464	01/04/23	01/04/23	ILK
o-Xylene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Styrene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Bromoform	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Isopropylbenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Propylbenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Bromobenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-014 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	1	304464	01/04/23	01/04/23	ILK
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
Naphthalene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	1	304464	01/04/23	01/04/23	ILK
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	1	304464	01/04/23	01/04/23	ILK
Xylene (total)	ND		ug/Kg	5.0		1	304464	01/04/23	01/04/23	ILK
Surrogates				**Limits**						
Dibromofluoromethane	96%		%REC	70-145	6.1	1	304464	01/04/23	01/04/23	ILK
1,2-Dichloroethane-d4	95%		%REC	70-145	7.7	1	304464	01/04/23	01/04/23	ILK
Toluene-d8	97%		%REC	70-145	1.2	1	304464	01/04/23	01/04/23	ILK
Bromofluorobenzene	102%		%REC	70-145	2.6	1	304464	01/04/23	01/04/23	ILK

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/04/23	HQN
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	HQN
Naphthalene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/04/23	HQN
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	HQN
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	HQN
Fluorene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	HQN
Phenanthrene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/04/23	HQN
Anthracene	ND		ug/Kg	10	4.0	1	304383	01/03/23	01/04/23	HQN
Fluoranthene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	HQN
Pyrene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/04/23	HQN
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	HQN
Chrysene	ND		ug/Kg	10	3.4	1	304383	01/03/23	01/04/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/04/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	HQN
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/04/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304383	01/03/23	01/04/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	83%	E	%REC	27-125		1	304383	01/03/23	01/04/23	HQN
2-Fluorobiphenyl	75%	E	%REC	30-120		1	304383	01/03/23	01/04/23	HQN
Terphenyl-d14	109%	E	%REC	33-155		1	304383	01/03/23	01/04/23	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/04/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/04/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	84	1	304382	01/03/23	01/04/23	HQN
Phenol	ND		ug/Kg	250	69	1	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-014 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/04/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/04/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304382	01/03/23	01/04/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/04/23	HQN
2-Methylphenol	ND		ug/Kg	250	70	1	304382	01/03/23	01/04/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/04/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304382	01/03/23	01/04/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	70	1	304382	01/03/23	01/04/23	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304382	01/03/23	01/04/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/04/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/04/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/04/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/04/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	1	304382	01/03/23	01/04/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/04/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304382	01/03/23	01/04/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/04/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/04/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304382	01/03/23	01/04/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
2-Nitroaniline	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
Dimethylphthalate	ND		ug/Kg	250	83	1	304382	01/03/23	01/04/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/04/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/04/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304382	01/03/23	01/04/23	HQN
Acenaphthene	ND		ug/Kg	250	49	1	304382	01/03/23	01/04/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/04/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/04/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/04/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304382	01/03/23	01/04/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/04/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	1	304382	01/03/23	01/04/23	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304382	01/03/23	01/04/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/04/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/04/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-014 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	1	304382	01/03/23	01/04/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/04/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/04/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/04/23	HQN
Anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/04/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/04/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/04/23	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304382	01/03/23	01/04/23	HQN
Pyrene	ND		ug/Kg	250	44	1	304382	01/03/23	01/04/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/04/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/04/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304382	01/03/23	01/04/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304382	01/03/23	01/04/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/04/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/04/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/04/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/04/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	1	304382	01/03/23	01/04/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	87%		%REC	29-120		1	304382	01/03/23	01/04/23	HQN
Phenol-d6	94%		%REC	30-120		1	304382	01/03/23	01/04/23	HQN
2,4,6-Tribromophenol	91%		%REC	32-120		1	304382	01/03/23	01/04/23	HQN
Nitrobenzene-d5	87%		%REC	33-120		1	304382	01/03/23	01/04/23	HQN
2-Fluorobiphenyl	77%		%REC	39-120		1	304382	01/03/23	01/04/23	HQN
Terphenyl-d14	99%		%REC	44-125		1	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: D2-5	Lab ID: 476113-015	Collected: 12/28/22 14:18
	Matrix: Soil	

476113-015 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**1.3**	B,J	mg/Kg	2.9	0.50	0.97	304325	12/30/22	01/03/23	SBW
Arsenic	**5.4**		mg/Kg	0.97	0.24	0.97	304325	12/30/22	01/03/23	SBW
Barium	**100**		mg/Kg	0.97	0.078	0.97	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.49	0.33	0.97	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.49	0.065	0.97	304325	12/30/22	01/03/23	SBW
Chromium	**17**		mg/Kg	0.97	0.072	0.97	304325	12/30/22	01/03/23	SBW
Cobalt	**6.0**		mg/Kg	0.49	0.13	0.97	304325	12/30/22	01/03/23	SBW
Copper	**19**		mg/Kg	0.97	0.25	0.97	304325	12/30/22	01/03/23	SBW
Lead	**17**		mg/Kg	0.97	0.42	0.97	304325	12/30/22	01/04/23	SBW
Molybdenum	**0.73**	J	mg/Kg	0.97	0.18	0.97	304325	12/30/22	01/05/23	SBW
Nickel	**13**		mg/Kg	0.97	0.26	0.97	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	2.9	0.33	0.97	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.49	0.12	0.97	304325	12/30/22	01/03/23	SBW
Thallium	**1.2**	J	mg/Kg	2.9	0.56	0.97	304325	12/30/22	01/03/23	SBW
Vanadium	**34**		mg/Kg	0.97	0.31	0.97	304325	12/30/22	01/03/23	SBW
Zinc	**61**		mg/Kg	4.9	0.27	0.97	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.055**	J	mg/Kg	0.14	0.0051	1	304370	12/30/22	01/03/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	**20**		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	**46**		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	90%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.1	1.3	1	304372	01/03/23	01/03/23	LYZ
Freon 12	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Chloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Vinyl Chloride	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromomethane	ND		ug/Kg	5.1	1.5	1	304372	01/03/23	01/03/23	LYZ
Chloroethane	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Acetone	ND		ug/Kg	100	20	1	304372	01/03/23	01/03/23	LYZ
Freon 113	ND		ug/Kg	5.1	1.1	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Methylene Chloride	**1.9**	J	ug/Kg	5.1	1.9	1	304372	01/03/23	01/03/23	LYZ
MTBE	ND		ug/Kg	5.1	1.1	1	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-015 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304372	01/03/23	01/03/23	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Chloroform	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromochloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Benzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Trichloroethene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromodichloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Dibromomethane	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.1	1.8	1	304372	01/03/23	01/03/23	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Toluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Tetrachloroethene	ND		ug/Kg	5.1	1.9	1	304372	01/03/23	01/03/23	LYZ
Dibromochloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Chlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Ethylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304372	01/03/23	01/03/23	LYZ
o-Xylene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Styrene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromoform	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Isopropylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Propylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
2-Chlorotoluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
4-Chlorotoluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
tert-Butylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
sec-Butylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-015 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.1	1.4	1	304372	01/03/23	01/03/23	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Naphthalene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.1	3.3	1	304372	01/03/23	01/03/23	LYZ
Xylene (total)	ND		ug/Kg	5.1		1	304372	01/03/23	01/03/23	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	100%		%REC	70-145	6.2	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane-d4	99%		%REC	70-145	7.8	1	304372	01/03/23	01/03/23	LYZ
Toluene-d8	97%		%REC	70-145	1.3	1	304372	01/03/23	01/03/23	LYZ
Bromofluorobenzene	105%		%REC	70-145	2.6	1	304372	01/03/23	01/03/23	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	99	37	9.9	304383	01/03/23	01/04/23	HQN
2-Methylnaphthalene	ND		ug/Kg	99	45	9.9	304383	01/03/23	01/04/23	HQN
Naphthalene	ND		ug/Kg	99	49	9.9	304383	01/03/23	01/04/23	HQN
Acenaphthylene	ND		ug/Kg	99	40	9.9	304383	01/03/23	01/04/23	HQN
Acenaphthene	ND		ug/Kg	99	41	9.9	304383	01/03/23	01/04/23	HQN
Fluorene	ND		ug/Kg	99	45	9.9	304383	01/03/23	01/04/23	HQN
Phenanthrene	ND		ug/Kg	99	50	9.9	304383	01/03/23	01/04/23	HQN
Anthracene	ND		ug/Kg	99	40	9.9	304383	01/03/23	01/04/23	HQN
Fluoranthene	ND		ug/Kg	99	45	9.9	304383	01/03/23	01/04/23	HQN
Pyrene	ND		ug/Kg	99	49	9.9	304383	01/03/23	01/04/23	HQN
Benzo(a)anthracene	ND		ug/Kg	99	41	9.9	304383	01/03/23	01/04/23	HQN
Chrysene	ND		ug/Kg	99	34	9.9	304383	01/03/23	01/04/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	99	50	9.9	304383	01/03/23	01/04/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	99	47	9.9	304383	01/03/23	01/04/23	HQN
Benzo(a)pyrene	ND		ug/Kg	99	47	9.9	304383	01/03/23	01/04/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	99	47	9.9	304383	01/03/23	01/04/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	99	52	9.9	304383	01/03/23	01/04/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	99	47	9.9	304383	01/03/23	01/04/23	HQN
Surrogates				**Limits**						
Nitrobenzene-d5	74%		%REC	27-125		9.9	304383	01/03/23	01/04/23	HQN
2-Fluorobiphenyl	76%		%REC	30-120		9.9	304383	01/03/23	01/04/23	HQN
Terphenyl-d14	105%		%REC	33-155		9.9	304383	01/03/23	01/04/23	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	2,500	500	9.9	304382	01/03/23	01/04/23	HQN
1-Methylnaphthalene	ND		ug/Kg	2,500	630	9.9	304382	01/03/23	01/04/23	HQN
Pyridine	ND		ug/Kg	2,500	1,100	9.9	304382	01/03/23	01/04/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	2,500	840	9.9	304382	01/03/23	01/04/23	HQN
Phenol	ND		ug/Kg	2,500	690	9.9	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-015 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	2,500	810	9.9	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	12,000	890	9.9	304382	01/03/23	01/04/23	HQN
2-Chlorophenol	ND		ug/Kg	2,500	740	9.9	304382	01/03/23	01/04/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	2,500	710	9.9	304382	01/03/23	01/04/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	2,500	720	9.9	304382	01/03/23	01/04/23	HQN
Benzyl alcohol	ND		ug/Kg	2,500	780	9.9	304382	01/03/23	01/04/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	2,500	650	9.9	304382	01/03/23	01/04/23	HQN
2-Methylphenol	ND		ug/Kg	2,500	700	9.9	304382	01/03/23	01/04/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	2,500	730	9.9	304382	01/03/23	01/04/23	HQN
3-,4-Methylphenol	ND		ug/Kg	4,000	690	9.9	304382	01/03/23	01/04/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	2,500	700	9.9	304382	01/03/23	01/04/23	HQN
Hexachloroethane	ND		ug/Kg	2,500	780	9.9	304382	01/03/23	01/04/23	HQN
Nitrobenzene	ND		ug/Kg	12,000	700	9.9	304382	01/03/23	01/04/23	HQN
Isophorone	ND		ug/Kg	2,500	670	9.9	304382	01/03/23	01/04/23	HQN
2-Nitrophenol	ND		ug/Kg	2,500	550	9.9	304382	01/03/23	01/04/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	2,500	600	9.9	304382	01/03/23	01/04/23	HQN
Benzoic acid	ND		ug/Kg	12,000	1,200	9.9	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	2,500	690	9.9	304382	01/03/23	01/04/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	2,500	720	9.9	304382	01/03/23	01/04/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	2,500	620	9.9	304382	01/03/23	01/04/23	HQN
Naphthalene	ND		ug/Kg	2,500	640	9.9	304382	01/03/23	01/04/23	HQN
4-Chloroaniline	ND		ug/Kg	2,500	720	9.9	304382	01/03/23	01/04/23	HQN
Hexachlorobutadiene	ND		ug/Kg	2,500	620	9.9	304382	01/03/23	01/04/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	2,500	620	9.9	304382	01/03/23	01/04/23	HQN
2-Methylnaphthalene	ND		ug/Kg	2,500	640	9.9	304382	01/03/23	01/04/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	12,000	610	9.9	304382	01/03/23	01/04/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	2,500	640	9.9	304382	01/03/23	01/04/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	2,500	860	9.9	304382	01/03/23	01/04/23	HQN
2-Chloronaphthalene	ND		ug/Kg	2,500	560	9.9	304382	01/03/23	01/04/23	HQN
2-Nitroaniline	ND		ug/Kg	2,500	560	9.9	304382	01/03/23	01/04/23	HQN
Dimethylphthalate	ND		ug/Kg	2,500	830	9.9	304382	01/03/23	01/04/23	HQN
Acenaphthylene	ND		ug/Kg	2,500	470	9.9	304382	01/03/23	01/04/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	2,500	480	9.9	304382	01/03/23	01/04/23	HQN
3-Nitroaniline	ND		ug/Kg	2,500	610	9.9	304382	01/03/23	01/04/23	HQN
Acenaphthene	ND		ug/Kg	2,500	490	9.9	304382	01/03/23	01/04/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	12,000	1,900	9.9	304382	01/03/23	01/04/23	HQN
4-Nitrophenol	ND		ug/Kg	2,500	1,300	9.9	304382	01/03/23	01/04/23	HQN
Dibenzofuran	ND		ug/Kg	2,500	510	9.9	304382	01/03/23	01/04/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	2,500	550	9.9	304382	01/03/23	01/04/23	HQN
Diethylphthalate	ND		ug/Kg	2,500	570	9.9	304382	01/03/23	01/04/23	HQN
Fluorene	ND		ug/Kg	2,500	430	9.9	304382	01/03/23	01/04/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	2,500	490	9.9	304382	01/03/23	01/04/23	HQN
4-Nitroaniline	ND		ug/Kg	2,500	500	9.9	304382	01/03/23	01/04/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	2,500	390	9.9	304382	01/03/23	01/04/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	2,500	480	9.9	304382	01/03/23	01/04/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	2,500	500	9.9	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-015 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	2,500	470	9.9	304382	01/03/23	01/04/23	HQN
Hexachlorobenzene	ND		ug/Kg	2,500	550	9.9	304382	01/03/23	01/04/23	HQN
Pentachlorophenol	ND		ug/Kg	12,000	370	9.9	304382	01/03/23	01/04/23	HQN
Phenanthrene	ND		ug/Kg	2,500	450	9.9	304382	01/03/23	01/04/23	HQN
Anthracene	ND		ug/Kg	2,500	470	9.9	304382	01/03/23	01/04/23	HQN
Di-n-butylphthalate	ND		ug/Kg	2,500	730	9.9	304382	01/03/23	01/04/23	HQN
Fluoranthene	ND		ug/Kg	2,500	530	9.9	304382	01/03/23	01/04/23	HQN
Benzidine	ND		ug/Kg	12,000	810	9.9	304382	01/03/23	01/04/23	HQN
Pyrene	ND		ug/Kg	2,500	440	9.9	304382	01/03/23	01/04/23	HQN
Butylbenzylphthalate	ND		ug/Kg	2,500	480	9.9	304382	01/03/23	01/04/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	12,000	400	9.9	304382	01/03/23	01/04/23	HQN
Benzo(a)anthracene	ND		ug/Kg	2,500	560	9.9	304382	01/03/23	01/04/23	HQN
Chrysene	ND		ug/Kg	2,500	560	9.9	304382	01/03/23	01/04/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	2,500	890	9.9	304382	01/03/23	01/04/23	HQN
Di-n-octylphthalate	ND		ug/Kg	2,500	720	9.9	304382	01/03/23	01/04/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	2,500	510	9.9	304382	01/03/23	01/04/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	2,500	570	9.9	304382	01/03/23	01/04/23	HQN
Benzo(a)pyrene	ND		ug/Kg	2,500	530	9.9	304382	01/03/23	01/04/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	2,500	460	9.9	304382	01/03/23	01/04/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	2,500	470	9.9	304382	01/03/23	01/04/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	2,500	490	9.9	304382	01/03/23	01/04/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	71%		%REC	29-120		9.9	304382	01/03/23	01/04/23	HQN
Phenol-d6	83%		%REC	30-120		9.9	304382	01/03/23	01/04/23	HQN
2,4,6-Tribromophenol	73%		%REC	32-120		9.9	304382	01/03/23	01/04/23	HQN
Nitrobenzene-d5	74%		%REC	33-120		9.9	304382	01/03/23	01/04/23	HQN
2-Fluorobiphenyl	71%		%REC	39-120		9.9	304382	01/03/23	01/04/23	HQN
Terphenyl-d14	90%		%REC	44-125		9.9	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: D2-10	Lab ID: 476113-016	Collected: 12/28/22 14:26
	Matrix: Soil	

476113-016 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**1.2**	B,J	mg/Kg	3.0	0.51	0.99	304325	12/30/22	01/03/23	SBW
Arsenic	**3.6**		mg/Kg	0.99	0.24	0.99	304325	12/30/22	01/03/23	SBW
Barium	**100**		mg/Kg	0.99	0.080	0.99	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.50	0.34	0.99	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.50	0.066	0.99	304325	12/30/22	01/03/23	SBW
Chromium	**15**		mg/Kg	0.99	0.073	0.99	304325	12/30/22	01/03/23	SBW
Cobalt	**5.4**		mg/Kg	0.50	0.14	0.99	304325	12/30/22	01/03/23	SBW
Copper	**19**		mg/Kg	0.99	0.26	0.99	304325	12/30/22	01/03/23	SBW
Lead	**25**		mg/Kg	0.99	0.43	0.99	304325	12/30/22	01/04/23	SBW
Molybdenum	ND		mg/Kg	0.99	0.36	0.99	304325	12/30/22	01/03/23	SBW
Nickel	**11**		mg/Kg	0.99	0.27	0.99	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	3.0	0.34	0.99	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.50	0.12	0.99	304325	12/30/22	01/03/23	SBW
Thallium	**1.2**	J	mg/Kg	3.0	0.57	0.99	304325	12/30/22	01/03/23	SBW
Vanadium	**35**		mg/Kg	0.99	0.31	0.99	304325	12/30/22	01/03/23	SBW
Zinc	**69**		mg/Kg	5.0	0.27	0.99	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	**0.0086**	J	mg/Kg	0.15	0.0055	1.1	304370	12/30/22	01/06/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	93%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	4.8	1.3	0.96	304372	01/03/23	01/03/23	LYZ
Freon 12	ND		ug/Kg	4.8	1.2	0.96	304372	01/03/23	01/03/23	LYZ
Chloromethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Vinyl Chloride	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Bromomethane	ND		ug/Kg	4.8	1.4	0.96	304372	01/03/23	01/03/23	LYZ
Chloroethane	ND		ug/Kg	4.8	1.1	0.96	304372	01/03/23	01/03/23	LYZ
Trichlorofluoromethane	ND		ug/Kg	4.8	1.1	0.96	304372	01/03/23	01/03/23	LYZ
Acetone	ND		ug/Kg	96	19	0.96	304372	01/03/23	01/03/23	LYZ
Freon 113	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Methylene Chloride	ND		ug/Kg	4.8	1.8	0.96	304372	01/03/23	01/03/23	LYZ
MTBE	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-016 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
2-Butanone	ND		ug/Kg	96	19	0.96	304372	01/03/23	01/03/23	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	4.8	1.1	0.96	304372	01/03/23	01/03/23	LYZ
2,2-Dichloropropane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Chloroform	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Bromochloromethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1-Dichloropropene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Carbon Tetrachloride	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Benzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Trichloroethene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dichloropropane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Bromodichloromethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Dibromomethane	ND		ug/Kg	4.8	1.1	0.96	304372	01/03/23	01/03/23	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	4.8	1.7	0.96	304372	01/03/23	01/03/23	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	4.8	1.1	0.96	304372	01/03/23	01/03/23	LYZ
Toluene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,3-Dichloropropane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Tetrachloroethene	ND		ug/Kg	4.8	1.8	0.96	304372	01/03/23	01/03/23	LYZ
Dibromochloromethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dibromoethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Chlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Ethylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
m,p-Xylenes	ND		ug/Kg	9.6	1.3	0.96	304372	01/03/23	01/03/23	LYZ
o-Xylene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Styrene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Bromoform	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Isopropylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Propylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Bromobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
2-Chlorotoluene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
4-Chlorotoluene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
tert-Butylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
sec-Butylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
para-Isopropyl Toluene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-016 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	4.8	1.3	0.96	304372	01/03/23	01/03/23	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Hexachlorobutadiene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
Naphthalene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	4.8	1.0	0.96	304372	01/03/23	01/03/23	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	4.8	3.1	0.96	304372	01/03/23	01/03/23	LYZ
Xylene (total)	ND		ug/Kg	4.8		0.96	304372	01/03/23	01/03/23	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	99%		%REC	70-145	5.9	0.96	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane-d4	99%		%REC	70-145	7.4	0.96	304372	01/03/23	01/03/23	LYZ
Toluene-d8	96%		%REC	70-145	1.2	0.96	304372	01/03/23	01/03/23	LYZ
Bromofluorobenzene	103%		%REC	70-145	2.5	0.96	304372	01/03/23	01/03/23	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	20	7.3	2	304383	01/03/23	01/04/23	TJW
2-Methylnaphthalene	ND		ug/Kg	20	9.0	2	304383	01/03/23	01/04/23	TJW
Naphthalene	ND		ug/Kg	20	9.8	2	304383	01/03/23	01/04/23	TJW
Acenaphthylene	ND		ug/Kg	20	8.1	2	304383	01/03/23	01/04/23	TJW
Acenaphthene	ND		ug/Kg	20	8.2	2	304383	01/03/23	01/04/23	TJW
Fluorene	ND		ug/Kg	20	9.0	2	304383	01/03/23	01/04/23	TJW
Phenanthrene	ND		ug/Kg	20	10	2	304383	01/03/23	01/04/23	TJW
Anthracene	ND		ug/Kg	20	8.0	2	304383	01/03/23	01/04/23	TJW
Fluoranthene	ND		ug/Kg	20	9.1	2	304383	01/03/23	01/04/23	TJW
Pyrene	ND		ug/Kg	20	9.8	2	304383	01/03/23	01/04/23	TJW
Benzo(a)anthracene	ND		ug/Kg	20	8.1	2	304383	01/03/23	01/04/23	TJW
Chrysene	ND		ug/Kg	20	6.8	2	304383	01/03/23	01/04/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	20	10	2	304383	01/03/23	01/04/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	20	9.4	2	304383	01/03/23	01/04/23	TJW
Benzo(a)pyrene	ND		ug/Kg	20	9.5	2	304383	01/03/23	01/04/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	20	9.5	2	304383	01/03/23	01/04/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	20	10	2	304383	01/03/23	01/04/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	20	9.3	2	304383	01/03/23	01/04/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	89%	E	%REC	27-125		2	304383	01/03/23	01/04/23	TJW
2-Fluorobiphenyl	77%	E	%REC	30-120		2	304383	01/03/23	01/04/23	TJW
Terphenyl-d14	98%	E	%REC	33-155		2	304383	01/03/23	01/04/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	500	100	2	304382	01/03/23	01/04/23	HQN
1-Methylnaphthalene	ND		ug/Kg	500	130	2	304382	01/03/23	01/04/23	HQN
Pyridine	ND		ug/Kg	500	210	2	304382	01/03/23	01/04/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	500	170	2	304382	01/03/23	01/04/23	HQN
Phenol	ND		ug/Kg	500	140	2	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-016 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	500	160	2	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	2,400	180	2	304382	01/03/23	01/04/23	HQN
2-Chlorophenol	ND		ug/Kg	500	150	2	304382	01/03/23	01/04/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	500	140	2	304382	01/03/23	01/04/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	500	140	2	304382	01/03/23	01/04/23	HQN
Benzyl alcohol	ND		ug/Kg	500	160	2	304382	01/03/23	01/04/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	500	130	2	304382	01/03/23	01/04/23	HQN
2-Methylphenol	ND		ug/Kg	500	140	2	304382	01/03/23	01/04/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	500	150	2	304382	01/03/23	01/04/23	HQN
3-,4-Methylphenol	ND		ug/Kg	800	140	2	304382	01/03/23	01/04/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	500	140	2	304382	01/03/23	01/04/23	HQN
Hexachloroethane	ND		ug/Kg	500	160	2	304382	01/03/23	01/04/23	HQN
Nitrobenzene	ND		ug/Kg	2,400	140	2	304382	01/03/23	01/04/23	HQN
Isophorone	ND		ug/Kg	500	130	2	304382	01/03/23	01/04/23	HQN
2-Nitrophenol	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	500	120	2	304382	01/03/23	01/04/23	HQN
Benzoic acid	ND		ug/Kg	2,400	240	2	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	500	140	2	304382	01/03/23	01/04/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	500	140	2	304382	01/03/23	01/04/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	500	120	2	304382	01/03/23	01/04/23	HQN
Naphthalene	ND		ug/Kg	500	130	2	304382	01/03/23	01/04/23	HQN
4-Chloroaniline	ND		ug/Kg	500	140	2	304382	01/03/23	01/04/23	HQN
Hexachlorobutadiene	ND		ug/Kg	500	120	2	304382	01/03/23	01/04/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	500	120	2	304382	01/03/23	01/04/23	HQN
2-Methylnaphthalene	ND		ug/Kg	500	130	2	304382	01/03/23	01/04/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	2,400	120	2	304382	01/03/23	01/04/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	500	130	2	304382	01/03/23	01/04/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	500	170	2	304382	01/03/23	01/04/23	HQN
2-Chloronaphthalene	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
2-Nitroaniline	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
Dimethylphthalate	ND		ug/Kg	500	170	2	304382	01/03/23	01/04/23	HQN
Acenaphthylene	ND		ug/Kg	500	94	2	304382	01/03/23	01/04/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	500	96	2	304382	01/03/23	01/04/23	HQN
3-Nitroaniline	ND		ug/Kg	500	120	2	304382	01/03/23	01/04/23	HQN
Acenaphthene	ND		ug/Kg	500	99	2	304382	01/03/23	01/04/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	2,400	370	2	304382	01/03/23	01/04/23	HQN
4-Nitrophenol	ND		ug/Kg	500	260	2	304382	01/03/23	01/04/23	HQN
Dibenzofuran	ND		ug/Kg	500	100	2	304382	01/03/23	01/04/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
Diethylphthalate	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
Fluorene	ND		ug/Kg	500	86	2	304382	01/03/23	01/04/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	500	99	2	304382	01/03/23	01/04/23	HQN
4-Nitroaniline	ND		ug/Kg	500	100	2	304382	01/03/23	01/04/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	500	78	2	304382	01/03/23	01/04/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	500	96	2	304382	01/03/23	01/04/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	500	100	2	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-016 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	500	95	2	304382	01/03/23	01/04/23	HQN
Hexachlorobenzene	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
Pentachlorophenol	ND		ug/Kg	2,400	73	2	304382	01/03/23	01/04/23	HQN
Phenanthrene	ND		ug/Kg	500	91	2	304382	01/03/23	01/04/23	HQN
Anthracene	ND		ug/Kg	500	94	2	304382	01/03/23	01/04/23	HQN
Di-n-butylphthalate	ND		ug/Kg	500	150	2	304382	01/03/23	01/04/23	HQN
Fluoranthene	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
Benzidine	ND		ug/Kg	2,400	160	2	304382	01/03/23	01/04/23	HQN
Pyrene	ND		ug/Kg	500	89	2	304382	01/03/23	01/04/23	HQN
Butylbenzylphthalate	ND		ug/Kg	500	97	2	304382	01/03/23	01/04/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	2,400	80	2	304382	01/03/23	01/04/23	HQN
Benzo(a)anthracene	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
Chrysene	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	500	180	2	304382	01/03/23	01/04/23	HQN
Di-n-octylphthalate	ND		ug/Kg	500	140	2	304382	01/03/23	01/04/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	500	100	2	304382	01/03/23	01/04/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
Benzo(a)pyrene	ND		ug/Kg	500	110	2	304382	01/03/23	01/04/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	500	92	2	304382	01/03/23	01/04/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	500	95	2	304382	01/03/23	01/04/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	500	99	2	304382	01/03/23	01/04/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	79%		%REC	29-120		2	304382	01/03/23	01/04/23	HQN
Phenol-d6	86%		%REC	30-120		2	304382	01/03/23	01/04/23	HQN
2,4,6-Tribromophenol	71%		%REC	32-120		2	304382	01/03/23	01/04/23	HQN
Nitrobenzene-d5	78%		%REC	33-120		2	304382	01/03/23	01/04/23	HQN
2-Fluorobiphenyl	71%		%REC	39-120		2	304382	01/03/23	01/04/23	HQN
Terphenyl-d14	92%		%REC	44-125		2	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: D2-15	Lab ID: 476113-017	Collected: 12/28/22 14:31
	Matrix: Soil	

476113-017 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.50	0.97	304325	12/30/22	01/03/23	SBW
Arsenic	**1.0**		mg/Kg	0.97	0.24	0.97	304325	12/30/22	01/03/23	SBW
Barium	**19**		mg/Kg	0.97	0.078	0.97	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.49	0.33	0.97	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.49	0.065	0.97	304325	12/30/22	01/03/23	SBW
Chromium	**11**		mg/Kg	0.97	0.072	0.97	304325	12/30/22	01/03/23	SBW
Cobalt	**1.9**		mg/Kg	0.49	0.13	0.97	304325	12/30/22	01/03/23	SBW
Copper	**4.5**		mg/Kg	0.97	0.25	0.97	304325	12/30/22	01/03/23	SBW
Lead	**1.4**		mg/Kg	0.97	0.42	0.97	304325	12/30/22	01/04/23	SBW
Molybdenum	ND		mg/Kg	0.97	0.36	0.97	304325	12/30/22	01/03/23	SBW
Nickel	**2.9**		mg/Kg	0.97	0.26	0.97	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	2.9	0.33	0.97	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.49	0.12	0.97	304325	12/30/22	01/03/23	SBW
Thallium	ND		mg/Kg	2.9	0.56	0.97	304325	12/30/22	01/03/23	SBW
Vanadium	**42**		mg/Kg	0.97	0.31	0.97	304325	12/30/22	01/03/23	SBW
Zinc	**13**		mg/Kg	4.9	0.27	0.97	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.16	0.0059	1.2	304370	12/30/22	01/06/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	88%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.1	1.3	1	304372	01/03/23	01/03/23	LYZ
Freon 12	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Chloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Vinyl Chloride	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromomethane	ND		ug/Kg	5.1	1.5	1	304372	01/03/23	01/03/23	LYZ
Chloroethane	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Acetone	ND		ug/Kg	100	20	1	304372	01/03/23	01/03/23	LYZ
Freon 113	ND		ug/Kg	5.1	1.1	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Methylene Chloride	ND		ug/Kg	5.1	1.9	1	304372	01/03/23	01/03/23	LYZ
MTBE	ND		ug/Kg	5.1	1.1	1	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-017 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304372	01/03/23	01/03/23	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Chloroform	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromochloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Benzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Trichloroethene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromodichloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Dibromomethane	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.1	1.8	1	304372	01/03/23	01/03/23	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Toluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Tetrachloroethene	ND		ug/Kg	5.1	1.9	1	304372	01/03/23	01/03/23	LYZ
Dibromochloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Chlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Ethylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304372	01/03/23	01/03/23	LYZ
o-Xylene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Styrene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromoform	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Isopropylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Propylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
2-Chlorotoluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
4-Chlorotoluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
tert-Butylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
sec-Butylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-017 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.1	1.4	1	304372	01/03/23	01/03/23	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Naphthalene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.1	3.3	1	304372	01/03/23	01/03/23	LYZ
Xylene (total)	ND		ug/Kg	5.1		1	304372	01/03/23	01/03/23	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	96%		%REC	70-145	6.2	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane-d4	95%		%REC	70-145	7.8	1	304372	01/03/23	01/03/23	LYZ
Toluene-d8	98%		%REC	70-145	1.3	1	304372	01/03/23	01/03/23	LYZ
Bromofluorobenzene	103%		%REC	70-145	2.6	1	304372	01/03/23	01/03/23	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/04/23	TJW
2-Methylnaphthalene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	TJW
Naphthalene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/04/23	TJW
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	TJW
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	TJW
Fluorene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	TJW
Phenanthrene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/04/23	TJW
Anthracene	ND		ug/Kg	10	4.0	1	304383	01/03/23	01/04/23	TJW
Fluoranthene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	TJW
Pyrene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/04/23	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	TJW
Chrysene	ND		ug/Kg	10	3.4	1	304383	01/03/23	01/04/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/04/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	TJW
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/04/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/04/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304383	01/03/23	01/04/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	87%	E	%REC	27-125		1	304383	01/03/23	01/04/23	TJW
2-Fluorobiphenyl	83%	E	%REC	30-120		1	304383	01/03/23	01/04/23	TJW
Terphenyl-d14	107%	E	%REC	33-155		1	304383	01/03/23	01/04/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/04/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/04/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	84	1	304382	01/03/23	01/04/23	HQN
Phenol	ND		ug/Kg	250	69	1	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-017 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	1	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/04/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/04/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304382	01/03/23	01/04/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/04/23	HQN
2-Methylphenol	ND		ug/Kg	250	70	1	304382	01/03/23	01/04/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/04/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	1	304382	01/03/23	01/04/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304382	01/03/23	01/04/23	HQN
Hexachloroethane	ND		ug/Kg	250	78	1	304382	01/03/23	01/04/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/04/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/04/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/04/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/04/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	1	304382	01/03/23	01/04/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/04/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
4-Chloroaniline	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	1	304382	01/03/23	01/04/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/04/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/04/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304382	01/03/23	01/04/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
2-Nitroaniline	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304382	01/03/23	01/04/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/04/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/04/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304382	01/03/23	01/04/23	HQN
Acenaphthene	ND		ug/Kg	250	49	1	304382	01/03/23	01/04/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/04/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/04/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/04/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
Diethylphthalate	ND		ug/Kg	250	57	1	304382	01/03/23	01/04/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/04/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	1	304382	01/03/23	01/04/23	HQN
4-Nitroaniline	ND		ug/Kg	250	50	1	304382	01/03/23	01/04/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/04/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/04/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	1	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-017 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	1	304382	01/03/23	01/04/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/04/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/04/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/04/23	HQN
Anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/04/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/04/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/04/23	HQN
Benzidine	ND		ug/Kg	1,200	81	1	304382	01/03/23	01/04/23	HQN
Pyrene	ND		ug/Kg	250	44	1	304382	01/03/23	01/04/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/04/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/04/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304382	01/03/23	01/04/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	1	304382	01/03/23	01/04/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/04/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/04/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/04/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	1	304382	01/03/23	01/04/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	1	304382	01/03/23	01/04/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	84%		%REC	29-120		1	304382	01/03/23	01/04/23	HQN
Phenol-d6	92%		%REC	30-120		1	304382	01/03/23	01/04/23	HQN
2,4,6-Tribromophenol	89%		%REC	32-120		1	304382	01/03/23	01/04/23	HQN
Nitrobenzene-d5	85%		%REC	33-120		1	304382	01/03/23	01/04/23	HQN
2-Fluorobiphenyl	74%		%REC	39-120		1	304382	01/03/23	01/04/23	HQN
Terphenyl-d14	97%		%REC	44-125		1	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: D2-20	Lab ID: 476113-018	Collected: 12/28/22 14:38
	Matrix: Soil	

476113-018 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	ND		mg/Kg	2.9	0.50	0.97	304325	12/30/22	01/03/23	SBW
Arsenic	**3.8**		mg/Kg	0.97	0.24	0.97	304325	12/30/22	01/03/23	SBW
Barium	**35**		mg/Kg	0.97	0.078	0.97	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.49	0.33	0.97	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.49	0.065	0.97	304325	12/30/22	01/03/23	SBW
Chromium	**4.6**		mg/Kg	0.97	0.072	0.97	304325	12/30/22	01/03/23	SBW
Cobalt	**2.8**		mg/Kg	0.49	0.13	0.97	304325	12/30/22	01/03/23	SBW
Copper	**4.7**		mg/Kg	0.97	0.25	0.97	304325	12/30/22	01/03/23	SBW
Lead	**1.8**		mg/Kg	0.97	0.42	0.97	304325	12/30/22	01/04/23	SBW
Molybdenum	ND		mg/Kg	0.97	0.36	0.97	304325	12/30/22	01/03/23	SBW
Nickel	**3.6**		mg/Kg	0.97	0.26	0.97	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	2.9	0.33	0.97	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.49	0.12	0.97	304325	12/30/22	01/03/23	SBW
Thallium	ND		mg/Kg	2.9	0.56	0.97	304325	12/30/22	01/03/23	SBW
Vanadium	**15**		mg/Kg	0.97	0.31	0.97	304325	12/30/22	01/03/23	SBW
Zinc	**30**		mg/Kg	4.9	0.27	0.97	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.14	0.0051	1	304370	12/30/22	01/06/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	86%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	4.9	1.3	0.99	304372	01/03/23	01/03/23	LYZ
Freon 12	ND		ug/Kg	4.9	1.2	0.99	304372	01/03/23	01/03/23	LYZ
Chloromethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Vinyl Chloride	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Bromomethane	ND		ug/Kg	4.9	1.4	0.99	304372	01/03/23	01/03/23	LYZ
Chloroethane	ND		ug/Kg	4.9	1.2	0.99	304372	01/03/23	01/03/23	LYZ
Trichlorofluoromethane	ND		ug/Kg	4.9	1.1	0.99	304372	01/03/23	01/03/23	LYZ
Acetone	ND		ug/Kg	99	20	0.99	304372	01/03/23	01/03/23	LYZ
Freon 113	ND		ug/Kg	4.9	1.1	0.99	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Methylene Chloride	ND		ug/Kg	4.9	1.8	0.99	304372	01/03/23	01/03/23	LYZ
MTBE	ND		ug/Kg	4.9	1.1	0.99	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-018 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
2-Butanone	ND		ug/Kg	99	20	0.99	304372	01/03/23	01/03/23	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	4.9	1.2	0.99	304372	01/03/23	01/03/23	LYZ
2,2-Dichloropropane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Chloroform	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Bromochloromethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,1-Dichloropropene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Carbon Tetrachloride	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Benzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Trichloroethene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,2-Dichloropropane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Bromodichloromethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Dibromomethane	ND		ug/Kg	4.9	1.1	0.99	304372	01/03/23	01/03/23	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	4.9	1.7	0.99	304372	01/03/23	01/03/23	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	4.9	1.2	0.99	304372	01/03/23	01/03/23	LYZ
Toluene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,3-Dichloropropane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Tetrachloroethene	ND		ug/Kg	4.9	1.8	0.99	304372	01/03/23	01/03/23	LYZ
Dibromochloromethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,2-Dibromoethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Chlorobenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Ethylbenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
m,p-Xylenes	ND		ug/Kg	9.9	1.3	0.99	304372	01/03/23	01/03/23	LYZ
o-Xylene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Styrene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Bromoform	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Isopropylbenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Propylbenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Bromobenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
2-Chlorotoluene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
4-Chlorotoluene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
tert-Butylbenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
sec-Butylbenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
para-Isopropyl Toluene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-018 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	4.9	1.4	0.99	304372	01/03/23	01/03/23	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Hexachlorobutadiene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
Naphthalene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	4.9	1.0	0.99	304372	01/03/23	01/03/23	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	4.9	3.2	0.99	304372	01/03/23	01/03/23	LYZ
Xylene (total)	ND		ug/Kg	4.9		0.99	304372	01/03/23	01/03/23	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	97%		%REC	70-145	6.0	0.99	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane-d4	99%		%REC	70-145	7.6	0.99	304372	01/03/23	01/03/23	LYZ
Toluene-d8	96%		%REC	70-145	1.2	0.99	304372	01/03/23	01/03/23	LYZ
Bromofluorobenzene	105%		%REC	70-145	2.5	0.99	304372	01/03/23	01/03/23	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	9.9	3.7	0.99	304383	01/03/23	01/04/23	TJW
2-Methylnaphthalene	ND		ug/Kg	9.9	4.5	0.99	304383	01/03/23	01/04/23	TJW
Naphthalene	ND		ug/Kg	9.9	4.9	0.99	304383	01/03/23	01/04/23	TJW
Acenaphthylene	ND		ug/Kg	9.9	4.0	0.99	304383	01/03/23	01/04/23	TJW
Acenaphthene	ND		ug/Kg	9.9	4.1	0.99	304383	01/03/23	01/04/23	TJW
Fluorene	ND		ug/Kg	9.9	4.5	0.99	304383	01/03/23	01/04/23	TJW
Phenanthrene	ND		ug/Kg	9.9	5.0	0.99	304383	01/03/23	01/04/23	TJW
Anthracene	ND		ug/Kg	9.9	4.0	0.99	304383	01/03/23	01/04/23	TJW
Fluoranthene	ND		ug/Kg	9.9	4.5	0.99	304383	01/03/23	01/04/23	TJW
Pyrene	ND		ug/Kg	9.9	4.9	0.99	304383	01/03/23	01/04/23	TJW
Benzo(a)anthracene	ND		ug/Kg	9.9	4.1	0.99	304383	01/03/23	01/04/23	TJW
Chrysene	ND		ug/Kg	9.9	3.4	0.99	304383	01/03/23	01/04/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	9.9	5.0	0.99	304383	01/03/23	01/04/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	9.9	4.7	0.99	304383	01/03/23	01/04/23	TJW
Benzo(a)pyrene	ND		ug/Kg	9.9	4.7	0.99	304383	01/03/23	01/04/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	4.7	0.99	304383	01/03/23	01/04/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	5.2	0.99	304383	01/03/23	01/04/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	4.6	0.99	304383	01/03/23	01/04/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	82%	E	%REC	27-125		0.99	304383	01/03/23	01/04/23	TJW
2-Fluorobiphenyl	80%	E	%REC	30-120		0.99	304383	01/03/23	01/04/23	TJW
Terphenyl-d14	106%	E	%REC	33-155		0.99	304383	01/03/23	01/04/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/04/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	63	0.99	304382	01/03/23	01/04/23	HQN
Pyridine	ND		ug/Kg	250	110	0.99	304382	01/03/23	01/04/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	84	0.99	304382	01/03/23	01/04/23	HQN
Phenol	ND		ug/Kg	250	69	0.99	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476113

476113-018 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	81	0.99	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	88	0.99	304382	01/03/23	01/04/23	HQN
2-Chlorophenol	ND		ug/Kg	250	74	0.99	304382	01/03/23	01/04/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	71	0.99	304382	01/03/23	01/04/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/04/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	0.99	304382	01/03/23	01/04/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	0.99	304382	01/03/23	01/04/23	HQN
2-Methylphenol	ND		ug/Kg	250	70	0.99	304382	01/03/23	01/04/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/04/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	69	0.99	304382	01/03/23	01/04/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	70	0.99	304382	01/03/23	01/04/23	HQN
Hexachloroethane	ND		ug/Kg	250	78	0.99	304382	01/03/23	01/04/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	0.99	304382	01/03/23	01/04/23	HQN
Isophorone	ND		ug/Kg	250	67	0.99	304382	01/03/23	01/04/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/04/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	60	0.99	304382	01/03/23	01/04/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	0.99	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	0.99	304382	01/03/23	01/04/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/04/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	61	0.99	304382	01/03/23	01/04/23	HQN
Naphthalene	ND		ug/Kg	250	64	0.99	304382	01/03/23	01/04/23	HQN
4-Chloroaniline	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/04/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	62	0.99	304382	01/03/23	01/04/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	0.99	304382	01/03/23	01/04/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	0.99	304382	01/03/23	01/04/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	60	0.99	304382	01/03/23	01/04/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	0.99	304382	01/03/23	01/04/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	0.99	304382	01/03/23	01/04/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	56	0.99	304382	01/03/23	01/04/23	HQN
2-Nitroaniline	ND		ug/Kg	250	56	0.99	304382	01/03/23	01/04/23	HQN
Dimethylphthalate	ND		ug/Kg	250	83	0.99	304382	01/03/23	01/04/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/04/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	0.99	304382	01/03/23	01/04/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	0.99	304382	01/03/23	01/04/23	HQN
Acenaphthene	ND		ug/Kg	250	49	0.99	304382	01/03/23	01/04/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	0.99	304382	01/03/23	01/04/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	0.99	304382	01/03/23	01/04/23	HQN
Dibenzofuran	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/04/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/04/23	HQN
Diethylphthalate	ND		ug/Kg	250	57	0.99	304382	01/03/23	01/04/23	HQN
Fluorene	ND		ug/Kg	250	43	0.99	304382	01/03/23	01/04/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	0.99	304382	01/03/23	01/04/23	HQN
4-Nitroaniline	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/04/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	0.99	304382	01/03/23	01/04/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	0.99	304382	01/03/23	01/04/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	0.99	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-018 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/04/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/04/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	0.99	304382	01/03/23	01/04/23	HQN
Phenanthrene	ND		ug/Kg	250	45	0.99	304382	01/03/23	01/04/23	HQN
Anthracene	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/04/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	0.99	304382	01/03/23	01/04/23	HQN
Fluoranthene	ND		ug/Kg	250	52	0.99	304382	01/03/23	01/04/23	HQN
Benzidine	ND		ug/Kg	1,200	81	0.99	304382	01/03/23	01/04/23	HQN
Pyrene	ND		ug/Kg	250	44	0.99	304382	01/03/23	01/04/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	48	0.99	304382	01/03/23	01/04/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	0.99	304382	01/03/23	01/04/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	0.99	304382	01/03/23	01/04/23	HQN
Chrysene	ND		ug/Kg	250	55	0.99	304382	01/03/23	01/04/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	0.99	304382	01/03/23	01/04/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	72	0.99	304382	01/03/23	01/04/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	51	0.99	304382	01/03/23	01/04/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	0.99	304382	01/03/23	01/04/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	0.99	304382	01/03/23	01/04/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	0.99	304382	01/03/23	01/04/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	0.99	304382	01/03/23	01/04/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	0.99	304382	01/03/23	01/04/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	89%		%REC	29-120		0.99	304382	01/03/23	01/04/23	HQN
Phenol-d6	102%		%REC	30-120		0.99	304382	01/03/23	01/04/23	HQN
2,4,6-Tribromophenol	93%		%REC	32-120		0.99	304382	01/03/23	01/04/23	HQN
Nitrobenzene-d5	91%		%REC	33-120		0.99	304382	01/03/23	01/04/23	HQN
2-Fluorobiphenyl	78%		%REC	39-120		0.99	304382	01/03/23	01/04/23	HQN
Terphenyl-d14	105%		%REC	44-125		0.99	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

Sample ID: D2-25	Lab ID: 476113-019	Collected: 12/28/22 14:44
	Matrix: Soil	

476113-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B										
Antimony	**0.69**	B,J	mg/Kg	2.9	0.50	0.97	304325	12/30/22	01/03/23	SBW
Arsenic	**2.1**		mg/Kg	0.97	0.24	0.97	304325	12/30/22	01/03/23	SBW
Barium	**22**		mg/Kg	0.97	0.078	0.97	304325	12/30/22	01/03/23	SBW
Beryllium	ND		mg/Kg	0.49	0.33	0.97	304325	12/30/22	01/03/23	SBW
Cadmium	ND		mg/Kg	0.49	0.065	0.97	304325	12/30/22	01/03/23	SBW
Chromium	**5.4**		mg/Kg	0.97	0.072	0.97	304325	12/30/22	01/03/23	SBW
Cobalt	**1.5**		mg/Kg	0.49	0.13	0.97	304325	12/30/22	01/03/23	SBW
Copper	**4.1**		mg/Kg	0.97	0.25	0.97	304325	12/30/22	01/03/23	SBW
Lead	**1.9**		mg/Kg	0.97	0.42	0.97	304325	12/30/22	01/04/23	SBW
Molybdenum	ND		mg/Kg	0.97	0.36	0.97	304325	12/30/22	01/03/23	SBW
Nickel	**3.8**		mg/Kg	0.97	0.26	0.97	304325	12/30/22	01/03/23	SBW
Selenium	ND		mg/Kg	2.9	0.33	0.97	304325	12/30/22	01/03/23	SBW
Silver	ND		mg/Kg	0.49	0.12	0.97	304325	12/30/22	01/03/23	SBW
Thallium	ND		mg/Kg	2.9	0.56	0.97	304325	12/30/22	01/03/23	SBW
Vanadium	**11**		mg/Kg	0.97	0.31	0.97	304325	12/30/22	01/03/23	SBW
Zinc	**27**		mg/Kg	4.9	0.27	0.97	304325	12/30/22	01/03/23	SBW
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.15	0.0053	1.1	304370	12/30/22	01/06/23	KLN
Method: EPA 8015B Prep Method: EPA 3580M										
GRO C8-C10	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
DRO C10-C28	ND		mg/Kg	10		1	304394	01/03/23	01/03/23	SME
ORO C28-C44	ND		mg/Kg	20		1	304394	01/03/23	01/03/23	SME
Surrogates				**Limits**						
n-Triacontane	86%		%REC	70-130		1	304394	01/03/23	01/03/23	SME
Method: EPA 8260B Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.1	1.3	1	304372	01/03/23	01/03/23	LYZ
Freon 12	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Chloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Vinyl Chloride	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromomethane	ND		ug/Kg	5.1	1.5	1	304372	01/03/23	01/03/23	LYZ
Chloroethane	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Acetone	ND		ug/Kg	100	20	1	304372	01/03/23	01/03/23	LYZ
Freon 113	ND		ug/Kg	5.1	1.1	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Methylene Chloride	ND		ug/Kg	5.1	1.9	1	304372	01/03/23	01/03/23	LYZ
MTBE	ND		ug/Kg	5.1	1.1	1	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
2-Butanone	ND		ug/Kg	100	20	1	304372	01/03/23	01/03/23	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Chloroform	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromochloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Benzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Trichloroethene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromodichloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Dibromomethane	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.1	1.8	1	304372	01/03/23	01/03/23	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.1	1.2	1	304372	01/03/23	01/03/23	LYZ
Toluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Tetrachloroethene	ND		ug/Kg	5.1	1.9	1	304372	01/03/23	01/03/23	LYZ
Dibromochloromethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Chlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Ethylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
m,p-Xylenes	ND		ug/Kg	10	1.4	1	304372	01/03/23	01/03/23	LYZ
o-Xylene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Styrene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromoform	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Isopropylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Propylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Bromobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
2-Chlorotoluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
4-Chlorotoluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
tert-Butylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
sec-Butylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.1	1.4	1	304372	01/03/23	01/03/23	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
Naphthalene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.1	1.0	1	304372	01/03/23	01/03/23	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.1	3.3	1	304372	01/03/23	01/03/23	LYZ
Xylene (total)	ND		ug/Kg	5.1		1	304372	01/03/23	01/03/23	LYZ
Surrogates				**Limits**						
Dibromofluoromethane	96%		%REC	70-145	6.3	1	304372	01/03/23	01/03/23	LYZ
1,2-Dichloroethane-d4	96%		%REC	70-145	7.9	1	304372	01/03/23	01/03/23	LYZ
Toluene-d8	98%		%REC	70-145	1.3	1	304372	01/03/23	01/03/23	LYZ
Bromofluorobenzene	104%		%REC	70-145	2.6	1	304372	01/03/23	01/03/23	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	3.7	1	304383	01/03/23	01/04/23	TJW
2-Methylnaphthalene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/04/23	TJW
Naphthalene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/04/23	TJW
Acenaphthylene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	TJW
Acenaphthene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	TJW
Fluorene	ND		ug/Kg	10	4.5	1	304383	01/03/23	01/04/23	TJW
Phenanthrene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/04/23	TJW
Anthracene	ND		ug/Kg	10	4.0	1	304383	01/03/23	01/04/23	TJW
Fluoranthene	ND		ug/Kg	10	4.6	1	304383	01/03/23	01/04/23	TJW
Pyrene	ND		ug/Kg	10	4.9	1	304383	01/03/23	01/04/23	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.1	1	304383	01/03/23	01/04/23	TJW
Chrysene	ND		ug/Kg	10	3.4	1	304383	01/03/23	01/04/23	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.0	1	304383	01/03/23	01/04/23	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	TJW
Benzo(a)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/04/23	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.8	1	304383	01/03/23	01/04/23	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	5.2	1	304383	01/03/23	01/04/23	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	4.7	1	304383	01/03/23	01/04/23	TJW
Surrogates				**Limits**						
Nitrobenzene-d5	77%	E	%REC	27-125		1	304383	01/03/23	01/04/23	TJW
2-Fluorobiphenyl	77%	E	%REC	30-120		1	304383	01/03/23	01/04/23	TJW
Terphenyl-d14	108%	E	%REC	33-155		1	304383	01/03/23	01/04/23	TJW

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	50	1	304382	01/03/23	01/04/23	HQN
1-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
Pyridine	ND		ug/Kg	250	110	1	304382	01/03/23	01/04/23	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	85	1	304382	01/03/23	01/04/23	HQN
Phenol	ND		ug/Kg	250	70	1	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	82	1	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	1	304382	01/03/23	01/04/23	HQN
2-Chlorophenol	ND		ug/Kg	250	75	1	304382	01/03/23	01/04/23	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	72	1	304382	01/03/23	01/04/23	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	73	1	304382	01/03/23	01/04/23	HQN
Benzyl alcohol	ND		ug/Kg	250	78	1	304382	01/03/23	01/04/23	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	65	1	304382	01/03/23	01/04/23	HQN
2-Methylphenol	ND		ug/Kg	250	71	1	304382	01/03/23	01/04/23	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	1	304382	01/03/23	01/04/23	HQN
3-,4-Methylphenol	ND		ug/Kg	400	70	1	304382	01/03/23	01/04/23	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	71	1	304382	01/03/23	01/04/23	HQN
Hexachloroethane	ND		ug/Kg	250	79	1	304382	01/03/23	01/04/23	HQN
Nitrobenzene	ND		ug/Kg	1,200	70	1	304382	01/03/23	01/04/23	HQN
Isophorone	ND		ug/Kg	250	67	1	304382	01/03/23	01/04/23	HQN
2-Nitrophenol	ND		ug/Kg	250	55	1	304382	01/03/23	01/04/23	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	61	1	304382	01/03/23	01/04/23	HQN
Benzoic acid	ND		ug/Kg	1,200	120	1	304382	01/03/23	01/04/23	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	70	1	304382	01/03/23	01/04/23	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	73	1	304382	01/03/23	01/04/23	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	1	304382	01/03/23	01/04/23	HQN
Naphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
4-Chloroaniline	ND		ug/Kg	250	73	1	304382	01/03/23	01/04/23	HQN
Hexachlorobutadiene	ND		ug/Kg	250	63	1	304382	01/03/23	01/04/23	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	1	304382	01/03/23	01/04/23	HQN
2-Methylnaphthalene	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	1	304382	01/03/23	01/04/23	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	1	304382	01/03/23	01/04/23	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	1	304382	01/03/23	01/04/23	HQN
2-Chloronaphthalene	ND		ug/Kg	250	57	1	304382	01/03/23	01/04/23	HQN
2-Nitroaniline	ND		ug/Kg	250	57	1	304382	01/03/23	01/04/23	HQN
Dimethylphthalate	ND		ug/Kg	250	84	1	304382	01/03/23	01/04/23	HQN
Acenaphthylene	ND		ug/Kg	250	47	1	304382	01/03/23	01/04/23	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	48	1	304382	01/03/23	01/04/23	HQN
3-Nitroaniline	ND		ug/Kg	250	61	1	304382	01/03/23	01/04/23	HQN
Acenaphthene	ND		ug/Kg	250	50	1	304382	01/03/23	01/04/23	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	1	304382	01/03/23	01/04/23	HQN
4-Nitrophenol	ND		ug/Kg	250	130	1	304382	01/03/23	01/04/23	HQN
Dibenzofuran	ND		ug/Kg	250	51	1	304382	01/03/23	01/04/23	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
Diethylphthalate	ND		ug/Kg	250	58	1	304382	01/03/23	01/04/23	HQN
Fluorene	ND		ug/Kg	250	43	1	304382	01/03/23	01/04/23	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	50	1	304382	01/03/23	01/04/23	HQN
4-Nitroaniline	ND		ug/Kg	250	51	1	304382	01/03/23	01/04/23	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	1	304382	01/03/23	01/04/23	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	1	304382	01/03/23	01/04/23	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	51	1	304382	01/03/23	01/04/23	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476113

476113-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	48	1	304382	01/03/23	01/04/23	HQN
Hexachlorobenzene	ND		ug/Kg	250	55	1	304382	01/03/23	01/04/23	HQN
Pentachlorophenol	ND		ug/Kg	1,200	37	1	304382	01/03/23	01/04/23	HQN
Phenanthrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/04/23	HQN
Anthracene	ND		ug/Kg	250	48	1	304382	01/03/23	01/04/23	HQN
Di-n-butylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/04/23	HQN
Fluoranthene	ND		ug/Kg	250	53	1	304382	01/03/23	01/04/23	HQN
Benzidine	ND		ug/Kg	1,200	82	1	304382	01/03/23	01/04/23	HQN
Pyrene	ND		ug/Kg	250	45	1	304382	01/03/23	01/04/23	HQN
Butylbenzylphthalate	ND		ug/Kg	250	49	1	304382	01/03/23	01/04/23	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	1	304382	01/03/23	01/04/23	HQN
Benzo(a)anthracene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
Chrysene	ND		ug/Kg	250	56	1	304382	01/03/23	01/04/23	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	1	304382	01/03/23	01/04/23	HQN
Di-n-octylphthalate	ND		ug/Kg	250	73	1	304382	01/03/23	01/04/23	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	52	1	304382	01/03/23	01/04/23	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	57	1	304382	01/03/23	01/04/23	HQN
Benzo(a)pyrene	ND		ug/Kg	250	53	1	304382	01/03/23	01/04/23	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	1	304382	01/03/23	01/04/23	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	48	1	304382	01/03/23	01/04/23	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	50	1	304382	01/03/23	01/04/23	HQN
Surrogates				**Limits**						
2-Fluorophenol	78%		%REC	29-120		1	304382	01/03/23	01/04/23	HQN
Phenol-d6	86%		%REC	30-120		1	304382	01/03/23	01/04/23	HQN
2,4,6-Tribromophenol	89%		%REC	32-120		1	304382	01/03/23	01/04/23	HQN
Nitrobenzene-d5	80%		%REC	33-120		1	304382	01/03/23	01/04/23	HQN
2-Fluorobiphenyl	70%		%REC	39-120		1	304382	01/03/23	01/04/23	HQN
Terphenyl-d14	106%		%REC	44-125		1	304382	01/03/23	01/04/23	HQN

B Contamination found in associated Method Blank
E Response exceeds instrument's linear range
J Estimated value
ND Not Detected

Results for any subcontracted analyses are not included in this section.

Batch QC

Type: Blank	Lab ID: QC1035317	Batch: 304246
Matrix: Miscell.	Method: EPA 6010B	Prep Method: EPA 3050B

QC1035317 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Antimony	ND		mg/Kg	3.0	0.78	12/29/22	12/30/22
Arsenic	ND		mg/Kg	1.0	0.47	12/29/22	12/30/22
Barium	ND		mg/Kg	1.0	0.12	12/29/22	12/30/22
Beryllium	ND		mg/Kg	0.50	0.030	12/29/22	12/30/22
Cadmium	ND		mg/Kg	0.50	0.036	12/29/22	12/30/22
Chromium	ND		mg/Kg	1.0	0.095	12/29/22	12/30/22
Cobalt	ND		mg/Kg	0.50	0.11	12/29/22	12/30/22
Copper	ND		mg/Kg	1.0	0.25	12/29/22	12/30/22
Lead	0.25	J	mg/Kg	1.0	0.14	12/29/22	12/30/22
Molybdenum	ND		mg/Kg	1.0	0.18	12/29/22	12/30/22
Nickel	ND		mg/Kg	1.0	0.18	12/29/22	12/30/22
Selenium	0.41	J	mg/Kg	3.0	0.37	12/29/22	12/30/22
Silver	ND		mg/Kg	0.50	0.25	12/29/22	12/30/22
Thallium	ND		mg/Kg	3.0	0.51	12/29/22	12/30/22
Vanadium	ND		mg/Kg	1.0	0.081	12/29/22	12/30/22
Zinc	ND		mg/Kg	5.0	0.17	12/29/22	12/30/22

Type: Lab Control Sample	Lab ID: QC1035318	Batch: 304246
Matrix: Miscell.	Method: EPA 6010B	Prep Method: EPA 3050B

QC1035318 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Antimony	93.43	100.0	mg/Kg	93%		80-120
Arsenic	90.24	100.0	mg/Kg	90%		80-120
Barium	92.32	100.0	mg/Kg	92%		80-120
Beryllium	95.99	100.0	mg/Kg	96%		80-120
Cadmium	92.01	100.0	mg/Kg	92%		80-120
Chromium	92.25	100.0	mg/Kg	92%		80-120
Cobalt	95.03	100.0	mg/Kg	95%		80-120
Copper	91.70	100.0	mg/Kg	92%		80-120
Lead	91.06	100.0	mg/Kg	91%		80-120
Molybdenum	96.20	100.0	mg/Kg	96%		80-120
Nickel	92.43	100.0	mg/Kg	92%		80-120
Selenium	83.49	100.0	mg/Kg	83%		80-120
Silver	44.36	50.00	mg/Kg	89%		80-120
Thallium	101.3	100.0	mg/Kg	101%		80-120
Vanadium	93.29	100.0	mg/Kg	93%		80-120
Zinc	92.90	100.0	mg/Kg	93%		80-120

Batch QC

Type:	Matrix Spike	Lab ID:	QC1035319	Batch:	304246
Matrix (Source ID):	Soil (476005-005)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1035319 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	70.33	ND	100.0	mg/Kg	70%	*	75-125	1
Arsenic	90.67	2.201	100.0	mg/Kg	88%		75-125	1
Barium	111.7	17.37	100.0	mg/Kg	94%		75-125	1
Beryllium	93.00	0.09725	100.0	mg/Kg	93%		75-125	1
Cadmium	87.78	ND	100.0	mg/Kg	88%		75-125	1
Chromium	93.15	4.615	100.0	mg/Kg	89%		75-125	1
Cobalt	92.86	1.444	100.0	mg/Kg	91%		75-125	1
Copper	96.88	3.274	100.0	mg/Kg	94%		75-125	1
Lead	87.76	1.100	100.0	mg/Kg	87%		75-125	1
Molybdenum	92.63	ND	100.0	mg/Kg	93%		75-125	1
Nickel	93.74	3.171	100.0	mg/Kg	91%		75-125	1
Selenium	80.85	ND	100.0	mg/Kg	81%		75-125	1
Silver	42.75	ND	50.00	mg/Kg	86%		75-125	1
Thallium	95.87	ND	100.0	mg/Kg	96%		75-125	1
Vanadium	107.0	11.18	100.0	mg/Kg	96%		75-125	1
Zinc	106.3	11.34	100.0	mg/Kg	95%		75-125	1

Type:	Matrix Spike Duplicate	Lab ID:	QC1035320	Batch:	304246
Matrix (Source ID):	Soil (476005-005)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1035320 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Antimony	72.04	ND	97.09	mg/Kg	74%	*	75-125	5	41	0.97
Arsenic	89.32	2.201	97.09	mg/Kg	90%		75-125	1	35	0.97
Barium	108.0	17.37	97.09	mg/Kg	93%		75-125	1	20	0.97
Beryllium	92.72	0.09725	97.09	mg/Kg	95%		75-125	3	20	0.97
Cadmium	88.02	ND	97.09	mg/Kg	91%		75-125	3	20	0.97
Chromium	92.09	4.615	97.09	mg/Kg	90%		75-125	2	20	0.97
Cobalt	91.94	1.444	97.09	mg/Kg	93%		75-125	2	20	0.97
Copper	92.95	3.274	97.09	mg/Kg	92%		75-125	1	20	0.97
Lead	87.09	1.100	97.09	mg/Kg	89%		75-125	2	20	0.97
Molybdenum	92.14	ND	97.09	mg/Kg	95%		75-125	2	20	0.97
Nickel	89.78	3.171	97.09	mg/Kg	89%		75-125	1	20	0.97
Selenium	81.77	ND	97.09	mg/Kg	84%		75-125	4	20	0.97
Silver	42.95	ND	48.54	mg/Kg	88%		75-125	3	20	0.97
Thallium	95.44	ND	97.09	mg/Kg	98%		75-125	3	20	0.97
Vanadium	102.8	11.18	97.09	mg/Kg	94%		75-125	1	20	0.97
Zinc	99.12	11.34	97.09	mg/Kg	90%		75-125	4	20	0.97

Batch QC

Type: Blank	Lab ID: QC1035619	Batch: 304325
Matrix: Miscell.	Method: EPA 6010B	Prep Method: EPA 3050B

QC1035619 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Antimony	0.54	J	mg/Kg	3.0	0.52	12/30/22	01/03/23
Arsenic	ND		mg/Kg	1.0	0.25	12/30/22	01/03/23
Barium	ND		mg/Kg	1.0	0.081	12/30/22	01/03/23
Beryllium	ND		mg/Kg	0.50	0.34	12/30/22	01/03/23
Cadmium	ND		mg/Kg	0.50	0.067	12/30/22	01/03/23
Chromium	ND		mg/Kg	1.0	0.074	12/30/22	01/03/23
Cobalt	ND		mg/Kg	0.50	0.14	12/30/22	01/03/23
Copper	ND		mg/Kg	1.0	0.26	12/30/22	01/03/23
Lead	ND		mg/Kg	1.0	0.43	12/30/22	01/04/23
Molybdenum	ND		mg/Kg	1.0	0.37	12/30/22	01/03/23
Nickel	ND		mg/Kg	1.0	0.27	12/30/22	01/03/23
Selenium	ND		mg/Kg	3.0	0.34	12/30/22	01/03/23
Silver	ND		mg/Kg	0.50	0.12	12/30/22	01/03/23
Thallium	ND		mg/Kg	3.0	0.57	12/30/22	01/03/23
Vanadium	ND		mg/Kg	1.0	0.32	12/30/22	01/03/23
Zinc	ND		mg/Kg	5.0	0.28	12/30/22	01/03/23

Type: Lab Control Sample	Lab ID: QC1035620	Batch: 304325
Matrix: Miscell.	Method: EPA 6010B	Prep Method: EPA 3050B

QC1035620 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Antimony	98.46	100.0	mg/Kg	98%		80-120
Arsenic	97.38	100.0	mg/Kg	97%		80-120
Barium	99.90	100.0	mg/Kg	100%		80-120
Beryllium	99.21	100.0	mg/Kg	99%		80-120
Cadmium	94.11	100.0	mg/Kg	94%		80-120
Chromium	99.26	100.0	mg/Kg	99%		80-120
Cobalt	102.1	100.0	mg/Kg	102%		80-120
Copper	95.53	100.0	mg/Kg	96%		80-120
Lead	110.8	100.0	mg/Kg	111%		80-120
Molybdenum	100.1	100.0	mg/Kg	100%		80-120
Nickel	98.79	100.0	mg/Kg	99%		80-120
Selenium	83.34	100.0	mg/Kg	83%		80-120
Silver	44.18	50.00	mg/Kg	88%		80-120
Thallium	100.7	100.0	mg/Kg	101%		80-120
Vanadium	94.86	100.0	mg/Kg	95%		80-120
Zinc	91.71	100.0	mg/Kg	92%		80-120

ENTHALPY ANALYTICAL

Batch QC

Type:	Matrix Spike	Lab ID:	QC1035621	Batch:	304325
Matrix (Source ID):	Soil (476113-004)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1035621 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	53.67	0.5533	99.01	mg/Kg	54%	*	75-125	0.99
Arsenic	98.43	3.126	99.01	mg/Kg	96%		75-125	0.99
Barium	128.9	29.28	99.01	mg/Kg	101%		75-125	0.99
Beryllium	95.74	ND	99.01	mg/Kg	97%		75-125	0.99
Cadmium	92.84	ND	99.01	mg/Kg	94%		75-125	0.99
Chromium	101.9	7.070	99.01	mg/Kg	96%		75-125	0.99
Cobalt	97.66	2.324	99.01	mg/Kg	96%		75-125	0.99
Copper	99.31	5.189	99.01	mg/Kg	95%		75-125	0.99
Lead	107.4	3.026	99.01	mg/Kg	105%		75-125	0.99
Molybdenum	96.55	1.077	99.01	mg/Kg	96%		75-125	0.99
Nickel	96.84	4.561	99.01	mg/Kg	93%		75-125	0.99
Selenium	81.87	0.4545	99.01	mg/Kg	82%		75-125	0.99
Silver	43.56	ND	49.50	mg/Kg	88%		75-125	0.99
Thallium	97.04	0.7725	99.01	mg/Kg	97%		75-125	0.99
Vanadium	114.1	19.42	99.01	mg/Kg	96%		75-125	0.99
Zinc	104.7	17.08	99.01	mg/Kg	89%		75-125	0.99

Type:	Matrix Spike Duplicate	Lab ID:	QC1035622	Batch:	304325
Matrix (Source ID):	Soil (476113-004)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1035622 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Antimony	53.38	0.5533	95.24	mg/Kg	55%	*	75-125	3	41	0.95
Arsenic	96.73	3.126	95.24	mg/Kg	98%		75-125	2	35	0.95
Barium	140.8	29.28	95.24	mg/Kg	117%		75-125	12	20	0.95
Beryllium	93.56	ND	95.24	mg/Kg	98%		75-125	2	20	0.95
Cadmium	91.41	ND	95.24	mg/Kg	96%		75-125	2	20	0.95
Chromium	104.6	7.070	95.24	mg/Kg	102%		75-125	6	20	0.95
Cobalt	96.48	2.324	95.24	mg/Kg	99%		75-125	3	20	0.95
Copper	98.67	5.189	95.24	mg/Kg	98%		75-125	3	20	0.95
Lead	106.6	3.026	95.24	mg/Kg	109%		75-125	3	20	0.95
Molybdenum	95.97	1.077	95.24	mg/Kg	100%		75-125	3	20	0.95
Nickel	96.82	4.561	95.24	mg/Kg	97%		75-125	4	20	0.95
Selenium	80.43	0.4545	95.24	mg/Kg	84%		75-125	2	20	0.95
Silver	43.03	ND	47.62	mg/Kg	90%		75-125	3	20	0.95
Thallium	95.66	0.7725	95.24	mg/Kg	100%		75-125	2	20	0.95
Vanadium	112.3	19.42	95.24	mg/Kg	98%		75-125	2	20	0.95
Zinc	104.0	17.08	95.24	mg/Kg	91%		75-125	3	20	0.95

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1035767	Batch: 304368
Matrix: Miscell.	Method: EPA 7471A	Prep Method: METHOD

QC1035767 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	0.0050	12/30/22	01/03/23

Type: Lab Control Sample	Lab ID: QC1035768	Batch: 304368
Matrix: Miscell.	Method: EPA 7471A	Prep Method: METHOD

QC1035768 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.8148	0.8333	mg/Kg	98%		80-120

Type: Matrix Spike	Lab ID: QC1035769	Batch: 304368
Matrix (Source ID): Soil (476048-001)	Method: EPA 7471A	Prep Method: METHOD

QC1035769 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.8841	ND	0.9434	mg/Kg	94%		75-125	1.1

Type: Matrix Spike Duplicate	Lab ID: QC1035770	Batch: 304368
Matrix (Source ID): Soil (476048-001)	Method: EPA 7471A	Prep Method: METHOD

QC1035770 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	0.8795	ND	0.9434	mg/Kg	93%		75-125	1	20	1.1

Type: Blank	Lab ID: QC1035774	Batch: 304370
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC1035774 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	0.0050	12/30/22	01/03/23

Type: Lab Control Sample	Lab ID: QC1035775	Batch: 304370
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC1035775 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.8270	0.8333	mg/Kg	99%		80-120

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Batch QC

Type:	Matrix Spike	Lab ID:	QC1035776	Batch:	304370
Matrix (Source ID):	Soil (476113-004)	Method:	EPA 7471A	Prep Method:	METHOD

QC1035776 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.9251	ND	1.000	mg/Kg	93%		75-125	1.2

Type:	Matrix Spike Duplicate	Lab ID:	QC1035777	Batch:	304370
Matrix (Source ID):	Soil (476113-004)	Method:	EPA 7471A	Prep Method:	METHOD

QC1035777 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	0.8851	ND	0.9615	mg/Kg	92%		75-125	0	20	1.2

Type:	Blank	Lab ID:	QC1035861	Batch:	304394
Matrix:	Soil	Method:	EPA 8015B	Prep Method:	EPA 3580M

QC1035861 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
GRO C8-C10	ND		mg/Kg	10		01/03/23	01/03/23
DRO C10-C28	ND		mg/Kg	10		01/03/23	01/03/23
ORO C28-C44	ND		mg/Kg	20		01/03/23	01/03/23
Surrogates				**Limits**			
n-Triacontane	116%		%REC	70-130		01/03/23	01/03/23

Type:	Lab Control Sample	Lab ID:	QC1035862	Batch:	304394
Matrix:	Soil	Method:	EPA 8015B	Prep Method:	EPA 3580M

QC1035862 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Diesel C10-C28	223.7	250.0	mg/Kg	89%		76-122
Surrogates						
n-Triacontane	11.11	10.00	mg/Kg	111%		70-130

Type:	Matrix Spike	Lab ID:	QC1035863	Batch:	304394
Matrix (Source ID):	Soil (476113-004)	Method:	EPA 8015B	Prep Method:	EPA 3580M

QC1035863 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Diesel C10-C28	225.2	1.613	248.0	mg/Kg	90%		62-126	0.99
Surrogates								
n-Triacontane	11.11		9.921	mg/Kg	112%		70-130	0.99

Batch QC

Type:	Matrix Spike Duplicate	Lab ID:	QC1035864	Batch:	304394
Matrix (Source ID):	Soil (476113-004)	Method:	EPA 8015B	Prep Method:	EPA 3580M

QC1035864 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Diesel C10-C28	229.1	1.613	250.8	mg/Kg	91%		62-126	1	35	1
Surrogates										
n-Triacontane	10.75		10.03	mg/Kg	107%		70-130			1

Type:	Lab Control Sample	Lab ID:	QC1035521	Batch:	304299
Matrix:	Soil	Method:	EPA 8260B	Prep Method:	EPA 5030B

QC1035521 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Dichloroethene	47.53	50.00	ug/Kg	95%		70-131
MTBE	46.68	50.00	ug/Kg	93%		69-130
Benzene	51.85	50.00	ug/Kg	104%		70-130
Trichloroethene	48.76	50.00	ug/Kg	98%		70-130
Toluene	52.21	50.00	ug/Kg	104%		70-130
Chlorobenzene	51.24	50.00	ug/Kg	102%		70-130
Surrogates						
Dibromofluoromethane	47.48	50.00	ug/Kg	95%		70-130
1,2-Dichloroethane-d4	45.55	50.00	ug/Kg	91%		70-145
Toluene-d8	51.02	50.00	ug/Kg	102%		70-145
Bromofluorobenzene	50.41	50.00	ug/Kg	101%		70-145

Type:	Lab Control Sample Duplicate	Lab ID:	QC1035522	Batch:	304299
Matrix:	Soil	Method:	EPA 8260B	Prep Method:	EPA 5030B

QC1035522 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Dichloroethene	46.80	50.00	ug/Kg	94%		70-131	2	33
MTBE	46.02	50.00	ug/Kg	92%		69-130	1	30
Benzene	50.96	50.00	ug/Kg	102%		70-130	2	30
Trichloroethene	48.92	50.00	ug/Kg	98%		70-130	0	30
Toluene	50.52	50.00	ug/Kg	101%		70-130	3	30
Chlorobenzene	50.90	50.00	ug/Kg	102%		70-130	1	30
Surrogates								
Dibromofluoromethane	47.19	50.00	ug/Kg	94%		70-130		
1,2-Dichloroethane-d4	44.91	50.00	ug/Kg	90%		70-145		
Toluene-d8	50.61	50.00	ug/Kg	101%		70-145		
Bromofluorobenzene	50.56	50.00	ug/Kg	101%		70-145		

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Batch QC

Type:	Blank	Lab ID:	QC1035526	Batch:	304299
Matrix:	Soil	Method:	EPA 8260B	Prep Method:	EPA 5030B

QC1035526 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
3-Chloropropene	ND		ug/Kg	5.0	1.3	12/29/22	12/29/22
Freon 12	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Chloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Vinyl Chloride	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromomethane	ND		ug/Kg	5.0	1.5	12/29/22	12/29/22
Chloroethane	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Acetone	ND		ug/Kg	100	20	12/29/22	12/29/22
Freon 113	ND		ug/Kg	5.0	1.1	12/29/22	12/29/22
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Methylene Chloride	ND		ug/Kg	5.0	1.8	12/29/22	12/29/22
MTBE	ND		ug/Kg	5.0	1.1	12/29/22	12/29/22
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
2-Butanone	ND		ug/Kg	100	20	12/29/22	12/29/22
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Chloroform	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromochloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Benzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Trichloroethene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromodichloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Dibromomethane	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	12/29/22	12/29/22
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	12/29/22	12/29/22
Toluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Tetrachloroethene	ND		ug/Kg	5.0	1.9	12/29/22	12/29/22
Dibromochloromethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Chlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Ethylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
m,p-Xylenes	ND		ug/Kg	10	1.4	12/29/22	12/29/22
o-Xylene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22

Batch QC

QC1035526 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Styrene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromoform	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Isopropylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Propylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Bromobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
n-Butylbenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	12/29/22	12/29/22
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
Naphthalene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	12/29/22	12/29/22
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	12/29/22	12/29/22
Xylene (total)	ND		ug/Kg	5.0		12/29/22	12/29/22
Surrogates				**Limits**			
Dibromofluoromethane	92%		%REC	70-130	6.1	12/29/22	12/29/22
1,2-Dichloroethane-d4	92%		%REC	70-145	7.7	12/29/22	12/29/22
Toluene-d8	100%		%REC	70-145	1.2	12/29/22	12/29/22
Bromofluorobenzene	104%		%REC	70-145	2.6	12/29/22	12/29/22

Batch QC

Type: Lab Control Sample	Lab ID: QC1035783	Batch: 304372
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC1035783 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Dichloroethene	48.78	50.00	ug/Kg	98%		70-131
MTBE	47.59	50.00	ug/Kg	95%		69-130
Benzene	52.41	50.00	ug/Kg	105%		70-130
Trichloroethene	49.62	50.00	ug/Kg	99%		70-130
Toluene	51.94	50.00	ug/Kg	104%		70-130
Chlorobenzene	52.49	50.00	ug/Kg	105%		70-130
Surrogates						
Dibromofluoromethane	48.37	50.00	ug/Kg	97%		70-130
1,2-Dichloroethane-d4	46.34	50.00	ug/Kg	93%		70-145
Toluene-d8	50.25	50.00	ug/Kg	100%		70-145
Bromofluorobenzene	51.65	50.00	ug/Kg	103%		70-145

Type: Lab Control Sample Duplicate	Lab ID: QC1035784	Batch: 304372
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC1035784 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Dichloroethene	46.91	50.00	ug/Kg	94%		70-131	4	33
MTBE	47.32	50.00	ug/Kg	95%		69-130	1	30
Benzene	51.80	50.00	ug/Kg	104%		70-130	1	30
Trichloroethene	48.24	50.00	ug/Kg	96%		70-130	3	30
Toluene	50.74	50.00	ug/Kg	101%		70-130	2	30
Chlorobenzene	51.02	50.00	ug/Kg	102%		70-130	3	30
Surrogates								
Dibromofluoromethane	48.90	50.00	ug/Kg	98%		70-130		
1,2-Dichloroethane-d4	46.57	50.00	ug/Kg	93%		70-145		
Toluene-d8	49.91	50.00	ug/Kg	100%		70-145		
Bromofluorobenzene	50.69	50.00	ug/Kg	101%		70-145		

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Batch QC

Type:	Blank	Lab ID:	QC1035788	Batch:	304372
Matrix:	Soil	Method:	EPA 8260B	Prep Method:	EPA 5030B

QC1035788 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
3-Chloropropene	ND		ug/Kg	5.0	1.3	01/02/23	01/02/23
Freon 12	ND		ug/Kg	5.0	1.2	01/02/23	01/02/23
Chloromethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Vinyl Chloride	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Bromomethane	ND		ug/Kg	5.0	1.5	01/02/23	01/02/23
Chloroethane	ND		ug/Kg	5.0	1.2	01/02/23	01/02/23
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	01/02/23	01/02/23
Acetone	ND		ug/Kg	100	20	01/02/23	01/02/23
Freon 113	ND		ug/Kg	5.0	1.1	01/02/23	01/02/23
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Methylene Chloride	ND		ug/Kg	5.0	1.8	01/02/23	01/02/23
MTBE	ND		ug/Kg	5.0	1.1	01/02/23	01/02/23
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
2-Butanone	ND		ug/Kg	100	20	01/02/23	01/02/23
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	01/02/23	01/02/23
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Chloroform	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Bromochloromethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Benzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Trichloroethene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Bromodichloromethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Dibromomethane	ND		ug/Kg	5.0	1.2	01/02/23	01/02/23
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	01/02/23	01/02/23
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	01/02/23	01/02/23
Toluene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Tetrachloroethene	ND		ug/Kg	5.0	1.9	01/02/23	01/02/23
Dibromochloromethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Chlorobenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Ethylbenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
m,p-Xylenes	ND		ug/Kg	10	1.4	01/02/23	01/02/23
o-Xylene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23

ENTHALPY ANALYTICAL

Batch QC

QC1035788 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Styrene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Bromoform	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Isopropylbenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Propylbenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Bromobenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
n-Butylbenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	01/02/23	01/02/23
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
Naphthalene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	01/02/23	01/02/23
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	01/02/23	01/02/23
Xylene (total)	ND		ug/Kg	5.0		01/02/23	01/02/23
Surrogates				**Limits**			
Dibromofluoromethane	93%		%REC	70-130	6.1	01/02/23	01/02/23
1,2-Dichloroethane-d4	90%		%REC	70-145	7.7	01/02/23	01/02/23
Toluene-d8	97%		%REC	70-145	1.2	01/02/23	01/02/23
Bromofluorobenzene	103%		%REC	70-145	2.6	01/02/23	01/02/23

Batch QC

Type:	**Lab Control Sample**	**Lab ID:**	**QC1036110**	**Batch:**	**304464**
Matrix:	**Soil**	**Method:**	**EPA 8260B**	**Prep Method:**	**EPA 5030B**

QC1036110 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Dichloroethene	46.73	50.00	ug/Kg	93%		70-131
MTBE	46.15	50.00	ug/Kg	92%		69-130
Benzene	50.78	50.00	ug/Kg	102%		70-130
Trichloroethene	48.42	50.00	ug/Kg	97%		70-130
Toluene	49.41	50.00	ug/Kg	99%		70-130
Chlorobenzene	50.03	50.00	ug/Kg	100%		70-130
Surrogates						
Dibromofluoromethane	49.37	50.00	ug/Kg	99%		70-130
1,2-Dichloroethane-d4	46.35	50.00	ug/Kg	93%		70-145
Toluene-d8	50.05	50.00	ug/Kg	100%		70-145
Bromofluorobenzene	50.59	50.00	ug/Kg	101%		70-145

Type:	**Lab Control Sample Duplicate**	**Lab ID:**	**QC1036111**	**Batch:**	**304464**
Matrix:	**Soil**	**Method:**	**EPA 8260B**	**Prep Method:**	**EPA 5030B**

QC1036111 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Dichloroethene	47.64	50.00	ug/Kg	95%		70-131	2	33
MTBE	45.60	50.00	ug/Kg	91%		69-130	1	30
Benzene	50.78	50.00	ug/Kg	102%		70-130	0	30
Trichloroethene	48.03	50.00	ug/Kg	96%		70-130	1	30
Toluene	48.87	50.00	ug/Kg	98%		70-130	1	30
Chlorobenzene	48.25	50.00	ug/Kg	96%		70-130	4	30
Surrogates								
Dibromofluoromethane	48.65	50.00	ug/Kg	97%		70-130		
1,2-Dichloroethane-d4	47.32	50.00	ug/Kg	95%		70-145		
Toluene-d8	50.06	50.00	ug/Kg	100%		70-145		
Bromofluorobenzene	50.98	50.00	ug/Kg	102%		70-145		

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Batch QC

Type:	Blank	Lab ID:	QC1036115	Batch:	304464
Matrix:	Soil	Method:	EPA 8260B	Prep Method:	EPA 5030B

QC1036115 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
3-Chloropropene	ND		ug/Kg	5.0	1.3	01/03/23	01/03/23
Freon 12	ND		ug/Kg	5.0	1.2	01/03/23	01/03/23
Chloromethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Vinyl Chloride	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Bromomethane	ND		ug/Kg	5.0	1.5	01/03/23	01/03/23
Chloroethane	ND		ug/Kg	5.0	1.2	01/03/23	01/03/23
Trichlorofluoromethane	ND		ug/Kg	5.0	1.2	01/03/23	01/03/23
Acetone	ND		ug/Kg	100	20	01/03/23	01/03/23
Freon 113	ND		ug/Kg	5.0	1.1	01/03/23	01/03/23
1,1-Dichloroethene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Methylene Chloride	ND		ug/Kg	5.0	1.8	01/03/23	01/03/23
MTBE	ND		ug/Kg	5.0	1.1	01/03/23	01/03/23
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,1-Dichloroethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
2-Butanone	ND		ug/Kg	100	20	01/03/23	01/03/23
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1.2	01/03/23	01/03/23
2,2-Dichloropropane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Chloroform	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Bromochloromethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,1-Dichloropropene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Carbon Tetrachloride	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,2-Dichloroethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Benzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Trichloroethene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,2-Dichloropropane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Bromodichloromethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Dibromomethane	ND		ug/Kg	5.0	1.2	01/03/23	01/03/23
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.8	01/03/23	01/03/23
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1.2	01/03/23	01/03/23
Toluene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,3-Dichloropropane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Tetrachloroethene	ND		ug/Kg	5.0	1.9	01/03/23	01/03/23
Dibromochloromethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,2-Dibromoethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Chlorobenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Ethylbenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
m,p-Xylenes	ND		ug/Kg	10	1.4	01/03/23	01/03/23
o-Xylene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23

Batch QC

QC1036115 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Styrene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Bromoform	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Isopropylbenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Propylbenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Bromobenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
2-Chlorotoluene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
4-Chlorotoluene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
tert-Butylbenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
sec-Butylbenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
para-Isopropyl Toluene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
n-Butylbenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1.4	01/03/23	01/03/23
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Hexachlorobutadiene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
Naphthalene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1.0	01/03/23	01/03/23
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	3.2	01/03/23	01/03/23
Xylene (total)	ND		ug/Kg	5.0		01/03/23	01/03/23
Surrogates				**Limits**			
Dibromofluoromethane	98%		%REC	70-130	6.1	01/03/23	01/03/23
1,2-Dichloroethane-d4	97%		%REC	70-145	7.7	01/03/23	01/03/23
Toluene-d8	97%		%REC	70-145	1.2	01/03/23	01/03/23
Bromofluorobenzene	101%		%REC	70-145	2.6	01/03/23	01/03/23

ENTHALPY ANALYTICAL

Batch QC

Type:	Blank	Lab ID:	QC1035814	Batch:	304382
Matrix:	Soil	Method:	EPA 8270C	Prep Method:	EPA 3546

QC1035814 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Carbazole	ND		ug/Kg	250	50	01/03/23	01/03/23
1-Methylnaphthalene	ND		ug/Kg	250	64	01/03/23	01/03/23
Pyridine	ND		ug/Kg	250	110	01/03/23	01/03/23
N-Nitrosodimethylamine	ND		ug/Kg	250	84	01/03/23	01/03/23
Phenol	ND		ug/Kg	250	69	01/03/23	01/03/23
Aniline	ND		ug/Kg	250	81	01/03/23	01/03/23
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	89	01/03/23	01/03/23
2-Chlorophenol	ND		ug/Kg	250	74	01/03/23	01/03/23
1,3-Dichlorobenzene	ND		ug/Kg	250	72	01/03/23	01/03/23
1,4-Dichlorobenzene	ND		ug/Kg	250	72	01/03/23	01/03/23
Benzyl alcohol	ND		ug/Kg	250	78	01/03/23	01/03/23
1,2-Dichlorobenzene	ND		ug/Kg	250	65	01/03/23	01/03/23
2-Methylphenol	ND		ug/Kg	250	70	01/03/23	01/03/23
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	73	01/03/23	01/03/23
3-,4-Methylphenol	ND		ug/Kg	400	69	01/03/23	01/03/23
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	70	01/03/23	01/03/23
Hexachloroethane	ND		ug/Kg	250	78	01/03/23	01/03/23
Nitrobenzene	ND		ug/Kg	1,200	70	01/03/23	01/03/23
Isophorone	ND		ug/Kg	250	67	01/03/23	01/03/23
2-Nitrophenol	ND		ug/Kg	250	55	01/03/23	01/03/23
2,4-Dimethylphenol	ND		ug/Kg	250	61	01/03/23	01/03/23
Benzoic acid	ND		ug/Kg	1,200	120	01/03/23	01/03/23
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	69	01/03/23	01/03/23
2,4-Dichlorophenol	ND		ug/Kg	250	72	01/03/23	01/03/23
1,2,4-Trichlorobenzene	ND		ug/Kg	250	62	01/03/23	01/03/23
Naphthalene	ND		ug/Kg	250	64	01/03/23	01/03/23
4-Chloroaniline	ND		ug/Kg	250	72	01/03/23	01/03/23
Hexachlorobutadiene	ND		ug/Kg	250	62	01/03/23	01/03/23
4-Chloro-3-methylphenol	ND		ug/Kg	250	62	01/03/23	01/03/23
2-Methylnaphthalene	ND		ug/Kg	250	64	01/03/23	01/03/23
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	61	01/03/23	01/03/23
2,4,6-Trichlorophenol	ND		ug/Kg	250	64	01/03/23	01/03/23
2,4,5-Trichlorophenol	ND		ug/Kg	250	86	01/03/23	01/03/23
2-Chloronaphthalene	ND		ug/Kg	250	56	01/03/23	01/03/23
2-Nitroaniline	ND		ug/Kg	250	56	01/03/23	01/03/23
Dimethylphthalate	ND		ug/Kg	250	83	01/03/23	01/03/23
Acenaphthylene	ND		ug/Kg	250	47	01/03/23	01/03/23
2,6-Dinitrotoluene	ND		ug/Kg	250	48	01/03/23	01/03/23
3-Nitroaniline	ND		ug/Kg	250	61	01/03/23	01/03/23
Acenaphthene	ND		ug/Kg	250	49	01/03/23	01/03/23
2,4-Dinitrophenol	ND		ug/Kg	1,200	190	01/03/23	01/03/23
4-Nitrophenol	ND		ug/Kg	250	130	01/03/23	01/03/23

ENTHALPY ANALYTICAL

Batch QC

QC1035814 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Dibenzofuran	ND		ug/Kg	250	51	01/03/23	01/03/23
2,4-Dinitrotoluene	ND		ug/Kg	250	55	01/03/23	01/03/23
Diethylphthalate	ND		ug/Kg	250	57	01/03/23	01/03/23
Fluorene	ND		ug/Kg	250	43	01/03/23	01/03/23
4-Chlorophenyl-phenylether	ND		ug/Kg	250	49	01/03/23	01/03/23
4-Nitroaniline	ND		ug/Kg	250	50	01/03/23	01/03/23
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	39	01/03/23	01/03/23
N-Nitrosodiphenylamine	ND		ug/Kg	250	48	01/03/23	01/03/23
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	50	01/03/23	01/03/23
4-Bromophenyl-phenylether	ND		ug/Kg	250	47	01/03/23	01/03/23
Hexachlorobenzene	ND		ug/Kg	250	55	01/03/23	01/03/23
Pentachlorophenol	ND		ug/Kg	1,200	37	01/03/23	01/03/23
Phenanthrene	ND		ug/Kg	250	46	01/03/23	01/03/23
Anthracene	ND		ug/Kg	250	47	01/03/23	01/03/23
Di-n-butylphthalate	ND		ug/Kg	250	73	01/03/23	01/03/23
Fluoranthene	ND		ug/Kg	250	53	01/03/23	01/03/23
Benzidine	ND		ug/Kg	1,200	81	01/03/23	01/03/23
Pyrene	ND		ug/Kg	250	44	01/03/23	01/03/23
Butylbenzylphthalate	ND		ug/Kg	250	48	01/03/23	01/03/23
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	40	01/03/23	01/03/23
Benzo(a)anthracene	ND		ug/Kg	250	56	01/03/23	01/03/23
Chrysene	ND		ug/Kg	250	56	01/03/23	01/03/23
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	89	01/03/23	01/03/23
Di-n-octylphthalate	ND		ug/Kg	250	72	01/03/23	01/03/23
Benzo(b)fluoranthene	ND		ug/Kg	250	51	01/03/23	01/03/23
Benzo(k)fluoranthene	ND		ug/Kg	250	57	01/03/23	01/03/23
Benzo(a)pyrene	ND		ug/Kg	250	53	01/03/23	01/03/23
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	46	01/03/23	01/03/23
Dibenz(a,h)anthracene	ND		ug/Kg	250	47	01/03/23	01/03/23
Benzo(g,h,i)perylene	ND		ug/Kg	250	49	01/03/23	01/03/23
Surrogates				**Limits**			
2-Fluorophenol	79%		%REC	29-120		01/03/23	01/03/23
Phenol-d6	87%		%REC	30-120		01/03/23	01/03/23
2,4,6-Tribromophenol	78%		%REC	32-120		01/03/23	01/03/23
Nitrobenzene-d5	80%		%REC	33-120		01/03/23	01/03/23
2-Fluorobiphenyl	73%		%REC	39-120		01/03/23	01/03/23
Terphenyl-d14	107%		%REC	44-125		01/03/23	01/03/23

Batch QC

Type:	**Lab Control Sample**	**Lab ID:**	**QC1035815**	**Batch:**	**304382**
Matrix:	**Soil**	**Method:**	**EPA 8270C**	**Prep Method:**	**EPA 3546**

QC1035815 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phenol	3,629	3752	ug/Kg	97%		42-120
2-Chlorophenol	3,424	3752	ug/Kg	91%		41-120
1,4-Dichlorobenzene	3,132	3752	ug/Kg	83%		36-120
3-,4-Methylphenol	3,738	3752	ug/Kg	100%		42-120
N-Nitroso-di-n-propylamine	3,886	3752	ug/Kg	104%		43-121
2,4-Dimethylphenol	3,648	3752	ug/Kg	97%		25-120
1,2,4-Trichlorobenzene	3,118	3752	ug/Kg	83%		38-120
4-Chloro-3-methylphenol	3,763	3752	ug/Kg	100%		40-125
2,4,5-Trichlorophenol	3,608	3752	ug/Kg	96%		40-124
Acenaphthene	3,320	3752	ug/Kg	88%		35-126
4-Nitrophenol	3,619	3752	ug/Kg	96%		24-128
2,4-Dinitrotoluene	3,816	3752	ug/Kg	102%		40-131
Pentachlorophenol	2,707	3752	ug/Kg	72%		35-120
Pyrene	3,573	3752	ug/Kg	95%		37-135
Chrysene	3,435	3752	ug/Kg	92%		38-132
Benzo(b)fluoranthene	3,640	3752	ug/Kg	97%		38-135
Surrogates						
2-Fluorophenol	1,918	2001	ug/Kg	96%		29-120
Phenol-d6	2,105	2001	ug/Kg	105%		30-120
2,4,6-Tribromophenol	1,933	2001	ug/Kg	97%		32-120
Nitrobenzene-d5	1,947	2001	ug/Kg	97%		33-120
2-Fluorobiphenyl	1,678	2001	ug/Kg	84%		39-120
Terphenyl-d14	2,176	2001	ug/Kg	109%		44-125

Batch QC

Type:	Matrix Spike	Lab ID:	QC1036069	Batch:	304382
Matrix (Source ID):	Soil (476113-004)	Method:	EPA 8270C	Prep Method:	EPA 3546

QC1036069 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phenol	2,442	ND	3726	ug/Kg	66%		37-120	0.99
2-Chlorophenol	2,325	ND	3726	ug/Kg	62%		33-120	0.99
1,4-Dichlorobenzene	2,165	ND	3726	ug/Kg	58%		32-120	0.99
3-,4-Methylphenol	2,558	ND	3726	ug/Kg	69%		37-120	0.99
N-Nitroso-di-n-propylamine	2,639	ND	3726	ug/Kg	71%		32-120	0.99
2,4-Dimethylphenol	2,473	ND	3726	ug/Kg	66%		32-120	0.99
1,2,4-Trichlorobenzene	2,126	ND	3726	ug/Kg	57%		33-120	0.99
4-Chloro-3-methylphenol	2,572	ND	3726	ug/Kg	69%		41-121	0.99
2,4,5-Trichlorophenol	2,521	ND	3726	ug/Kg	68%		40-120	0.99
Acenaphthene	2,292	ND	3726	ug/Kg	62%		37-120	0.99
4-Nitrophenol	3,021	ND	3726	ug/Kg	81%		20-141	0.99
2,4-Dinitrotoluene	2,710	ND	3726	ug/Kg	73%		33-128	0.99
Pentachlorophenol	2,041	ND	3726	ug/Kg	55%		28-132	0.99
Pyrene	2,415	ND	3726	ug/Kg	65%		39-135	0.99
Chrysene	2,310	ND	3726	ug/Kg	62%		37-135	0.99
Benzo(b)fluoranthene	2,532	ND	3726	ug/Kg	68%		34-139	0.99
Surrogates								
2-Fluorophenol	1,302		1987	ug/Kg	66%		29-120	0.99
Phenol-d6	1,423		1987	ug/Kg	72%		30-120	0.99
2,4,6-Tribromophenol	1,401		1987	ug/Kg	71%		32-120	0.99
Nitrobenzene-d5	1,355		1987	ug/Kg	68%		33-120	0.99
2-Fluorobiphenyl	1,175		1987	ug/Kg	59%		39-120	0.99
Terphenyl-d14	1,483		1987	ug/Kg	75%		44-125	0.99

Batch QC

Type:	Matrix Spike Duplicate	Lab ID:	QC1036070	Batch:	304382
Matrix (Source ID):	Soil (476113-004)	Method:	EPA 8270C	Prep Method:	EPA 3546

QC1036070 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phenol	2,518	ND	3718	ug/Kg	68%		37-120	3	49	0.99
2-Chlorophenol	2,457	ND	3718	ug/Kg	66%		33-120	6	52	0.99
1,4-Dichlorobenzene	2,255	ND	3718	ug/Kg	61%		32-120	4	50	0.99
3-,4-Methylphenol	2,689	ND	3718	ug/Kg	72%		37-120	5	54	0.99
N-Nitroso-di-n-propylamine	2,786	ND	3718	ug/Kg	75%		32-120	6	50	0.99
2,4-Dimethylphenol	2,629	ND	3718	ug/Kg	71%		32-120	6	50	0.99
1,2,4-Trichlorobenzene	2,255	ND	3718	ug/Kg	61%		33-120	6	50	0.99
4-Chloro-3-methylphenol	2,705	ND	3718	ug/Kg	73%		41-121	5	43	0.99
2,4,5-Trichlorophenol	2,651	ND	3718	ug/Kg	71%		40-120	5	47	0.99
Acenaphthene	2,370	ND	3718	ug/Kg	64%		37-120	4	48	0.99
4-Nitrophenol	2,632	ND	3718	ug/Kg	71%		20-141	14	30	0.99
2,4-Dinitrotoluene	2,687	ND	3718	ug/Kg	72%		33-128	1	50	0.99
Pentachlorophenol	2,031	ND	3718	ug/Kg	55%		28-132	0	30	0.99
Pyrene	2,689	ND	3718	ug/Kg	72%		39-135	11	41	0.99
Chrysene	2,274	ND	3718	ug/Kg	61%		37-135	1	46	0.99
Benzo(b)fluoranthene	2,423	ND	3718	ug/Kg	65%		34-139	4	47	0.99
Surrogates										
2-Fluorophenol	1,332		1983	ug/Kg	67%		29-120			0.99
Phenol-d6	1,456		1983	ug/Kg	73%		30-120			0.99
2,4,6-Tribromophenol	1,414		1983	ug/Kg	71%		32-120			0.99
Nitrobenzene-d5	1,379		1983	ug/Kg	70%		33-120			0.99
2-Fluorobiphenyl	1,224		1983	ug/Kg	62%		39-120			0.99
Terphenyl-d14	1,668		1983	ug/Kg	84%		44-125			0.99

Batch QC

Type:	Blank	Lab ID:	QC1035816	Batch:	304383
Matrix:	Soil	Method:	EPA 8270C-SIM	Prep Method:	EPA 3546

QC1035816 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
1-Methylnaphthalene	ND		ug/Kg	9.9	3.7	01/03/23	01/03/23
2-Methylnaphthalene	ND		ug/Kg	9.9	4.5	01/03/23	01/03/23
Naphthalene	ND		ug/Kg	9.9	4.9	01/03/23	01/03/23
Acenaphthylene	ND		ug/Kg	9.9	4.0	01/03/23	01/03/23
Acenaphthene	ND		ug/Kg	9.9	4.1	01/03/23	01/03/23
Fluorene	ND		ug/Kg	9.9	4.5	01/03/23	01/03/23
Phenanthrene	ND		ug/Kg	9.9	5.0	01/03/23	01/03/23
Anthracene	ND		ug/Kg	9.9	4.0	01/03/23	01/03/23
Fluoranthene	ND		ug/Kg	9.9	4.5	01/03/23	01/03/23
Pyrene	ND		ug/Kg	9.9	4.9	01/03/23	01/03/23
Benzo(a)anthracene	ND		ug/Kg	9.9	4.1	01/03/23	01/03/23
Chrysene	ND		ug/Kg	9.9	3.4	01/03/23	01/03/23
Benzo(b)fluoranthene	ND		ug/Kg	9.9	5.0	01/03/23	01/03/23
Benzo(k)fluoranthene	ND		ug/Kg	9.9	4.7	01/03/23	01/03/23
Benzo(a)pyrene	ND		ug/Kg	9.9	4.8	01/03/23	01/03/23
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	4.7	01/03/23	01/03/23
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	5.2	01/03/23	01/03/23
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	4.7	01/03/23	01/03/23
Surrogates				**Limits**			
Nitrobenzene-d5	91%		%REC	27-125		01/03/23	01/03/23
2-Fluorobiphenyl	83%		%REC	30-120		01/03/23	01/03/23
Terphenyl-d14	128%		%REC	33-155		01/03/23	01/03/23

Batch QC

Type:	Lab Control Sample	Lab ID:	QC1035817	Batch:	304383
Matrix:	Soil	Method:	EPA 8270C-SIM	Prep Method:	EPA 3546

QC1035817 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1-Methylnaphthalene	135.6	199.6	ug/Kg	68%		28-130
2-Methylnaphthalene	144.7	199.6	ug/Kg	72%		33-130
Naphthalene	143.7	199.6	ug/Kg	72%		25-130
Acenaphthylene	149.8	199.6	ug/Kg	75%		28-130
Acenaphthene	145.8	199.6	ug/Kg	73%		32-130
Fluorene	145.5	199.6	ug/Kg	73%		35-130
Phenanthrene	144.4	199.6	ug/Kg	72%		35-132
Anthracene	152.5	199.6	ug/Kg	76%		34-136
Fluoranthene	147.8	199.6	ug/Kg	74%		34-139
Pyrene	140.9	199.6	ug/Kg	71%		35-134
Benzo(a)anthracene	144.3	199.6	ug/Kg	72%		30-132
Chrysene	139.2	199.6	ug/Kg	70%		29-130
Benzo(b)fluoranthene	135.7	199.6	ug/Kg	68%		32-137
Benzo(k)fluoranthene	159.6	199.6	ug/Kg	80%		32-130
Benzo(a)pyrene	149.5	199.6	ug/Kg	75%		10-138
Indeno(1,2,3-cd)pyrene	133.7	199.6	ug/Kg	67%		34-132
Dibenz(a,h)anthracene	128.7	199.6	ug/Kg	64%		32-130
Benzo(g,h,i)perylene	124.7	199.6	ug/Kg	62%		27-130
Surrogates						
Nitrobenzene-d5	148.8	199.6	ug/Kg	75%		27-125
2-Fluorobiphenyl	142.0	199.6	ug/Kg	71%		30-120
Terphenyl-d14	178.1	199.6	ug/Kg	89%		33-155

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Batch QC

Type:	Matrix Spike	Lab ID:	QC1036071	Batch:	304383
Matrix (Source ID):	Soil (476113-004)	Method:	EPA 8270C-SIM	Prep Method:	EPA 3546

QC1036071 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
1-Methylnaphthalene	128.8	ND	200.1	ug/Kg	64%		25-130	1
2-Methylnaphthalene	135.2	ND	200.1	ug/Kg	68%		32-133	1
Naphthalene	134.3	ND	200.1	ug/Kg	67%		33-130	1
Acenaphthylene	141.0	ND	200.1	ug/Kg	70%		14-157	1
Acenaphthene	137.2	ND	200.1	ug/Kg	69%		28-134	1
Fluorene	137.8	ND	200.1	ug/Kg	69%		27-140	1
Phenanthrene	136.7	ND	200.1	ug/Kg	68%		29-147	1
Anthracene	145.7	ND	200.1	ug/Kg	73%		24-156	1
Fluoranthene	139.0	ND	200.1	ug/Kg	69%		28-160	1
Pyrene	133.2	ND	200.1	ug/Kg	67%		26-153	1
Benzo(a)anthracene	136.1	ND	200.1	ug/Kg	68%		26-174	1
Chrysene	130.5	ND	200.1	ug/Kg	65%		40-139	1
Benzo(b)fluoranthene	131.8	ND	200.1	ug/Kg	66%		36-164	1
Benzo(k)fluoranthene	148.6	ND	200.1	ug/Kg	74%		36-161	1
Benzo(a)pyrene	140.7	ND	200.1	ug/Kg	70%		18-173	1
Indeno(1,2,3-cd)pyrene	126.2	ND	200.1	ug/Kg	63%		26-154	1
Dibenz(a,h)anthracene	119.7	ND	200.1	ug/Kg	60%		38-132	1
Benzo(g,h,i)perylene	117.0	ND	200.1	ug/Kg	58%		36-130	1
Surrogates								
Nitrobenzene-d5	146.1		200.1	ug/Kg	73%		27-125	1
2-Fluorobiphenyl	137.8		200.1	ug/Kg	69%		30-120	1
Terphenyl-d14	171.8		200.1	ug/Kg	86%		33-155	1

Batch QC

Type:	Matrix Spike Duplicate	Lab ID:	QC1036072	Batch:	304383
Matrix (Source ID):	Soil (476113-004)	Method:	EPA 8270C-SIM	Prep Method:	EPA 3546

QC1036072 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
1-Methylnaphthalene	135.4	ND	199.2	ug/Kg	68%		25-130	5	35	1
2-Methylnaphthalene	141.8	ND	199.2	ug/Kg	71%		32-133	5	35	1
Naphthalene	140.6	ND	199.2	ug/Kg	71%		33-130	5	35	1
Acenaphthylene	147.7	ND	199.2	ug/Kg	74%		14-157	5	35	1
Acenaphthene	143.3	ND	199.2	ug/Kg	72%		28-134	5	35	1
Fluorene	141.8	ND	199.2	ug/Kg	71%		27-140	3	35	1
Phenanthrene	133.6	ND	199.2	ug/Kg	67%		29-147	2	35	1
Anthracene	157.1	ND	199.2	ug/Kg	79%		24-156	8	35	1
Fluoranthene	148.5	ND	199.2	ug/Kg	75%		28-160	7	35	1
Pyrene	141.9	ND	199.2	ug/Kg	71%		26-153	7	35	1
Benzo(a)anthracene	147.6	ND	199.2	ug/Kg	74%		26-174	9	35	1
Chrysene	135.0	ND	199.2	ug/Kg	68%		40-139	4	35	1
Benzo(b)fluoranthene	142.3	ND	199.2	ug/Kg	71%		36-164	8	35	1
Benzo(k)fluoranthene	147.3	ND	199.2	ug/Kg	74%		36-161	0	35	1
Benzo(a)pyrene	154.3	ND	199.2	ug/Kg	77%		18-173	10	35	1
Indeno(1,2,3-cd)pyrene	138.4	ND	199.2	ug/Kg	69%		26-154	10	35	1
Dibenz(a,h)anthracene	126.3	ND	199.2	ug/Kg	63%		38-132	6	35	1
Benzo(g,h,i)perylene	122.5	ND	199.2	ug/Kg	62%		36-130	5	35	1
Surrogates										
Nitrobenzene-d5	171.1		199.2	ug/Kg	86%		27-125			1
2-Fluorobiphenyl	141.3		199.2	ug/Kg	71%		30-120			1
Terphenyl-d14	182.5		199.2	ug/Kg	92%		33-155			1

* Value is outside QC limits
J Estimated value
ND Not Detected

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number:	476166
Report Level:	II
Report Date:	01/10/2023

Analytical Report *prepared for:*

Jeff Sieg
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Location: 2750 Bristol Street, Costa Mesa, CA

Authorized for release by:

Jim Lin, Service Center Manager
Jim.lin@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Jeff Sieg	Lab Job #:	476166
SCS Engineers - Long Beach	Location:	2750 Bristol Street, Costa Mesa, CA
3900 Kilroy Airport Way	Date Received:	12/29/22
Suite 100		
Long Beach, CA 90806		

Sample ID	Lab ID	Collected	Matrix
C1-5	476166-001	12/29/22 09:29	Soil
C1-10	476166-002	12/29/22 09:34	Soil
C1-15	476166-003	12/29/22 09:41	Soil
C1-20	476166-004	12/29/22 09:50	Soil
C1-25	476166-005	12/29/22 09:55	Soil
BSP	476166-006	12/29/22 10:22	Soil

Case Narrative

SCS Engineers - Long Beach	Lab Job Number:	476166
3900 Kilroy Airport Way	Location:	2750 Bristol Street, Costa Mesa, CA
Suite 100	Date Received:	12/29/22
Long Beach, CA 90806		
Jeff Sieg		

This data package contains sample and QC results for six soil samples, requested for the above referenced project on 12/29/22. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015M):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):
No analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):

- Responses exceeding the instrument's linear range were observed for nitrobenzene-d5, 2-fluorobiphenyl, and terphenyl-d14 in a number of samples; affected data was qualified with "E".
- No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

- Low recoveries were observed for antimony in the MS/MSD of C1-5 (lab # 476166-001); the LCS was within limits, and the associated RPD was within limits.
- No other analytical problems were encountered.

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange
931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

Chain of Custody Record

Lab No: 476166
Page: 1 of 1

Turn Around Time (rush by advanced notice only)

Standard:	✓	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS Engineers	Quote #:	
Report To:	Jeff Sieg	Proj. Name:	
Email:	jsieg@scsengineers.com	Proj. #:	01222204.00
Address:	3900 Kilroy Airport Way Ste 100	P.O. #:	
	Long Beach, CA 90806	Address:	
Phone:	562-572-4461	Global ID:	
Fax:		Sampled By:	Thomas Birren

Analysis Request

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	8015M - Carbon Chain	8270 SIM - PAHs (low level)	8270 - SVOCs	8260B - VOCs	6010B / 7471A CAM17						Test Instructions / Comments
1	C1-5	12/29/22	0929	Soil	(1) 6" sleeve	n/a	X	X	X	X	X						
2	C1-10	↓	0934	↓	↓	↓	X	X	X	X	X						
3	C1-15	↓	0941	↓	↓	↓	X	X	X	X	X						
4	C1-20	↓	0950	↓	↓	↓	X	X	X	X	X						
5	C1-25	↓	0955	↓	↓	↓	X	X	X	X	X						
6	BSP	12/29/22	1022	Soil	(1) 8oz Jar	n/a	X			X	X						
7																	
8																	
9																	
10																	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Thomas Birren	SCS Engineers / Staff Prof.	12/29/22 11:14
1 Received By:	[signature]	Becca Sylvestri	E.A.	12/29/22 11:14
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: SCS Engineers   Project: 012222204.00

Date Received: 12/29/22   Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☐ Yes, How many? ______ ☑ No (skip section 2)   Sample Temp (°C) (No Cooler): Amb.

Sample Temp (°C), One from each cooler: #1: ______ #2: ______ #3: ______ #4: ______

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: ______

Section 3

Was the cooler packed with: ☐ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other ______

Cooler Temp (°C): #1: ______ #2: ______ #3: ______ #4: ______

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: ______ Date/Time ______
☐ Email (email sent to/on): ______ / ______

Project Manager's response:

Completed By: [signature]   Date: DEC 29 2022

Analysis Results for 476166

Jeff Sieg
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Lab Job #: 476166
Location: 2750 Bristol Street, Costa Mesa, CA
Date Received: 12/29/22

Sample ID: C1-5 **Lab ID: 476166-001** **Collected: 12/29/22 09:29**
Matrix: Soil

476166-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.9	0.97	304307	12/30/22	12/30/22	SBW
Arsenic	**2.2**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Barium	**50**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Beryllium	ND		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Cadmium	ND		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Chromium	**12**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Cobalt	**5.0**		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Copper	**9.6**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Lead	**18**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Molybdenum	ND		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Nickel	**7.9**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Selenium	ND		mg/Kg	2.9	0.97	304307	12/30/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.97	304307	12/30/22	12/30/22	SBW
Vanadium	**27**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Zinc	**44**		mg/Kg	4.9	0.97	304307	12/30/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD									
Mercury	ND		mg/Kg	0.14	1	304291	12/29/22	01/03/23	JCP
Method: EPA 8015M Prep Method: EPA 3580M									
GRO C8-C10	ND		mg/Kg	10	1	304264	12/30/22	12/30/22	SME
DRO C10-C28	ND		mg/Kg	10	1	304264	12/30/22	12/30/22	SME
ORO C28-C44	ND		mg/Kg	20	1	304264	12/30/22	12/30/22	SME
Surrogates				**Limits**					
n-Triacontane	99%		%REC	70-130	1	304264	12/30/22	12/30/22	SME
Method: EPA 8260B Prep Method: EPA 5030B									
3-Chloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Trichlorofluoromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Methylene Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1	304352	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
tert-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
n-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Surrogates				**Limits**					
Dibromofluoromethane	95%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	98%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Toluene-d8	97%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Bromofluorobenzene	105%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1-Methylnaphthalene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Fluorene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Anthracene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Pyrene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Chrysene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	9.9	0.99	304316	12/30/22	12/30/22	HQN
Surrogates				**Limits**					
Nitrobenzene-d5	78%	E	%REC	27-125	0.99	304316	12/30/22	12/30/22	HQN
2-Fluorobiphenyl	74%	E	%REC	30-120	0.99	304316	12/30/22	12/30/22	HQN
Terphenyl-d14	95%	E	%REC	33-155	0.99	304316	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476166

476166-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8270C Prep Method: EPA 3546									
Carbazole	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Aniline	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	0.99	304315	12/30/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	0.99	304315	12/30/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	0.99	304315	12/30/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	0.99	304315	12/30/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	0.99	304315	12/30/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	0.99	304315	12/30/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 476166

476166-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Diethylphthalate	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
4-Bromophenyl-phenylether	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	0.99	304315	12/30/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	0.99	304315	12/30/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	0.99	304315	12/30/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	0.99	304315	12/30/22	12/30/22	HQN
Surrogates				**Limits**					
2-Fluorophenol	57%		%REC	29-120	0.99	304315	12/30/22	12/30/22	HQN
Phenol-d6	57%		%REC	30-120	0.99	304315	12/30/22	12/30/22	HQN
2,4,6-Tribromophenol	54%		%REC	32-120	0.99	304315	12/30/22	12/30/22	HQN
Nitrobenzene-d5	52%		%REC	33-120	0.99	304315	12/30/22	12/30/22	HQN
2-Fluorobiphenyl	51%		%REC	39-120	0.99	304315	12/30/22	12/30/22	HQN
Terphenyl-d14	61%		%REC	44-125	0.99	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 476166

Sample ID: C1-10	Lab ID: 476166-002	Collected: 12/29/22 09:34
	Matrix: Soil	

476166-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.9	0.97	304307	12/30/22	12/30/22	SBW
Arsenic	**2.5**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Barium	**84**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Beryllium	**0.74**		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Cadmium	ND		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Chromium	**25**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Cobalt	**8.4**		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Copper	**11**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Lead	**4.0**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Molybdenum	**1.8**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Nickel	**18**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Selenium	ND		mg/Kg	2.9	0.97	304307	12/30/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.97	304307	12/30/22	12/30/22	SBW
Vanadium	**36**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Zinc	**62**		mg/Kg	4.9	0.97	304307	12/30/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD									
Mercury	ND		mg/Kg	0.16	1.1	304368	12/30/22	01/03/23	SBW
Method: EPA 8015M Prep Method: EPA 3580M									
GRO C8-C10	ND		mg/Kg	9.9	0.99	304264	12/30/22	12/30/22	SME
DRO C10-C28	ND		mg/Kg	9.9	0.99	304264	12/30/22	12/30/22	SME
ORO C28-C44	ND		mg/Kg	20	0.99	304264	12/30/22	12/30/22	SME
Surrogates				**Limits**					
n-Triacontane	99%		%REC	70-130	0.99	304264	12/30/22	12/30/22	SME
Method: EPA 8260B Prep Method: EPA 5030B									
3-Chloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Methylene Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1	304352	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Surrogates				**Limits**					
Dibromofluoromethane	95%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	102%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Toluene-d8	96%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Bromofluorobenzene	101%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Fluorene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Chrysene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Surrogates				**Limits**					
Nitrobenzene-d5	61%	E	%REC	27-125	1	304316	12/30/22	12/30/22	HQN
2-Fluorobiphenyl	63%	E	%REC	30-120	1	304316	12/30/22	12/30/22	HQN
Terphenyl-d14	79%	E	%REC	33-155	1	304316	12/30/22	12/30/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476166

476166-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	1	304315	12/30/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Diethylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Surrogates				**Limits**					
2-Fluorophenol	74%		%REC	29-120	1	304315	12/30/22	12/30/22	HQN
Phenol-d6	76%		%REC	30-120	1	304315	12/30/22	12/30/22	HQN
2,4,6-Tribromophenol	68%		%REC	32-120	1	304315	12/30/22	12/30/22	HQN
Nitrobenzene-d5	71%		%REC	33-120	1	304315	12/30/22	12/30/22	HQN
2-Fluorobiphenyl	68%		%REC	39-120	1	304315	12/30/22	12/30/22	HQN
Terphenyl-d14	82%		%REC	44-125	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476166

Sample ID: C1-15	Lab ID: 476166-003	Collected: 12/29/22 09:41
	Matrix: Soil	

476166-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	3.0	1	304307	12/30/22	12/30/22	SBW
Arsenic	ND		mg/Kg	1.0	1	304307	12/30/22	12/30/22	SBW
Barium	**11**		mg/Kg	1.0	1	304307	12/30/22	12/30/22	SBW
Beryllium	ND		mg/Kg	0.50	1	304307	12/30/22	12/30/22	SBW
Cadmium	ND		mg/Kg	0.50	1	304307	12/30/22	12/30/22	SBW
Chromium	**8.1**		mg/Kg	1.0	1	304307	12/30/22	12/30/22	SBW
Cobalt	**1.4**		mg/Kg	0.50	1	304307	12/30/22	12/30/22	SBW
Copper	**2.5**		mg/Kg	1.0	1	304307	12/30/22	12/30/22	SBW
Lead	ND		mg/Kg	1.0	1	304307	12/30/22	12/30/22	SBW
Molybdenum	ND		mg/Kg	1.0	1	304307	12/30/22	12/30/22	SBW
Nickel	**2.2**		mg/Kg	1.0	1	304307	12/30/22	12/30/22	SBW
Selenium	ND		mg/Kg	3.0	1	304307	12/30/22	12/30/22	SBW
Silver	ND		mg/Kg	0.50	1	304307	12/30/22	12/30/22	SBW
Thallium	ND		mg/Kg	3.0	1	304307	12/30/22	12/30/22	SBW
Vanadium	**11**		mg/Kg	1.0	1	304307	12/30/22	12/30/22	SBW
Zinc	**11**		mg/Kg	5.0	1	304307	12/30/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD									
Mercury	ND		mg/Kg	0.16	1.1	304368	12/30/22	01/03/23	SBW
Method: EPA 8015M Prep Method: EPA 3580M									
GRO C8-C10	ND		mg/Kg	9.9	0.99	304264	12/30/22	12/30/22	SME
DRO C10-C28	ND		mg/Kg	9.9	0.99	304264	12/30/22	12/30/22	SME
ORO C28-C44	ND		mg/Kg	20	0.99	304264	12/30/22	12/30/22	SME
Surrogates				**Limits**					
n-Triacontane	99%		%REC	70-130	0.99	304264	12/30/22	12/30/22	SME
Method: EPA 8260B Prep Method: EPA 5030B									
3-Chloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Methylene Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1	304352	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476166

476166-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Surrogates				**Limits**					
Dibromofluoromethane	94%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	94%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Toluene-d8	99%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Bromofluorobenzene	105%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Fluorene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Chrysene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Surrogates				**Limits**					
Nitrobenzene-d5	74%	E	%REC	27-125	1	304316	12/30/22	12/30/22	HQN
2-Fluorobiphenyl	74%	E	%REC	30-120	1	304316	12/30/22	12/30/22	HQN
Terphenyl-d14	97%	E	%REC	33-155	1	304316	12/30/22	12/30/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN

Analysis Results for 476166

476166-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	1	304315	12/30/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Diethylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Surrogates				**Limits**					
2-Fluorophenol	90%		%REC	29-120	1	304315	12/30/22	12/30/22	HQN
Phenol-d6	92%		%REC	30-120	1	304315	12/30/22	12/30/22	HQN
2,4,6-Tribromophenol	86%		%REC	32-120	1	304315	12/30/22	12/30/22	HQN
Nitrobenzene-d5	80%		%REC	33-120	1	304315	12/30/22	12/30/22	HQN
2-Fluorobiphenyl	82%		%REC	39-120	1	304315	12/30/22	12/30/22	HQN
Terphenyl-d14	102%		%REC	44-125	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476166

Sample ID: C1-20	Lab ID: 476166-004	Collected: 12/29/22 09:50
	Matrix: Soil	

476166-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.9	0.97	304307	12/30/22	12/30/22	SBW
Arsenic	**2.8**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Barium	**36**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Beryllium	ND		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Cadmium	ND		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Chromium	**7.8**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Cobalt	**3.8**		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Copper	**6.7**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Lead	ND		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Molybdenum	ND		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Nickel	**7.5**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Selenium	ND		mg/Kg	2.9	0.97	304307	12/30/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.97	304307	12/30/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.97	304307	12/30/22	12/30/22	SBW
Vanadium	**22**		mg/Kg	0.97	0.97	304307	12/30/22	12/30/22	SBW
Zinc	**23**		mg/Kg	4.9	0.97	304307	12/30/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD									
Mercury	ND		mg/Kg	0.16	1.1	304424	01/03/23	01/06/23	KLN
Method: EPA 8015M Prep Method: EPA 3580M									
GRO C8-C10	ND		mg/Kg	10	1	304264	12/30/22	12/30/22	SME
DRO C10-C28	ND		mg/Kg	10	1	304264	12/30/22	12/30/22	SME
ORO C28-C44	ND		mg/Kg	20	1	304264	12/30/22	12/30/22	SME
Surrogates				**Limits**					
n-Triacontane	100%		%REC	70-130	1	304264	12/30/22	12/30/22	SME
Method: EPA 8260B Prep Method: EPA 5030B									
3-Chloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Methylene Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1	304352	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476166

476166-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Surrogates				**Limits**					
Dibromofluoromethane	99%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	98%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Toluene-d8	98%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Bromofluorobenzene	103%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Method: EPA 8270C-SIM Prep Method: EPA 3546									
1-Methylnaphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Fluorene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Chrysene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Surrogates				**Limits**					
Nitrobenzene-d5	63%	E	%REC	27-125	1	304316	12/30/22	12/30/22	HQN
2-Fluorobiphenyl	69%	E	%REC	30-120	1	304316	12/30/22	12/30/22	HQN
Terphenyl-d14	84%	E	%REC	33-155	1	304316	12/30/22	12/30/22	HQN
Method: EPA 8270C Prep Method: EPA 3546									
Carbazole	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	1	304315	12/30/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Diethylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Surrogates				**Limits**					
2-Fluorophenol	75%		%REC	29-120	1	304315	12/30/22	12/30/22	HQN
Phenol-d6	77%		%REC	30-120	1	304315	12/30/22	12/30/22	HQN
2,4,6-Tribromophenol	67%		%REC	32-120	1	304315	12/30/22	12/30/22	HQN
Nitrobenzene-d5	70%		%REC	33-120	1	304315	12/30/22	12/30/22	HQN
2-Fluorobiphenyl	69%		%REC	39-120	1	304315	12/30/22	12/30/22	HQN
Terphenyl-d14	80%		%REC	44-125	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476166

Sample ID: C1-25	Lab ID: 476166-005	Collected: 12/29/22 09:55
	Matrix: Soil	

476166-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.9	0.95	304307	12/30/22	12/30/22	SBW
Arsenic	**1.3**		mg/Kg	0.95	0.95	304307	12/30/22	12/30/22	SBW
Barium	**110**		mg/Kg	0.95	0.95	304307	12/30/22	12/30/22	SBW
Beryllium	ND		mg/Kg	0.48	0.95	304307	12/30/22	12/30/22	SBW
Cadmium	ND		mg/Kg	0.48	0.95	304307	12/30/22	12/30/22	SBW
Chromium	**3.9**		mg/Kg	0.95	0.95	304307	12/30/22	12/30/22	SBW
Cobalt	**1.4**		mg/Kg	0.48	0.95	304307	12/30/22	12/30/22	SBW
Copper	**3.7**		mg/Kg	0.95	0.95	304307	12/30/22	12/30/22	SBW
Lead	**1.0**		mg/Kg	0.95	0.95	304307	12/30/22	12/30/22	SBW
Molybdenum	ND		mg/Kg	0.95	0.95	304307	12/30/22	12/30/22	SBW
Nickel	**3.6**		mg/Kg	0.95	0.95	304307	12/30/22	12/30/22	SBW
Selenium	ND		mg/Kg	2.9	0.95	304307	12/30/22	12/30/22	SBW
Silver	ND		mg/Kg	0.48	0.95	304307	12/30/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.95	304307	12/30/22	12/30/22	SBW
Vanadium	**11**		mg/Kg	0.95	0.95	304307	12/30/22	12/30/22	SBW
Zinc	**10**		mg/Kg	4.8	0.95	304307	12/30/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD									
Mercury	ND		mg/Kg	0.17	1.2	304424	01/03/23	01/06/23	KLN
Method: EPA 8015M Prep Method: EPA 3580M									
GRO C8-C10	ND		mg/Kg	10	1	304264	12/30/22	12/30/22	SME
DRO C10-C28	ND		mg/Kg	10	1	304264	12/30/22	12/30/22	SME
ORO C28-C44	ND		mg/Kg	20	1	304264	12/30/22	12/30/22	SME
Surrogates				**Limits**					
n-Triacontane	99%		%REC	70-130	1	304264	12/30/22	12/30/22	SME
Method: EPA 8260B Prep Method: EPA 5030B									
3-Chloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Methylene Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476166

476166-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1	304352	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Surrogates				**Limits**					
Dibromofluoromethane	94%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	92%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Toluene-d8	98%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Bromofluorobenzene	104%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ

Method: EPA 8270C-SIM
Prep Method: EPA 3546

1-Methylnaphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Fluorene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Chrysene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	10	1	304316	12/30/22	12/30/22	HQN
Surrogates				**Limits**					
Nitrobenzene-d5	92%	E	%REC	27-125	1	304316	12/30/22	12/30/22	HQN
2-Fluorobiphenyl	92%	E	%REC	30-120	1	304316	12/30/22	12/30/22	HQN
Terphenyl-d14	112%	E	%REC	33-155	1	304316	12/30/22	12/30/22	HQN

Method: EPA 8270C
Prep Method: EPA 3546

Carbazole	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1-Methylnaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Pyridine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
N-Nitrosodimethylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Phenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Aniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
2-Chlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,3-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,4-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzyl alcohol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2-Dichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3-,4-Methylphenol	ND		ug/Kg	400	1	304315	12/30/22	12/30/22	HQN
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachloroethane	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Nitrobenzene	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Isophorone	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Nitrophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dimethylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzoic acid	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2,4-Trichlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Naphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chloroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorobutadiene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chloro-3-methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Methylnaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
2,4,6-Trichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4,5-Trichlorophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Chloronaphthalene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dimethylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Acenaphthylene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,6-Dinitrotoluene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Acenaphthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dinitrophenol	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
4-Nitrophenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dibenzofuran	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
2,4-Dinitrotoluene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Diethylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Fluorene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Chlorophenyl-phenylether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4-Nitroaniline	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
N-Nitrosodiphenylamine	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4-Bromophenyl-phenylether	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Hexachlorobenzene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Pentachlorophenol	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Phenanthrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Di-n-butylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzidine	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Butylbenzylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	1	304315	12/30/22	12/30/22	HQN
Benzo(a)anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Chrysene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Di-n-octylphthalate	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(b)fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(k)fluoranthene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(a)pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Dibenz(a,h)anthracene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Benzo(g,h,i)perylene	ND		ug/Kg	250	1	304315	12/30/22	12/30/22	HQN
Surrogates				**Limits**					
2-Fluorophenol	92%		%REC	29-120	1	304315	12/30/22	12/30/22	HQN
Phenol-d6	97%		%REC	30-120	1	304315	12/30/22	12/30/22	HQN
2,4,6-Tribromophenol	90%		%REC	32-120	1	304315	12/30/22	12/30/22	HQN
Nitrobenzene-d5	88%		%REC	33-120	1	304315	12/30/22	12/30/22	HQN
2-Fluorobiphenyl	85%		%REC	39-120	1	304315	12/30/22	12/30/22	HQN
Terphenyl-d14	101%		%REC	44-125	1	304315	12/30/22	12/30/22	HQN

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476166

Sample ID: BSP	Lab ID: 476166-006	Collected: 12/29/22 10:22
	Matrix: Soil	

476166-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.9	0.98	304307	12/30/22	12/30/22	SBW
Arsenic	**7.3**		mg/Kg	0.98	0.98	304307	12/30/22	12/30/22	SBW
Barium	**150**		mg/Kg	0.98	0.98	304307	12/30/22	12/30/22	SBW
Beryllium	ND		mg/Kg	0.49	0.98	304307	12/30/22	12/30/22	SBW
Cadmium	**1.6**		mg/Kg	0.49	0.98	304307	12/30/22	12/30/22	SBW
Chromium	**28**		mg/Kg	0.98	0.98	304307	12/30/22	12/30/22	SBW
Cobalt	**5.5**		mg/Kg	0.49	0.98	304307	12/30/22	12/30/22	SBW
Copper	**140**		mg/Kg	0.98	0.98	304307	12/30/22	12/30/22	SBW
Lead	**200**		mg/Kg	0.98	0.98	304307	12/30/22	12/30/22	SBW
Molybdenum	**2.6**		mg/Kg	0.98	0.98	304307	12/30/22	12/30/22	SBW
Nickel	**23**		mg/Kg	0.98	0.98	304307	12/30/22	12/30/22	SBW
Selenium	ND		mg/Kg	2.9	0.98	304307	12/30/22	12/30/22	SBW
Silver	ND		mg/Kg	0.49	0.98	304307	12/30/22	12/30/22	SBW
Thallium	ND		mg/Kg	2.9	0.98	304307	12/30/22	12/30/22	SBW
Vanadium	**21**		mg/Kg	0.98	0.98	304307	12/30/22	12/30/22	SBW
Zinc	**390**		mg/Kg	4.9	0.98	304307	12/30/22	12/30/22	SBW
Method: EPA 7471A Prep Method: METHOD									
Mercury	ND		mg/Kg	0.16	1.1	304424	01/03/23	01/06/23	KLN
Method: EPA 8015M Prep Method: EPA 3580M									
GRO C8-C10	ND		mg/Kg	10	1	304264	12/30/22	12/30/22	SME
DRO C10-C28	ND		mg/Kg	10	1	304264	12/30/22	12/30/22	SME
ORO C28-C44	ND		mg/Kg	20	1	304264	12/30/22	12/30/22	SME
Surrogates				**Limits**					
n-Triacontane	103%		%REC	70-130	1	304264	12/30/22	12/30/22	SME
Method: EPA 8260B Prep Method: EPA 5030B									
3-Chloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Freon 12	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Vinyl Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichlorofluoromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Acetone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
Freon 113	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Methylene Chloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
MTBE	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Butanone	ND		ug/Kg	100	1	304352	12/30/22	12/30/22	LYZ
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chloroform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Carbon Tetrachloride	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Benzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Trichloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromodichloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromomethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2-Trichloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Tetrachloroethene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Dibromochloromethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromoethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Chlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Ethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
m,p-Xylenes	ND		ug/Kg	10	1	304352	12/30/22	12/30/22	LYZ
o-Xylene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Styrene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromoform	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Isopropylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Propylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Bromobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
2-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
4-Chlorotoluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
tert-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
sec-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
para-Isopropyl Toluene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,3-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,4-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476166

476166-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Butylbenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Hexachlorobutadiene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Naphthalene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Xylene (total)	ND		ug/Kg	5.0	1	304352	12/30/22	12/30/22	LYZ
Surrogates				**Limits**					
Dibromofluoromethane	95%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
1,2-Dichloroethane-d4	99%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Toluene-d8	97%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ
Bromofluorobenzene	102%		%REC	70-145	1	304352	12/30/22	12/30/22	LYZ

E Response exceeds instrument's linear range

ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type:	Blank	Lab ID:	QC1035551	Batch:	304307
Matrix:	Soil	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1035551 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Antimony	ND		mg/Kg	3.0	12/30/22	12/30/22
Arsenic	ND		mg/Kg	1.0	12/30/22	12/30/22
Barium	ND		mg/Kg	1.0	12/30/22	12/30/22
Beryllium	ND		mg/Kg	0.50	12/30/22	12/30/22
Cadmium	ND		mg/Kg	0.50	12/30/22	12/30/22
Chromium	ND		mg/Kg	1.0	12/30/22	12/30/22
Cobalt	ND		mg/Kg	0.50	12/30/22	12/30/22
Copper	ND		mg/Kg	1.0	12/30/22	12/30/22
Lead	ND		mg/Kg	1.0	12/30/22	12/30/22
Molybdenum	ND		mg/Kg	1.0	12/30/22	12/30/22
Nickel	ND		mg/Kg	1.0	12/30/22	12/30/22
Selenium	ND		mg/Kg	3.0	12/30/22	12/30/22
Silver	ND		mg/Kg	0.50	12/30/22	12/30/22
Thallium	ND		mg/Kg	3.0	12/30/22	12/30/22
Vanadium	ND		mg/Kg	1.0	12/30/22	12/30/22
Zinc	ND		mg/Kg	5.0	12/30/22	12/30/22

Type:	Lab Control Sample	Lab ID:	QC1035552	Batch:	304307
Matrix:	Soil	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1035552 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Antimony	87.99	100.0	mg/Kg	88%		80-120
Arsenic	88.59	100.0	mg/Kg	89%		80-120
Barium	90.59	100.0	mg/Kg	91%		80-120
Beryllium	94.69	100.0	mg/Kg	95%		80-120
Cadmium	90.29	100.0	mg/Kg	90%		80-120
Chromium	91.10	100.0	mg/Kg	91%		80-120
Cobalt	94.54	100.0	mg/Kg	95%		80-120
Copper	90.74	100.0	mg/Kg	91%		80-120
Lead	89.72	100.0	mg/Kg	90%		80-120
Molybdenum	95.37	100.0	mg/Kg	95%		80-120
Nickel	91.20	100.0	mg/Kg	91%		80-120
Selenium	81.73	100.0	mg/Kg	82%		80-120
Silver	43.61	50.00	mg/Kg	87%		80-120
Thallium	100.3	100.0	mg/Kg	100%		80-120
Vanadium	92.24	100.0	mg/Kg	92%		80-120
Zinc	90.86	100.0	mg/Kg	91%		80-120

Batch QC

Type:	Matrix Spike	Lab ID:	QC1035553	Batch:	304307
Matrix (Source ID):	Soil (476166-001)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1035553 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	36.98	ND	96.15	mg/Kg	38%	*	75-125	0.96
Arsenic	89.95	2.182	96.15	mg/Kg	91%		75-125	0.96
Barium	146.2	50.32	96.15	mg/Kg	100%		75-125	0.96
Beryllium	93.33	0.3195	96.15	mg/Kg	97%		75-125	0.96
Cadmium	87.13	0.1295	96.15	mg/Kg	90%		75-125	0.96
Chromium	101.6	12.21	96.15	mg/Kg	93%		75-125	0.96
Cobalt	94.93	4.953	96.15	mg/Kg	94%		75-125	0.96
Copper	103.0	9.556	96.15	mg/Kg	97%		75-125	0.96
Lead	101.9	17.65	96.15	mg/Kg	88%		75-125	0.96
Molybdenum	89.52	0.3354	96.15	mg/Kg	93%		75-125	0.96
Nickel	96.36	7.929	96.15	mg/Kg	92%		75-125	0.96
Selenium	81.14	0.5245	96.15	mg/Kg	84%		75-125	0.96
Silver	42.35	ND	48.08	mg/Kg	88%		75-125	0.96
Thallium	94.20	ND	96.15	mg/Kg	98%		75-125	0.96
Vanadium	122.1	26.95	96.15	mg/Kg	99%		75-125	0.96
Zinc	130.4	43.68	96.15	mg/Kg	90%		75-125	0.96

Type:	Matrix Spike Duplicate	Lab ID:	QC1035554	Batch:	304307
Matrix (Source ID):	Soil (476166-001)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1035554 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Antimony	36.68	ND	99.01	mg/Kg	37%	*	75-125	4	41	0.99
Arsenic	92.76	2.182	99.01	mg/Kg	91%		75-125	0	35	0.99
Barium	154.2	50.32	99.01	mg/Kg	105%		75-125	3	20	0.99
Beryllium	95.56	0.3195	99.01	mg/Kg	96%		75-125	1	20	0.99
Cadmium	89.02	0.1295	99.01	mg/Kg	90%		75-125	1	20	0.99
Chromium	103.8	12.21	99.01	mg/Kg	92%		75-125	0	20	0.99
Cobalt	96.79	4.953	99.01	mg/Kg	93%		75-125	1	20	0.99
Copper	105.9	9.556	99.01	mg/Kg	97%		75-125	0	20	0.99
Lead	105.4	17.65	99.01	mg/Kg	89%		75-125	1	20	0.99
Molybdenum	91.28	0.3354	99.01	mg/Kg	92%		75-125	1	20	0.99
Nickel	98.32	7.929	99.01	mg/Kg	91%		75-125	1	20	0.99
Selenium	82.81	0.5245	99.01	mg/Kg	83%		75-125	1	20	0.99
Silver	43.53	ND	49.50	mg/Kg	88%		75-125	0	20	0.99
Thallium	94.93	ND	99.01	mg/Kg	96%		75-125	2	20	0.99
Vanadium	126.6	26.95	99.01	mg/Kg	101%		75-125	1	20	0.99
Zinc	137.0	43.68	99.01	mg/Kg	94%		75-125	3	20	0.99

Batch QC

Type: Blank	Lab ID: QC1035496	Batch: 304291
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC1035496 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	12/29/22	01/03/23

Type: Lab Control Sample	Lab ID: QC1035497	Batch: 304291
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC1035497 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.7892	0.8333	mg/Kg	95%		80-120

Type: Matrix Spike	Lab ID: QC1035498	Batch: 304291
Matrix (Source ID): Soil (476166-001)	Method: EPA 7471A	Prep Method: METHOD

QC1035498 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.9429	0.03046	0.9434	mg/Kg	97%		75-125	1.1

Type: Matrix Spike Duplicate	Lab ID: QC1035499	Batch: 304291
Matrix (Source ID): Soil (476166-001)	Method: EPA 7471A	Prep Method: METHOD

QC1035499 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	0.9596	0.03046	0.9434	mg/Kg	98%		75-125	2	20	1.1

Type: Blank	Lab ID: QC1035767	Batch: 304368
Matrix: Miscell.	Method: EPA 7471A	Prep Method: METHOD

QC1035767 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	12/30/22	01/03/23

Type: Lab Control Sample	Lab ID: QC1035768	Batch: 304368
Matrix: Miscell.	Method: EPA 7471A	Prep Method: METHOD

QC1035768 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.8148	0.8333	mg/Kg	98%		80-120

Batch QC

Type:	Matrix Spike	Lab ID:	QC1035769	Batch:	304368
Matrix (Source ID):	Soil (476048-001)	Method:	EPA 7471A	Prep Method:	METHOD

QC1035769 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.8841	ND	0.9434	mg/Kg	94%		75-125	1.1

Type:	Matrix Spike Duplicate	Lab ID:	QC1035770	Batch:	304368
Matrix (Source ID):	Soil (476048-001)	Method:	EPA 7471A	Prep Method:	METHOD

QC1035770 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	0.8795	ND	0.9434	mg/Kg	93%		75-125	1	20	1.1

Type:	Blank	Lab ID:	QC1035976	Batch:	304424
Matrix:	Soil	Method:	EPA 7471A	Prep Method:	METHOD

QC1035976 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	01/03/23	01/06/23

Type:	Lab Control Sample	Lab ID:	QC1035977	Batch:	304424
Matrix:	Soil	Method:	EPA 7471A	Prep Method:	METHOD

QC1035977 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.8391	0.8333	mg/Kg	101%		80-120

Type:	Matrix Spike	Lab ID:	QC1035978	Batch:	304424
Matrix (Source ID):	Soil (476166-004)	Method:	EPA 7471A	Prep Method:	METHOD

QC1035978 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.9827	0.008176	0.9434	mg/Kg	103%		75-125	1.1

Type:	Matrix Spike Duplicate	Lab ID:	QC1035979	Batch:	304424
Matrix (Source ID):	Soil (476166-004)	Method:	EPA 7471A	Prep Method:	METHOD

QC1035979 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	1.015	0.008176	0.9434	mg/Kg	107%		75-125	3	20	1.1

Batch QC

Type: Blank	Lab ID: QC1035395	Batch: 304264
Matrix: Soil	Method: EPA 8015M	Prep Method: EPA 3580M

QC1035395 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
GRO C8-C10	ND		mg/Kg	10	12/29/22	12/29/22
DRO C10-C28	ND		mg/Kg	10	12/29/22	12/29/22
ORO C28-C44	ND		mg/Kg	20	12/29/22	12/29/22
Surrogates				**Limits**		
n-Triacontane	94%		%REC	70-130	12/29/22	12/29/22

Type: Lab Control Sample	Lab ID: QC1035396	Batch: 304264
Matrix: Soil	Method: EPA 8015M	Prep Method: EPA 3580M

QC1035396 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Diesel C10-C28	224.1	250.6	mg/Kg	89%		76-122
Surrogates						
n-Triacontane	9.815	10.03	mg/Kg	98%		70-130

Type: Matrix Spike	Lab ID: QC1035397	Batch: 304264
Matrix (Source ID): Soil (476040-001)	Method: EPA 8015M	Prep Method: EPA 3580M

QC1035397 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Diesel C10-C28	257.3	34.32	249.1	mg/Kg	90%		62-126	2
Surrogates								
n-Triacontane	10.12		9.965	mg/Kg	102%		70-130	2

Type: Matrix Spike Duplicate	Lab ID: QC1035398	Batch: 304264
Matrix (Source ID): Soil (476040-001)	Method: EPA 8015M	Prep Method: EPA 3580M

QC1035398 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Diesel C10-C28	227.9	34.32	249.1	mg/Kg	78%		62-126	12	35	2
Surrogates										
n-Triacontane	10.15		9.965	mg/Kg	102%		70-130			2

Batch QC

Type: Blank	Lab ID: QC1035701	Batch: 304352
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC1035701 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
3-Chloropropene	ND		ug/Kg	5.0	12/30/22	12/30/22
Freon 12	ND		ug/Kg	5.0	12/30/22	12/30/22
Chloromethane	ND		ug/Kg	5.0	12/30/22	12/30/22
Vinyl Chloride	ND		ug/Kg	5.0	12/30/22	12/30/22
Bromomethane	ND		ug/Kg	5.0	12/30/22	12/30/22
Chloroethane	ND		ug/Kg	5.0	12/30/22	12/30/22
Trichlorofluoromethane	ND		ug/Kg	5.0	12/30/22	12/30/22
Acetone	ND		ug/Kg	100	12/30/22	12/30/22
Freon 113	ND		ug/Kg	5.0	12/30/22	12/30/22
1,1-Dichloroethene	ND		ug/Kg	5.0	12/30/22	12/30/22
Methylene Chloride	ND		ug/Kg	5.0	12/30/22	12/30/22
MTBE	ND		ug/Kg	5.0	12/30/22	12/30/22
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,1-Dichloroethane	ND		ug/Kg	5.0	12/30/22	12/30/22
2-Butanone	ND		ug/Kg	100	12/30/22	12/30/22
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	12/30/22	12/30/22
2,2-Dichloropropane	ND		ug/Kg	5.0	12/30/22	12/30/22
Chloroform	ND		ug/Kg	5.0	12/30/22	12/30/22
Bromochloromethane	ND		ug/Kg	5.0	12/30/22	12/30/22
1,1,1-Trichloroethane	ND		ug/Kg	5.0	12/30/22	12/30/22
1,1-Dichloropropene	ND		ug/Kg	5.0	12/30/22	12/30/22
Carbon Tetrachloride	ND		ug/Kg	5.0	12/30/22	12/30/22
1,2-Dichloroethane	ND		ug/Kg	5.0	12/30/22	12/30/22
Benzene	ND		ug/Kg	5.0	12/30/22	12/30/22
Trichloroethene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,2-Dichloropropane	ND		ug/Kg	5.0	12/30/22	12/30/22
Bromodichloromethane	ND		ug/Kg	5.0	12/30/22	12/30/22
Dibromomethane	ND		ug/Kg	5.0	12/30/22	12/30/22
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	12/30/22	12/30/22
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	12/30/22	12/30/22
Toluene	ND		ug/Kg	5.0	12/30/22	12/30/22
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,1,2-Trichloroethane	ND		ug/Kg	5.0	12/30/22	12/30/22
1,3-Dichloropropane	ND		ug/Kg	5.0	12/30/22	12/30/22
Tetrachloroethene	ND		ug/Kg	5.0	12/30/22	12/30/22
Dibromochloromethane	ND		ug/Kg	5.0	12/30/22	12/30/22
1,2-Dibromoethane	ND		ug/Kg	5.0	12/30/22	12/30/22
Chlorobenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	12/30/22	12/30/22
Ethylbenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
m,p-Xylenes	ND		ug/Kg	10	12/30/22	12/30/22
o-Xylene	ND		ug/Kg	5.0	12/30/22	12/30/22

Batch QC

QC1035701 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Styrene	ND		ug/Kg	5.0	12/30/22	12/30/22
Bromoform	ND		ug/Kg	5.0	12/30/22	12/30/22
Isopropylbenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	12/30/22	12/30/22
1,2,3-Trichloropropane	ND		ug/Kg	5.0	12/30/22	12/30/22
Propylbenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
Bromobenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
2-Chlorotoluene	ND		ug/Kg	5.0	12/30/22	12/30/22
4-Chlorotoluene	ND		ug/Kg	5.0	12/30/22	12/30/22
tert-Butylbenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
sec-Butylbenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
para-Isopropyl Toluene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,3-Dichlorobenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,4-Dichlorobenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
n-Butylbenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,2-Dichlorobenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	12/30/22	12/30/22
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
Hexachlorobutadiene	ND		ug/Kg	5.0	12/30/22	12/30/22
Naphthalene	ND		ug/Kg	5.0	12/30/22	12/30/22
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	12/30/22	12/30/22
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	12/30/22	12/30/22
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	12/30/22	12/30/22
Xylene (total)	ND		ug/Kg	5.0	12/30/22	12/30/22
Surrogates				**Limits**		
Dibromofluoromethane	90%		%REC	70-130	12/30/22	12/30/22
1,2-Dichloroethane-d4	93%		%REC	70-145	12/30/22	12/30/22
Toluene-d8	99%		%REC	70-145	12/30/22	12/30/22
Bromofluorobenzene	102%		%REC	70-145	12/30/22	12/30/22

ENTHALPY ANALYTICAL

Batch QC

Type:	Lab Control Sample	Lab ID:	QC1035702	Batch:	304352
Matrix:	Soil	Method:	EPA 8260B	Prep Method:	EPA 5030B

QC1035702 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Dichloroethene	45.48	50.00	ug/Kg	91%		70-131
MTBE	44.95	50.00	ug/Kg	90%		69-130
Benzene	49.55	50.00	ug/Kg	99%		70-130
Trichloroethene	47.16	50.00	ug/Kg	94%		70-130
Toluene	48.63	50.00	ug/Kg	97%		70-130
Chlorobenzene	47.61	50.00	ug/Kg	95%		70-130
Surrogates						
Dibromofluoromethane	48.32	50.00	ug/Kg	97%		70-130
1,2-Dichloroethane-d4	45.39	50.00	ug/Kg	91%		70-145
Toluene-d8	51.09	50.00	ug/Kg	102%		70-145
Bromofluorobenzene	50.00	50.00	ug/Kg	100%		70-145

Type:	Lab Control Sample Duplicate	Lab ID:	QC1035703	Batch:	304352
Matrix:	Soil	Method:	EPA 8260B	Prep Method:	EPA 5030B

QC1035703 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Dichloroethene	45.32	50.00	ug/Kg	91%		70-131	0	33
MTBE	42.84	50.00	ug/Kg	86%		69-130	5	30
Benzene	47.98	50.00	ug/Kg	96%		70-130	3	30
Trichloroethene	46.10	50.00	ug/Kg	92%		70-130	2	30
Toluene	47.19	50.00	ug/Kg	94%		70-130	3	30
Chlorobenzene	46.35	50.00	ug/Kg	93%		70-130	3	30
Surrogates								
Dibromofluoromethane	48.63	50.00	ug/Kg	97%		70-130		
1,2-Dichloroethane-d4	45.44	50.00	ug/Kg	91%		70-145		
Toluene-d8	50.17	50.00	ug/Kg	100%		70-145		
Bromofluorobenzene	50.58	50.00	ug/Kg	101%		70-145		

ENTHALPY ANALYTICAL

Batch QC

Type:	Blank	Lab ID:	QC1035583	Batch:	304315
Matrix:	Soil	Method:	EPA 8270C	Prep Method:	EPA 3546

QC1035583 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Carbazole	ND		ug/Kg	250	12/30/22	12/30/22
1-Methylnaphthalene	ND		ug/Kg	250	12/30/22	12/30/22
Pyridine	ND		ug/Kg	250	12/30/22	12/30/22
N-Nitrosodimethylamine	ND		ug/Kg	250	12/30/22	12/30/22
Phenol	ND		ug/Kg	250	12/30/22	12/30/22
Aniline	ND		ug/Kg	250	12/30/22	12/30/22
bis(2-Chloroethyl)ether	ND		ug/Kg	1,200	12/30/22	12/30/22
2-Chlorophenol	ND		ug/Kg	250	12/30/22	12/30/22
1,3-Dichlorobenzene	ND		ug/Kg	250	12/30/22	12/30/22
1,4-Dichlorobenzene	ND		ug/Kg	250	12/30/22	12/30/22
Benzyl alcohol	ND		ug/Kg	250	12/30/22	12/30/22
1,2-Dichlorobenzene	ND		ug/Kg	250	12/30/22	12/30/22
2-Methylphenol	ND		ug/Kg	250	12/30/22	12/30/22
bis(2-Chloroisopropyl) ether	ND		ug/Kg	250	12/30/22	12/30/22
3-,4-Methylphenol	ND		ug/Kg	400	12/30/22	12/30/22
N-Nitroso-di-n-propylamine	ND		ug/Kg	250	12/30/22	12/30/22
Hexachloroethane	ND		ug/Kg	250	12/30/22	12/30/22
Nitrobenzene	ND		ug/Kg	1,200	12/30/22	12/30/22
Isophorone	ND		ug/Kg	250	12/30/22	12/30/22
2-Nitrophenol	ND		ug/Kg	250	12/30/22	12/30/22
2,4-Dimethylphenol	ND		ug/Kg	250	12/30/22	12/30/22
Benzoic acid	ND		ug/Kg	1,200	12/30/22	12/30/22
bis(2-Chloroethoxy)methane	ND		ug/Kg	250	12/30/22	12/30/22
2,4-Dichlorophenol	ND		ug/Kg	250	12/30/22	12/30/22
1,2,4-Trichlorobenzene	ND		ug/Kg	250	12/30/22	12/30/22
Naphthalene	ND		ug/Kg	250	12/30/22	12/30/22
4-Chloroaniline	ND		ug/Kg	250	12/30/22	12/30/22
Hexachlorobutadiene	ND		ug/Kg	250	12/30/22	12/30/22
4-Chloro-3-methylphenol	ND		ug/Kg	250	12/30/22	12/30/22
2-Methylnaphthalene	ND		ug/Kg	250	12/30/22	12/30/22
Hexachlorocyclopentadiene	ND		ug/Kg	1,200	12/30/22	12/30/22
2,4,6-Trichlorophenol	ND		ug/Kg	250	12/30/22	12/30/22
2,4,5-Trichlorophenol	ND		ug/Kg	250	12/30/22	12/30/22
2-Chloronaphthalene	ND		ug/Kg	250	12/30/22	12/30/22
2-Nitroaniline	ND		ug/Kg	250	12/30/22	12/30/22
Dimethylphthalate	ND		ug/Kg	250	12/30/22	12/30/22
Acenaphthylene	ND		ug/Kg	250	12/30/22	12/30/22
2,6-Dinitrotoluene	ND		ug/Kg	250	12/30/22	12/30/22
3-Nitroaniline	ND		ug/Kg	250	12/30/22	12/30/22
Acenaphthene	ND		ug/Kg	250	12/30/22	12/30/22
2,4-Dinitrophenol	ND		ug/Kg	1,200	12/30/22	12/30/22
4-Nitrophenol	ND		ug/Kg	250	12/30/22	12/30/22

Batch QC

QC1035583 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Dibenzofuran	ND		ug/Kg	250	12/30/22	12/30/22
2,4-Dinitrotoluene	ND		ug/Kg	250	12/30/22	12/30/22
Diethylphthalate	ND		ug/Kg	250	12/30/22	12/30/22
Fluorene	ND		ug/Kg	250	12/30/22	12/30/22
4-Chlorophenyl-phenylether	ND		ug/Kg	250	12/30/22	12/30/22
4-Nitroaniline	ND		ug/Kg	250	12/30/22	12/30/22
4,6-Dinitro-2-methylphenol	ND		ug/Kg	250	12/30/22	12/30/22
N-Nitrosodiphenylamine	ND		ug/Kg	250	12/30/22	12/30/22
1,2-diphenylhydrazine (as azobenzene)	ND		ug/Kg	250	12/30/22	12/30/22
4-Bromophenyl-phenylether	ND		ug/Kg	250	12/30/22	12/30/22
Hexachlorobenzene	ND		ug/Kg	250	12/30/22	12/30/22
Pentachlorophenol	ND		ug/Kg	1,200	12/30/22	12/30/22
Phenanthrene	ND		ug/Kg	250	12/30/22	12/30/22
Anthracene	ND		ug/Kg	250	12/30/22	12/30/22
Di-n-butylphthalate	ND		ug/Kg	250	12/30/22	12/30/22
Fluoranthene	ND		ug/Kg	250	12/30/22	12/30/22
Benzidine	ND		ug/Kg	1,200	12/30/22	12/30/22
Pyrene	ND		ug/Kg	250	12/30/22	12/30/22
Butylbenzylphthalate	ND		ug/Kg	250	12/30/22	12/30/22
3,3'-Dichlorobenzidine	ND		ug/Kg	1,200	12/30/22	12/30/22
Benzo(a)anthracene	ND		ug/Kg	250	12/30/22	12/30/22
Chrysene	ND		ug/Kg	250	12/30/22	12/30/22
bis(2-Ethylhexyl)phthalate	ND		ug/Kg	250	12/30/22	12/30/22
Di-n-octylphthalate	ND		ug/Kg	250	12/30/22	12/30/22
Benzo(b)fluoranthene	ND		ug/Kg	250	12/30/22	12/30/22
Benzo(k)fluoranthene	ND		ug/Kg	250	12/30/22	12/30/22
Benzo(a)pyrene	ND		ug/Kg	250	12/30/22	12/30/22
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	250	12/30/22	12/30/22
Dibenz(a,h)anthracene	ND		ug/Kg	250	12/30/22	12/30/22
Benzo(g,h,i)perylene	ND		ug/Kg	250	12/30/22	12/30/22
Surrogates				**Limits**		
2-Fluorophenol	59%		%REC	29-120	12/30/22	12/30/22
Phenol-d6	60%		%REC	30-120	12/30/22	12/30/22
2,4,6-Tribromophenol	53%		%REC	32-120	12/30/22	12/30/22
Nitrobenzene-d5	54%		%REC	33-120	12/30/22	12/30/22
2-Fluorobiphenyl	53%		%REC	39-120	12/30/22	12/30/22
Terphenyl-d14	62%		%REC	44-125	12/30/22	12/30/22

ENTHALPY ANALYTICAL

Batch QC

Type:	Lab Control Sample	Lab ID:	QC1035584	Batch:	304315
Matrix:	Soil	Method:	EPA 8270C	Prep Method:	EPA 3546

QC1035584 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phenol	1,958	3715	ug/Kg	53%		42-120
2-Chlorophenol	1,902	3715	ug/Kg	51%		41-120
1,4-Dichlorobenzene	1,784	3715	ug/Kg	48%		36-120
3-,4-Methylphenol	1,973	3715	ug/Kg	53%		42-120
N-Nitroso-di-n-propylamine	1,946	3715	ug/Kg	52%		43-121
2,4-Dimethylphenol	1,833	3715	ug/Kg	49%		25-120
1,2,4-Trichlorobenzene	1,780	3715	ug/Kg	48%		38-120
4-Chloro-3-methylphenol	2,012	3715	ug/Kg	54%		40-125
2,4,5-Trichlorophenol	1,960	3715	ug/Kg	53%		40-124
Acenaphthene	1,884	3715	ug/Kg	51%		35-126
4-Nitrophenol	2,181	3715	ug/Kg	59%		24-128
2,4-Dinitrotoluene	2,067	3715	ug/Kg	56%		40-131
Pentachlorophenol	1,591	3715	ug/Kg	43%		35-120
Pyrene	1,969	3715	ug/Kg	53%		37-135
Chrysene	1,995	3715	ug/Kg	54%		38-132
Benzo(b)fluoranthene	2,118	3715	ug/Kg	57%		38-135
Surrogates						
2-Fluorophenol	1,142	1981	ug/Kg	58%		29-120
Phenol-d6	1,173	1981	ug/Kg	59%		30-120
2,4,6-Tribromophenol	1,169	1981	ug/Kg	59%		32-120
Nitrobenzene-d5	1,050	1981	ug/Kg	53%		33-120
2-Fluorobiphenyl	1,002	1981	ug/Kg	51%		39-120
Terphenyl-d14	1,248	1981	ug/Kg	63%		44-125

Batch QC

Type:	Matrix Spike	Lab ID:	QC1035585	Batch:	304315
Matrix (Source ID):	Soil (476166-001)	Method:	EPA 8270C	Prep Method:	EPA 3546

QC1035585 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phenol	1,854	ND	3767	ug/Kg	49%		37-120	1
2-Chlorophenol	1,834	ND	3767	ug/Kg	49%		33-120	1
1,4-Dichlorobenzene	1,746	ND	3767	ug/Kg	46%		32-120	1
3-,4-Methylphenol	1,897	ND	3767	ug/Kg	50%		37-120	1
N-Nitroso-di-n-propylamine	1,882	ND	3767	ug/Kg	50%		32-120	1
2,4-Dimethylphenol	1,760	ND	3767	ug/Kg	47%		32-120	1
1,2,4-Trichlorobenzene	1,759	ND	3767	ug/Kg	47%		33-120	1
4-Chloro-3-methylphenol	1,893	ND	3767	ug/Kg	50%		41-121	1
2,4,5-Trichlorophenol	1,873	ND	3767	ug/Kg	50%		40-120	1
Acenaphthene	1,762	ND	3767	ug/Kg	47%		37-120	1
4-Nitrophenol	1,537	ND	3767	ug/Kg	41%		20-141	1
2,4-Dinitrotoluene	1,926	ND	3767	ug/Kg	51%		33-128	1
Pentachlorophenol	1,456	ND	3767	ug/Kg	39%		28-132	1
Pyrene	1,830	ND	3767	ug/Kg	49%		39-135	1
Chrysene	1,817	ND	3767	ug/Kg	48%		37-135	1
Benzo(b)fluoranthene	1,995	ND	3767	ug/Kg	53%		34-139	1
Surrogates								
2-Fluorophenol	1,045		2009	ug/Kg	52%		29-120	1
Phenol-d6	1,086		2009	ug/Kg	54%		30-120	1
2,4,6-Tribromophenol	1,072		2009	ug/Kg	53%		32-120	1
Nitrobenzene-d5	1,014		2009	ug/Kg	50%		33-120	1
2-Fluorobiphenyl	942.8		2009	ug/Kg	47%		39-120	1
Terphenyl-d14	1,180		2009	ug/Kg	59%		44-125	1

Batch QC

Type:	Matrix Spike Duplicate	Lab ID:	QC1035586	Batch:	304315
Matrix (Source ID):	Soil (476166-001)	Method:	EPA 8270C	Prep Method:	EPA 3546

QC1035586 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phenol	1,807	ND	3724	ug/Kg	49%		37-120	1	49	0.99
2-Chlorophenol	1,774	ND	3724	ug/Kg	48%		33-120	2	52	0.99
1,4-Dichlorobenzene	1,682	ND	3724	ug/Kg	45%		32-120	3	50	0.99
3-,4-Methylphenol	1,855	ND	3724	ug/Kg	50%		37-120	1	54	0.99
N-Nitroso-di-n-propylamine	1,815	ND	3724	ug/Kg	49%		32-120	2	50	0.99
2,4-Dimethylphenol	1,706	ND	3724	ug/Kg	46%		32-120	2	50	0.99
1,2,4-Trichlorobenzene	1,712	ND	3724	ug/Kg	46%		33-120	2	50	0.99
4-Chloro-3-methylphenol	1,875	ND	3724	ug/Kg	50%		41-121	0	43	0.99
2,4,5-Trichlorophenol	1,810	ND	3724	ug/Kg	49%		40-120	2	47	0.99
Acenaphthene	1,681	ND	3724	ug/Kg	45%		37-120	4	48	0.99
4-Nitrophenol	1,513	ND	3724	ug/Kg	41%		20-141	0	30	0.99
2,4-Dinitrotoluene	1,871	ND	3724	ug/Kg	50%		33-128	2	50	0.99
Pentachlorophenol	1,439	ND	3724	ug/Kg	39%		28-132	0	30	0.99
Pyrene	1,742	ND	3724	ug/Kg	47%		39-135	4	41	0.99
Chrysene	1,711	ND	3724	ug/Kg	46%		37-135	5	46	0.99
Benzo(b)fluoranthene	1,884	ND	3724	ug/Kg	51%		34-139	5	47	0.99
Surrogates										
2-Fluorophenol	1,030		1986	ug/Kg	52%		29-120			0.99
Phenol-d6	1,074		1986	ug/Kg	54%		30-120			0.99
2,4,6-Tribromophenol	1,036		1986	ug/Kg	52%		32-120			0.99
Nitrobenzene-d5	996.5		1986	ug/Kg	50%		33-120			0.99
2-Fluorobiphenyl	921.5		1986	ug/Kg	46%		39-120			0.99
Terphenyl-d14	1,141		1986	ug/Kg	57%		44-125			0.99

ENTHALPY ANALYTICAL

Batch QC

Type:	**Blank**	**Lab ID:**	**QC1035587**	**Batch:**	**304316**
Matrix:	**Soil**	**Method:**	**EPA 8270C-SIM**	**Prep Method:**	**EPA 3546**

QC1035587 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1-Methylnaphthalene	ND		ug/Kg	10	12/30/22	12/30/22
2-Methylnaphthalene	ND		ug/Kg	10	12/30/22	12/30/22
Naphthalene	ND		ug/Kg	10	12/30/22	12/30/22
Acenaphthylene	ND		ug/Kg	10	12/30/22	12/30/22
Acenaphthene	ND		ug/Kg	10	12/30/22	12/30/22
Fluorene	ND		ug/Kg	10	12/30/22	12/30/22
Phenanthrene	ND		ug/Kg	10	12/30/22	12/30/22
Anthracene	ND		ug/Kg	10	12/30/22	12/30/22
Fluoranthene	ND		ug/Kg	10	12/30/22	12/30/22
Pyrene	ND		ug/Kg	10	12/30/22	12/30/22
Benzo(a)anthracene	ND		ug/Kg	10	12/30/22	12/30/22
Chrysene	ND		ug/Kg	10	12/30/22	12/30/22
Benzo(b)fluoranthene	ND		ug/Kg	10	12/30/22	12/30/22
Benzo(k)fluoranthene	ND		ug/Kg	10	12/30/22	12/30/22
Benzo(a)pyrene	ND		ug/Kg	10	12/30/22	12/30/22
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	12/30/22	12/30/22
Dibenz(a,h)anthracene	ND		ug/Kg	10	12/30/22	12/30/22
Benzo(g,h,i)perylene	ND		ug/Kg	10	12/30/22	12/30/22
Surrogates				**Limits**		
Nitrobenzene-d5	67%		%REC	27-125	12/30/22	12/30/22
2-Fluorobiphenyl	68%		%REC	30-120	12/30/22	12/30/22
Terphenyl-d14	94%		%REC	33-155	12/30/22	12/30/22

LANDFILL GAS ASSESSMENT REPORT
2750-2770 Bristol Street
Costa Mesa, California
Assessor's Parcel Number (APN): 418-182-06

Walker Group Companies
11100 Cambie Road, Unit 105
Richmond, BC V6X 1K9

SCS ENGINEERS

Project No. 01222204.00 Task 1 | February 24, 2023

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806
(562) 426-9544

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This Landfill Gas Assessment Report was prepared for property located at 2750-2770 Bristol Street, Costa Mesa, California and was prepared and reviewed by the following:

Kenneth H. Lister, PhD., CEG, CHg
Technical Advisor
SCS ENGINEERS

Jeffrey T. Sieg, PG
Sr. Project Manager
SCS ENGINEERS

PROFESSIONAL GEOLOGIST
JEFFREY T. SIEG
No. 9523
Exp: 8/2024
STATE OF CALIFORNIA

DISCLAIMER

This report has been prepared for Walker Group Companies with specific application to an assessment of landfill gas in the subsurface at property located at 2750-2770 Bristol Street, Costa Mesa, California. This report has been prepared in accordance with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. No other warranty, express or implied, is made as to the professional opinions presented herein. No other party, known or unknown to SCS Engineers, is intended as a beneficiary of this work product, its content or information embedded therein. Third parties use this report at their own risk.

Changes in site conditions may occur due to variation in rainfall, temperature, water usage, or other factors. Additional information that was not available to the consultant at the time of this investigation or changes that may occur on the site or in the surrounding area may result in modification to the site that would impact the summary and recommendations presented herein. This report is not a legal opinion.

1 INTRODUCTION

SCS Engineers (SCS) was retained by Walker Group Companies (WGC) to conduct a landfill gas (LFG) assessment of property located at 2750-5770 Bristol Street, Costa Mesa, California (APN: 418-182-06 [the "Property"]). This assessment was conducted in order to evaluate the presence of LFG on the Property and its potential for subsurface migration to on and off site structures and emissions into the atmosphere.

Activities were conducted in accordance with SCS's *Landfill Gas Assessment Workplan* (October 2022), and the Orange County Health Care Agency (OCHCA), Environmental Health Local Enforcement Agency (LEA), conditional approval letter dated December 9, 2022. A map showing the general location of the Property is provided as Figure 1.

2 GENERAL BACKGROUND

The Property consists of approximately 1.5 acres, a portion of which overlies a former 15-acre landfill listed on the CalRecylce website as Newport Avenue Station #1 (30-CR-0071) (the Landfill). The current "Site Operation Status" of the Landfill is "Closed" and the "Site Regulatory Status" is "Pre-regulation."

Based on review of topographic maps, the Property appears to have been vacant land from 1896 to 1965. In the 1935 and 1942 topographic maps, the Property is depicted within a wetlands or area of significant ponding. This area of ponding/low-lying area can additionally be identified in the 1938 aerial photograph. A 1947 aerial photograph of the Property and surrounding area shows evidence of earth moving activities and the 1948 topographic map no longer depicts a wetland or ponded area at or in the vicinity of the Property. Reportedly, the Property was part of an Orange County municipal solid waste landfill between 1946 and 1955 (Partner, 2019). Between 1963 and 1977, historical topographic maps and aerial photographs show that a portion of the Property was incorporated into a mobile home park.

By 1990, the Property was redeveloped as a car wash and gasoline service station. An additional light automotive maintenance "lube" center was constructed on the Property in 1993.

A Solid Waste Assessment Test (SWAT) investigation of the Landfill was conducted in 1997, results of which showed that metals and volatile organic compounds (VOCs) were not detected in groundwater at concentrations exceeding their maximum contaminant levels (MCLs) for California drinking water (Partner, June 19, 2019).

On behalf of the County of Orange Integrated Waste Management Department, an Environmental Assessment Report (EAR) for the Landfill was prepared by TRC, dated July 2000. The EAR (available on the State Water Resource Control Board's GeoTracker website, in which numerous documents and investigation reports associated with the Landfill have been complied), concluded the following with respect to the landfill footprint and physical component, landfill gas (LFG) generation and migration potential, and groundwater quality:

- Most (approximately 80%) of the refuse material was removed from the Landfill during the development of the Corona Del Mar/Newport Freeway interchange. Developments to the west (including the Property) contain fill sand with minor to heavy amounts of debris (identified primarily as rock, asphaltic concrete [AC], concrete fragments, glass, wood, brick fragments, and metal fragments) ranging between 0 to 20 feet below ground surface (bgs).

- Potential for LFG generation and migration was considered very low since the majority of refuse had been removed during the freeway interchange construction and that the remaining deposited material was mostly inert rubbish and burn residue. Furthermore, in a study conducted by Clements Environmental in 1996, methane was not detected in 20 probes that surrounded the Property to the north, south, east and, west. During the Clements investigation, the probes were installed at approximately 5 feet bgs and the monitoring equipment used was capable of detecting methane at a concentration of 1,000 parts per million by volume (ppmv) or greater.

- Groundwater quality investigations have shown that water quality both up- and downgradient of the Landfill is poor and not suitable as drinking water. Concentrations of constituents of concern (COCs), specifically VOCs, are greater in upgradient wells than in downgradient wells, indicating that the primary source of COCs was an up-gradient off-site source.

In 2003, the service station was decommissioned, which included the removal of four underground storage tanks (USTs) for fuel and six dispenser islands. These activities were conducted under regulatory oversight of the OCHCA, case #03UT012. Following several environmental investigations of soil, soil vapor, and groundwater, associated with a release from the former USTs, remediation was conducted which included air-sparge, soil vapor extraction, and groundwater monitoring. The OCHCA issued a "Remedial Action Certification" on June 4, 2010. Documents regarding the investigations, remediation, and subsequent OCHCA Completion Certification are available on the State Water Resource Control Board's GeoTracker website.

Following WGC's acquisition of the Property, permits for demolition and grading were issued by the City of Costa Mesa Department of Building Safety (CMDBS) in 2021, without reference to restrictions regarding Title 27 requirements.

On February 2, 2022, demolition activities began at the Property in accordance with CMDBS-approved permits. Following demolition activities, grading and earth work proceeded in accordance with the proposed redevelopment plans that had been provided to the CMDBS. Redevelopment activities commenced with routine inspections conducted by the CMDBS.

In April 2022, an LEA representative conducted a routine inspection of the Landfill and surrounding areas. This routine inspection resulted in notification to WGC that a Post Closure Land Use Plan (PCLUP) would be required in accordance with Title 27 CCR §21190. In response to the LEA notification, Mearns Consulting LLC prepared a PCLUP, dated July 7, 2022, which documented a methane gas assessment report prepared by DL Science, Inc. (DLS), dated June 4, 2022. As part of their evaluation of methane gas, DLS installed and monitored seven shallow (4-feet bgs) and four deep multi-nested probe sets (implants set at 5, 10, and 20 feet bgs) on the Property. Each of the probes was monitored during two separate events on May 31, and June 1, 2022. The highest positive pressure detected during the two monitoring events was 0.02 inches of water (i.w.). Methane was detected, above the monitoring equipment's detection limit of 1,000 ppmv, in six of the 19 probes. During the two monitoring events, the highest concentration of methane was 5,000 ppmv, detected in probe DP-3 at 20 feet bgs.

On August 11, 2022, an email from Joanne Lee of the California Regional Water Quality Control Board, Santa Ana Region, was sent to Robert Walker of WGC stating that "currently, the former Newport Avenue Landfill is not regulated by the Santa Ana Water Board because no groundwater impacts from the landfill has been found based on groundwater monitoring data collected from 1993 to 2017."

In August 2022, the LEA conducted a routine inspection of the Landfill in accordance with CCR Title 27. At the time of the inspection, the development team was notified that the construction activities being conducted were not compliant with Title 27 requirements. Subsequently, on September 1, 2022, the LEA issued a formal notice of violation, after which construction activities ceased.

WGC's consultants and counsel met with representatives of the LEA and CalRecycle on September 22, 2022. During this meeting, the LEA stated that additional soil characterization and LFG assessments would be required prior to their review of a Post Closure Land Use Plan (PCLUP), regardless of the previous work and numerous investigations that had been conducted on the Property and the Landfill as early as 1993.

As part of a landfill soil characterization investigation conducted by SCS in December 2022, eight borings were advanced throughout the Property with soil samples collected for visual observation and laboratory analysis to evaluate the lateral and vertical extent of waste and characterize the material for COCs. Physical observations of the material recovered from the eight borings identified limited amounts (5-20%) of inert debris, such as brick, glass, concrete, and rock, sporadically located throughout the Property, confirming previous investigations that suggested that there is an insufficient amount of decomposable material to generate significant amounts of methane gas. Upon reaching total depth, each of the borings was converted to a dual-nested soil gas probe, screened from 5 to 10 feet bgs (shallow zone) and 19 to 24 feet bgs (deep zone) for LFG/Soil Gas monitoring and sampling.

3 PHYSICAL SETTING

GEOLOGY AND SOILS

The Property is located within the Orange County area of the Peninsular Ranges physiographic province, in which the dominant geologic formations are of Tertiary and Quarternary age. Numerous investigations have been conducted at the Property. The investigations have predominantly been geotechnical evaluations of soil conditions and environmental impacts focused on areas where previous features (such as clarifiers and USTs) were located. Soil investigations conducted from 2000 to 2020 have provided information regarding the nature and extent of the fill associated with Newport Avenue Station No.1.

Partner Engineering & Science, Inc. (Partner) conducted both geotechnical and environmental investigations in 2019. Partner described soil conditions as fill materials comprised of sandy/silty soils to a depth of 25 feet bgs and native soils below a depth of 25 feet. Sandy alluvium was present between 25 to 40 feet bgs, clayey alluvium present between 40 and 45 feet bgs, and dense sandy alluvium between 45 to 50 feet bgs. Two of the six boring advanced by Partner identified limited amounts of debris within the soil. The reported debris encountered in these borings consisted of glass fragments to a depth of approximately 20 feet bgs.

NorCal Engineering (Norcal) conducted a geotechnical investigation in August 2020. The Norcal investigation found that the site is underlain by approximately 10 to 25 feet of stiff undocumented fill.

Review of previous investigations at the Property have documented that soil fill is present beneath the site between 10 and 25 feet bgs. Beneath this fill, native soil was noted to depths up to 51.5 feet bgs. The native soil is composed of alluvial material consisting of sand and silty sand with lenses or discrete layers of clayey material in the depth range of 40 to 45 feet bgs.

As documented in the recently completed Landfill Soil Characterization Report (SCS, February 24, 2023), fill soils were identified from ground surface to depths between 10 and 24.5 feet bgs, below which, native soil, consisting predominantly of sands with varying amounts of silt, was identified. In borings C1, D1, and D2, located in the western portion of the Property, outside of the designated Landfill boundary, undocumented fill soils (primarily a mixture of sand, silt, and gravel) were identified at depths between 10 and 15 feet bgs. In borings A1, A2, A3, B1, and B2, located within the designated footprint of the former Landfill, fill soils were identified that contained limited amounts (5-20%) of inert debris such as brick, glass, concrete, and rock.

HYDROGEOLOGY

The Property is located within the Coastal Plain, Orange County Basin, which is an approximately 360 square mile basin drained primarily by the Santa Ana River. The main water bearing units in this area are within the younger alluvium. Due to extensive extraction of water for irrigation, municipal, and industrial use, and intermittent recharge, depth to groundwater has fluctuated. During investigation activities conducted by NorCal in 2020, groundwater was detected between 24 and 25 feet bgs beneath the Property. During the current investigation, groundwater was encountered at a depth of approximately 27 feet bgs. Based on results of the last monitoring event conducted by Western Environmental Engineers Company (WEECO) during the first quarter of 2010, groundwater flow direction at the Property was variable with flow directions interpreted to be both to the southeast and northwest (WEECO, March, 4, 2010).

4 SITE INVESTIGATION

PRE-INVESTIGATION ACTIVITIES

In December 2022, SCS conducted investigation activities consisting of the advancement of eight borings with collection and analysis of soil samples and installation of dual-nested vapor probes across the Property. As required by law, SCS marked areas of investigation and contacted Underground Service Alert prior to conducting any subsurface work (Dig Alert No. A223530816). SCS also obtained a well installation permit from the OCHCA, which was approved on December 15, 2022 (HSO No. 425175).

LFG AND SOIL GAS PROBE INSTALLATION

On December 27 through 29, 2022, under direction of SCS, ABC Liovin Drilling, Inc. (ABC) of Signal Hill, California, conducted drilling activities using a CME 75 hollow stem auger track-mounted drill rig to advance borings, collect soil samples, and construct soil gas probes (for LFG monitoring) at eight locations throughout the Property. Physical observations and analytical results of soil sample data have been compiled and are presented in the Landfill Soil Characterization Report (SCS, February 24, 2023), submitted to the LEA under separate cover. The location and designations of the borings are presented on Figure 2.

Upon reaching the target depth of approximately 25 feet bgs, SCS installed dual–nested probes at each boring location designed as per the requirements of CCR, Title 27, Section 20925 and as required in the LEA's conditional approval letter.

Each probe was constructed of ¾-inch Schedule 40 PVC with the screened interval constructed with 0.010-inch slotted Schedule 40 PVC. The annular space around the perforated section of each probe was filled with #3 Monterey Sand to allow entry of gas into the probe. The boring in which the probes were placed was sealed with a minimum 5-foot layer of hydrated bentonite between perforated sections and near the surface. The tops of the probes were fitted with petcock valves/sample ports to allow collection of samples. A traffic-rated well box was placed over the top of each dual-nested probe. As-built construction details are provided in boring logs in Appendix A.

LFG AND SOIL GAS PROBE MONITORING

As stated, LFG/Soil Gas probes were installed between December 27 and 29, 2022. Following a minimum of eight days, allowing for equilibration, each probe was monitored in the field and samples were collected for laboratory analysis. In accordance with the conditionally approved Workplan, LFG/Soil Gas samples were collected bi-weekly from each probe for a period of approximately 30 days. LFG/Soil Gas samples were collected on January 6, January 20, and February 3, 2023.

Soil vapor sampling was conducted in general accordance with the Advisory – Active Soil Gas Investigations, published by the California Environmental Protection Agency (CalEPA), Department of Toxic Substance Control (DTSC), Los Angeles Regional Water Quality Control Board (LARWQCB), and San Francisco Regional Water Quality Control Board (SFRWQCB) in July 2015 (the "Guidance").

Using a digital manometer/electrical transducer, probe pressure was recorded from each probe prior to sample collection. Pressure readings are provided Table 1.

Following collection of pressure readings, a shut-in test was conducted, if leaks were detected in the sample train, the fittings were adjusted and the shut-in test re-conducted. This procedure was repeated until the sample train held a vacuum of 100 inches of water (i.w.) for a minimum of one minute to ensure that no significant leaks in the system were present. Following shut-in test procedures, the probes were purged a minimum of three casing volumes and the extracted vapor was monitored using a GEM™5000 sampling device to measure methane (CH_4), carbon dioxide (CO_2), and oxygen (O_2), to ensure that subsurface gas parameters stabilized and that gas samples collected for laboratory analysis were representative of subsurface conditions.

Subsurface gas samples were collected from each probe using laboratory supplied Summa canisters. Samples were collected using generally accepted regulatory procedures. Upon sample collection, each canister was labeled, including sample designation, and date and time of collection. Samples were transported to Enthalpy Analytical Laboratory (EAL) for analysis of volatile organic compounds (VOCs) by EPA Method TO-15 and methane (including fixed gasses) by ASTM Method D1946. EAL is certified by the California State Water Resource Control Board's Environmental Laboratory Accreditation Program (CA ELAP) to perform the requested analyses. Samples were tracked from the point of collection through the laboratory using proper chain-of-custody protocol.

5 DISCUSSION OF MONITORING RESULTS AND REGULATORY LIMITS

Laboratory reports, chain-of-custody documentation, and quality assurance/quality control (QA/QC) data from EAL are provided in Appendix B. A summary of analytical results for methane, fixed gasses and VOCs in LFG/Soil Gas are provided in Table 1.

LFG/SOIL GAS MONITORING FOR VOCS

The DTSC, Human and Ecological Risk Office (HERO) issued an updated Human Health Risk Assessment (HHRA) Note No. 3 in June 2020 (Revised in May 2022). In this Note, DTSC makes recommendations regarding the methodology and use of the U.S. EPA Regional Screening Levels

(RSLs) and DTSC-modified screening levels (joining referred to herein as "DTSC-Recommended SLs") for soil vapor screening under residential and commercial/industrial land use scenarios. The DTSC-Recommended SLs for evaluating soil vapor intrusion are calculated using indoor air screening levels and recommended attenuation factors. The values calculated using Note No. 3 recommendations are very conservative. Chemical concentrations in excess of the calculated DTSC-Recommended SLs are not conclusive evidence of adverse risks to human health.

In Table 1, soil vapor results from each probe and monitoring event are compared to the DTSC-Recommended SLs under future commercial/industrial use scenario using an attenuation factor of 0.0005. Note that this attenuation factor is being used for comparison purposes only. A comparison to the default DTSC attenuation factor of 0.0005 is considered extremely conservative, as this value does not take into account proposed site-specific construction details; such as subslab passive ventilation and impervious membrane, which will, at a minimum enhance attenuation if not completely restrict vapor intrusion potential.

As shown in Table 1, 29 VOC species were detected in subsurface gas samples collected over the three bi-weekly monitoring events. None of the VOCs detected exceed their DTSC-Recommended SL calculated using an attenuation factor of 0.005 for commercial/industrial land use.

LFG/SOIL GAS MONITORING FOR METHANE AND FIXED GASSES

Methane is explosive when it reaches a concentration of between 5 and 15 percent in air; 5 percent is also known as the Lower Explosive Limit (LEL). Regulatory agencies are generally concerned that methane will seep or migrate through soil and accumulate in structures. If the methane should permeate flooring materials or flow through cracks, accumulate in enclosed spaces (rooms, utility vaults, wall spaces) at concentrations above the LEL, and then be subject to an ignition source (e.g., pilot flame, electrical spark, cigarette), a fire or explosion could result. Although subsurface methane is present in large areas of Southern California, fires associated with such methane are extremely rare.

In the DTSC guidance *Evaluation of Biogenic Methane,* (March 28, 2018), an acceptable methane gas concentration of 500 ppmv was established for indoor air. For methane in soil gas, an acceptable level can be calculated using site-specific information including pressure, as "only pressurized methane soil gas can achieve explosive concentrations in building space…" For example, a methane soil gas concentration of 5,000 ppmv would require a soil gas pressure of 2,000 inches of water (i.w.) to intrude into indoor air and result in a concentration of 500 ppmv; for methane soil gas concentration at 1,000,000 ppmv (100%) a pressure of only 10 i.w. would be required to have the same effect, resulting in 500 ppmv in indoor air.

As shown in Table 1, during the three monitoring events, pressure readings from the probes varied between slightly positive and slightly negative (vacuum). The highest positive pressure recorded was 0.22 i.w. the highest negative pressure recorded was -0.38 i.w..

Each of the eight dual-nested probe locations, 16 individual probes set in "shallow" and "deep" horizons, were monitored during three events. During each sampling event carbon monoxide was not detected. Detectable concentrations of carbon dioxide, oxygen, and nitrogen were typical of subsurface soil conditions (i.e. elevated carbon dioxide and low to non-detectable oxygen with respect to atmospheric conditions).

With the exception of probes A2-S and A2-D, methane was not detected during any of the monitoring events. Methane was detected in probe A2-S, during each monitoring event, at concentrations between 0.28 and 0.39 percent volume by volume (%v/v [equivalent to 2,800 and 3,900 ppmv]).

Methane was detected in probe A2-D during two monitoring events at concentrations of 0.17 and 0.28 %v/v (equivalent to 1,700 and 2,800 ppmv).

Based on the results of the three monitoring events, there is insufficient pressure and/or methane gas percentage to result in potential combustible gas accumulation within a building space to reach explosive limits.

6 CONCLUSIONS AND RECOMMENDATIONS

Summary and Conclusions

During this landfill gas assessment, SCS collected subsurface gas samples from eight dual-nested probes across the Property. Monitoring/sampling of each of the probes was conducted on January, 6, January 20, and February 3, 2023 in accordance with the LEA approved Workplan and Title 27 requirements. Based on results of this assessment, SCS concludes the following:

- Eight borings were advanced throughout the Property with soil samples collected for visual observation and laboratory analysis to evaluate the lateral and vertical extent of waste and characterize the material for COCs as part of a landfill soil characterization investigation conducted by SCS in December 2022. Physical observations of the material recovered from the eight borings identified limited amounts (5-20%) of inert debris, such as brick, glass, concrete, and rock, sporadically located throughout the Property, confirming previous investigations suggesting that there is insufficient amount of decomposable material to generate significant amounts of methane gas. Upon reaching total depth, each of the borings was converted to a dual-nested soil gas probe, screened between 5 and 10 feet bgs (shallow zone) and 19 to 24 feet bgs (deep zone) for LFG/Soil Gas monitoring and sampling.
- During this assessment, 29 VOC species were detected in subsurface gas samples collected over three bi-weekly monitoring events. None of the VOCs detected exceed their DTSC-Recommended SL, calculated using an attenuation factor of 0.005 for commercial/industrial land use. Further, the default attenuation factor is considered overly conservative as it does not take into account proposed site-specific mitigation measures such as subslab passive ventilation and the presence of an impervious membrane, which would, at a minimum, enhance attenuation if not completely restrict vapor intrusion potential.
- During this assessment, with the exception of probe set “D2,” methane was not detected in samples collected from the LFG/Soil Gas probes installed across the Property. Methane was detected in the both shallow and deep probes at location D2 at concentrations between 0.17 and 0.39 %v/v in subsurface gas. Positive pressure above 0.3 i.w. was not detected in the probes during any of the monitoring events.
- Results of this assessment are consistent with the findings of previous investigations at the Property, including those conducted in 1996, in which methane was not detected beneath the Property, and in 2022, in which methane was not detected with the exception of a few locations (with a maximum concentration of methane detected at 0.5 %v/v).
- In summary, based on the following:
    - The Landfill ceased operations by 1955 (approximately 68 years ago),
    - Observations from numerous past investigations have only identified isolated areas containing limited amounts of inert debris,

- The maximum concentration of methane ever detected in the subsurface was 0.5 %v/v,

It is highly improbable that future subsurface methane generation could result in a hazardous condition (i.e. methane exceeding the lower explosive limit of 5 %v/v) in proposed structures on the Property..

Recommendations

SCS recommends that results of this investigation be incorporated, along with the numerous previous investigations, into a Draft PCLUP for submittal to and approval by the LEA and/or CalRecylce. Although results have shown that a significant risk to public health and proposed development at the Property from VOCs and/or methane is not present, SCS recommends that monthly monitoring be continued, at probes located outside of the proposed footprint of the building during redevelopment activities, in accordance with the agreement between WGC and CalRecyle/LEA and general requirements of Title 27.

7 REFERENCES

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Partner Engineering and Science, Inc, Draft Phase I Environmental Site Assessment Report, Former South Pacific Car Wash and Lube Center, 2750 and 2770 Bristol Street, Costa Mesa, California 92626. April 19, 2019

TRC, Environmental Assessment Report, Former Newport Avenue Refuse Disposal Station. July 2000

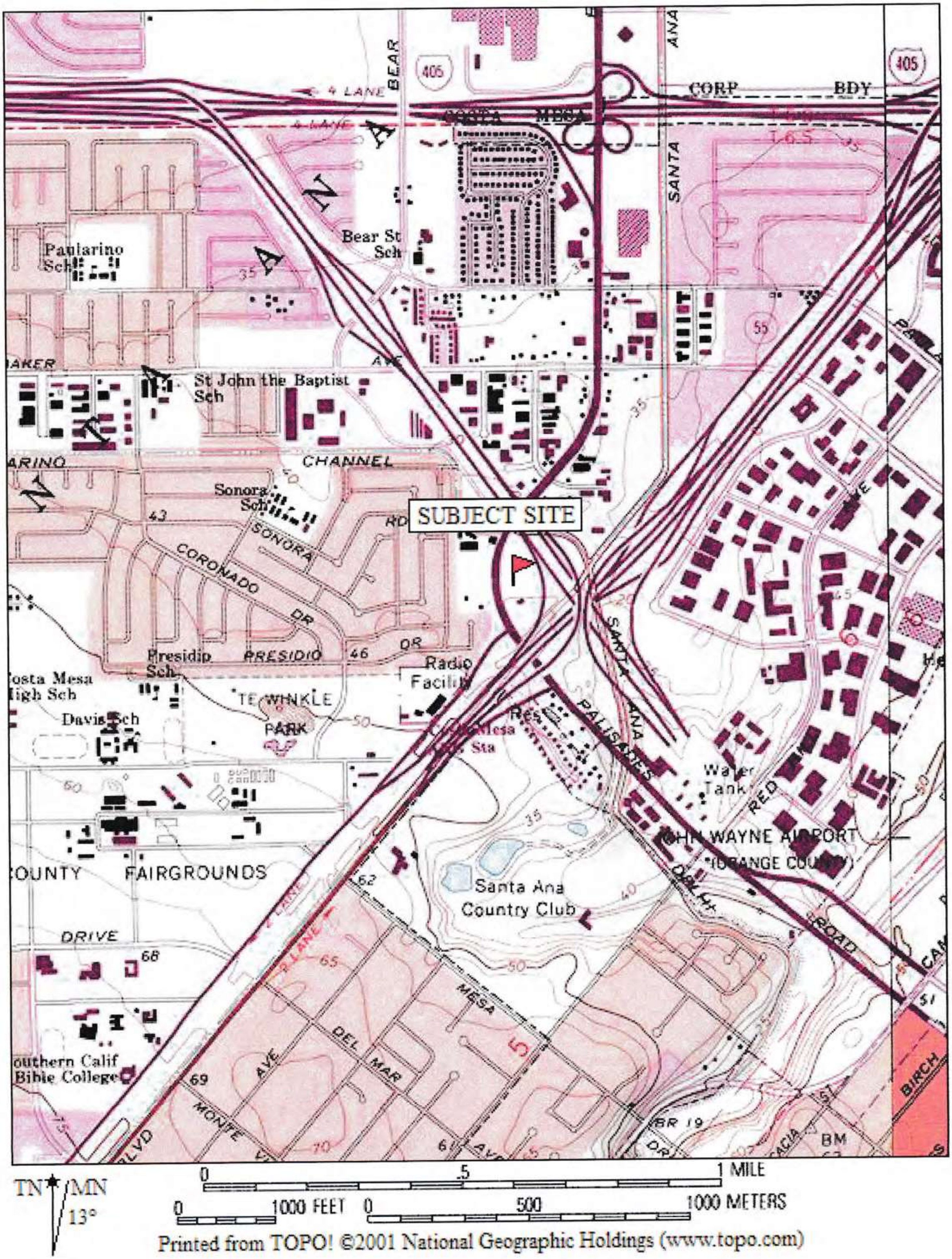
U.S. EPA, November 2021. *Regional Screening Level (RSL) Summary Table*.

Western Environmental Engineers Co., First Quarter 2010 Groundwater Monitoring and Progress Report, South Pacific Car Wash, 2750 South Bristol Street, Costa Mesa, CA 92626 OCHCA Case # 03UT012. March 4, 2010.

Western Environmental Engineers Co., Groundwater Monitoring Wells Abandonment Report, 2750 South Bristol Street, Costa Mesa, CA 92626 OCHCA Case # 03UT012. May 6, 2010.

Figures 1 and 2

Figure 1: Vicinity Map



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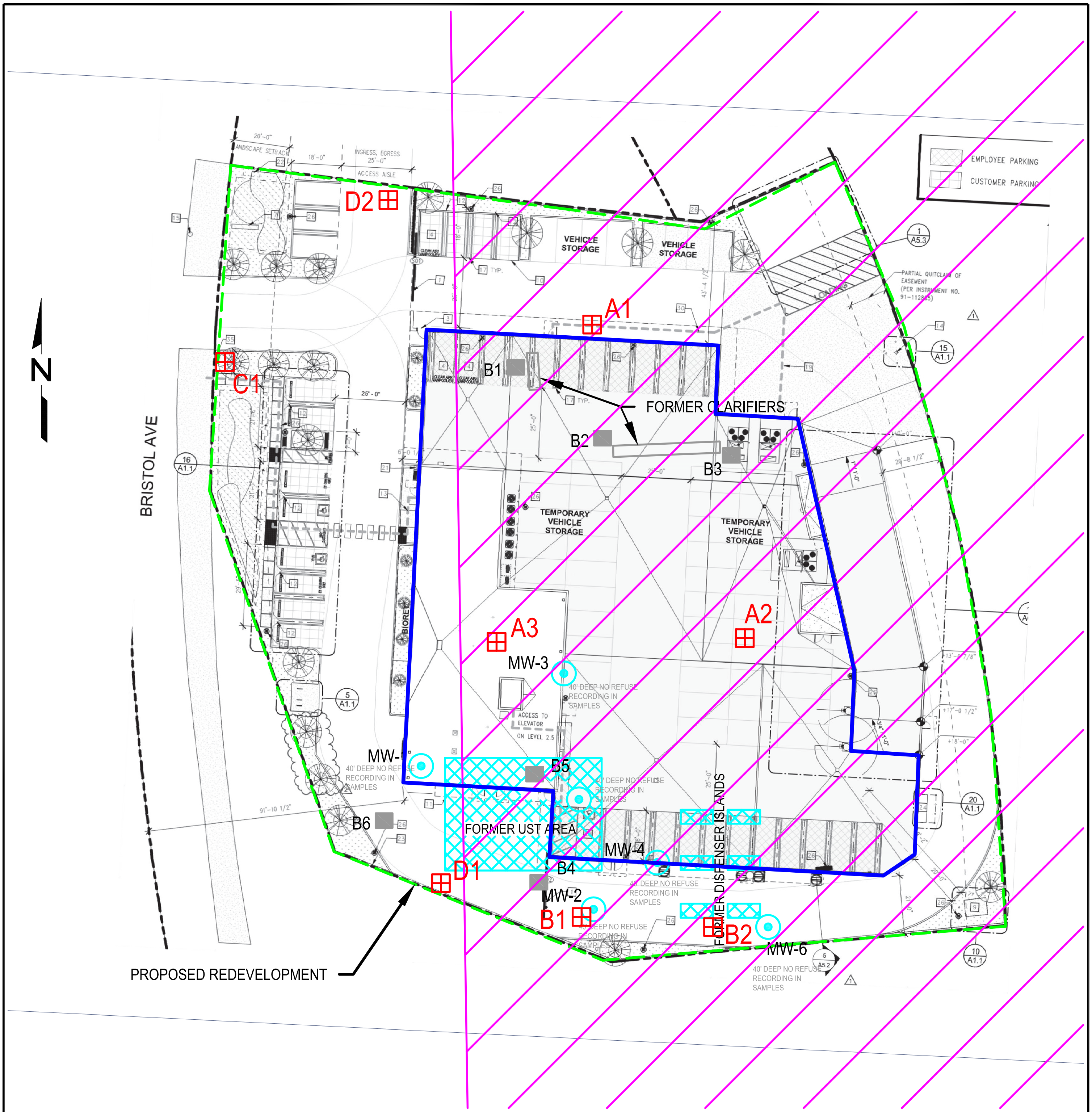


LEGEND

PROPERTY BOUNDARY

APPROXIMATE LIMITS OF DISPOSAL STATION # 1 NEWPORT AVENUE

APPROXIMATE PROPOSED BUILDING FOOTPRINT

SOIL BORING/PROBE LOCATIONS

GRAPHIC SCALE

0 50 100

SCALE IN FEET

SCS ENGINEERS ENVIRONMENTAL CONSULTANTS 3900 KILROY AIRPORT WAY, SUITE 100 LONG BEACH, CA 90806 PH. (562) 426-9544 FAX. (562) 427-0805	CLIENT: WALKER GROUP VENTURES 11100 CAMBIE ROAD, UNIT 105 RICHMOND, BC V6X 1K9	SHEET TITLE: SITE MAP SHOWING BORING/PROBE LOCATIONS	DATE: 2/24/2023
PROJ. NO. 01222204.00 / DWN. BY: J.SIEG / ACAD FILE: N/A		PROJECT TITLE: 2750-2770 BRISTOL STREET COSTA MESA, CALIFORNIA	SCALE: 1"=50'
DSN. BY: SCS / CHK. BY: R.HUFF / APP. BY: R.HUFF			FIGURE NO. 2

Table 1

TABLE 1
SUMMARY OF ANALYTICAL RESULTS FOR SOIL VAPOR SAMPLES
VOLATILE ORGANIC COMPOUNDS and METHANE AND FIXED GASSES
WALKER GROUP
2750 BRISTOL STREET, COSTA MESA, CA

		Field Monitor	ASTM D1946					EPA Method TO-15																													
Sample Location	Date of Collection	Pressure/Vacuum	Carbon Monoxide	Carbon Dioxide	Oxygen	Methane	Nitrogen	1,1-Difluoroethane	Freon 12	Freon 114	Chloromethane	Vinyl Chloride	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	Acetone	Carbon Disulfide	Isopropanol	Methylene Chloride	Trans-1,2-Dichloroethene	Methyl-tert Butyl Ether (MTBE)	n-Hexane	Cis-1,2-Dichloroethene	2-Butanone	Chloroform	Benzene	Trichloroethene	Bromodichloromethane	4-Methyl-2-Pentanone	Toluene	Tetrachloroethene	Ethylbenzene	m,p-Xylenes	o-Xylenes	4-Ethyltoluene	1,2,4-Trimethylbenzene	Xylene (total)
		i.w.	Percent Volume by Volume (%v/v)					micrograms per cubic meter (ug/m^3)																													
A1-S	1/6/2023	0.01	<0.16	0.71	1.4	<0.16	96	<4.3	3.5	<2.2	1.7	2.0	ND	3.1	1.6	<3.8	90	25	8.3	11	<1.2	38	100	<4.7	43	11	32	7.1	<1.3	30	37	2.5	4.4	1.9	1.7	<1.6	6.3
	1/20/2023	0.07	<0.16	1.2	<0.16	<0.16	97	<17	<6.3	9.2	<2.6	3.6	<3.4	<7.2	<5.1	<15	5.3	<16	5.0	14	<4.6	<4.5	89	<19	31	<4.1	45	<8.6	<5.2	<4.8	53	<5.6	<11	<5.6	<6.3	<6.3	<5.6
	2/3/2023	-0.10	<0.15	0.95	1.8	<0.15	95	<4.1	<1.5	13	2.7	<0.77	2.7	2.0	<1.2	<3.6	6.1	3.8	1.7	11	<1.1	<1.1	65	<4.4	17	2.1	29	2.4	<1.2	1.6	42	<1.3	<2.6	<1.3	<1.5	<1.5	<1.3
A1-D	1/6/2023	0.01	<0.16	8.4	1.5	<0.16	87	<11	4.1	32	<1.7	<2.0	ND	<4.5	<3.2	67	14	25	4.3	<3.2	<2.9	<2.8	<3.2	<12	18	<2.6	540	<5.4	<3.3	<3.0	1,100	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5
	1/20/2023	0.06	<0.16	7.4	3.5	<0.16	87	<11	7.7	34	36	2.7	7.7	<4.5	<3.2	53	250	26	3.5	<3.2	<2.9	<3.0	<3.2	<12	16	3.0	420	<5.4	4.0	<3.0	850	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5
	2/3/2023	-0.10	<0.15	8.3	1.1	<0.15	87	<10	<3.7	37	<1.5	<1.9	<2.0	<4.2	<3.0	<8.9	17	<9.2	<2.6	<3.0	<2.7	<2.6	<3.0	<11	20	<2.4	520	<5.0	<3.1	<2.8	990	<3.3	<6.5	<3.3	<3.7	<3.7	<3.3
A2-S	1/6/2023	0.03	<0.16	0.31	0.76	0.30	97	<170	<63	<89	<26	270	ND	<72	230	<150	110	<160	<44	140	<46	1,200	960	<190	<62	100	270	<86	<52	<48	140	<56	<110	<56	<63	<63	<56
	1/20/2023	0.20	<0.16	0.38	2.6	0.39	95	<170	<63	<89	<26	200	<34	<72	160	<150	<40	<160	<44	89	<46	440	610	<190	<62	<67	210	<86	<52	<48	130	<56	<110	<56	<63	<63	<56
	2/2/2023	-0.38	<0.16	0.33	6.8	0.28	92	<43	<16	25	<6.6	25	<8.4	<18	29	<38	<10	<39	<11	57	<12	32	370	<47	<16	16	120	<21	<13	<12	73	<14	<28	<14	<16	<16	<14
A2-D	1/6/2023	-0.01	<0.16	0.99	<0.16	<0.16	97	<110	<40	68	<17	160	ND	<45	260	<95	32	<98	<28	140	<229	360	690	<120	<39	110	460	<54	<33	31	210	<35	<69	<35	<39	<39	<35
	1/20/2023	0.13	<0.16	0.56	<0.16	0.28	97	<170	<63	<89	<26	300	<34	<72	320	<150	71	<160	<44	130	<46	430	700	<190	<62	70	370	<86	<52	<48	180	<56	<110	<56	<63	<63	<56
	2/3/2023	-0.21	<015	0.80	<0.15	0.17	96	<160	<59	<84	<25	240	<32	<67	340	<140	46	<150	<42	130	<43	85	640	<180	<59	42	420	<80	<49	<45	190	<52	<100	<52	<59	<59	<52
A3-S	1/6/2023	-0.14	<0.16	1.7	<0.16	<0.16	96	<43	<16	23	<6.6	<8.2	ND	<18	<13	<38	88	<39	12	13	<12	170	120	<47	45	13	35	<21	<13	19	<22	<14	<28	<14	<16	<16	<14
	1/20/2023	0.19	<0.16	1.3	<0.16	<0.16	96	<43	<16	<22	<6.6	<8.2	<8.4	<18	<13	<38	21	<39	<11	<13	<12	34	79	<47	<16	13	19	<21	<13	19	<22	<14	<28	<14	<16	<16	<14
	2/3/2023	-0.27	<0.16	2.4	<0.16	<0.16	96	<8.6	<3.2	27	2.2	<1.6	<1.7	<3.6	<2.5	<7.6	12	<7.9	2.9	12	<2.3	18	130	<9.4	9.6	5.3	33	<4.3	<2.6	3.8	19	<2.8	<5.6	<2.8	<3.1	<3.1	<2.8
A3-D	1/6/2023	-0.20	<0.16	6.7	<0.16	<0.16	91	<4.3	2.7	67	1.3	<0.82	ND	<1.8	<1.3	6.9	8.9	<3.9	3.1	<1.3	1.6	15	2.8	<4.7	4.0	3.8	360	<2.1	<1.3	1.7	400	<1.4	<2.8	<1.4	<1.6	<1.6	<1.4
	1/20/2023	0.22	<0.16	6.6	<0.16	<0.16	92	<4.3	15	69	36	2.7	5.8	<1.8	<1.3	23	60	6.2	2.9	<1.3	<1.2	17	8.8	<47	4.4	3.8	310	<2.1	<1.3	2.9	360	<1.4	3.8	<1.4	<1.6	<1.6	3.8
	2/3/2023	-0.27	<0.15	6.6	<0.15	<0.15	92	<5.4	<2.0	71	1.8	<1.0	<1.1	<2.2	<1.6	7.6	3.2	<4.9	2.0	<1.6	<1.4	1.9	9.8	<5.9	4.0	2.7	340	<2.7	<1.6	1.5	350	<1.7	<3.5	<1.7	<2.0	<2.0	<1.7
B1-S	1/6/2023	0.00	<1.6	6.9	2.0	<0.16	90	<17	<6.3	<8..9	<8.9	35	ND	<7.2	29	<15	120	<16	<4.4	36	92	220	230	<19	19	36	160	<8.6	<5.2	17	110	<5.6	<11	<5.6	<6.3	<6.3	<5.6
	1/20/2023	-0.05	<0.16	8.2	<0.16	<0.16	90	<11	6.2	0.81	4.6	9.2	<2.1	<4.5	12	<9.5	20	<9.8	<2.8	39	110	31	200	<12	9.4	8.3	160	<5.4	<3.3	<3.0	110	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5
	2/3/2023	-0.24	<0.15	8.1	<0.15	<0.15	89	<4.1	2.6	7.5	3.1	5.0	<0.79	<1.7	6.1	<3.6	12	4.4	1.3	37	88	10	160	<4.4	6.2	2.5	140	<2.0	<1.2	1.7	87	<1.3	<2.6	<1.3	<1.5	<1.5	<1.3
B1-D	1/6/2023	0.00	<0.16	13	<0.16	<0.16	86	<4.3	3.9	<2.2	<0.66	8.4	ND	<1.8	4.9	58	20	4.2	<1.1	16	130	250	640	8.5	<1.6	41	130	<2.1	1.8	14	150	5.8	16	4.2	<1.6	4.0	20
	1/20/2023	-0.07	<0.16	12	<0.16	<0.16	85	<11	<4.0	<5.6	13	18	<2.1	<4.5	14	<9.5	150	<9.8	<2.8	23	160	230	570	<12	<3.9	40	140	<5.4	<3.3	13	98	5.0	12	3.6	<3.9	<3.9	15
	2/3/2023	-0.24	<0.15	11	<0.15	<0.15	86	<14	<4.9	<7.0	2.6	9.7	<2.6	<5.6	5.3	<12	19	<12	<3.5	16	130	160	620	<15	<4.9	36	110	<6.7	<4.1	11	100	4.8	13	<4.3	<4.9	<4.9	13
B2-S	1/6/2023	0.00	<0.16	2.4	<0.16	<0.16	96	<35	14	<18	5.9	95	ND	<14	31	<30	310	<31	8.9	40	83	1,400	360	<38	35	81	190	<17	<10	24	150	<11	<22	<11	<13	<2.6	<11
	1/20/2023	-0.34	<0.16	3.9	<0.16	<0.16	95	30	11	9.0	2.6	52	<2.7	<5.8	28	<12	41	<13	5.5	36	68	36	210	<15	13	18	190	<6.9	<4.2	<4.5	170	<4.4	<8.9	<4.4	<5.0	<5.0	<4.4
	2/3/2023	-0.20	<0.15	9.6	1.4	<0.15	89	<20	<7.4	<10	<3.1	<3.8	<4.0	<8.4	<5.9	<18	<4.7	<18	<5.2	<5.9	<5.4	<5.3	<5.9	<22	<7.3	<4.8	56	<10	<6.1	<5.7	1,400	<6.5	<13	<6.5	<7.4	<11	<6.5
B2-D	1/6/2023	0.00	<0.16	9.8	1.5	<0.16	88	<14	<5.1	<7.2	<2.1	<2.6	ND	<5.8	<4.1	<12	13	<13	<3.6	<4.1	<3.7	<3.6	<4.1	<15	<5.0	<3.3	55	<6.9	<4.2	<3.9	1,600	<4.4	<8.9	<4.4	<5.0	<5.0	<4.4
	1/20/2023	0.00	<0.18	9.8	1.3	<0.18	88	<19	<7.1	<10	<3.0	<3.7	<3.8	<8.1	<5.7	<17	5.9	<18	<5.0	<5.7	<5.2	<5.1	<5.7	<21	<7.0	<4.6	62	<9.6	<5.9	<5.4	1,600	<6.3	<13	<6.3	<7.1	<7.1	<6.3
	2/3/2023	-0.33	<0.15	4.4	<0.15	<0.15	94	<4.1	<1.5	12	2.1	36	1.0	<1.7	18	<3.6	18	8.0	3.6	37	45	16	230	<4.4	8.9	15	160	<2.0	<1.2	3.2	140	<1.3	<2.6	<1.3	<1.5	<1.5	<1.3
C1-S	1/6/2023	0.00	<0.16	1.6	5.6	<0.16	92	26	5.0	32	1.5	<0.82	ND	<1.8	<1.3	6.0	34	5.6	1.4	<1.3	<1.2	15	<1.3	<4.7	24	2.2	110	5.9	<1.3	39	240	<1.4	<2.8	<1.4	<1.6	<1.6	<1.4
	1/20/2023	-0.01	<0.16	0.39	14	<0.16	85	<4.3	2.2	7.0	2.7	<0.82	<0.84	<1.8	<1.3	10	13	5.7	<1.1	<1.3	<1.2	<1.1	<1.3	<4.7	8.0	<1.0	32	<2.1	<1.3	<1.2	110	<1.4	<28	<1.4	<1.6	<1.6	<1.4
	2/3/2023	-0.27	<0.15	0.70	14	<0.15	83	<4.1	<1.5	6.1	<0.79	<0.77	<0.79	<1.7	<1.2	12	3.9	5.5	1.7	<1.2	<1.1	<1.1	<1.2	<4.4	8.8	1.7	35	<2.0	<1.2	2.1	95	<1.3	<2.6	<1.3	<1.5	<1.5	<1.3
C1-D	1/6/2023	-0.02	<0.16	6.5	1.1	<0.16	91	<22	<7.9	27	<3.3	<4.1	ND	<9.0	<6.3	<19	9.2	<20	<5.6	<6.3	<5.8	<5.6	<6.3	<24	19	<5.1	700	<11	<6.6	<6.0	1,400	<6.9	<14	<6.9	<7.9	<7.9	<6.9
	1/20/2023	0.05	<0.18	6.2	1.1	<0.18	90	<12	5.3	29	3.30	<2.3	<2.4	<5.1	<3.6	12	57	<11	<3.1	<3.6	<3.2	5.5	<3.6	<13	14	<2.9	590	<6.0	<3.7	5.9	1,200	<3.9	<7.8	<3.9	<4.4	<4.4	<3.9
	2/3/2023	-0.31	<0.15	5.7	1.4	<0.15	87	<16	<5.9	26	<2.5	<3.1	<3.2	<6.7	<4.8	<14	13	<15	<4.2	<4.8	<4.3	<4.2	<4.8	<18	11	<3.8	550	<8.0	<4.9	<4.5	1,100	<5.2	<10	<5.2	<5.9	<5.9	<5.2
D1-S	1/6/2023	0.00	<0.16	3.5	15	<0.16	81	<4.3	2.4	<2.2	1.2	<0.82	ND	<1.8	<1.3	6.0	3.7	4.3	1.6	<1.3	<1.2	<1.1	<1.3	<4.7	8.3	<1.0	<1.7	4.4	<1.3	6.5	440	<1.4	<2.8	<1.4	<1.6	<1.6	<1.4
	1/20/2023	0.00	<0.16	3.8	14	<0.16	82	<6.9	2.7	<3.6	1.7	<1.3	<1.4	<2.9	<2.0	<6.1	3.0	7.8	<1.8	<2.0	<1.8	<1.8	<2.0	<7.5	2.8	<1.6	<2.8	<3.4	<2.1	<1.9	500	<2.2	<4.4	<2.2	<2.5	<2.5	<2.2
	2/3/2023	-0.19	<0.15	3.4	15	<0.15	82	<5.4	<2.0	3.7	1.0	<1.0	<1.1	<2.2	<1.6	5.7	2.1	<4.9	<1.4	<1.6	<1.4	<1.4	<1.6	<5.9	<2.0	<1.3	<2.1	<2.7	<1.6	<1.5	400	<1.7	<3.5	<1.7	<2.0	<2.0	<1.7
D1-D	1/6/2023	0.00	<0.16	8.8	7.7	<0.16	83	<22	<7.9	<11	<3.3	<4.1	ND	<9.0	<6.3	<19	3.2	<20	<5.6	<6.3	<5.8	44	<6.3	<24	<7.8	<5.1	47	<11	<6.6	<6.0	1,800	<6.9	<14	<6.9	<7.9	<7.9	<6.9
	1/20/2023	0.00	<0.16	9.4	5.9	<0.16	85	<22	<7.9	<11	<3.3	<4.1	<4.2	<9.0	<6.3	<19	17	<20	<5.6	<6.3	<5.8	8.3	<6.3	<24	<7.8	<5.1	75	<11	<6.6	<6.0	2,100	<6.9	<14	<6.9	<7.9	<7.9	<6.9
	2/3/2023	-0.20	<0.15	8.3	7.2	<0.15	84	<20	<7.4	<10	14	<3.8	<4.0	<8.4	<5.9	30	200	<18	<5.2	<5.9	<5.4	<5.3	<5.9	<22	<7.3	<4.8	45	<10	<6.1	<5.7	1,600	<6.5	<13	<6.5	<7.4	<7.4	<6.5

Sample Location	Date of Collection	Field Monitor	ASTM D1946					EPA Method TO-15									
		Pressure/Vacuum	Carbon Monoxide	Carbon Dioxide	Oxygen	Methane	Nitrogen	1,1-Difluoroethane	Freon 12	Freon 114	Chloromethane	Vinyl Chloride	Chloroethane	Trichlorofluoromethane	1,1-Dichlloroethene	Acetone	Carbon Disulfide
		i.w.	Percent Volume by Volume (%v/v)					micrograms per cubic meter (ug/m^3)									
D2-S	1/6/2023	-0.05	<0.15	**1.4**	**7.7**	<0.15	**90**	**27**	<4.0	**6.1**	**3.8**	<2.0	ND	<4.5	<3.2	<9.5	**370**
	1/20/2023	0.08	<0.18	**3.4**	**3.7**	<0.18	**92**	<4.9	**5.7**	**15**	**5.2**	<0.92	<0.95	<2.0	<1.4	**25**	**43**
	2/3/2023	-0.28	<0.16	**4.5**	**3.4**	<0.16	**89**	<4.3	**2.5**	**22**	**3.1**	<0.82	<0.84	<1.8	<1.3	**18**	**15**
D2-D	1/6/2023	-0.07	<0.16	**7.2**	**6.8**	<0.16	**85**	<22	<7.9	**19**	<4.2	<4.1	ND	<9.0	<6.3	<19	**14**
	1/20/2023	0.09	<0.16	**7.6**	**5.5**	<0.16	**86**	<22	<7.9	**25**	<3.3	<4.1	<4.2	<9.0	<6.3	<19	**8.0**
	2/3/2023	-0.22	<0.15	**7.5**	**5.1**	<0.15	**85**	<16	<5.9	**23**	**3.4**	<3.1	<3.2	<6.7	<4.8	<14	**16**
DTSC-Recommended SL (Future Commercial/Industrial) - AF 0.0005		--	--	--	--	--	--	**15,400**	**880,000**	--	**780,000**	**320**	--	**10,600,000**	**620,000**	--	**6,200,000**

Sample Location	Date of Collection	EPA Method TO-15																			
		Isopropanol	Methylene Chloride	Trans-1,2-Dichloroethene	Methyl-tert Butyl Ether (MTBE)	n-Hexane	Cis-1,2-Dichloroethene	2-Butanone	Chloroform	Benzene	Trichloroethene	Bromodichloromethane	4-Methyl-2-Pentanone	Toluene	Tetrachloroethene	Ethylbenzene	m,p-Xylenes	o-Xylenes	4-Ethyltoluene	1,2,4-Trimethylbenzene	Xylene (total)
		micrograms per cubic meter (ug/m^3)																			
D2-S	1/6/2023	<9.8	**6.5**	**7.5**	**120**	**61**	**80**	<12	**63**	**4.1**	**100**	**9.6**	<3.3	**7.3**	**53**	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5
	1/20/2023	**10**	**2.7**	**6.1**	**92**	**2.3**	**46**	<5.3	**29**	**1.4**	**160**	**4.1**	<1.5	**2.3**	**120**	<1.6	<3.1	<1.6	<1.8	<1.8	<1.6
	2/3/2023	<1.6	**1.9**	**5.6**	**95**	**1.3**	**41**	<4.7	**14**	**1.9**	**210**	<2.1	<1.3	**1.7**	**180**	<1.4	<2.8	<1.4	<1.6	<1.6	<1.4
D2-D	1/6/2023	<20	<5.6	<6.3	<5.8	**5.9**	<6.3	<24	**12**	<5.1	**1,200**	<11	<6.6	<6.0	**1,200**	<6.9	<14	<6.9	<7.9	<12	<6.9
	1/20/2023	<20	<5.6	<6.3	<5.8	<5.6	<6.3	<24	**12**	<5.1	**1,300**	<11	<6.6	<6.0	**1,300**	<6.9	<14	<6.9	<7.9	<7.9	<6.9
	2/3/2023	<15	<4.2	<4.8	<4.3	<4.2	<4.8	<18	**12**	<3.8	**1,200**	<8.0	<4.9	<4.5	**1,100**	<5.2	<2.4	<5.2	<5.9	<8.9	<5.2
DTSC-Recommended SL (Future Commercial/Industrial) - AF 0.0005		**1,760,000**	**24,000**	**700,000**	**94,000**	**6,200,000**	**70,000**	--	**1,060**	**840**	**6,000**	**660**	**26,000,000**	**2,600,000**	**4,000**	**9,800**	**880,000**	**880,000**	--	**520,000**	**880,000**

Notes:

ug/l = micrograms per liter
ND = Not Detected
< = Below Laboratory's Reporting Limit

DTSC-Recommended SL = Screening Level as recommended in California Department of Toxic Substances Control (DTSC), Office of Human and Ecological Risk (HERO), Human Health Risk Assessment (HHRA) Note No. 3 - Commercial/industrial land use scenarios at an existing and future building (June 2020, Revised May 2022).

-- = Not applicable
AF = Attenuation Factor
i.w. = pressure or vacuum measured in inches of water

Appendix A

Boring Logs/Probe Completion Details

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: A1

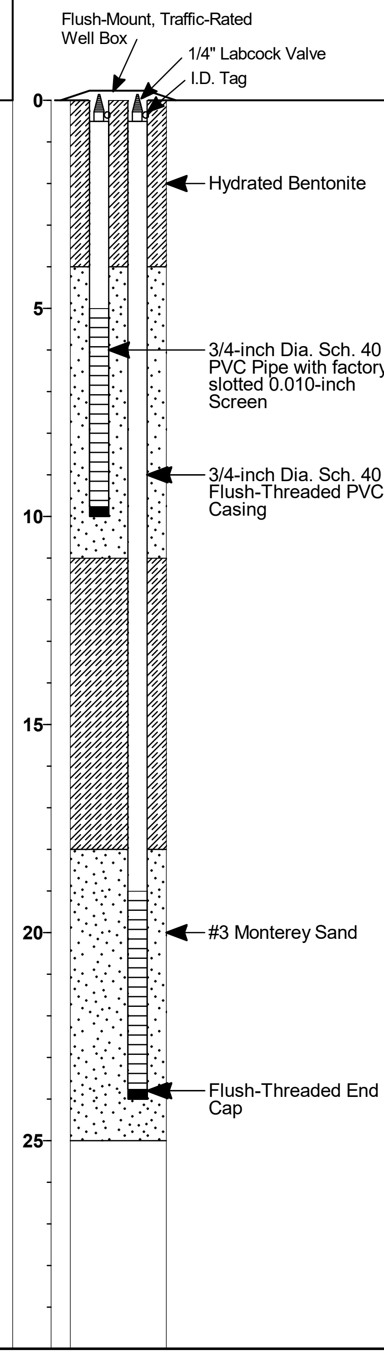
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0	0					
1						
	5	A1-5	14 15 15			Mixture of Silt, Sand, and Clay with Some (approx. 15%) Gravel, Glass, and Concrete Fragments, Moist
2						
3	10	A1-10	15 16 16			Mixture of Silt, Sand, and Clay with Some (approx. 15%) Gravel, Glass, and Concrete Fragments, Moist
4						
	15	A1-15	14 16 16	SM		Brown, Silty Fine to Coarse Sand, Moist
5						
6	20	A1-20	12 15 17	SM		Brown, Silty Fine Sand, Very Moist
7						
	25		18 50 5x3	SW		Light Brown, Fine to Coarse Sand with Some Gravel, Moist
8						
9	30					

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/28/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: A2

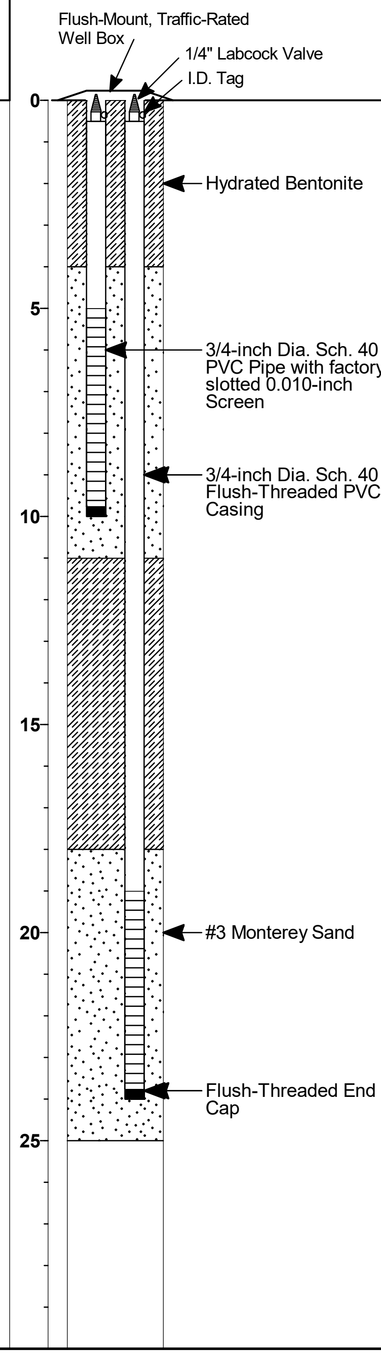
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
5	A2-5	11 11 13			Dark Brown, Silt, Sand, and Clay Mixture with Trace (<5%) Glass Fragments, Moist
10	A2-10	12 14 16			Dark Brown to Black, Silt, Sand, and Clay Mixture with Some (approx. 20%) Glass, Concrete, and Wood Fragments, Moist
15	A2-15	12 14 16			Dark Brown, Silt, Sand, and Clay Mixture with Some (Approx. 10-15%) Glass and Brick Fragments, Moist
20	A2-20	13 15 17			Dark Brown, Silt, Sand, and Clay Mixture with Some (Approx. 10-15%) Glass and Brick Fragments, Moist
25	A2-25	14 18 18		SW	Orangish Brown, Fine to Coarse Sand, Poorly Sorted, Moist

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/28/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: A3

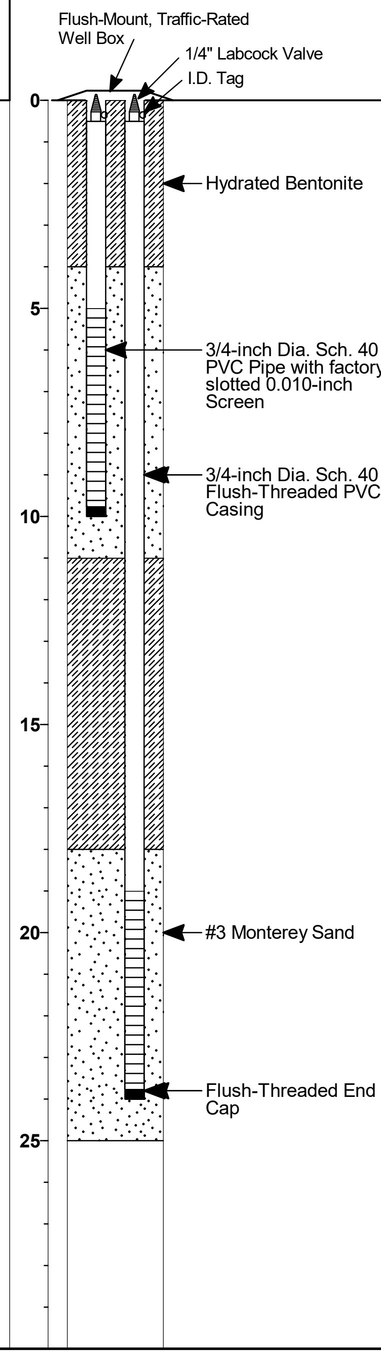
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0	0						
							Trace Brick and Wood Fragments in Cuttings
1							
	5	X	A3-5	11 13 14			Dark Brown, Silty Sand and Clay with Some (approx. 10%) Wood and Glass Fragments, Moist
2							
3	10	X	A3-10	12 12 15			Dark Brown, Silt, Sand and Clay with Some (approx. 20%) Concrete and Brick Fragments
4							
	15	X	A3-15	11 13 16		SM	Orangish Brown, Silty Fine to Coarse Sand, Moist, Well Graded
5							
6	20	X	A3-20	13 14 16		SP	Orangish Brown, Fine to Medium Sand, Moist, Moderately Sorted
7							
	25	X					No Recovery
8							
9	30						

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/28/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

STANDARD_LOG 01222204 BORING LOGS2.GPJ STD_LOG.GDT 2/19/23

S C S   E N G I N E E R S

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: B1

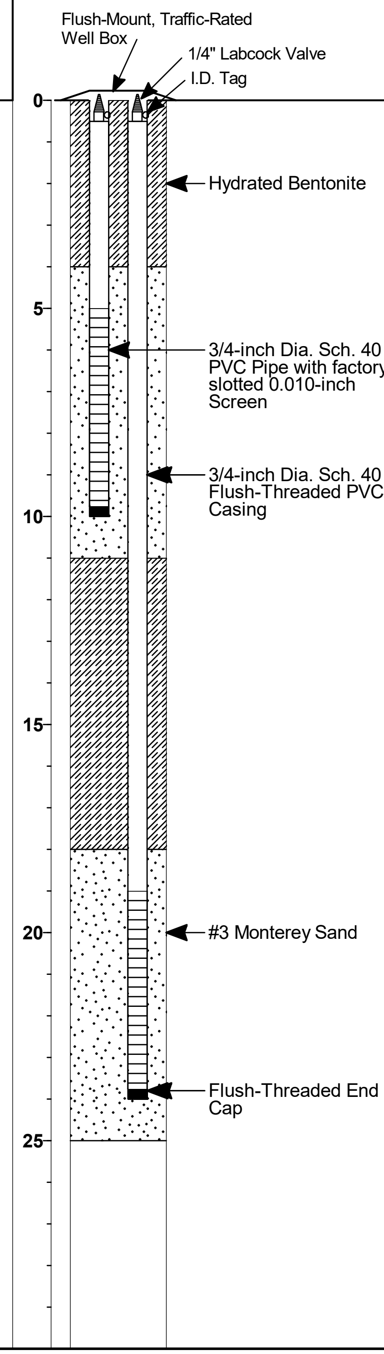
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0							
1								
	5		B1-5	11 12 14				Light Brown, Silt, Sand, and Clay Mixture with Some Gravel
2								
3	10		B1-10	15 17 18				Dark Brown, Silty Sand with Some (appox. 10%) concrete, brick and glass Fragments
4								
	15		B1-15	28 50 50X4				Dark Brown, Silty Sand with Trace (<5%) Glass Fragments
5								
6	20		B1-20	21 50 50X3				Black, Silty Sand with Some (approx. 20%) Metal, Glass, and Brick Fragments
7								
	25		B1-25	14 16 18		SW		Black, Silty Sand with Some (approx. 20%) Metal, Glass, and Brick Fragments Light Brown, Fine to Coarse Sand, Slightly Moist, Poorly Sorted
8								
9	30							

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/27/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/27/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

STANDARD_LOG 01222204 BORING LOGS2.GPJ STD_LOG.GDT 2/19/23

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: B2

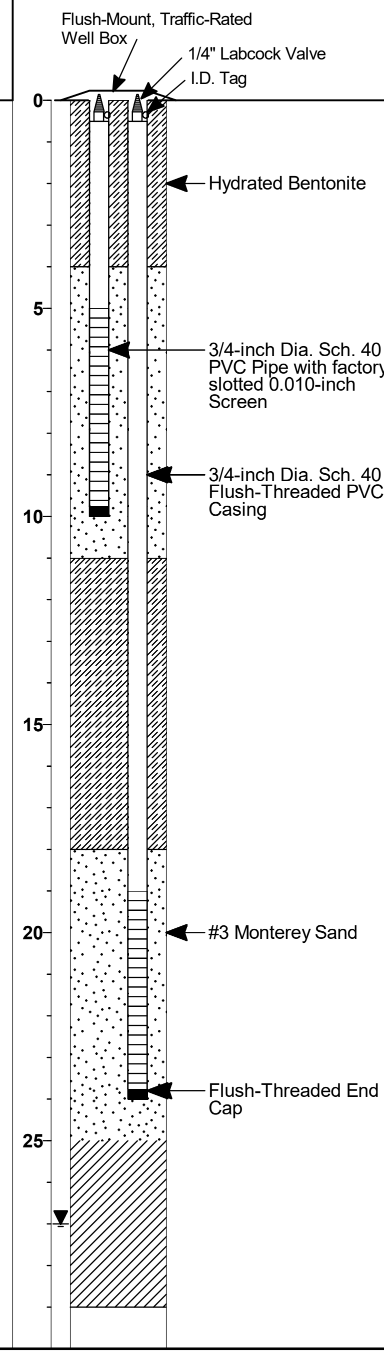
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0							
1								Silt and Sand Mixture with Trace (<5%) brick, and glass fragments
	5		B2-5	5 16 16		SM		Brown, Sand, Silt and Clay Mixture the Trace (<5%) concrete, glass, and brick fragements, Slightly Moist
2								
3	10		B2-10	24 50X5		SM		Dark Brown and Greenish Gray, Sand, Silt and Clay with Some (approximately 10%) glass, brick and wood fragments, Slightly Moist
4								
	15		B2-15	16 17 21		SP		Orangish Brown, Very Fine to FIne Sand with Some Silt, Slightly Moist, Well Sorted
5								
6	20		B2-20	16 16 27		SW		Light Brown, Fine to Coarse Sand with Some Gravel, Slightly Moist, Poorly Sorted
7								
	25		B2-25	16 16 18		SW		Light Brown, Fine to Coarse Sand with Some Gravel, Moist, Poorly Sorted
8								
9	30							

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/27/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/27/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Depth to Water: **27.0 ft.**
Total Depth: **29.0 ft.**

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: C1

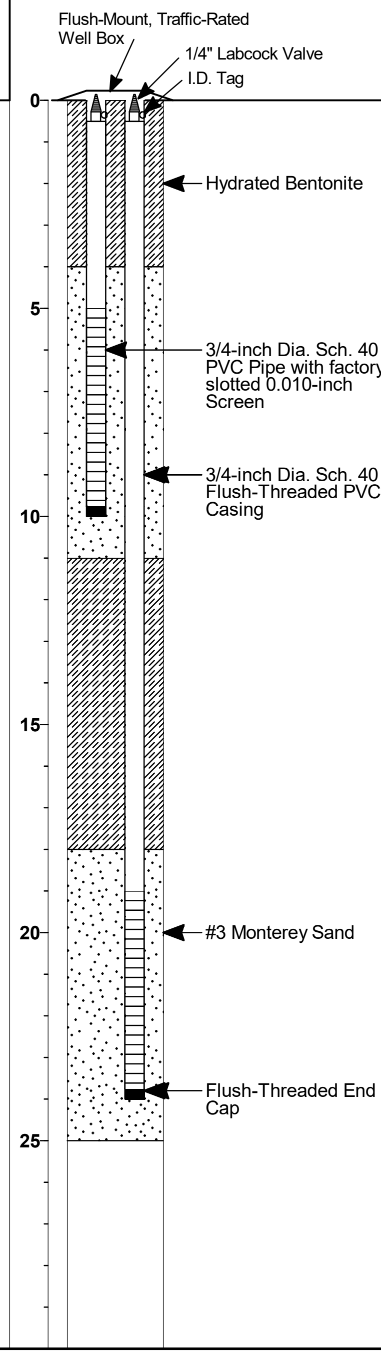
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0							
1								
	5	X	C1-5	12 14 16				Light Brown, Sand, Silt and Clay Mixture, Moist
2								
3	10	X	C1-10	16 16 17				Light Brown, Sand, Silt and Clay Mixture, Moist
4								
	15	X	C1-15	14 14 16		SP		Orangish Brown, Medium to Coarse Sand, Well Sorted
5								
6	20	X	C1-20	13 14 15		SP		Light Brown, Very Fine to FIne Sand, Moist, Well Sorted
7								
	25	X	C1-25	11 12 14		SP		Light Brown, Very Coarse Sand with Some Gravel, Very Moist
8								
9	30							

Completion Detail



Drilling Company:	**ABC Liovin**
Drilling Method:	**Hollow Stem Auger**
Logged By:	**T. Birren**
Sampling Method:	**Split Spoon**
Date Started:	**12/29/22**
Date Ended:	**12/29/22**
Boring Diameter:	**8-inch**
Well Diameter:	**2x 3/4-inch**
Total Depth:	**25.0 ft.**

STANDARD_LOG 01222204 BORING LOGS2.GPJ STD_LOG.GDT 2/19/23

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: D1

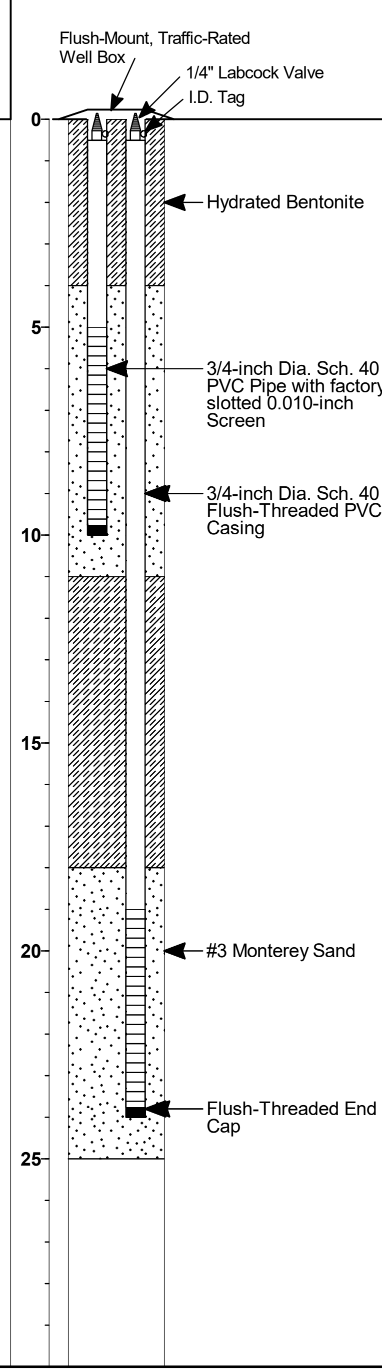
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0							
1								
	5	X	D1-5	14 14 16				Brown, Clayey Silt with Some Sand and Gravel and Trace (<5%) Glass Fragments
2								
3	10	X						No Recovery. Loose Gravel in Cuttings
4								
	15	X	D1-15	14 16 18				Gravel with Some Sand
5								
						SM		Grayish Brown, Silty Fine Sand with Trace Gravel
6	20	X	D1-20	14 17 17		SP		Orangish Brown, Fine Sand, Slightly Moist, Well Sorted
7								
	25	X	D1-25	13 14 14		SP		Orangish Brown, Medium Sand, Moist, Well Sorted
8								
9	30							

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/27/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/27/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

SCS ENGINEERS | # BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: D2

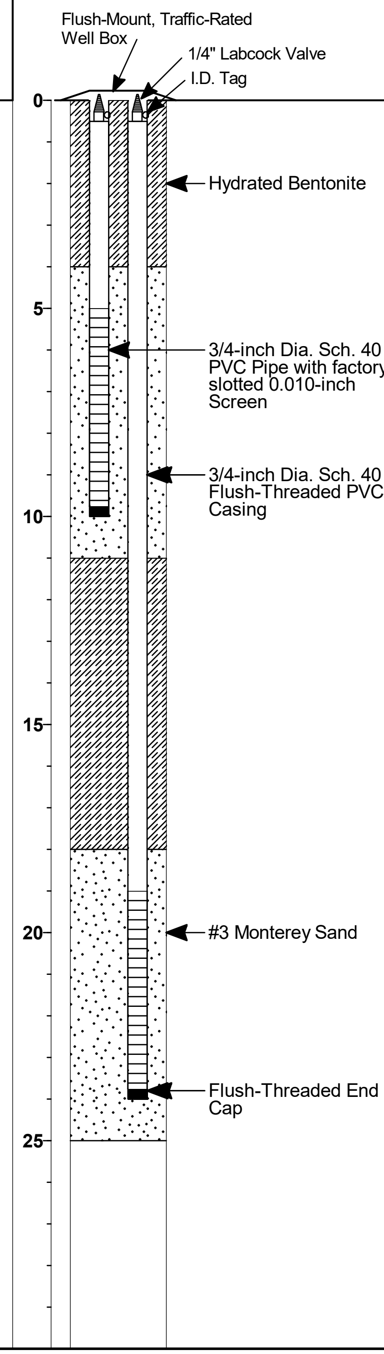
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0	0					
1						
	5	D2-5	4 9 12			Light Brown, Silt, Sand, and Clay Mixture with Trace Gravel
2						
3	10	D2-10	10 11 13			Light Brown, sand Silt and Clay Mixture, Moist
4						
	15	D2-15	11 12 19		SM	Orangish Brown, Silty Fine to Medium Sand
5						
6	20	D2-20	13 14 16		SW	Orangish Brown, Gravelly Fine Sand
7						
	25	D2-25	12 14 16		SW	Orangish Brown, Gravelly Fine Sand
8						
9	30					

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/29/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

Appendix B

EAL Laboratory Reports

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number:	476803
Report Level:	II
Report Date:	01/18/2023

Analytical Report *prepared for:*

Jeff Sieg
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Location: Walker Group, 2750 Bristol St., Costa Mesa, CA

Authorized for release by:

Jim Lin, Service Center Manager
Jim.lin@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Jeff Sieg		Lab Job #:	476803
SCS Engineers - Long Beach		Location:	Walker Group, 2750 Bristol St., Costa Mesa, CA
3900 Kilroy Airport Way			
Suite 100		Date Received:	01/09/23
Long Beach, CA 90806			

Sample ID	Lab ID	Collected	Matrix
D2-S	476803-001	01/06/23 07:46	Air
D2-D	476803-002	01/06/23 07:47	Air
C1-S	476803-003	01/06/23 08:25	Air
C1-D	476803-004	01/06/23 08:26	Air
D1-S	476803-005	01/06/23 09:00	Air
D1-D	476803-006	01/06/23 08:59	Air
B1-S	476803-007	01/06/23 09:21	Air
B1-D	476803-008	01/06/23 09:18	Air
B2-S	476803-009	01/06/23 10:12	Air
B2-D	476803-010	01/06/23 10:01	Air
A3-S	476803-011	01/06/23 10:55	Air
A3-D	476803-012	01/06/23 10:57	Air
A2-S	476803-013	01/06/23 11:12	Air
A2-D	476803-014	01/06/23 11:14	Air
A1-S	476803-015	01/06/23 11:22	Air
A1-D	476803-016	01/06/23 11:23	Air

Case Narrative

SCS Engineers - Long Beach	Lab Job Number:	476803
3900 Kilroy Airport Way	Location:	Walker Group, 2750 Bristol St., Costa Mesa, CA
Suite 100	Date Received:	01/09/23
Long Beach, CA 90806		
Jeff Sieg		

This data package contains sample and QC results for sixteen air samples, requested for the above referenced project on 01/09/23. The samples were received intact.

Volatile Organics in Air by MS (EPA TO-15):

- High recovery was observed for bromomethane in the BSD for batch 304992; this analyte was not detected at or above the RL in the associated samples. High RPD was also observed for bromomethane in the BS/BSD for batch 304992; this analyte was not detected at or above the RL in the associated samples.
- A number of samples were diluted due to high non-target analytes.
- No other analytical problems were encountered.

Volatile Organics in Air GC (ASTM D1946):

No analytical problems were encountered.

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Chain of Custody Record

Lab No: H76803

Page: 1 of 2

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS Engineers	Quote #:	
Report To:	Jeff Sieg	Proj. Name:	Walker Group
Email:	jsieg@scsengineers.com	Proj. #:	1222204
Address:	3900 Kilroy Airport Way #100	P.O. #:	
	Long Beach, CA 90806	Address:	2750 Bristol Street, Costa Mesa
Phone:	562-572-4461	Global ID:	
Fax:		Sampled By:	J.Sieg

Analysis Request: * ASTM D1946; TO-15 FULL SCAN

Test Instructions / Comments: * METHANE & FIXED GASES

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	* ASTM D1946	TO-15 FULL SCAN
1	D2-S	01/06/23	7:46	vapor	1 summa	n/a	X	X
2	D2-D		7:47				X	X
3	C1-S		8:25				X	X
4	C1-D		8:26				X	X
5	D1-S		9:00				X	X
6	D1-D		8:59				X	X
7	B1-S		9:21				X	X
8	B1-D		9:18				X	X
9	B2-S		10:12				X	X
10	B2-D		10:01				X	X

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Jeff Sieg	SCS	1/9/23
1 Received By:	[signature]	GGaWaA	EA	1.9.23 1115
2 Relinquished By:	[signature]	GGaWaA	EA	1.9.23 1150
2 Received By:	Geena Sylvestri	Geena Sylvestri	EA.	1/9/23 11:50
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Chain of Custody Record

Lab No: 476803

Page: 2 of 2

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp:

(lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS Engineers	Quote #:	
Report To:	Jeff Sieg	Proj. Name:	Walker Group
Email:	jsieg@scsengineers.com	Proj. #:	1222204
Address:	3900 Kilroy Airport Way #100	P.O. #:	
	Long Beach, CA 90806	Address:	2750 Bristol Street, Costa Mesa
Phone:	562-572-4461	Global ID:	
Fax:		Sampled By:	J.Sieg

Analysis Request: ASTM D1946 *; TO15 FULL SCAN

Test Instructions / Comments: * METHANE & FIXED GASES

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	ASTM D1946 *	TO15 FULL SCAN
1	A3-S	01/06/23	10:55	vapor	1 summa	n/a		
2	A3-D		10:57					
3	A2-S		11:12					
4	A2-D		11:14					
5	A1-S		11:22					
6	A1-D		11:23					
7								
8								
9								
10								

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Jeff Sieg	SCS	1/9/23
1 Received By:		GGawat	EA	1.9.23 1115
2 Relinquished By:	[signature]	GGawat	EA	1.9.23 1150
2 Received By:	[signature]	Geena Sylvester	EA	1/9/23 11:50
3 Relinquished By:				
3 Received By:				

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SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: SCS Engineers — Project: Walker Group

Date Received: 1/09/23 — Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☐ Yes, How many? ______ ☑ No (skip section 2) — Sample Temp (°C) (No Cooler): Amb.

Sample Temp (°C), One from each cooler: #1: ________ #2: ________ #3: ________ #4: ________

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: ________

Section 3

Was the cooler packed with: ☐ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other ________

Cooler Temp (°C): #1: ________ #2: ________ #3: ________ #4: ________

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Canisters ambient.

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: ______ Date/Time __________

☐ Email (email sent to/on): ______ / __________

Project Manager's response:

Completed By: [signature] Date: JAN 09 2023

ENTHALPY ANALYTICAL

Analysis Results for 476803

Jeff Sieg
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Lab Job #: 476803
Location: Walker Group, 2750 Bristol St., Costa Mesa, CA
Date Received: 01/09/23

Sample ID: D2-S **Lab ID: 476803-001** **Collected: 01/06/23 07:46**
Matrix: Air

476803-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**1.4**		%v/v	0.15	1.5	304945	01/10/23	01/10/23	JLL
Oxygen	**7.7**		%v/v	0.15	1.5	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.15	1.5	304945	01/10/23	01/10/23	JLL
Nitrogen	**90**		%v/v	7.5	1.5	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	**10**		ppbv	4.0	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1-Difluoroethane	**27**		ug/m3	11	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Freon 12	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Freon 12	ND		ug/m3	4.0	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Freon 114	**0.87**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Freon 114	**6.1**		ug/m3	5.6	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Chloromethane	**1.8**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Chloromethane	**3.8**		ug/m3	1.7	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Vinyl Chloride	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Vinyl Chloride	ND		ug/m3	2.0	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Bromomethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Bromomethane	ND		ug/m3	3.1	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Chloroethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Chloroethane	ND		ug/m3	2.1	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Trichlorofluoromethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Trichlorofluoromethane	ND		ug/m3	4.5	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1-Dichloroethene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1-Dichloroethene	ND		ug/m3	3.2	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Freon 113	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Freon 113	ND		ug/m3	6.1	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Acetone	ND		ppbv	4.0	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Acetone	ND		ug/m3	9.5	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Carbon Disulfide	**120**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Carbon Disulfide	**370**		ug/m3	2.5	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Isopropanol (IPA)	ND		ppbv	4.0	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Isopropanol (IPA)	ND		ug/m3	9.8	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Methylene Chloride	**1.9**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 476803

476803-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Methylene Chloride	**6.5**		ug/m3	2.8	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
trans-1,2-Dichloroethene	**1.9**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
trans-1,2-Dichloroethene	**7.5**		ug/m3	3.2	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
MTBE	**33**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
MTBE	**120**		ug/m3	2.9	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
n-Hexane	**17**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
n-Hexane	**61**		ug/m3	2.8	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1-Dichloroethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1-Dichloroethane	ND		ug/m3	3.2	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Vinyl Acetate	ND		ppbv	4.0	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Vinyl Acetate	ND		ug/m3	14	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
cis-1,2-Dichloroethene	**20**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
cis-1,2-Dichloroethene	**80**		ug/m3	3.2	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
2-Butanone	ND		ppbv	4.0	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
2-Butanone	ND		ug/m3	12	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Chloroform	**13**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Chloroform	**63**		ug/m3	3.9	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	4.4	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Carbon Tetrachloride	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Carbon Tetrachloride	ND		ug/m3	5.0	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Benzene	**1.3**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Benzene	**4.1**		ug/m3	2.6	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2-Dichloroethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2-Dichloroethane	ND		ug/m3	3.2	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Trichloroethene	**19**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Trichloroethene	**100**		ug/m3	4.3	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2-Dichloropropane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2-Dichloropropane	ND		ug/m3	3.7	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Bromodichloromethane	**1.4**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Bromodichloromethane	**9.6**		ug/m3	5.4	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	3.6	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	3.3	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Toluene	**1.9**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Toluene	**7.3**		ug/m3	3.0	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	3.6	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	4.4	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Tetrachloroethene	**7.8**		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Tetrachloroethene	**53**		ug/m3	5.4	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
2-Hexanone	ND		ppbv	2.0	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
2-Hexanone	ND		ug/m3	8.2	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Dibromochloromethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/m3	6.8	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2-Dibromoethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2-Dibromoethane	ND		ug/m3	6.1	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Chlorobenzene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Chlorobenzene	ND		ug/m3	3.7	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Ethylbenzene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Ethylbenzene	ND		ug/m3	3.5	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
m,p-Xylenes	ND		ppbv	1.6	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
m,p-Xylenes	ND		ug/m3	6.9	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
o-Xylene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
o-Xylene	ND		ug/m3	3.5	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Styrene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Styrene	ND		ug/m3	3.4	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Bromoform	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Bromoform	ND		ug/m3	8.3	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	5.5	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	5.5	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
4-Ethyltoluene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
4-Ethyltoluene	ND		ug/m3	3.9	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	3.9	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	3.9	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	4.8	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	4.8	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Benzyl chloride	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Benzyl chloride	ND		ug/m3	4.1	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	4.8	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	5.9	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Hexachlorobutadiene	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Hexachlorobutadiene	ND		ug/m3	8.5	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Xylene (total)	ND		ppbv	0.80	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Xylene (total)	ND		ug/m3	3.5	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	109%		%REC	60-140	4	305136	01/13/23 08:48	01/13/23 08:48	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 476803

Sample ID: D2-D	Lab ID: 476803-002	Collected: 01/06/23 07:47
	Matrix: Air	

476803-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**7.2**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	**6.8**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**85**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	8.0	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1-Difluoroethane	ND		ug/m3	22	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Freon 12	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Freon 12	ND		ug/m3	7.9	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Freon 114	**2.7**		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Freon 114	**19**		ug/m3	11	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Chloromethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Chloromethane	ND		ug/m3	3.3	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Vinyl Chloride	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Vinyl Chloride	ND		ug/m3	4.1	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Bromomethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Bromomethane	ND		ug/m3	6.2	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Chloroethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Chloroethane	ND		ug/m3	4.2	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Trichlorofluoromethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Trichlorofluoromethane	ND		ug/m3	9.0	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1-Dichloroethene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1-Dichloroethene	ND		ug/m3	6.3	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Freon 113	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Freon 113	ND		ug/m3	12	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Acetone	ND		ppbv	8.0	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Acetone	ND		ug/m3	19	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Carbon Disulfide	**4.7**		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Carbon Disulfide	**14**		ug/m3	5.0	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Isopropanol (IPA)	ND		ppbv	8.0	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Isopropanol (IPA)	ND		ug/m3	20	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Methylene Chloride	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Methylene Chloride	ND		ug/m3	5.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
trans-1,2-Dichloroethene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
trans-1,2-Dichloroethene	ND		ug/m3	6.3	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
MTBE	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
MTBE	ND		ug/m3	5.8	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
n-Hexane	**1.7**		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

476803-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**5.9**		ug/m3	5.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1-Dichloroethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1-Dichloroethane	ND		ug/m3	6.5	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Vinyl Acetate	ND		ppbv	8.0	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Vinyl Acetate	ND		ug/m3	28	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
cis-1,2-Dichloroethene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
cis-1,2-Dichloroethene	ND		ug/m3	6.3	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
2-Butanone	ND		ppbv	8.0	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
2-Butanone	ND		ug/m3	24	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Chloroform	**2.5**		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Chloroform	**12**		ug/m3	7.8	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1,1-Trichloroethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1,1-Trichloroethane	ND		ug/m3	8.7	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Carbon Tetrachloride	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Carbon Tetrachloride	ND		ug/m3	10	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Benzene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Benzene	ND		ug/m3	5.1	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2-Dichloroethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2-Dichloroethane	ND		ug/m3	6.5	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Trichloroethene	**230**		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Trichloroethene	**1,200**		ug/m3	8.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2-Dichloropropane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2-Dichloropropane	ND		ug/m3	7.4	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Bromodichloromethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Bromodichloromethane	ND		ug/m3	11	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
cis-1,3-Dichloropropene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
cis-1,3-Dichloropropene	ND		ug/m3	7.3	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
4-Methyl-2-Pentanone	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
4-Methyl-2-Pentanone	ND		ug/m3	6.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Toluene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Toluene	ND		ug/m3	6.0	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
trans-1,3-Dichloropropene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
trans-1,3-Dichloropropene	ND		ug/m3	7.3	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1,2-Trichloroethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1,2-Trichloroethane	ND		ug/m3	8.7	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Tetrachloroethene	**170**		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Tetrachloroethene	**1,200**		ug/m3	11	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
2-Hexanone	ND		ppbv	4.0	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
2-Hexanone	ND		ug/m3	16	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Dibromochloromethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Dibromochloromethane	ND		ug/m3	14	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2-Dibromoethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2-Dibromoethane	ND		ug/m3	12	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Chlorobenzene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Chlorobenzene	ND		ug/m3	7.4	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Ethylbenzene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	6.9	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
m,p-Xylenes	ND		ppbv	3.2	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
m,p-Xylenes	ND		ug/m3	14	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
o-Xylene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
o-Xylene	ND		ug/m3	6.9	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Styrene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Styrene	ND		ug/m3	6.8	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Bromoform	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Bromoform	ND		ug/m3	17	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	11	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	11	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
4-Ethyltoluene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
4-Ethyltoluene	ND		ug/m3	7.9	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,3,5-Trimethylbenzene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	7.9	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2,4-Trimethylbenzene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	7.9	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,3-Dichlorobenzene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,3-Dichlorobenzene	ND		ug/m3	9.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,4-Dichlorobenzene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,4-Dichlorobenzene	ND		ug/m3	9.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Benzyl chloride	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Benzyl chloride	ND		ug/m3	8.3	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2-Dichlorobenzene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2-Dichlorobenzene	ND		ug/m3	9.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2,4-Trichlorobenzene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	12	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Hexachlorobutadiene	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Hexachlorobutadiene	ND		ug/m3	17	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Xylene (total)	ND		ppbv	1.6	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Xylene (total)	ND		ug/m3	6.9	8	304974	01/11/23 16:09	01/11/23 16:09	MBC
Surrogates				**Limits**					
Bromofluorobenzene	105%		%REC	60-140	8	304974	01/11/23 16:09	01/11/23 16:09	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

Sample ID: C1-S	Lab ID: 476803-003	Collected: 01/06/23 08:25
	Matrix: Air	

476803-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**1.6**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	**5.6**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**92**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	**9.7**		ppbv	1.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1-Difluoroethane	**26**		ug/m3	4.3	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Freon 12	**1.0**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Freon 12	**5.0**		ug/m3	1.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Freon 114	**4.5**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Freon 114	**32**		ug/m3	2.2	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Chloromethane	**0.74**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Chloromethane	**1.5**		ug/m3	0.66	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Vinyl Chloride	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Vinyl Chloride	ND		ug/m3	0.82	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Bromomethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Bromomethane	ND		ug/m3	1.2	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Chloroethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Chloroethane	ND		ug/m3	0.84	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Trichlorofluoromethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Trichlorofluoromethane	ND		ug/m3	1.8	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1-Dichloroethene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1-Dichloroethene	ND		ug/m3	1.3	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Freon 113	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Freon 113	ND		ug/m3	2.5	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Acetone	**2.5**		ppbv	1.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Acetone	**6.0**		ug/m3	3.8	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Carbon Disulfide	**11**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Carbon Disulfide	**34**		ug/m3	1.0	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Isopropanol (IPA)	**2.3**		ppbv	1.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Isopropanol (IPA)	**5.6**		ug/m3	3.9	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Methylene Chloride	**0.42**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Methylene Chloride	**1.4**		ug/m3	1.1	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
trans-1,2-Dichloroethene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
trans-1,2-Dichloroethene	ND		ug/m3	1.3	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
MTBE	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
MTBE	ND		ug/m3	1.2	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
n-Hexane	**4.4**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**15**		ug/m3	1.1	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1-Dichloroethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1-Dichloroethane	ND		ug/m3	1.3	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Vinyl Acetate	ND		ppbv	1.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Vinyl Acetate	ND		ug/m3	5.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
cis-1,2-Dichloroethene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
cis-1,2-Dichloroethene	ND		ug/m3	1.3	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
2-Butanone	ND		ppbv	1.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
2-Butanone	ND		ug/m3	4.7	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Chloroform	**4.8**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Chloroform	**24**		ug/m3	1.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1,1-Trichloroethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1,1-Trichloroethane	ND		ug/m3	1.7	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Carbon Tetrachloride	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Carbon Tetrachloride	ND		ug/m3	2.0	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Benzene	**0.69**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Benzene	**2.2**		ug/m3	1.0	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2-Dichloroethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2-Dichloroethane	ND		ug/m3	1.3	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Trichloroethene	**20**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Trichloroethene	**110**		ug/m3	1.7	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2-Dichloropropane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2-Dichloropropane	ND		ug/m3	1.5	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Bromodichloromethane	**0.88**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Bromodichloromethane	**5.9**		ug/m3	2.1	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
cis-1,3-Dichloropropene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
cis-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
4-Methyl-2-Pentanone	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
4-Methyl-2-Pentanone	ND		ug/m3	1.3	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Toluene	**10**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Toluene	**39**		ug/m3	1.2	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
trans-1,3-Dichloropropene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
trans-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1,2-Trichloroethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1,2-Trichloroethane	ND		ug/m3	1.7	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Tetrachloroethene	**35**		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Tetrachloroethene	**240**		ug/m3	2.2	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
2-Hexanone	ND		ppbv	0.80	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
2-Hexanone	ND		ug/m3	3.3	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Dibromochloromethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Dibromochloromethane	ND		ug/m3	2.7	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2-Dibromoethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2-Dibromoethane	ND		ug/m3	2.5	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Chlorobenzene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Chlorobenzene	ND		ug/m3	1.5	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Ethylbenzene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.4	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
m,p-Xylenes	ND		ppbv	0.64	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
m,p-Xylenes	ND		ug/m3	2.8	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
o-Xylene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
o-Xylene	ND		ug/m3	1.4	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Styrene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Styrene	ND		ug/m3	1.4	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Bromoform	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Bromoform	ND		ug/m3	3.3	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
4-Ethyltoluene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
4-Ethyltoluene	ND		ug/m3	1.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,3,5-Trimethylbenzene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	1.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2,4-Trimethylbenzene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	1.6	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,3-Dichlorobenzene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,3-Dichlorobenzene	ND		ug/m3	1.9	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,4-Dichlorobenzene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,4-Dichlorobenzene	ND		ug/m3	1.9	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Benzyl chloride	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Benzyl chloride	ND		ug/m3	1.7	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2-Dichlorobenzene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2-Dichlorobenzene	ND		ug/m3	1.9	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2,4-Trichlorobenzene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	2.4	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Hexachlorobutadiene	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Hexachlorobutadiene	ND		ug/m3	3.4	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Xylene (total)	ND		ppbv	0.32	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Xylene (total)	ND		ug/m3	1.4	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC
Surrogates				**Limits**					
Bromofluorobenzene	97%		%REC	60-140	1.6	304992	01/11/23 17:21	01/11/23 17:21	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

Sample ID: C1-D	Lab ID: 476803-004	Collected: 01/06/23 08:26
	Matrix: Air	

476803-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**6.5**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	**1.1**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**91**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	8.0	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1-Difluoroethane	ND		ug/m3	22	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Freon 12	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Freon 12	ND		ug/m3	7.9	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Freon 114	**3.9**		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Freon 114	**27**		ug/m3	11	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Chloromethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Chloromethane	ND		ug/m3	3.3	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Vinyl Chloride	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Vinyl Chloride	ND		ug/m3	4.1	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Bromomethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Bromomethane	ND		ug/m3	6.2	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Chloroethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Chloroethane	ND		ug/m3	4.2	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Trichlorofluoromethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Trichlorofluoromethane	ND		ug/m3	9.0	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1-Dichloroethene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1-Dichloroethene	ND		ug/m3	6.3	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Freon 113	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Freon 113	ND		ug/m3	12	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Acetone	ND		ppbv	8.0	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Acetone	ND		ug/m3	19	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Carbon Disulfide	**3.0**		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Carbon Disulfide	**9.2**		ug/m3	5.0	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Isopropanol (IPA)	ND		ppbv	8.0	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Isopropanol (IPA)	ND		ug/m3	20	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Methylene Chloride	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Methylene Chloride	ND		ug/m3	5.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
trans-1,2-Dichloroethene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
trans-1,2-Dichloroethene	ND		ug/m3	6.3	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
MTBE	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
MTBE	ND		ug/m3	5.8	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
n-Hexane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	5.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1-Dichloroethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1-Dichloroethane	ND		ug/m3	6.5	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Vinyl Acetate	ND		ppbv	8.0	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Vinyl Acetate	ND		ug/m3	28	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
cis-1,2-Dichloroethene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
cis-1,2-Dichloroethene	ND		ug/m3	6.3	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
2-Butanone	ND		ppbv	8.0	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
2-Butanone	ND		ug/m3	24	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Chloroform	**3.9**		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Chloroform	**19**		ug/m3	7.8	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1,1-Trichloroethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1,1-Trichloroethane	ND		ug/m3	8.7	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Carbon Tetrachloride	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Carbon Tetrachloride	ND		ug/m3	10	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Benzene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Benzene	ND		ug/m3	5.1	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2-Dichloroethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2-Dichloroethane	ND		ug/m3	6.5	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Trichloroethene	**130**		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Trichloroethene	**700**		ug/m3	8.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2-Dichloropropane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2-Dichloropropane	ND		ug/m3	7.4	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Bromodichloromethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Bromodichloromethane	ND		ug/m3	11	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
cis-1,3-Dichloropropene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
cis-1,3-Dichloropropene	ND		ug/m3	7.3	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
4-Methyl-2-Pentanone	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
4-Methyl-2-Pentanone	ND		ug/m3	6.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Toluene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Toluene	ND		ug/m3	6.0	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
trans-1,3-Dichloropropene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
trans-1,3-Dichloropropene	ND		ug/m3	7.3	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1,2-Trichloroethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1,2-Trichloroethane	ND		ug/m3	8.7	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Tetrachloroethene	**200**		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Tetrachloroethene	**1,400**		ug/m3	11	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
2-Hexanone	ND		ppbv	4.0	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
2-Hexanone	ND		ug/m3	16	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Dibromochloromethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Dibromochloromethane	ND		ug/m3	14	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2-Dibromoethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2-Dibromoethane	ND		ug/m3	12	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Chlorobenzene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Chlorobenzene	ND		ug/m3	7.4	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Ethylbenzene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	6.9	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
m,p-Xylenes	ND		ppbv	3.2	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
m,p-Xylenes	ND		ug/m3	14	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
o-Xylene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
o-Xylene	ND		ug/m3	6.9	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Styrene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Styrene	ND		ug/m3	6.8	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Bromoform	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Bromoform	ND		ug/m3	17	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	11	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	11	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
4-Ethyltoluene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
4-Ethyltoluene	ND		ug/m3	7.9	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,3,5-Trimethylbenzene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	7.9	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2,4-Trimethylbenzene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	7.9	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,3-Dichlorobenzene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,3-Dichlorobenzene	ND		ug/m3	9.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,4-Dichlorobenzene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,4-Dichlorobenzene	ND		ug/m3	9.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Benzyl chloride	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Benzyl chloride	ND		ug/m3	8.3	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2-Dichlorobenzene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2-Dichlorobenzene	ND		ug/m3	9.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2,4-Trichlorobenzene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	12	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Hexachlorobutadiene	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Hexachlorobutadiene	ND		ug/m3	17	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Xylene (total)	ND		ppbv	1.6	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Xylene (total)	ND		ug/m3	6.9	8	304992	01/11/23 17:47	01/11/23 17:47	MBC
Surrogates				**Limits**					
Bromofluorobenzene	95%		%REC	60-140	8	304992	01/11/23 17:47	01/11/23 17:47	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

Sample ID: D1-S	Lab ID: 476803-005	Collected: 01/06/23 09:00
	Matrix: Air	

476803-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**3.5**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	**15**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**81**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1-Difluoroethane	ND		ug/m3	4.3	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Freon 12	**0.48**		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Freon 12	**2.4**		ug/m3	1.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Freon 114	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Freon 114	ND		ug/m3	2.2	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Chloromethane	**0.60**		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Chloromethane	**1.2**		ug/m3	0.66	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Vinyl Chloride	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Vinyl Chloride	ND		ug/m3	0.82	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Bromomethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Bromomethane	ND		ug/m3	1.2	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Chloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Chloroethane	ND		ug/m3	0.84	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Trichlorofluoromethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Trichlorofluoromethane	ND		ug/m3	1.8	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1-Dichloroethene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1-Dichloroethene	ND		ug/m3	1.3	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Freon 113	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Freon 113	ND		ug/m3	2.5	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Acetone	**2.5**		ppbv	1.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Acetone	**6.0**		ug/m3	3.8	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Carbon Disulfide	**1.2**		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Carbon Disulfide	**3.7**		ug/m3	1.0	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Isopropanol (IPA)	**1.8**		ppbv	1.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Isopropanol (IPA)	**4.3**		ug/m3	3.9	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Methylene Chloride	**0.47**		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Methylene Chloride	**1.6**		ug/m3	1.1	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	1.3	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
MTBE	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
MTBE	ND		ug/m3	1.2	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
n-Hexane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	1.1	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1-Dichloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1-Dichloroethane	ND		ug/m3	1.3	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Vinyl Acetate	ND		ppbv	1.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Vinyl Acetate	ND		ug/m3	5.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
cis-1,2-Dichloroethene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
cis-1,2-Dichloroethene	ND		ug/m3	1.3	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
2-Butanone	ND		ppbv	1.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
2-Butanone	ND		ug/m3	4.7	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Chloroform	**1.7**		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Chloroform	**8.3**		ug/m3	1.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	1.7	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Carbon Tetrachloride	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Carbon Tetrachloride	ND		ug/m3	2.0	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Benzene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Benzene	ND		ug/m3	1.0	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2-Dichloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2-Dichloroethane	ND		ug/m3	1.3	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Trichloroethene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Trichloroethene	ND		ug/m3	1.7	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2-Dichloropropane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2-Dichloropropane	ND		ug/m3	1.5	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Bromodichloromethane	**0.66**		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Bromodichloromethane	**4.4**		ug/m3	2.1	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	1.3	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Toluene	**1.7**		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Toluene	**6.5**		ug/m3	1.2	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	1.7	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Tetrachloroethene	**64**		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Tetrachloroethene	**440**		ug/m3	2.2	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
2-Hexanone	ND		ppbv	0.80	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
2-Hexanone	ND		ug/m3	3.3	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Dibromochloromethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Dibromochloromethane	ND		ug/m3	2.7	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2-Dibromoethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2-Dibromoethane	ND		ug/m3	2.5	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Chlorobenzene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Chlorobenzene	ND		ug/m3	1.5	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Ethylbenzene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.4	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
m,p-Xylenes	ND		ppbv	0.64	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
m,p-Xylenes	ND		ug/m3	2.8	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
o-Xylene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
o-Xylene	ND		ug/m3	1.4	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Styrene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Styrene	ND		ug/m3	1.4	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Bromoform	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Bromoform	ND		ug/m3	3.3	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
4-Ethyltoluene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
4-Ethyltoluene	ND		ug/m3	1.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	1.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	1.6	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	1.9	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	1.9	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Benzyl chloride	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Benzyl chloride	ND		ug/m3	1.7	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	1.9	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	2.4	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Hexachlorobutadiene	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Hexachlorobutadiene	ND		ug/m3	3.4	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Xylene (total)	ND		ppbv	0.32	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Xylene (total)	ND		ug/m3	1.4	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	107%		%REC	60-140	1.6	305136	01/13/23 00:43	01/13/23 00:43	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 476803

Sample ID: D1-D	Lab ID: 476803-006	Collected: 01/06/23 08:59
	Matrix: Air	

476803-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**8.8**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	**7.7**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**83**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	8.0	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1-Difluoroethane	ND		ug/m3	22	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Freon 12	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Freon 12	ND		ug/m3	7.9	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Freon 114	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Freon 114	ND		ug/m3	11	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Chloromethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Chloromethane	ND		ug/m3	3.3	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Vinyl Chloride	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Vinyl Chloride	ND		ug/m3	4.1	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Bromomethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Bromomethane	ND		ug/m3	6.2	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Chloroethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Chloroethane	ND		ug/m3	4.2	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Trichlorofluoromethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Trichlorofluoromethane	ND		ug/m3	9.0	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1-Dichloroethene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1-Dichloroethene	ND		ug/m3	6.3	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Freon 113	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Freon 113	ND		ug/m3	12	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Acetone	ND		ppbv	8.0	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Acetone	ND		ug/m3	19	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Carbon Disulfide	**3.2**		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Carbon Disulfide	**9.8**		ug/m3	5.0	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Isopropanol (IPA)	ND		ppbv	8.0	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Isopropanol (IPA)	ND		ug/m3	20	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Methylene Chloride	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Methylene Chloride	ND		ug/m3	5.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
trans-1,2-Dichloroethene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
trans-1,2-Dichloroethene	ND		ug/m3	6.3	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
MTBE	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
MTBE	ND		ug/m3	5.8	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
n-Hexane	**12**		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 476803

476803-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**44**		ug/m3	5.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1-Dichloroethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1-Dichloroethane	ND		ug/m3	6.5	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Vinyl Acetate	ND		ppbv	8.0	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Vinyl Acetate	ND		ug/m3	28	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
cis-1,2-Dichloroethene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
cis-1,2-Dichloroethene	ND		ug/m3	6.3	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
2-Butanone	ND		ppbv	8.0	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
2-Butanone	ND		ug/m3	24	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Chloroform	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Chloroform	ND		ug/m3	7.8	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1,1-Trichloroethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1,1-Trichloroethane	ND		ug/m3	8.7	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Carbon Tetrachloride	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Carbon Tetrachloride	ND		ug/m3	10	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Benzene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Benzene	ND		ug/m3	5.1	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2-Dichloroethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2-Dichloroethane	ND		ug/m3	6.5	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Trichloroethene	**8.8**		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Trichloroethene	**47**		ug/m3	8.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2-Dichloropropane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2-Dichloropropane	ND		ug/m3	7.4	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Bromodichloromethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Bromodichloromethane	ND		ug/m3	11	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
cis-1,3-Dichloropropene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
cis-1,3-Dichloropropene	ND		ug/m3	7.3	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
4-Methyl-2-Pentanone	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
4-Methyl-2-Pentanone	ND		ug/m3	6.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Toluene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Toluene	ND		ug/m3	6.0	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
trans-1,3-Dichloropropene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
trans-1,3-Dichloropropene	ND		ug/m3	7.3	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1,2-Trichloroethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1,2-Trichloroethane	ND		ug/m3	8.7	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Tetrachloroethene	**260**		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Tetrachloroethene	**1,800**		ug/m3	11	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
2-Hexanone	ND		ppbv	4.0	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
2-Hexanone	ND		ug/m3	16	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Dibromochloromethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Dibromochloromethane	ND		ug/m3	14	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2-Dibromoethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2-Dibromoethane	ND		ug/m3	12	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Chlorobenzene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Chlorobenzene	ND		ug/m3	7.4	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Ethylbenzene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	6.9	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
m,p-Xylenes	ND		ppbv	3.2	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
m,p-Xylenes	ND		ug/m3	14	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
o-Xylene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
o-Xylene	ND		ug/m3	6.9	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Styrene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Styrene	ND		ug/m3	6.8	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Bromoform	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Bromoform	ND		ug/m3	17	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	11	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	11	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
4-Ethyltoluene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
4-Ethyltoluene	ND		ug/m3	7.9	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,3,5-Trimethylbenzene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	7.9	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2,4-Trimethylbenzene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	7.9	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,3-Dichlorobenzene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,3-Dichlorobenzene	ND		ug/m3	9.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,4-Dichlorobenzene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,4-Dichlorobenzene	ND		ug/m3	9.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Benzyl chloride	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Benzyl chloride	ND		ug/m3	8.3	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2-Dichlorobenzene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2-Dichlorobenzene	ND		ug/m3	9.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2,4-Trichlorobenzene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	12	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Hexachlorobutadiene	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Hexachlorobutadiene	ND		ug/m3	17	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Xylene (total)	ND		ppbv	1.6	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Xylene (total)	ND		ug/m3	6.9	8	304974	01/11/23 18:38	01/11/23 18:38	MBC
Surrogates				**Limits**					
Bromofluorobenzene	104%		%REC	60-140	8	304974	01/11/23 18:38	01/11/23 18:38	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

Sample ID: B1-S	Lab ID: 476803-007	Collected: 01/06/23 09:21
	Matrix: Air	

476803-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**6.9**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	**2.0**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**90**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	6.4	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1-Difluoroethane	ND		ug/m3	17	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Freon 12	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Freon 12	ND		ug/m3	6.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Freon 114	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Freon 114	ND		ug/m3	8.9	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Chloromethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Chloromethane	ND		ug/m3	2.6	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Vinyl Chloride	**14**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Vinyl Chloride	**35**		ug/m3	3.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Bromomethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Bromomethane	ND		ug/m3	5.0	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Chloroethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Chloroethane	ND		ug/m3	3.4	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Trichlorofluoromethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Trichlorofluoromethane	ND		ug/m3	7.2	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1-Dichloroethene	**7.3**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1-Dichloroethene	**29**		ug/m3	5.1	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Freon 113	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Freon 113	ND		ug/m3	9.8	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Acetone	ND		ppbv	6.4	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Acetone	ND		ug/m3	15	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Carbon Disulfide	**37**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Carbon Disulfide	**120**		ug/m3	4.0	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Isopropanol (IPA)	ND		ppbv	6.4	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Isopropanol (IPA)	ND		ug/m3	16	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Methylene Chloride	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Methylene Chloride	ND		ug/m3	4.4	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
trans-1,2-Dichloroethene	**9.1**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
trans-1,2-Dichloroethene	**36**		ug/m3	5.1	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
MTBE	**25**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
MTBE	**92**		ug/m3	4.6	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
n-Hexane	**63**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**220**		ug/m3	4.5	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1-Dichloroethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1-Dichloroethane	ND		ug/m3	5.2	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Vinyl Acetate	ND		ppbv	6.4	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Vinyl Acetate	ND		ug/m3	23	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
cis-1,2-Dichloroethene	**59**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
cis-1,2-Dichloroethene	**230**		ug/m3	5.1	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
2-Butanone	ND		ppbv	6.4	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
2-Butanone	ND		ug/m3	19	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Chloroform	**3.9**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Chloroform	**19**		ug/m3	6.2	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1,1-Trichloroethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1,1-Trichloroethane	ND		ug/m3	7.0	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Carbon Tetrachloride	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Carbon Tetrachloride	ND		ug/m3	8.1	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Benzene	**11**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Benzene	**36**		ug/m3	4.1	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2-Dichloroethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2-Dichloroethane	ND		ug/m3	5.2	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Trichloroethene	**29**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Trichloroethene	**160**		ug/m3	6.9	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2-Dichloropropane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2-Dichloropropane	ND		ug/m3	5.9	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Bromodichloromethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Bromodichloromethane	ND		ug/m3	8.6	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
cis-1,3-Dichloropropene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
cis-1,3-Dichloropropene	ND		ug/m3	5.8	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
4-Methyl-2-Pentanone	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
4-Methyl-2-Pentanone	ND		ug/m3	5.2	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Toluene	**4.6**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Toluene	**17**		ug/m3	4.8	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
trans-1,3-Dichloropropene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
trans-1,3-Dichloropropene	ND		ug/m3	5.8	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1,2-Trichloroethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1,2-Trichloroethane	ND		ug/m3	7.0	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Tetrachloroethene	**16**		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Tetrachloroethene	**110**		ug/m3	8.7	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
2-Hexanone	ND		ppbv	3.2	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
2-Hexanone	ND		ug/m3	13	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Dibromochloromethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Dibromochloromethane	ND		ug/m3	11	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2-Dibromoethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2-Dibromoethane	ND		ug/m3	9.8	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Chlorobenzene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Chlorobenzene	ND		ug/m3	5.9	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Ethylbenzene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

476803-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	5.6	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
m,p-Xylenes	ND		ppbv	2.6	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
m,p-Xylenes	ND		ug/m3	11	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
o-Xylene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
o-Xylene	ND		ug/m3	5.6	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Styrene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Styrene	ND		ug/m3	5.5	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Bromoform	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Bromoform	ND		ug/m3	13	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	8.8	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	8.8	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
4-Ethyltoluene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
4-Ethyltoluene	ND		ug/m3	6.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,3,5-Trimethylbenzene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	6.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2,4-Trimethylbenzene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2,4-Trimethylbenzene	ND		ug/m3	6.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,3-Dichlorobenzene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,3-Dichlorobenzene	ND		ug/m3	7.7	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,4-Dichlorobenzene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,4-Dichlorobenzene	ND		ug/m3	7.7	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Benzyl chloride	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Benzyl chloride	ND		ug/m3	6.6	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2-Dichlorobenzene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2-Dichlorobenzene	ND		ug/m3	7.7	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2,4-Trichlorobenzene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	9.5	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Hexachlorobutadiene	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Hexachlorobutadiene	ND		ug/m3	14	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Xylene (total)	ND		ppbv	1.3	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Xylene (total)	ND		ug/m3	5.6	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL
Surrogates				**Limits**					
Bromofluorobenzene	105%		%REC	60-140	6.4	304974	01/11/23 19:23	01/11/23 19:23	DJL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

Sample ID: B1-D	Lab ID: 476803-008	Collected: 01/06/23 09:18
	Matrix: Air	

476803-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**13**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**86**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1-Difluoroethane	ND		ug/m3	4.3	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Freon 12	**0.79**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Freon 12	**3.9**		ug/m3	1.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Freon 114	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Freon 114	ND		ug/m3	2.2	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Chloromethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Chloromethane	ND		ug/m3	0.66	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Vinyl Chloride	**3.3**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Vinyl Chloride	**8.4**		ug/m3	0.82	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Bromomethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Bromomethane	ND		ug/m3	1.2	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Chloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Chloroethane	ND		ug/m3	0.84	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Trichlorofluoromethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Trichlorofluoromethane	ND		ug/m3	1.8	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1-Dichloroethene	**1.2**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1-Dichloroethene	**4.9**		ug/m3	1.3	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Freon 113	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Freon 113	ND		ug/m3	2.5	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Acetone	**25**		ppbv	1.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Acetone	**58**		ug/m3	3.8	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Carbon Disulfide	**6.4**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Carbon Disulfide	**20**		ug/m3	1.0	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Isopropanol (IPA)	**1.7**		ppbv	1.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Isopropanol (IPA)	**4.2**		ug/m3	3.9	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Methylene Chloride	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Methylene Chloride	ND		ug/m3	1.1	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
trans-1,2-Dichloroethene	**4.1**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
trans-1,2-Dichloroethene	**16**		ug/m3	1.3	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
MTBE	**37**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
MTBE	**130**		ug/m3	1.2	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
n-Hexane	**70**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 476803

476803-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**250**		ug/m3	1.1	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1-Dichloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1-Dichloroethane	ND		ug/m3	1.3	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Vinyl Acetate	ND		ppbv	1.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Vinyl Acetate	ND		ug/m3	5.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
cis-1,2-Dichloroethene	**160**		ppbv	1.3	6.4	305136	01/13/23 01:29	01/13/23 01:29	ZNZ
cis-1,2-Dichloroethene	**640**		ug/m3	5.1	6.4	305136	01/13/23 01:29	01/13/23 01:29	ZNZ
2-Butanone	**2.9**		ppbv	1.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
2-Butanone	**8.5**		ug/m3	4.7	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Chloroform	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Chloroform	ND		ug/m3	1.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1,1-Trichloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1,1-Trichloroethane	ND		ug/m3	1.7	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Carbon Tetrachloride	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Carbon Tetrachloride	ND		ug/m3	2.0	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Benzene	**13**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Benzene	**41**		ug/m3	1.0	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2-Dichloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2-Dichloroethane	ND		ug/m3	1.3	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Trichloroethene	**23**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Trichloroethene	**130**		ug/m3	1.7	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2-Dichloropropane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2-Dichloropropane	ND		ug/m3	1.5	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Bromodichloromethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Bromodichloromethane	ND		ug/m3	2.1	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
cis-1,3-Dichloropropene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
cis-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
4-Methyl-2-Pentanone	**0.45**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
4-Methyl-2-Pentanone	**1.8**		ug/m3	1.3	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Toluene	**3.8**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Toluene	**14**		ug/m3	1.2	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
trans-1,3-Dichloropropene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
trans-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1,2-Trichloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1,2-Trichloroethane	ND		ug/m3	1.7	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Tetrachloroethene	**22**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Tetrachloroethene	**150**		ug/m3	2.2	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
2-Hexanone	ND		ppbv	0.80	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
2-Hexanone	ND		ug/m3	3.3	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Dibromochloromethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Dibromochloromethane	ND		ug/m3	2.7	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2-Dibromoethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2-Dibromoethane	ND		ug/m3	2.5	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Chlorobenzene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Chlorobenzene	ND		ug/m3	1.5	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Ethylbenzene	**1.3**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	**5.8**		ug/m3	1.4	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
m,p-Xylenes	**3.6**		ppbv	0.64	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
m,p-Xylenes	**16**		ug/m3	2.8	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
o-Xylene	**0.98**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
o-Xylene	**4.2**		ug/m3	1.4	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Styrene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Styrene	ND		ug/m3	1.4	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Bromoform	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Bromoform	ND		ug/m3	3.3	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
4-Ethyltoluene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
4-Ethyltoluene	ND		ug/m3	1.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,3,5-Trimethylbenzene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	1.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2,4-Trimethylbenzene	**0.81**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2,4-Trimethylbenzene	**4.0**		ug/m3	1.6	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,3-Dichlorobenzene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,3-Dichlorobenzene	ND		ug/m3	1.9	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,4-Dichlorobenzene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,4-Dichlorobenzene	ND		ug/m3	1.9	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Benzyl chloride	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Benzyl chloride	ND		ug/m3	1.7	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2-Dichlorobenzene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2-Dichlorobenzene	ND		ug/m3	1.9	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2,4-Trichlorobenzene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	2.4	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Hexachlorobutadiene	ND		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Hexachlorobutadiene	ND		ug/m3	3.4	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Xylene (total)	**4.6**		ppbv	0.32	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Xylene (total)	**20**		ug/m3	1.4	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC
Surrogates				**Limits**					
Bromofluorobenzene	107%		%REC	60-140	1.6	304974	01/11/23 20:15	01/11/23 20:15	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

Sample ID: B2-S	Lab ID: 476803-009	Collected: 01/06/23 10:12
	Matrix: Air	

476803-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**2.4**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**96**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	13	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1-Difluoroethane	ND		ug/m3	35	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Freon 12	**2.9**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Freon 12	**14**		ug/m3	13	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Freon 114	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Freon 114	ND		ug/m3	18	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Chloromethane	**2.9**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Chloromethane	**5.9**		ug/m3	5.3	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Vinyl Chloride	**37**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Vinyl Chloride	**95**		ug/m3	6.5	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Bromomethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Bromomethane	ND		ug/m3	9.9	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Chloroethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Chloroethane	ND		ug/m3	6.8	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Trichlorofluoromethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Trichlorofluoromethane	ND		ug/m3	14	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1-Dichloroethene	**7.8**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1-Dichloroethene	**31**		ug/m3	10	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Freon 113	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Freon 113	ND		ug/m3	20	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Acetone	ND		ppbv	13	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Acetone	ND		ug/m3	30	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Carbon Disulfide	**99**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Carbon Disulfide	**310**		ug/m3	8.0	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Isopropanol (IPA)	ND		ppbv	13	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Isopropanol (IPA)	ND		ug/m3	31	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Methylene Chloride	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Methylene Chloride	ND		ug/m3	8.9	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
trans-1,2-Dichloroethene	**10**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
trans-1,2-Dichloroethene	**40**		ug/m3	10	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
MTBE	**23**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
MTBE	**83**		ug/m3	9.2	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
n-Hexane	**390**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**1,400**		ug/m3	9.0	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1-Dichloroethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1-Dichloroethane	ND		ug/m3	10	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Vinyl Acetate	ND		ppbv	13	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Vinyl Acetate	ND		ug/m3	45	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
cis-1,2-Dichloroethene	**90**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
cis-1,2-Dichloroethene	**360**		ug/m3	10	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
2-Butanone	ND		ppbv	13	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
2-Butanone	ND		ug/m3	38	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Chloroform	**7.1**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Chloroform	**35**		ug/m3	12	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1,1-Trichloroethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1,1-Trichloroethane	ND		ug/m3	14	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Carbon Tetrachloride	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Carbon Tetrachloride	ND		ug/m3	16	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Benzene	**25**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Benzene	**81**		ug/m3	8.2	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2-Dichloroethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2-Dichloroethane	ND		ug/m3	10	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Trichloroethene	**36**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Trichloroethene	**190**		ug/m3	14	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2-Dichloropropane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2-Dichloropropane	ND		ug/m3	12	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Bromodichloromethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Bromodichloromethane	ND		ug/m3	17	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
cis-1,3-Dichloropropene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
cis-1,3-Dichloropropene	ND		ug/m3	12	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
4-Methyl-2-Pentanone	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
4-Methyl-2-Pentanone	ND		ug/m3	10	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Toluene	**6.4**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Toluene	**24**		ug/m3	9.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
trans-1,3-Dichloropropene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
trans-1,3-Dichloropropene	ND		ug/m3	12	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1,2-Trichloroethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1,2-Trichloroethane	ND		ug/m3	14	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Tetrachloroethene	**22**		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Tetrachloroethene	**150**		ug/m3	17	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
2-Hexanone	ND		ppbv	6.4	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
2-Hexanone	ND		ug/m3	26	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Dibromochloromethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Dibromochloromethane	ND		ug/m3	22	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2-Dibromoethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2-Dibromoethane	ND		ug/m3	20	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Chlorobenzene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Chlorobenzene	ND		ug/m3	12	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Ethylbenzene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	11	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
m,p-Xylenes	ND		ppbv	5.1	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
m,p-Xylenes	ND		ug/m3	22	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
o-Xylene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
o-Xylene	ND		ug/m3	11	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Styrene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Styrene	ND		ug/m3	11	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Bromoform	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Bromoform	ND		ug/m3	26	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	18	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	18	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
4-Ethyltoluene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
4-Ethyltoluene	ND		ug/m3	13	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,3,5-Trimethylbenzene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	13	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2,4-Trimethylbenzene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	13	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,3-Dichlorobenzene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,3-Dichlorobenzene	ND		ug/m3	15	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,4-Dichlorobenzene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,4-Dichlorobenzene	ND		ug/m3	15	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Benzyl chloride	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Benzyl chloride	ND		ug/m3	13	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2-Dichlorobenzene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2-Dichlorobenzene	ND		ug/m3	15	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2,4-Trichlorobenzene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	19	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Hexachlorobutadiene	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Hexachlorobutadiene	ND		ug/m3	27	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Xylene (total)	ND		ppbv	2.6	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Xylene (total)	ND		ug/m3	11	13	304992	01/11/23 21:34	01/11/23 21:34	MBC
Surrogates				**Limits**					
Bromofluorobenzene	71%		%REC	60-140	13	304992	01/11/23 21:34	01/11/23 21:34	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

Sample ID: B2-D	Lab ID: 476803-010	Collected: 01/06/23 10:01
	Matrix: Air	

476803-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**9.8**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	**1.5**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**88**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	5.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1-Difluoroethane	ND		ug/m3	14	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Freon 12	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Freon 12	ND		ug/m3	5.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Freon 114	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Freon 114	ND		ug/m3	7.2	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Chloromethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Chloromethane	ND		ug/m3	2.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Vinyl Chloride	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Vinyl Chloride	ND		ug/m3	2.6	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Bromomethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Bromomethane	ND		ug/m3	4.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Chloroethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Chloroethane	ND		ug/m3	2.7	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Trichlorofluoromethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Trichlorofluoromethane	ND		ug/m3	5.8	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1-Dichloroethene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1-Dichloroethene	ND		ug/m3	4.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Freon 113	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Freon 113	ND		ug/m3	7.8	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Acetone	ND		ppbv	5.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Acetone	ND		ug/m3	12	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Carbon Disulfide	**4.1**		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Carbon Disulfide	**13**		ug/m3	3.2	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Isopropanol (IPA)	ND		ppbv	5.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Isopropanol (IPA)	ND		ug/m3	13	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Methylene Chloride	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Methylene Chloride	ND		ug/m3	3.6	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	4.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
MTBE	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
MTBE	ND		ug/m3	3.7	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
n-Hexane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	3.6	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1-Dichloroethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1-Dichloroethane	ND		ug/m3	4.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Vinyl Acetate	ND		ppbv	5.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Vinyl Acetate	ND		ug/m3	18	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
cis-1,2-Dichloroethene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
cis-1,2-Dichloroethene	ND		ug/m3	4.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
2-Butanone	ND		ppbv	5.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
2-Butanone	ND		ug/m3	15	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Chloroform	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Chloroform	ND		ug/m3	5.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1,1-Trichloroethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	5.6	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Carbon Tetrachloride	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Carbon Tetrachloride	ND		ug/m3	6.4	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Benzene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Benzene	ND		ug/m3	3.3	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2-Dichloroethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2-Dichloroethane	ND		ug/m3	4.1	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Trichloroethene	**10**		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Trichloroethene	**55**		ug/m3	5.5	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2-Dichloropropane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2-Dichloropropane	ND		ug/m3	4.7	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Bromodichloromethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Bromodichloromethane	ND		ug/m3	6.9	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	4.6	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	4.2	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Toluene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Toluene	ND		ug/m3	3.9	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	4.6	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1,2-Trichloroethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	5.6	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Tetrachloroethene	**230**		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Tetrachloroethene	**1,600**		ug/m3	6.9	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
2-Hexanone	ND		ppbv	2.6	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
2-Hexanone	ND		ug/m3	10	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Dibromochloromethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Dibromochloromethane	ND		ug/m3	8.7	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2-Dibromoethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2-Dibromoethane	ND		ug/m3	7.9	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Chlorobenzene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Chlorobenzene	ND		ug/m3	4.7	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Ethylbenzene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

476803-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	4.4	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
m,p-Xylenes	ND		ppbv	2.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
m,p-Xylenes	ND		ug/m3	8.9	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
o-Xylene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
o-Xylene	ND		ug/m3	4.4	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Styrene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Styrene	ND		ug/m3	4.4	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Bromoform	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Bromoform	ND		ug/m3	11	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	7.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	7.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
4-Ethyltoluene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
4-Ethyltoluene	ND		ug/m3	5.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	5.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	5.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,3-Dichlorobenzene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	6.2	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,4-Dichlorobenzene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	6.2	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Benzyl chloride	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Benzyl chloride	ND		ug/m3	5.3	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2-Dichlorobenzene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	6.2	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	7.6	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Hexachlorobutadiene	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Hexachlorobutadiene	ND		ug/m3	11	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Xylene (total)	ND		ppbv	1.0	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Xylene (total)	ND		ug/m3	4.4	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	106%		%REC	60-140	5.1	305136	01/13/23 02:15	01/13/23 02:15	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

Sample ID: A3-S	Lab ID: 476803-011	Collected: 01/06/23 10:55
	Matrix: Air	

476803-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**1.7**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**96**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15									
Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	16	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1-Difluoroethane	ND		ug/m3	43	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Freon 12	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Freon 12	ND		ug/m3	16	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Freon 114	**3.3**		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Freon 114	**23**		ug/m3	22	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Chloromethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Chloromethane	ND		ug/m3	6.6	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Vinyl Chloride	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Vinyl Chloride	ND		ug/m3	8.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Bromomethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Bromomethane	ND		ug/m3	12	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Chloroethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Chloroethane	ND		ug/m3	8.4	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Trichlorofluoromethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Trichlorofluoromethane	ND		ug/m3	18	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1-Dichloroethene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1-Dichloroethene	ND		ug/m3	13	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Freon 113	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Freon 113	ND		ug/m3	25	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Acetone	ND		ppbv	16	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Acetone	ND		ug/m3	38	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Carbon Disulfide	**28**		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Carbon Disulfide	**88**		ug/m3	10	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Isopropanol (IPA)	ND		ppbv	16	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Isopropanol (IPA)	ND		ug/m3	39	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Methylene Chloride	**3.3**		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Methylene Chloride	**12**		ug/m3	11	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
trans-1,2-Dichloroethene	**3.2**		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
trans-1,2-Dichloroethene	**13**		ug/m3	13	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
MTBE	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
MTBE	ND		ug/m3	12	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
n-Hexane	**49**		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**170**		ug/m3	11	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1-Dichloroethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1-Dichloroethane	ND		ug/m3	13	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Vinyl Acetate	ND		ppbv	16	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Vinyl Acetate	ND		ug/m3	56	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
cis-1,2-Dichloroethene	**30**		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
cis-1,2-Dichloroethene	**120**		ug/m3	13	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
2-Butanone	ND		ppbv	16	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
2-Butanone	ND		ug/m3	47	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Chloroform	**9.2**		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Chloroform	**45**		ug/m3	16	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1,1-Trichloroethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	17	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Carbon Tetrachloride	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Carbon Tetrachloride	ND		ug/m3	20	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Benzene	**4.0**		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Benzene	**13**		ug/m3	10	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2-Dichloroethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2-Dichloroethane	ND		ug/m3	13	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Trichloroethene	**6.5**		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Trichloroethene	**35**		ug/m3	17	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2-Dichloropropane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2-Dichloropropane	ND		ug/m3	15	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Bromodichloromethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Bromodichloromethane	ND		ug/m3	21	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	15	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	13	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Toluene	**5.1**		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Toluene	**19**		ug/m3	12	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	15	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1,2-Trichloroethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	17	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Tetrachloroethene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Tetrachloroethene	ND		ug/m3	22	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
2-Hexanone	ND		ppbv	8.0	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
2-Hexanone	ND		ug/m3	33	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Dibromochloromethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Dibromochloromethane	ND		ug/m3	27	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2-Dibromoethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2-Dibromoethane	ND		ug/m3	25	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Chlorobenzene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Chlorobenzene	ND		ug/m3	15	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Ethylbenzene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	14	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
m,p-Xylenes	ND		ppbv	6.4	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
m,p-Xylenes	ND		ug/m3	28	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
o-Xylene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
o-Xylene	ND		ug/m3	14	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Styrene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Styrene	ND		ug/m3	14	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Bromoform	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Bromoform	ND		ug/m3	33	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	22	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	22	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
4-Ethyltoluene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
4-Ethyltoluene	ND		ug/m3	16	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	16	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	16	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,3-Dichlorobenzene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	19	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,4-Dichlorobenzene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	19	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Benzyl chloride	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Benzyl chloride	ND		ug/m3	17	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2-Dichlorobenzene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	19	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	24	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Hexachlorobutadiene	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Hexachlorobutadiene	ND		ug/m3	34	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Xylene (total)	ND		ppbv	3.2	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Xylene (total)	ND		ug/m3	14	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	107%		%REC	60-140	16	305136	01/13/23 03:00	01/13/23 03:00	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

Sample ID: A3-D	Lab ID: 476803-012	Collected: 01/06/23 10:57
	Matrix: Air	

476803-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**6.7**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**91**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1-Difluoroethane	ND		ug/m3	4.3	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Freon 12	**0.55**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Freon 12	**2.7**		ug/m3	1.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Freon 114	**9.6**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Freon 114	**67**		ug/m3	2.2	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Chloromethane	**0.65**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Chloromethane	**1.3**		ug/m3	0.66	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Vinyl Chloride	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Vinyl Chloride	ND		ug/m3	0.82	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Bromomethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Bromomethane	ND		ug/m3	1.2	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Chloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Chloroethane	ND		ug/m3	0.84	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Trichlorofluoromethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Trichlorofluoromethane	ND		ug/m3	1.8	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1-Dichloroethene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1-Dichloroethene	ND		ug/m3	1.3	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Freon 113	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Freon 113	ND		ug/m3	2.5	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Acetone	**2.9**		ppbv	1.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Acetone	**6.9**		ug/m3	3.8	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Carbon Disulfide	**2.9**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Carbon Disulfide	**8.9**		ug/m3	1.0	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Isopropanol (IPA)	ND		ppbv	1.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Isopropanol (IPA)	ND		ug/m3	3.9	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Methylene Chloride	**0.90**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Methylene Chloride	**3.1**		ug/m3	1.1	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	1.3	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
MTBE	**0.44**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
MTBE	**1.6**		ug/m3	1.2	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
n-Hexane	**4.4**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

476803-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**15**		ug/m3	1.1	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1-Dichloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1-Dichloroethane	ND		ug/m3	1.3	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Vinyl Acetate	ND		ppbv	1.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Vinyl Acetate	ND		ug/m3	5.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
cis-1,2-Dichloroethene	**2.8**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
cis-1,2-Dichloroethene	**11**		ug/m3	1.3	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
2-Butanone	ND		ppbv	1.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
2-Butanone	ND		ug/m3	4.7	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Chloroform	**0.82**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Chloroform	**4.0**		ug/m3	1.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	1.7	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Carbon Tetrachloride	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Carbon Tetrachloride	ND		ug/m3	2.0	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Benzene	**1.2**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Benzene	**3.8**		ug/m3	1.0	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2-Dichloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2-Dichloroethane	ND		ug/m3	1.3	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Trichloroethene	**66**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Trichloroethene	**360**		ug/m3	1.7	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2-Dichloropropane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2-Dichloropropane	ND		ug/m3	1.5	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Bromodichloromethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Bromodichloromethane	ND		ug/m3	2.1	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	1.3	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Toluene	**0.46**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Toluene	**1.7**		ug/m3	1.2	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	1.7	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Tetrachloroethene	**59**		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Tetrachloroethene	**400**		ug/m3	2.2	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
2-Hexanone	ND		ppbv	0.80	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
2-Hexanone	ND		ug/m3	3.3	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Dibromochloromethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Dibromochloromethane	ND		ug/m3	2.7	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2-Dibromoethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2-Dibromoethane	ND		ug/m3	2.5	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Chlorobenzene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Chlorobenzene	ND		ug/m3	1.5	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Ethylbenzene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

476803-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.4	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
m,p-Xylenes	ND		ppbv	0.64	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
m,p-Xylenes	ND		ug/m3	2.8	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
o-Xylene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
o-Xylene	ND		ug/m3	1.4	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Styrene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Styrene	ND		ug/m3	1.4	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Bromoform	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Bromoform	ND		ug/m3	3.3	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
4-Ethyltoluene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
4-Ethyltoluene	ND		ug/m3	1.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	1.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	1.6	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	1.9	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	1.9	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Benzyl chloride	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Benzyl chloride	ND		ug/m3	1.7	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	1.9	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	2.4	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Hexachlorobutadiene	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Hexachlorobutadiene	ND		ug/m3	3.4	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Xylene (total)	ND		ppbv	0.32	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Xylene (total)	ND		ug/m3	1.4	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	107%		%REC	60-140	1.6	305136	01/13/23 03:51	01/13/23 03:51	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 476803

Sample ID: A2-S	Lab ID: 476803-013	Collected: 01/06/23 11:12
	Matrix: Air	

476803-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**0.31**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	**0.76**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	**0.30**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**97**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15									
Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	64	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1-Difluoroethane	ND		ug/m3	170	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Freon 12	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Freon 12	ND		ug/m3	63	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Freon 114	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Freon 114	ND		ug/m3	89	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Chloromethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Chloromethane	ND		ug/m3	26	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Vinyl Chloride	**100**		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Vinyl Chloride	**270**		ug/m3	33	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Bromomethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Bromomethane	ND		ug/m3	50	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Chloroethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Chloroethane	ND		ug/m3	34	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Trichlorofluoromethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Trichlorofluoromethane	ND		ug/m3	72	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1-Dichloroethene	**58**		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1-Dichloroethene	**230**		ug/m3	51	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Freon 113	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Freon 113	ND		ug/m3	98	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Acetone	ND		ppbv	64	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Acetone	ND		ug/m3	150	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Carbon Disulfide	**34**		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Carbon Disulfide	**110**		ug/m3	40	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Isopropanol (IPA)	ND		ppbv	64	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Isopropanol (IPA)	ND		ug/m3	160	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Methylene Chloride	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Methylene Chloride	ND		ug/m3	44	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
trans-1,2-Dichloroethene	**34**		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
trans-1,2-Dichloroethene	**140**		ug/m3	51	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
MTBE	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
MTBE	ND		ug/m3	46	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
n-Hexane	**350**		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**1,200**		ug/m3	45	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1-Dichloroethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1-Dichloroethane	ND		ug/m3	52	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Vinyl Acetate	ND		ppbv	64	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Vinyl Acetate	ND		ug/m3	230	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
cis-1,2-Dichloroethene	**240**		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
cis-1,2-Dichloroethene	**960**		ug/m3	51	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
2-Butanone	ND		ppbv	64	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
2-Butanone	ND		ug/m3	190	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Chloroform	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Chloroform	ND		ug/m3	62	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1,1-Trichloroethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1,1-Trichloroethane	ND		ug/m3	70	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Carbon Tetrachloride	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Carbon Tetrachloride	ND		ug/m3	81	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Benzene	**32**		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Benzene	**100**		ug/m3	41	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2-Dichloroethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2-Dichloroethane	ND		ug/m3	52	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Trichloroethene	**51**		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Trichloroethene	**270**		ug/m3	69	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2-Dichloropropane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2-Dichloropropane	ND		ug/m3	59	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Bromodichloromethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Bromodichloromethane	ND		ug/m3	86	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
cis-1,3-Dichloropropene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
cis-1,3-Dichloropropene	ND		ug/m3	58	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
4-Methyl-2-Pentanone	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
4-Methyl-2-Pentanone	ND		ug/m3	52	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Toluene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Toluene	ND		ug/m3	48	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
trans-1,3-Dichloropropene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
trans-1,3-Dichloropropene	ND		ug/m3	58	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1,2-Trichloroethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1,2-Trichloroethane	ND		ug/m3	70	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Tetrachloroethene	**20**		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Tetrachloroethene	**140**		ug/m3	87	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
2-Hexanone	ND		ppbv	32	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
2-Hexanone	ND		ug/m3	130	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Dibromochloromethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Dibromochloromethane	ND		ug/m3	110	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2-Dibromoethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2-Dibromoethane	ND		ug/m3	98	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Chlorobenzene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Chlorobenzene	ND		ug/m3	59	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Ethylbenzene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	56	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
m,p-Xylenes	ND		ppbv	26	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
m,p-Xylenes	ND		ug/m3	110	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
o-Xylene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
o-Xylene	ND		ug/m3	56	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Styrene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Styrene	ND		ug/m3	55	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Bromoform	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Bromoform	ND		ug/m3	130	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	88	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	88	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
4-Ethyltoluene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
4-Ethyltoluene	ND		ug/m3	63	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,3,5-Trimethylbenzene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	63	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2,4-Trimethylbenzene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	63	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,3-Dichlorobenzene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,3-Dichlorobenzene	ND		ug/m3	77	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,4-Dichlorobenzene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,4-Dichlorobenzene	ND		ug/m3	77	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Benzyl chloride	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Benzyl chloride	ND		ug/m3	66	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2-Dichlorobenzene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2-Dichlorobenzene	ND		ug/m3	77	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2,4-Trichlorobenzene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	95	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Hexachlorobutadiene	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Hexachlorobutadiene	ND		ug/m3	140	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Xylene (total)	ND		ppbv	13	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Xylene (total)	ND		ug/m3	56	64	305353	01/16/23 17:45	01/16/23 17:45	MBC
Surrogates				**Limits**					
Bromofluorobenzene	103%		%REC	60-140	64	305353	01/16/23 17:45	01/16/23 17:45	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

Sample ID: A2-D	Lab ID: 476803-014	Collected: 01/06/23 11:14
	Matrix: Air	

476803-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**0.99**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**97**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	40	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1-Difluoroethane	ND		ug/m3	110	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Freon 12	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Freon 12	ND		ug/m3	40	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Freon 114	**9.7**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Freon 114	**68**		ug/m3	56	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Chloromethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Chloromethane	ND		ug/m3	17	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Vinyl Chloride	**64**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Vinyl Chloride	**160**		ug/m3	20	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Bromomethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Bromomethane	ND		ug/m3	31	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Chloroethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Chloroethane	ND		ug/m3	21	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Trichlorofluoromethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Trichlorofluoromethane	ND		ug/m3	45	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1-Dichloroethene	**65**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1-Dichloroethene	**260**		ug/m3	32	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Freon 113	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Freon 113	ND		ug/m3	61	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Acetone	ND		ppbv	40	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Acetone	ND		ug/m3	95	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Carbon Disulfide	**10**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Carbon Disulfide	**32**		ug/m3	25	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Isopropanol (IPA)	ND		ppbv	40	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Isopropanol (IPA)	ND		ug/m3	98	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Methylene Chloride	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Methylene Chloride	ND		ug/m3	28	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
trans-1,2-Dichloroethene	**35**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
trans-1,2-Dichloroethene	**140**		ug/m3	32	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
MTBE	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
MTBE	ND		ug/m3	29	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
n-Hexane	**100**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**360**		ug/m3	28	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1-Dichloroethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1-Dichloroethane	ND		ug/m3	32	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Vinyl Acetate	ND		ppbv	40	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Vinyl Acetate	ND		ug/m3	140	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
cis-1,2-Dichloroethene	**180**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
cis-1,2-Dichloroethene	**690**		ug/m3	32	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
2-Butanone	ND		ppbv	40	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
2-Butanone	ND		ug/m3	120	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Chloroform	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Chloroform	ND		ug/m3	39	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1,1-Trichloroethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1,1-Trichloroethane	ND		ug/m3	44	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Carbon Tetrachloride	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Carbon Tetrachloride	ND		ug/m3	50	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Benzene	**36**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Benzene	**110**		ug/m3	26	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2-Dichloroethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2-Dichloroethane	ND		ug/m3	32	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Trichloroethene	**85**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Trichloroethene	**460**		ug/m3	43	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2-Dichloropropane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2-Dichloropropane	ND		ug/m3	37	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Bromodichloromethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Bromodichloromethane	ND		ug/m3	54	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
cis-1,3-Dichloropropene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
cis-1,3-Dichloropropene	ND		ug/m3	36	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
4-Methyl-2-Pentanone	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
4-Methyl-2-Pentanone	ND		ug/m3	33	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Toluene	**8.3**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Toluene	**31**		ug/m3	30	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
trans-1,3-Dichloropropene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
trans-1,3-Dichloropropene	ND		ug/m3	36	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1,2-Trichloroethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1,2-Trichloroethane	ND		ug/m3	44	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Tetrachloroethene	**31**		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Tetrachloroethene	**210**		ug/m3	54	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
2-Hexanone	ND		ppbv	20	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
2-Hexanone	ND		ug/m3	82	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Dibromochloromethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Dibromochloromethane	ND		ug/m3	68	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2-Dibromoethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2-Dibromoethane	ND		ug/m3	61	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Chlorobenzene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Chlorobenzene	ND		ug/m3	37	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Ethylbenzene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	35	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
m,p-Xylenes	ND		ppbv	16	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
m,p-Xylenes	ND		ug/m3	69	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
o-Xylene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
o-Xylene	ND		ug/m3	35	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Styrene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Styrene	ND		ug/m3	34	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Bromoform	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Bromoform	ND		ug/m3	83	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	55	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	55	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
4-Ethyltoluene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
4-Ethyltoluene	ND		ug/m3	39	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,3,5-Trimethylbenzene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	39	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2,4-Trimethylbenzene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	39	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,3-Dichlorobenzene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,3-Dichlorobenzene	ND		ug/m3	48	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,4-Dichlorobenzene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,4-Dichlorobenzene	ND		ug/m3	48	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Benzyl chloride	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Benzyl chloride	ND		ug/m3	41	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2-Dichlorobenzene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2-Dichlorobenzene	ND		ug/m3	48	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2,4-Trichlorobenzene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	59	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Hexachlorobutadiene	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Hexachlorobutadiene	ND		ug/m3	85	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Xylene (total)	ND		ppbv	8.0	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Xylene (total)	ND		ug/m3	35	40	304974	01/11/23 20:59	01/11/23 20:59	MBC
Surrogates				**Limits**					
Bromofluorobenzene	104%		%REC	60-140	40	304974	01/11/23 20:59	01/11/23 20:59	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

Sample ID: A1-S	Lab ID: 476803-015	Collected: 01/06/23 11:22
	Matrix: Air	

476803-015 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**0.71**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	**1.4**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**96**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1-Difluoroethane	ND		ug/m3	4.3	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Freon 12	**0.70**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Freon 12	**3.5**		ug/m3	1.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Freon 114	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Freon 114	ND		ug/m3	2.2	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Chloromethane	**0.85**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Chloromethane	**1.7**		ug/m3	0.66	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Vinyl Chloride	**0.77**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Vinyl Chloride	**2.0**		ug/m3	0.82	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Bromomethane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Bromomethane	ND		ug/m3	1.2	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Chloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Chloroethane	ND		ug/m3	0.84	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Trichlorofluoromethane	**0.56**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Trichlorofluoromethane	**3.1**		ug/m3	1.8	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1-Dichloroethene	**0.41**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1-Dichloroethene	**1.6**		ug/m3	1.3	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Freon 113	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Freon 113	ND		ug/m3	2.5	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Acetone	ND		ppbv	1.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Acetone	ND		ug/m3	3.8	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Carbon Disulfide	**29**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Carbon Disulfide	**90**		ug/m3	1.0	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Isopropanol (IPA)	**10**		ppbv	1.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Isopropanol (IPA)	**25**		ug/m3	3.9	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Methylene Chloride	**2.4**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Methylene Chloride	**8.3**		ug/m3	1.1	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
trans-1,2-Dichloroethene	**2.9**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
trans-1,2-Dichloroethene	**11**		ug/m3	1.3	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
MTBE	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
MTBE	ND		ug/m3	1.2	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
n-Hexane	**11**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-015 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**38**		ug/m3	1.1	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1-Dichloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1-Dichloroethane	ND		ug/m3	1.3	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Vinyl Acetate	ND		ppbv	1.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Vinyl Acetate	ND		ug/m3	5.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
cis-1,2-Dichloroethene	**26**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
cis-1,2-Dichloroethene	**100**		ug/m3	1.3	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
2-Butanone	ND		ppbv	1.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
2-Butanone	ND		ug/m3	4.7	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Chloroform	**8.9**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Chloroform	**43**		ug/m3	1.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1,1-Trichloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1,1-Trichloroethane	ND		ug/m3	1.7	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Carbon Tetrachloride	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Carbon Tetrachloride	ND		ug/m3	2.0	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Benzene	**3.3**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Benzene	**11**		ug/m3	1.0	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2-Dichloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2-Dichloroethane	ND		ug/m3	1.3	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Trichloroethene	**6.0**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Trichloroethene	**32**		ug/m3	1.7	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2-Dichloropropane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2-Dichloropropane	ND		ug/m3	1.5	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Bromodichloromethane	**1.1**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Bromodichloromethane	**7.1**		ug/m3	2.1	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
cis-1,3-Dichloropropene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
cis-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
4-Methyl-2-Pentanone	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
4-Methyl-2-Pentanone	ND		ug/m3	1.3	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Toluene	**7.9**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Toluene	**30**		ug/m3	1.2	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
trans-1,3-Dichloropropene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
trans-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1,2-Trichloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1,2-Trichloroethane	ND		ug/m3	1.7	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Tetrachloroethene	**5.4**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Tetrachloroethene	**37**		ug/m3	2.2	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
2-Hexanone	ND		ppbv	0.80	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
2-Hexanone	ND		ug/m3	3.3	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Dibromochloromethane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Dibromochloromethane	ND		ug/m3	2.7	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2-Dibromoethane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2-Dibromoethane	ND		ug/m3	2.5	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Chlorobenzene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Chlorobenzene	ND		ug/m3	1.5	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Ethylbenzene	**0.58**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 476803

476803-015 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	**2.5**		ug/m3	1.4	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
m,p-Xylenes	**1.0**		ppbv	0.64	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
m,p-Xylenes	**4.4**		ug/m3	2.8	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
o-Xylene	**0.43**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
o-Xylene	**1.9**		ug/m3	1.4	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Styrene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Styrene	ND		ug/m3	1.4	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Bromoform	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Bromoform	ND		ug/m3	3.3	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
4-Ethyltoluene	**0.34**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
4-Ethyltoluene	**1.7**		ug/m3	1.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,3,5-Trimethylbenzene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	1.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2,4-Trimethylbenzene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	1.6	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,3-Dichlorobenzene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,3-Dichlorobenzene	ND		ug/m3	1.9	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,4-Dichlorobenzene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,4-Dichlorobenzene	ND		ug/m3	1.9	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Benzyl chloride	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Benzyl chloride	ND		ug/m3	1.7	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2-Dichlorobenzene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2-Dichlorobenzene	ND		ug/m3	1.9	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2,4-Trichlorobenzene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	2.4	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Hexachlorobutadiene	ND		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Hexachlorobutadiene	ND		ug/m3	3.4	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Xylene (total)	**1.4**		ppbv	0.32	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Xylene (total)	**6.3**		ug/m3	1.4	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC
Surrogates				**Limits**					
Bromofluorobenzene	108%		%REC	60-140	1.6	304974	01/11/23 21:50	01/11/23 21:50	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

Sample ID: A1-D	Lab ID: 476803-016	Collected: 01/06/23 11:23
	Matrix: Air	

476803-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Carbon Dioxide	**8.4**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Oxygen	**1.5**		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Methane	ND		%v/v	0.16	1.6	304945	01/10/23	01/10/23	JLL
Nitrogen	**87**		%v/v	8.0	1.6	304945	01/10/23	01/10/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	4.0	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1-Difluoroethane	ND		ug/m3	11	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Freon 12	**0.84**		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Freon 12	**4.1**		ug/m3	4.0	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Freon 114	**4.6**		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Freon 114	**32**		ug/m3	5.6	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Chloromethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Chloromethane	ND		ug/m3	1.7	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Vinyl Chloride	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Vinyl Chloride	ND		ug/m3	2.0	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Bromomethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Bromomethane	ND		ug/m3	3.1	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Chloroethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Chloroethane	ND		ug/m3	2.1	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Trichlorofluoromethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Trichlorofluoromethane	ND		ug/m3	4.5	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1-Dichloroethene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1-Dichloroethene	ND		ug/m3	3.2	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Freon 113	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Freon 113	ND		ug/m3	6.1	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Acetone	**28**		ppbv	4.0	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Acetone	**67**		ug/m3	9.5	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Carbon Disulfide	**4.4**		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Carbon Disulfide	**14**		ug/m3	2.5	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Isopropanol (IPA)	**10**		ppbv	4.0	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Isopropanol (IPA)	**25**		ug/m3	9.8	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Methylene Chloride	**1.2**		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Methylene Chloride	**4.3**		ug/m3	2.8	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
trans-1,2-Dichloroethene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
trans-1,2-Dichloroethene	ND		ug/m3	3.2	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
MTBE	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
MTBE	ND		ug/m3	2.9	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
n-Hexane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

476803-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	2.8	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1-Dichloroethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1-Dichloroethane	ND		ug/m3	3.2	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Vinyl Acetate	ND		ppbv	4.0	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Vinyl Acetate	ND		ug/m3	14	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
cis-1,2-Dichloroethene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
cis-1,2-Dichloroethene	ND		ug/m3	3.2	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
2-Butanone	ND		ppbv	4.0	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
2-Butanone	ND		ug/m3	12	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Chloroform	**3.8**		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Chloroform	**18**		ug/m3	3.9	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1,1-Trichloroethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1,1-Trichloroethane	ND		ug/m3	4.4	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Carbon Tetrachloride	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Carbon Tetrachloride	ND		ug/m3	5.0	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Benzene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Benzene	ND		ug/m3	2.6	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2-Dichloroethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2-Dichloroethane	ND		ug/m3	3.2	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Trichloroethene	**100**		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Trichloroethene	**540**		ug/m3	4.3	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2-Dichloropropane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2-Dichloropropane	ND		ug/m3	3.7	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Bromodichloromethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Bromodichloromethane	ND		ug/m3	5.4	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
cis-1,3-Dichloropropene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
cis-1,3-Dichloropropene	ND		ug/m3	3.6	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
4-Methyl-2-Pentanone	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
4-Methyl-2-Pentanone	ND		ug/m3	3.3	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Toluene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Toluene	ND		ug/m3	3.0	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
trans-1,3-Dichloropropene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
trans-1,3-Dichloropropene	ND		ug/m3	3.6	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1,2-Trichloroethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1,2-Trichloroethane	ND		ug/m3	4.4	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Tetrachloroethene	**160**		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Tetrachloroethene	**1,100**		ug/m3	5.4	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
2-Hexanone	ND		ppbv	2.0	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
2-Hexanone	ND		ug/m3	8.2	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Dibromochloromethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Dibromochloromethane	ND		ug/m3	6.8	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2-Dibromoethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2-Dibromoethane	ND		ug/m3	6.1	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Chlorobenzene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Chlorobenzene	ND		ug/m3	3.7	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Ethylbenzene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 476803

476803-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	3.5	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
m,p-Xylenes	ND		ppbv	1.6	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
m,p-Xylenes	ND		ug/m3	6.9	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
o-Xylene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
o-Xylene	ND		ug/m3	3.5	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Styrene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Styrene	ND		ug/m3	3.4	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Bromoform	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Bromoform	ND		ug/m3	8.3	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	5.5	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	5.5	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
4-Ethyltoluene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
4-Ethyltoluene	ND		ug/m3	3.9	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,3,5-Trimethylbenzene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	3.9	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2,4-Trimethylbenzene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	3.9	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,3-Dichlorobenzene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,3-Dichlorobenzene	ND		ug/m3	4.8	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,4-Dichlorobenzene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,4-Dichlorobenzene	ND		ug/m3	4.8	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Benzyl chloride	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Benzyl chloride	ND		ug/m3	4.1	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2-Dichlorobenzene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2-Dichlorobenzene	ND		ug/m3	4.8	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2,4-Trichlorobenzene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	5.9	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Hexachlorobutadiene	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Hexachlorobutadiene	ND		ug/m3	8.5	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Xylene (total)	ND		ppbv	0.80	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Xylene (total)	ND		ug/m3	3.5	4	304974	01/11/23 22:37	01/11/23 22:37	MBC
Surrogates				**Limits**					
Bromofluorobenzene	107%		%REC	60-140	4	304974	01/11/23 22:37	01/11/23 22:37	MBC

ND Not Detected

Results for any subcontracted analyses are not included in this section.

Batch QC

Type: Lab Control Sample	Lab ID: QC1037489	Batch: 304945
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC1037489 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Carbon Monoxide	4.720	5.000	%v/v	94%		85-115
Carbon Dioxide	4.705	5.000	%v/v	94%		85-115
Oxygen	3.505	3.500	%v/v	100%		85-115
Methane	4.668	5.000	%v/v	93%		85-115
Nitrogen	5.320	5.000	%v/v	106%	NM	85-115

Type: Lab Control Sample Duplicate	Lab ID: QC1037490	Batch: 304945
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC1037490 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
Carbon Monoxide	4.643	5.000	%v/v	93%		85-115	2	10
Carbon Dioxide	4.669	5.000	%v/v	93%		85-115	1	10
Oxygen	3.465	3.500	%v/v	99%		85-115	1	10
Methane	4.635	5.000	%v/v	93%		85-115	1	10
Nitrogen	5.265	5.000	%v/v	105%	NM	85-115	1	10

Type: Blank	Lab ID: QC1037491	Batch: 304945
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC1037491 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Carbon Monoxide	ND		%v/v	0.10	01/10/23	01/10/23
Carbon Dioxide	ND		%v/v	0.10	01/10/23	01/10/23
Oxygen	ND		%v/v	0.10	01/10/23	01/10/23
Methane	ND		%v/v	0.10	01/10/23	01/10/23
Nitrogen	ND		%v/v	5.0	01/10/23	01/10/23

Type: Sample Duplicate	Lab ID: QC1037492	Batch: 304945
Matrix (Source ID): Air (476803-001)	Method: ASTM D1946	Prep Method: METHOD

QC1037492 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Carbon Monoxide	ND	ND	%v/v			20	1.5
Carbon Dioxide	1.395	1.391	%v/v		0	20	1.5
Oxygen	7.750	7.708	%v/v		1	20	1.5
Methane	ND	ND	%v/v			20	1.5
Nitrogen	89.59	89.53	%v/v		0	20	1.5

Batch QC

Type:	Sample Duplicate	Lab ID:	QC1037493	Batch:	304945
Matrix (Source ID):	Air (476803-011)	Method:	ASTM D1946	Prep Method:	METHOD

QC1037493 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Carbon Monoxide	ND	ND	%v/v			20	1.6
Carbon Dioxide	1.722	1.722	%v/v		0	20	1.6
Oxygen	ND	ND	%v/v			20	1.6
Methane	ND	ND	%v/v			20	1.6
Nitrogen	95.92	96.32	%v/v		0	20	1.6

Batch QC

Type:	Lab Control Sample	Lab ID:	QC1037587	Batch:	304974
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1037587 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Difluoroethane	10.17	10.00	ppbv	102%		70-130
Freon 12	10.30	10.00	ppbv	103%		70-130
Freon 114	10.11	10.00	ppbv	101%		70-130
Chloromethane	10.40	10.00	ppbv	104%		70-130
Vinyl Chloride	10.20	10.00	ppbv	102%		70-130
Bromomethane	9.962	10.00	ppbv	100%		70-130
Chloroethane	10.23	10.00	ppbv	102%		70-130
Trichlorofluoromethane	10.22	10.00	ppbv	102%		70-130
1,1-Dichloroethene	10.33	10.00	ppbv	103%		70-130
Freon 113	10.13	10.00	ppbv	101%		70-130
Acetone	9.974	10.00	ppbv	100%		70-130
Carbon Disulfide	10.20	10.00	ppbv	102%		70-130
Isopropanol (IPA)	10.53	10.00	ppbv	105%		70-130
Methylene Chloride	9.226	10.00	ppbv	92%		70-130
trans-1,2-Dichloroethene	10.28	10.00	ppbv	103%		70-130
MTBE	10.48	10.00	ppbv	105%		70-130
n-Hexane	10.50	10.00	ppbv	105%		70-130
1,1-Dichloroethane	10.30	10.00	ppbv	103%		70-130
Vinyl Acetate	8.936	10.00	ppbv	89%		70-130
cis-1,2-Dichloroethene	10.35	10.00	ppbv	103%		70-130
2-Butanone	10.50	10.00	ppbv	105%		70-130
Chloroform	10.15	10.00	ppbv	101%		70-130
1,1,1-Trichloroethane	10.28	10.00	ppbv	103%		70-130
Carbon Tetrachloride	10.29	10.00	ppbv	103%		70-130
Benzene	10.33	10.00	ppbv	103%		70-130
1,2-Dichloroethane	10.09	10.00	ppbv	101%		70-130
Trichloroethene	10.18	10.00	ppbv	102%		70-130
1,2-Dichloropropane	9.845	10.00	ppbv	98%		70-130
Bromodichloromethane	10.22	10.00	ppbv	102%		70-130
cis-1,3-Dichloropropene	10.45	10.00	ppbv	104%		70-130
4-Methyl-2-Pentanone	10.49	10.00	ppbv	105%		70-130
Toluene	10.50	10.00	ppbv	105%		70-130
trans-1,3-Dichloropropene	10.41	10.00	ppbv	104%		70-130
1,1,2-Trichloroethane	10.15	10.00	ppbv	101%		70-130
Tetrachloroethene	10.09	10.00	ppbv	101%		70-130
2-Hexanone	10.75	10.00	ppbv	108%		70-130
Dibromochloromethane	10.39	10.00	ppbv	104%		70-130
1,2-Dibromoethane	10.27	10.00	ppbv	103%		70-130
Chlorobenzene	10.18	10.00	ppbv	102%		70-130
Ethylbenzene	10.70	10.00	ppbv	107%		70-130
m,p-Xylenes	21.27	20.00	ppbv	106%		70-130
o-Xylene	10.49	10.00	ppbv	105%		70-130

Batch QC

QC1037587 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Styrene	10.96	10.00	ppbv	110%		70-130
Bromoform	10.95	10.00	ppbv	109%		70-130
1,1,2,2-Tetrachloroethane	10.31	10.00	ppbv	103%		70-130
1,1,1,2-Tetrachloroethane	10.32	10.00	ppbv	103%		70-130
4-Ethyltoluene	10.92	10.00	ppbv	109%		70-130
1,3,5-Trimethylbenzene	10.82	10.00	ppbv	108%		70-130
1,2,4-Trimethylbenzene	11.06	10.00	ppbv	111%		70-130
1,3-Dichlorobenzene	10.40	10.00	ppbv	104%		70-130
1,4-Dichlorobenzene	10.45	10.00	ppbv	104%		70-130
Benzyl chloride	10.50	10.00	ppbv	105%		70-130
1,2-Dichlorobenzene	10.56	10.00	ppbv	106%		70-130
1,2,4-Trichlorobenzene	11.96	10.00	ppbv	120%		70-130
Hexachlorobutadiene	10.58	10.00	ppbv	106%		70-130
Surrogates						
Bromofluorobenzene	10.22	10.00	ppbv	102%		60-140

Batch QC

Type:	Lab Control Sample Duplicate	Lab ID:	QC1037588	Batch:	304974
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1037588 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Difluoroethane	10.11	10.00	ppbv	101%		70-130	1	25
Freon 12	10.13	10.00	ppbv	101%		70-130	2	25
Freon 114	9.980	10.00	ppbv	100%		70-130	1	25
Chloromethane	10.10	10.00	ppbv	101%		70-130	3	25
Vinyl Chloride	10.07	10.00	ppbv	101%		70-130	1	25
Bromomethane	9.876	10.00	ppbv	99%		70-130	1	25
Chloroethane	9.933	10.00	ppbv	99%		70-130	3	25
Trichlorofluoromethane	10.09	10.00	ppbv	101%		70-130	1	25
1,1-Dichloroethene	10.22	10.00	ppbv	102%		70-130	1	25
Freon 113	10.05	10.00	ppbv	101%		70-130	1	25
Acetone	9.961	10.00	ppbv	100%		70-130	0	25
Carbon Disulfide	10.11	10.00	ppbv	101%		70-130	1	25
Isopropanol (IPA)	10.48	10.00	ppbv	105%		70-130	0	25
Methylene Chloride	9.099	10.00	ppbv	91%		70-130	1	25
trans-1,2-Dichloroethene	10.22	10.00	ppbv	102%		70-130	1	25
MTBE	10.33	10.00	ppbv	103%		70-130	1	25
n-Hexane	10.40	10.00	ppbv	104%		70-130	1	25
1,1-Dichloroethane	10.19	10.00	ppbv	102%		70-130	1	25
Vinyl Acetate	8.920	10.00	ppbv	89%		70-130	0	25
cis-1,2-Dichloroethene	10.27	10.00	ppbv	103%		70-130	1	25
2-Butanone	10.40	10.00	ppbv	104%		70-130	1	25
Chloroform	10.07	10.00	ppbv	101%		70-130	1	25
1,1,1-Trichloroethane	10.18	10.00	ppbv	102%		70-130	1	25
Carbon Tetrachloride	10.17	10.00	ppbv	102%		70-130	1	25
Benzene	10.21	10.00	ppbv	102%		70-130	1	25
1,2-Dichloroethane	10.05	10.00	ppbv	100%		70-130	0	25
Trichloroethene	10.09	10.00	ppbv	101%		70-130	1	25
1,2-Dichloropropane	9.734	10.00	ppbv	97%		70-130	1	25
Bromodichloromethane	10.14	10.00	ppbv	101%		70-130	1	25
cis-1,3-Dichloropropene	10.31	10.00	ppbv	103%		70-130	1	25
4-Methyl-2-Pentanone	10.44	10.00	ppbv	104%		70-130	0	25
Toluene	10.38	10.00	ppbv	104%		70-130	1	25
trans-1,3-Dichloropropene	10.39	10.00	ppbv	104%		70-130	0	25
1,1,2-Trichloroethane	10.04	10.00	ppbv	100%		70-130	1	25
Tetrachloroethene	10.02	10.00	ppbv	100%		70-130	1	25
2-Hexanone	10.64	10.00	ppbv	106%		70-130	1	25
Dibromochloromethane	10.29	10.00	ppbv	103%		70-130	1	25
1,2-Dibromoethane	10.18	10.00	ppbv	102%		70-130	1	25
Chlorobenzene	10.08	10.00	ppbv	101%		70-130	1	25
Ethylbenzene	10.63	10.00	ppbv	106%		70-130	1	25
m,p-Xylenes	21.15	20.00	ppbv	106%		70-130	1	25

Batch QC

QC1037588 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
o-Xylene	10.45	10.00	ppbv	105%		70-130	0	25
Styrene	10.92	10.00	ppbv	109%		70-130	0	25
Bromoform	10.84	10.00	ppbv	108%		70-130	1	25
1,1,2,2-Tetrachloroethane	10.23	10.00	ppbv	102%		70-130	1	25
1,1,1,2-Tetrachloroethane	10.22	10.00	ppbv	102%		70-130	1	25
4-Ethyltoluene	10.85	10.00	ppbv	108%		70-130	1	25
1,3,5-Trimethylbenzene	10.77	10.00	ppbv	108%		70-130	0	25
1,2,4-Trimethylbenzene	11.00	10.00	ppbv	110%		70-130	1	25
1,3-Dichlorobenzene	10.35	10.00	ppbv	104%		70-130	0	25
1,4-Dichlorobenzene	10.39	10.00	ppbv	104%		70-130	1	25
Benzyl chloride	10.38	10.00	ppbv	104%		70-130	1	25
1,2-Dichlorobenzene	10.48	10.00	ppbv	105%		70-130	1	25
1,2,4-Trichlorobenzene	11.91	10.00	ppbv	119%		70-130	0	25
Hexachlorobutadiene	10.36	10.00	ppbv	104%		70-130	2	25
Surrogates								
Bromofluorobenzene	10.19	10.00	ppbv	102%		60-140		

Batch QC

Type:	Blank	Lab ID:	QC1037589	Batch:	304974
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1037589 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,1-Difluoroethane	ND		ppbv	1.0	01/11/23 05:43	01/11/23 05:43
Freon 12	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Freon 114	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Chloromethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Vinyl Chloride	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Bromomethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Chloroethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Trichlorofluoromethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,1-Dichloroethene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Freon 113	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Acetone	ND		ppbv	1.0	01/11/23 05:43	01/11/23 05:43
Carbon Disulfide	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Isopropanol (IPA)	ND		ppbv	1.0	01/11/23 05:43	01/11/23 05:43
Methylene Chloride	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
trans-1,2-Dichloroethene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
MTBE	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
n-Hexane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,1-Dichloroethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Vinyl Acetate	ND		ppbv	1.0	01/11/23 05:43	01/11/23 05:43
cis-1,2-Dichloroethene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
2-Butanone	ND		ppbv	1.0	01/11/23 05:43	01/11/23 05:43
Chloroform	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,1,1-Trichloroethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Carbon Tetrachloride	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Benzene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,2-Dichloroethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Trichloroethene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,2-Dichloropropane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Bromodichloromethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
cis-1,3-Dichloropropene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
4-Methyl-2-Pentanone	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Toluene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
trans-1,3-Dichloropropene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,1,2-Trichloroethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Tetrachloroethene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
2-Hexanone	ND		ppbv	0.50	01/11/23 05:43	01/11/23 05:43
Dibromochloromethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,2-Dibromoethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Chlorobenzene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Ethylbenzene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
m,p-Xylenes	ND		ppbv	0.40	01/11/23 05:43	01/11/23 05:43
o-Xylene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43

ENTHALPY ANALYTICAL

Batch QC

QC1037589 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Styrene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Bromoform	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
4-Ethyltoluene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,3,5-Trimethylbenzene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,2,4-Trimethylbenzene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,3-Dichlorobenzene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,4-Dichlorobenzene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Benzyl chloride	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,2-Dichlorobenzene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
1,2,4-Trichlorobenzene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Hexachlorobutadiene	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Xylene (total)	ND		ppbv	0.20	01/11/23 05:43	01/11/23 05:43
Surrogates				**Limits**		
Bromofluorobenzene	104%		%REC	60-140	01/11/23 05:43	01/11/23 05:43

Batch QC

Type: Lab Control Sample	Lab ID: QC1037668	Batch: 304992
Matrix: Air	Method: EPA TO-15	Prep Method: METHOD

QC1037668 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Difluoroethane	9.954	10.00	ppbv	100%		70-130
Freon 12	10.32	10.00	ppbv	103%		70-130
Freon 114	9.933	10.00	ppbv	99%		70-130
Chloromethane	9.674	10.00	ppbv	97%		70-130
Vinyl Chloride	9.946	10.00	ppbv	99%		70-130
Bromomethane	10.13	10.00	ppbv	101%		70-130
Chloroethane	11.52	10.00	ppbv	115%		70-130
Trichlorofluoromethane	9.769	10.00	ppbv	98%		70-130
1,1-Dichloroethene	9.994	10.00	ppbv	100%		70-130
Freon 113	10.31	10.00	ppbv	103%		70-130
Acetone	9.505	10.00	ppbv	95%		70-130
Carbon Disulfide	10.18	10.00	ppbv	102%		70-130
Isopropanol (IPA)	9.971	10.00	ppbv	100%		70-130
Methylene Chloride	8.775	10.00	ppbv	88%		70-130
trans-1,2-Dichloroethene	10.13	10.00	ppbv	101%		70-130
MTBE	9.935	10.00	ppbv	99%		70-130
n-Hexane	10.46	10.00	ppbv	105%		70-130
1,1-Dichloroethane	10.05	10.00	ppbv	100%		70-130
Vinyl Acetate	8.258	10.00	ppbv	83%		70-130
cis-1,2-Dichloroethene	9.493	10.00	ppbv	95%		70-130
2-Butanone	9.445	10.00	ppbv	94%		70-130
Chloroform	10.02	10.00	ppbv	100%		70-130
1,1,1-Trichloroethane	10.12	10.00	ppbv	101%		70-130
Carbon Tetrachloride	10.13	10.00	ppbv	101%		70-130
Benzene	10.20	10.00	ppbv	102%		70-130
1,2-Dichloroethane	9.881	10.00	ppbv	99%		70-130
Trichloroethene	10.05	10.00	ppbv	100%		70-130
1,2-Dichloropropane	9.596	10.00	ppbv	96%		70-130
Bromodichloromethane	10.19	10.00	ppbv	102%		70-130
cis-1,3-Dichloropropene	10.37	10.00	ppbv	104%		70-130
4-Methyl-2-Pentanone	10.39	10.00	ppbv	104%		70-130
Toluene	10.37	10.00	ppbv	104%		70-130
trans-1,3-Dichloropropene	10.38	10.00	ppbv	104%		70-130
1,1,2-Trichloroethane	9.943	10.00	ppbv	99%		70-130
Tetrachloroethene	9.709	10.00	ppbv	97%		70-130
2-Hexanone	10.58	10.00	ppbv	106%		70-130
Dibromochloromethane	10.63	10.00	ppbv	106%		70-130
1,2-Dibromoethane	9.999	10.00	ppbv	100%		70-130
Chlorobenzene	9.658	10.00	ppbv	97%		70-130
Ethylbenzene	10.12	10.00	ppbv	101%		70-130
m,p-Xylenes	20.51	20.00	ppbv	103%		70-130
o-Xylene	10.11	10.00	ppbv	101%		70-130

Batch QC

QC1037668 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Styrene	10.37	10.00	ppbv	104%		70-130
Bromoform	11.71	10.00	ppbv	117%		70-130
1,1,2,2-Tetrachloroethane	9.612	10.00	ppbv	96%		70-130
1,1,1,2-Tetrachloroethane	9.750	10.00	ppbv	98%		70-130
4-Ethyltoluene	10.26	10.00	ppbv	103%		70-130
1,3,5-Trimethylbenzene	10.26	10.00	ppbv	103%		70-130
1,2,4-Trimethylbenzene	10.29	10.00	ppbv	103%		70-130
1,3-Dichlorobenzene	9.600	10.00	ppbv	96%		70-130
1,4-Dichlorobenzene	9.716	10.00	ppbv	97%		70-130
Benzyl chloride	10.05	10.00	ppbv	100%		70-130
1,2-Dichlorobenzene	9.653	10.00	ppbv	97%		70-130
1,2,4-Trichlorobenzene	10.22	10.00	ppbv	102%		70-130
Hexachlorobutadiene	9.868	10.00	ppbv	99%		70-130
Surrogates						
Bromofluorobenzene	9.748	10.00	ppbv	97%		60-140

Batch QC

Type:	Lab Control Sample Duplicate	Lab ID:	QC1037669	Batch:	304992
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1037669 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Difluoroethane	10.21	10.00	ppbv	102%		70-130	3	25
Freon 12	10.58	10.00	ppbv	106%		70-130	3	25
Freon 114	10.08	10.00	ppbv	101%		70-130	2	25
Chloromethane	10.00	10.00	ppbv	100%		70-130	3	25
Vinyl Chloride	11.76	10.00	ppbv	118%		70-130	17	25
Bromomethane	14.59	10.00	ppbv	146%	*	70-130	36*	25
Chloroethane	11.18	10.00	ppbv	112%		70-130	3	25
Trichlorofluoromethane	9.994	10.00	ppbv	100%		70-130	2	25
1,1-Dichloroethene	10.29	10.00	ppbv	103%		70-130	3	25
Freon 113	10.25	10.00	ppbv	102%		70-130	1	25
Acetone	9.792	10.00	ppbv	98%		70-130	3	25
Carbon Disulfide	10.21	10.00	ppbv	102%		70-130	0	25
Isopropanol (IPA)	10.18	10.00	ppbv	102%		70-130	2	25
Methylene Chloride	9.034	10.00	ppbv	90%		70-130	3	25
trans-1,2-Dichloroethene	10.16	10.00	ppbv	102%		70-130	0	25
MTBE	10.56	10.00	ppbv	106%		70-130	6	25
n-Hexane	10.75	10.00	ppbv	107%		70-130	3	25
1,1-Dichloroethane	10.25	10.00	ppbv	103%		70-130	2	25
Vinyl Acetate	8.436	10.00	ppbv	84%		70-130	2	25
cis-1,2-Dichloroethene	9.751	10.00	ppbv	98%		70-130	3	25
2-Butanone	9.671	10.00	ppbv	97%		70-130	2	25
Chloroform	10.28	10.00	ppbv	103%		70-130	3	25
1,1,1-Trichloroethane	10.32	10.00	ppbv	103%		70-130	2	25
Carbon Tetrachloride	10.38	10.00	ppbv	104%		70-130	2	25
Benzene	10.45	10.00	ppbv	105%		70-130	2	25
1,2-Dichloroethane	10.12	10.00	ppbv	101%		70-130	2	25
Trichloroethene	10.11	10.00	ppbv	101%		70-130	1	25
1,2-Dichloropropane	9.690	10.00	ppbv	97%		70-130	1	25
Bromodichloromethane	10.31	10.00	ppbv	103%		70-130	1	25
cis-1,3-Dichloropropene	10.56	10.00	ppbv	106%		70-130	2	25
4-Methyl-2-Pentanone	10.54	10.00	ppbv	105%		70-130	1	25
Toluene	10.47	10.00	ppbv	105%		70-130	1	25
trans-1,3-Dichloropropene	10.43	10.00	ppbv	104%		70-130	0	25
1,1,2-Trichloroethane	10.15	10.00	ppbv	101%		70-130	2	25
Tetrachloroethene	9.889	10.00	ppbv	99%		70-130	2	25
2-Hexanone	10.91	10.00	ppbv	109%		70-130	3	25
Dibromochloromethane	10.86	10.00	ppbv	109%		70-130	2	25
1,2-Dibromoethane	10.15	10.00	ppbv	101%		70-130	1	25
Chlorobenzene	9.795	10.00	ppbv	98%		70-130	1	25
Ethylbenzene	10.34	10.00	ppbv	103%		70-130	2	25
m,p-Xylenes	21.06	20.00	ppbv	105%		70-130	3	25

ENTHALPY ANALYTICAL

Batch QC

QC1037669 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
o-Xylene	10.39	10.00	ppbv	104%		70-130	3	25
Styrene	10.70	10.00	ppbv	107%		70-130	3	25
Bromoform	11.97	10.00	ppbv	120%		70-130	2	25
1,1,2,2-Tetrachloroethane	9.923	10.00	ppbv	99%		70-130	3	25
1,1,1,2-Tetrachloroethane	9.938	10.00	ppbv	99%		70-130	2	25
4-Ethyltoluene	10.58	10.00	ppbv	106%		70-130	3	25
1,3,5-Trimethylbenzene	10.46	10.00	ppbv	105%		70-130	2	25
1,2,4-Trimethylbenzene	10.56	10.00	ppbv	106%		70-130	3	25
1,3-Dichlorobenzene	9.825	10.00	ppbv	98%		70-130	2	25
1,4-Dichlorobenzene	10.00	10.00	ppbv	100%		70-130	3	25
Benzyl chloride	10.38	10.00	ppbv	104%		70-130	3	25
1,2-Dichlorobenzene	9.959	10.00	ppbv	100%		70-130	3	25
1,2,4-Trichlorobenzene	10.57	10.00	ppbv	106%		70-130	3	25
Hexachlorobutadiene	10.05	10.00	ppbv	100%		70-130	2	25
Surrogates								
Bromofluorobenzene	9.662	10.00	ppbv	97%		60-140		

Batch QC

Type:	Blank	Lab ID:	QC1037671	Batch:	304992
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1037671 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,1-Difluoroethane	ND		ppbv	1.0	01/11/23 02:57	01/11/23 02:57
Freon 12	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Freon 114	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Chloromethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Vinyl Chloride	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Bromomethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Chloroethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Trichlorofluoromethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,1-Dichloroethene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Freon 113	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Acetone	ND		ppbv	1.0	01/11/23 02:57	01/11/23 02:57
Carbon Disulfide	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Isopropanol (IPA)	ND		ppbv	1.0	01/11/23 02:57	01/11/23 02:57
Methylene Chloride	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
trans-1,2-Dichloroethene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
MTBE	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
n-Hexane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,1-Dichloroethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Vinyl Acetate	ND		ppbv	1.0	01/11/23 02:57	01/11/23 02:57
cis-1,2-Dichloroethene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
2-Butanone	ND		ppbv	1.0	01/11/23 02:57	01/11/23 02:57
Chloroform	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,1,1-Trichloroethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Carbon Tetrachloride	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Benzene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,2-Dichloroethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Trichloroethene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,2-Dichloropropane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Bromodichloromethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
cis-1,3-Dichloropropene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
4-Methyl-2-Pentanone	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Toluene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
trans-1,3-Dichloropropene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,1,2-Trichloroethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Tetrachloroethene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
2-Hexanone	ND		ppbv	0.50	01/11/23 02:57	01/11/23 02:57
Dibromochloromethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,2-Dibromoethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Chlorobenzene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Ethylbenzene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
m,p-Xylenes	ND		ppbv	0.40	01/11/23 02:57	01/11/23 02:57
o-Xylene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57

Batch QC

QC1037671 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Styrene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Bromoform	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
4-Ethyltoluene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,3,5-Trimethylbenzene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,2,4-Trimethylbenzene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,3-Dichlorobenzene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,4-Dichlorobenzene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Benzyl chloride	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,2-Dichlorobenzene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
1,2,4-Trichlorobenzene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Hexachlorobutadiene	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Xylene (total)	ND		ppbv	0.20	01/11/23 02:57	01/11/23 02:57
Surrogates				**Limits**		
Bromofluorobenzene	99%		%REC	60-140	01/11/23 02:57	01/11/23 02:57

Batch QC

Type: Lab Control Sample	Lab ID: QC1038085	Batch: 305136
Matrix: Air	Method: EPA TO-15	Prep Method: METHOD

QC1038085 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Difluoroethane	9.967	10.00	ppbv	100%		70-130
Freon 12	9.930	10.00	ppbv	99%		70-130
Freon 114	9.857	10.00	ppbv	99%		70-130
Chloromethane	10.12	10.00	ppbv	101%		70-130
Vinyl Chloride	10.06	10.00	ppbv	101%		70-130
Bromomethane	9.825	10.00	ppbv	98%		70-130
Chloroethane	9.671	10.00	ppbv	97%		70-130
Trichlorofluoromethane	9.915	10.00	ppbv	99%		70-130
1,1-Dichloroethene	10.03	10.00	ppbv	100%		70-130
Freon 113	9.926	10.00	ppbv	99%		70-130
Acetone	9.747	10.00	ppbv	97%		70-130
Carbon Disulfide	10.09	10.00	ppbv	101%		70-130
Isopropanol (IPA)	10.10	10.00	ppbv	101%		70-130
Methylene Chloride	9.060	10.00	ppbv	91%		70-130
trans-1,2-Dichloroethene	9.982	10.00	ppbv	100%		70-130
MTBE	10.25	10.00	ppbv	103%		70-130
n-Hexane	10.32	10.00	ppbv	103%		70-130
1,1-Dichloroethane	10.02	10.00	ppbv	100%		70-130
Vinyl Acetate	8.999	10.00	ppbv	90%		70-130
cis-1,2-Dichloroethene	10.05	10.00	ppbv	101%		70-130
2-Butanone	10.34	10.00	ppbv	103%		70-130
Chloroform	9.962	10.00	ppbv	100%		70-130
1,1,1-Trichloroethane	10.00	10.00	ppbv	100%		70-130
Carbon Tetrachloride	10.03	10.00	ppbv	100%		70-130
Benzene	10.05	10.00	ppbv	101%		70-130
1,2-Dichloroethane	9.920	10.00	ppbv	99%		70-130
Trichloroethene	9.850	10.00	ppbv	99%		70-130
1,2-Dichloropropane	9.575	10.00	ppbv	96%		70-130
Bromodichloromethane	10.03	10.00	ppbv	100%		70-130
cis-1,3-Dichloropropene	10.14	10.00	ppbv	101%		70-130
4-Methyl-2-Pentanone	10.34	10.00	ppbv	103%		70-130
Toluene	10.18	10.00	ppbv	102%		70-130
trans-1,3-Dichloropropene	10.12	10.00	ppbv	101%		70-130
1,1,2-Trichloroethane	9.920	10.00	ppbv	99%		70-130
Tetrachloroethene	9.793	10.00	ppbv	98%		70-130
2-Hexanone	10.65	10.00	ppbv	107%		70-130
Dibromochloromethane	10.29	10.00	ppbv	103%		70-130
1,2-Dibromoethane	10.05	10.00	ppbv	100%		70-130
Chlorobenzene	10.07	10.00	ppbv	101%		70-130
Ethylbenzene	10.57	10.00	ppbv	106%		70-130
m,p-Xylenes	21.10	20.00	ppbv	106%		70-130
o-Xylene	10.48	10.00	ppbv	105%		70-130

ENTHALPY ANALYTICAL

Batch QC

QC1038085 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Styrene	10.88	10.00	ppbv	109%		70-130
Bromoform	11.47	10.00	ppbv	115%		70-130
1,1,2,2-Tetrachloroethane	10.42	10.00	ppbv	104%		70-130
1,1,1,2-Tetrachloroethane	10.21	10.00	ppbv	102%		70-130
4-Ethyltoluene	10.87	10.00	ppbv	109%		70-130
1,3,5-Trimethylbenzene	10.78	10.00	ppbv	108%		70-130
1,2,4-Trimethylbenzene	11.04	10.00	ppbv	110%		70-130
1,3-Dichlorobenzene	10.44	10.00	ppbv	104%		70-130
1,4-Dichlorobenzene	10.44	10.00	ppbv	104%		70-130
Benzyl chloride	10.91	10.00	ppbv	109%		70-130
1,2-Dichlorobenzene	10.57	10.00	ppbv	106%		70-130
1,2,4-Trichlorobenzene	12.10	10.00	ppbv	121%		70-130
Hexachlorobutadiene	10.73	10.00	ppbv	107%		70-130
Surrogates						
Bromofluorobenzene	10.25	10.00	ppbv	103%		60-140

ENTHALPY ANALYTICAL

Batch QC

Type:	Lab Control Sample Duplicate	Lab ID:	QC1038086	Batch:	305136
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1038086 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Difluoroethane	10.14	10.00	ppbv	101%		70-130	2	25
Freon 12	9.965	10.00	ppbv	100%		70-130	0	25
Freon 114	9.917	10.00	ppbv	99%		70-130	1	25
Chloromethane	10.16	10.00	ppbv	102%		70-130	0	25
Vinyl Chloride	10.04	10.00	ppbv	100%		70-130	0	25
Bromomethane	9.862	10.00	ppbv	99%		70-130	0	25
Chloroethane	9.751	10.00	ppbv	98%		70-130	1	25
Trichlorofluoromethane	9.997	10.00	ppbv	100%		70-130	1	25
1,1-Dichloroethene	10.09	10.00	ppbv	101%		70-130	1	25
Freon 113	9.960	10.00	ppbv	100%		70-130	0	25
Acetone	9.713	10.00	ppbv	97%		70-130	0	25
Carbon Disulfide	10.16	10.00	ppbv	102%		70-130	1	25
Isopropanol (IPA)	10.37	10.00	ppbv	104%		70-130	3	25
Methylene Chloride	9.105	10.00	ppbv	91%		70-130	0	25
trans-1,2-Dichloroethene	10.08	10.00	ppbv	101%		70-130	1	25
MTBE	10.44	10.00	ppbv	104%		70-130	2	25
n-Hexane	10.40	10.00	ppbv	104%		70-130	1	25
1,1-Dichloroethane	10.10	10.00	ppbv	101%		70-130	1	25
Vinyl Acetate	9.401	10.00	ppbv	94%		70-130	4	25
cis-1,2-Dichloroethene	10.16	10.00	ppbv	102%		70-130	1	25
2-Butanone	10.48	10.00	ppbv	105%		70-130	1	25
Chloroform	10.02	10.00	ppbv	100%		70-130	1	25
1,1,1-Trichloroethane	10.10	10.00	ppbv	101%		70-130	1	25
Carbon Tetrachloride	10.15	10.00	ppbv	102%		70-130	1	25
Benzene	10.18	10.00	ppbv	102%		70-130	1	25
1,2-Dichloroethane	10.01	10.00	ppbv	100%		70-130	1	25
Trichloroethene	9.955	10.00	ppbv	100%		70-130	1	25
1,2-Dichloropropane	9.753	10.00	ppbv	98%		70-130	2	25
Bromodichloromethane	10.13	10.00	ppbv	101%		70-130	1	25
cis-1,3-Dichloropropene	10.25	10.00	ppbv	103%		70-130	1	25
4-Methyl-2-Pentanone	10.50	10.00	ppbv	105%		70-130	1	25
Toluene	10.32	10.00	ppbv	103%		70-130	1	25
trans-1,3-Dichloropropene	10.37	10.00	ppbv	104%		70-130	2	25
1,1,2-Trichloroethane	10.03	10.00	ppbv	100%		70-130	1	25
Tetrachloroethene	9.869	10.00	ppbv	99%		70-130	1	25
2-Hexanone	10.82	10.00	ppbv	108%		70-130	2	25
Dibromochloromethane	10.43	10.00	ppbv	104%		70-130	1	25
1,2-Dibromoethane	10.20	10.00	ppbv	102%		70-130	2	25
Chlorobenzene	10.10	10.00	ppbv	101%		70-130	0	25
Ethylbenzene	10.62	10.00	ppbv	106%		70-130	0	25
m,p-Xylenes	21.20	20.00	ppbv	106%		70-130	0	25

Batch QC

QC1038086 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
o-Xylene	10.49	10.00	ppbv	105%		70-130	0	25
Styrene	10.91	10.00	ppbv	109%		70-130	0	25
Bromoform	11.51	10.00	ppbv	115%		70-130	0	25
1,1,2,2-Tetrachloroethane	10.44	10.00	ppbv	104%		70-130	0	25
1,1,1,2-Tetrachloroethane	10.20	10.00	ppbv	102%		70-130	0	25
4-Ethyltoluene	10.93	10.00	ppbv	109%		70-130	1	25
1,3,5-Trimethylbenzene	10.84	10.00	ppbv	108%		70-130	1	25
1,2,4-Trimethylbenzene	11.07	10.00	ppbv	111%		70-130	0	25
1,3-Dichlorobenzene	10.44	10.00	ppbv	104%		70-130	0	25
1,4-Dichlorobenzene	10.45	10.00	ppbv	104%		70-130	0	25
Benzyl chloride	11.00	10.00	ppbv	110%		70-130	1	25
1,2-Dichlorobenzene	10.56	10.00	ppbv	106%		70-130	0	25
1,2,4-Trichlorobenzene	11.96	10.00	ppbv	120%		70-130	1	25
Hexachlorobutadiene	10.26	10.00	ppbv	103%		70-130	5	25
Surrogates								
Bromofluorobenzene	10.24	10.00	ppbv	102%		60-140		

ENTHALPY ANALYTICAL

Batch QC

Type:	Blank	Lab ID:	QC1038087	Batch:	305136
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1038087 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,1-Difluoroethane	ND		ppbv	1.0	01/12/23 15:07	01/12/23 15:07
Freon 12	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Freon 114	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Chloromethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Vinyl Chloride	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Bromomethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Chloroethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Trichlorofluoromethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,1-Dichloroethene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Freon 113	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Acetone	ND		ppbv	1.0	01/12/23 15:07	01/12/23 15:07
Carbon Disulfide	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Isopropanol (IPA)	ND		ppbv	1.0	01/12/23 15:07	01/12/23 15:07
Methylene Chloride	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
trans-1,2-Dichloroethene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
MTBE	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
n-Hexane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,1-Dichloroethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Vinyl Acetate	ND		ppbv	1.0	01/12/23 15:07	01/12/23 15:07
cis-1,2-Dichloroethene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
2-Butanone	ND		ppbv	1.0	01/12/23 15:07	01/12/23 15:07
Chloroform	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,1,1-Trichloroethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Carbon Tetrachloride	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Benzene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,2-Dichloroethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Trichloroethene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,2-Dichloropropane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Bromodichloromethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
cis-1,3-Dichloropropene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
4-Methyl-2-Pentanone	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Toluene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
trans-1,3-Dichloropropene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,1,2-Trichloroethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Tetrachloroethene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
2-Hexanone	ND		ppbv	0.50	01/12/23 15:07	01/12/23 15:07
Dibromochloromethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,2-Dibromoethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Chlorobenzene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Ethylbenzene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
m,p-Xylenes	ND		ppbv	0.40	01/12/23 15:07	01/12/23 15:07
o-Xylene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07

Batch QC

QC1038087 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Styrene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Bromoform	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
4-Ethyltoluene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,3,5-Trimethylbenzene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,2,4-Trimethylbenzene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,3-Dichlorobenzene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,4-Dichlorobenzene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Benzyl chloride	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,2-Dichlorobenzene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
1,2,4-Trichlorobenzene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Hexachlorobutadiene	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Xylene (total)	ND		ppbv	0.20	01/12/23 15:07	01/12/23 15:07
Surrogates				**Limits**		
Bromofluorobenzene	104%		%REC	60-140	01/12/23 15:07	01/12/23 15:07

ENTHALPY ANALYTICAL

Batch QC

Type:	Lab Control Sample	Lab ID:	QC1038801	Batch:	305353
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1038801 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Difluoroethane	10.12	10.00	ppbv	101%		70-130
Freon 12	10.23	10.00	ppbv	102%		70-130
Freon 114	9.951	10.00	ppbv	100%		70-130
Chloromethane	10.55	10.00	ppbv	106%		70-130
Vinyl Chloride	10.31	10.00	ppbv	103%		70-130
Bromomethane	9.912	10.00	ppbv	99%		70-130
Chloroethane	11.06	10.00	ppbv	111%		70-130
Trichlorofluoromethane	10.02	10.00	ppbv	100%		70-130
1,1-Dichloroethene	10.19	10.00	ppbv	102%		70-130
Freon 113	9.960	10.00	ppbv	100%		70-130
Acetone	9.878	10.00	ppbv	99%		70-130
Carbon Disulfide	10.12	10.00	ppbv	101%		70-130
Isopropanol (IPA)	10.33	10.00	ppbv	103%		70-130
Methylene Chloride	9.124	10.00	ppbv	91%		70-130
trans-1,2-Dichloroethene	10.14	10.00	ppbv	101%		70-130
MTBE	10.50	10.00	ppbv	105%		70-130
n-Hexane	10.44	10.00	ppbv	104%		70-130
1,1-Dichloroethane	10.11	10.00	ppbv	101%		70-130
Vinyl Acetate	8.973	10.00	ppbv	90%		70-130
cis-1,2-Dichloroethene	10.21	10.00	ppbv	102%		70-130
2-Butanone	10.51	10.00	ppbv	105%		70-130
Chloroform	10.10	10.00	ppbv	101%		70-130
1,1,1-Trichloroethane	10.18	10.00	ppbv	102%		70-130
Carbon Tetrachloride	10.12	10.00	ppbv	101%		70-130
Benzene	10.20	10.00	ppbv	102%		70-130
1,2-Dichloroethane	10.11	10.00	ppbv	101%		70-130
Trichloroethene	9.917	10.00	ppbv	99%		70-130
1,2-Dichloropropane	9.703	10.00	ppbv	97%		70-130
Bromodichloromethane	10.13	10.00	ppbv	101%		70-130
cis-1,3-Dichloropropene	10.30	10.00	ppbv	103%		70-130
4-Methyl-2-Pentanone	10.51	10.00	ppbv	105%		70-130
Toluene	10.36	10.00	ppbv	104%		70-130
trans-1,3-Dichloropropene	10.32	10.00	ppbv	103%		70-130
1,1,2-Trichloroethane	10.05	10.00	ppbv	101%		70-130
Tetrachloroethene	9.868	10.00	ppbv	99%		70-130
2-Hexanone	10.84	10.00	ppbv	108%		70-130
Dibromochloromethane	10.39	10.00	ppbv	104%		70-130
1,2-Dibromoethane	10.17	10.00	ppbv	102%		70-130
Chlorobenzene	10.07	10.00	ppbv	101%		70-130
Ethylbenzene	10.62	10.00	ppbv	106%		70-130
m,p-Xylenes	21.22	20.00	ppbv	106%		70-130
o-Xylene	10.52	10.00	ppbv	105%		70-130

Batch QC

QC1038801 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Styrene	10.92	10.00	ppbv	109%		70-130
Bromoform	11.38	10.00	ppbv	114%		70-130
1,1,2,2-Tetrachloroethane	10.37	10.00	ppbv	104%		70-130
1,1,1,2-Tetrachloroethane	10.16	10.00	ppbv	102%		70-130
4-Ethyltoluene	10.95	10.00	ppbv	110%		70-130
1,3,5-Trimethylbenzene	10.81	10.00	ppbv	108%		70-130
1,2,4-Trimethylbenzene	11.07	10.00	ppbv	111%		70-130
1,3-Dichlorobenzene	10.37	10.00	ppbv	104%		70-130
1,4-Dichlorobenzene	10.39	10.00	ppbv	104%		70-130
Benzyl chloride	10.83	10.00	ppbv	108%		70-130
1,2-Dichlorobenzene	10.49	10.00	ppbv	105%		70-130
1,2,4-Trichlorobenzene	12.15	10.00	ppbv	122%		70-130
Hexachlorobutadiene	10.87	10.00	ppbv	109%		70-130
Surrogates						
Bromofluorobenzene	10.25	10.00	ppbv	103%		60-140

Batch QC

Type:	**Lab Control Sample Duplicate**	**Lab ID:**	**QC1038802**	**Batch:**	**305353**
Matrix:	**Air**	**Method:**	**EPA TO-15**	**Prep Method:**	**METHOD**

QC1038802 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Difluoroethane	10.28	10.00	ppbv	103%		70-130	2	25
Freon 12	10.21	10.00	ppbv	102%		70-130	0	25
Freon 114	9.992	10.00	ppbv	100%		70-130	0	25
Chloromethane	10.59	10.00	ppbv	106%		70-130	0	25
Vinyl Chloride	10.40	10.00	ppbv	104%		70-130	1	25
Bromomethane	9.972	10.00	ppbv	100%		70-130	1	25
Chloroethane	10.25	10.00	ppbv	102%		70-130	8	25
Trichlorofluoromethane	10.10	10.00	ppbv	101%		70-130	1	25
1,1-Dichloroethene	10.31	10.00	ppbv	103%		70-130	1	25
Freon 113	10.05	10.00	ppbv	101%		70-130	1	25
Acetone	9.968	10.00	ppbv	100%		70-130	1	25
Carbon Disulfide	10.22	10.00	ppbv	102%		70-130	1	25
Isopropanol (IPA)	10.57	10.00	ppbv	106%		70-130	2	25
Methylene Chloride	9.217	10.00	ppbv	92%		70-130	1	25
trans-1,2-Dichloroethene	10.26	10.00	ppbv	103%		70-130	1	25
MTBE	10.64	10.00	ppbv	106%		70-130	1	25
n-Hexane	10.54	10.00	ppbv	105%		70-130	1	25
1,1-Dichloroethane	10.25	10.00	ppbv	102%		70-130	1	25
Vinyl Acetate	9.535	10.00	ppbv	95%		70-130	6	25
cis-1,2-Dichloroethene	10.34	10.00	ppbv	103%		70-130	1	25
2-Butanone	10.66	10.00	ppbv	107%		70-130	1	25
Chloroform	10.16	10.00	ppbv	102%		70-130	1	25
1,1,1-Trichloroethane	10.25	10.00	ppbv	103%		70-130	1	25
Carbon Tetrachloride	10.25	10.00	ppbv	103%		70-130	1	25
Benzene	10.32	10.00	ppbv	103%		70-130	1	25
1,2-Dichloroethane	10.15	10.00	ppbv	102%		70-130	0	25
Trichloroethene	10.00	10.00	ppbv	100%		70-130	1	25
1,2-Dichloropropane	9.898	10.00	ppbv	99%		70-130	2	25
Bromodichloromethane	10.23	10.00	ppbv	102%		70-130	1	25
cis-1,3-Dichloropropene	10.40	10.00	ppbv	104%		70-130	1	25
4-Methyl-2-Pentanone	10.74	10.00	ppbv	107%		70-130	2	25
Toluene	10.42	10.00	ppbv	104%		70-130	1	25
trans-1,3-Dichloropropene	10.43	10.00	ppbv	104%		70-130	1	25
1,1,2-Trichloroethane	10.15	10.00	ppbv	102%		70-130	1	25
Tetrachloroethene	9.922	10.00	ppbv	99%		70-130	1	25
2-Hexanone	11.02	10.00	ppbv	110%		70-130	2	25
Dibromochloromethane	10.49	10.00	ppbv	105%		70-130	1	25
1,2-Dibromoethane	10.24	10.00	ppbv	102%		70-130	1	25
Chlorobenzene	10.09	10.00	ppbv	101%		70-130	0	25
Ethylbenzene	10.68	10.00	ppbv	107%		70-130	1	25
m,p-Xylenes	21.32	20.00	ppbv	107%		70-130	1	25

ENTHALPY ANALYTICAL

Batch QC

QC1038802 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
o-Xylene	10.56	10.00	ppbv	106%		70-130	0	25
Styrene	10.98	10.00	ppbv	110%		70-130	1	25
Bromoform	11.38	10.00	ppbv	114%		70-130	0	25
1,1,2,2-Tetrachloroethane	10.50	10.00	ppbv	105%		70-130	1	25
1,1,1,2-Tetrachloroethane	10.19	10.00	ppbv	102%		70-130	0	25
4-Ethyltoluene	10.97	10.00	ppbv	110%		70-130	0	25
1,3,5-Trimethylbenzene	10.90	10.00	ppbv	109%		70-130	1	25
1,2,4-Trimethylbenzene	11.11	10.00	ppbv	111%		70-130	0	25
1,3-Dichlorobenzene	10.39	10.00	ppbv	104%		70-130	0	25
1,4-Dichlorobenzene	10.42	10.00	ppbv	104%		70-130	0	25
Benzyl chloride	11.10	10.00	ppbv	111%		70-130	2	25
1,2-Dichlorobenzene	10.52	10.00	ppbv	105%		70-130	0	25
1,2,4-Trichlorobenzene	11.97	10.00	ppbv	120%		70-130	2	25
Hexachlorobutadiene	10.40	10.00	ppbv	104%		70-130	4	25
Surrogates								
Bromofluorobenzene	10.19	10.00	ppbv	102%		60-140		

Batch QC

Type:	Blank	Lab ID:	QC1038803	Batch:	305353
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1038803 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,1-Difluoroethane	ND		ppbv	1.0	01/16/23 12:49	01/16/23 12:49
Freon 12	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Freon 114	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Chloromethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Vinyl Chloride	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Bromomethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Chloroethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Trichlorofluoromethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,1-Dichloroethene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Freon 113	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Acetone	ND		ppbv	1.0	01/16/23 12:49	01/16/23 12:49
Carbon Disulfide	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Isopropanol (IPA)	ND		ppbv	1.0	01/16/23 12:49	01/16/23 12:49
Methylene Chloride	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
trans-1,2-Dichloroethene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
MTBE	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
n-Hexane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,1-Dichloroethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Vinyl Acetate	ND		ppbv	1.0	01/16/23 12:49	01/16/23 12:49
cis-1,2-Dichloroethene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
2-Butanone	ND		ppbv	1.0	01/16/23 12:49	01/16/23 12:49
Chloroform	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,1,1-Trichloroethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Carbon Tetrachloride	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Benzene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,2-Dichloroethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Trichloroethene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,2-Dichloropropane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Bromodichloromethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
cis-1,3-Dichloropropene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
4-Methyl-2-Pentanone	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Toluene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
trans-1,3-Dichloropropene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,1,2-Trichloroethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Tetrachloroethene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
2-Hexanone	ND		ppbv	0.50	01/16/23 12:49	01/16/23 12:49
Dibromochloromethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,2-Dibromoethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Chlorobenzene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Ethylbenzene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
m,p-Xylenes	ND		ppbv	0.40	01/16/23 12:49	01/16/23 12:49
o-Xylene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49

Batch QC

QC1038803 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Styrene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Bromoform	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
4-Ethyltoluene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,3,5-Trimethylbenzene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,2,4-Trimethylbenzene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,3-Dichlorobenzene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,4-Dichlorobenzene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Benzyl chloride	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,2-Dichlorobenzene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
1,2,4-Trichlorobenzene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Hexachlorobutadiene	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Xylene (total)	ND		ppbv	0.20	01/16/23 12:49	01/16/23 12:49
Surrogates				**Limits**		
Bromofluorobenzene	104%		%REC	60-140	01/16/23 12:49	01/16/23 12:49

*	Value is outside QC limits
ND	Not Detected
NM	Not Meaningful

ENTHALPY
ANALYTICAL

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number:	477976
Report Level:	II
Report Date:	01/30/2023

Analytical Report *prepared for:*

Jeff Sieng
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Location: Walker Group, 2750 Bristol St., Costa Mesa, CA

Authorized for release by:

Jim Lin, Service Center Manager
Jim.lin@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Jeff Sieng SCS Engineers - Long Beach 3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806		Lab Job #: Location: Date Received:	477976 Walker Group, 2750 Bristol St., Costa Mesa, CA 01/23/23

Sample ID	Lab ID	Collected	Matrix
A1-S	477976-001	01/20/23 12:08	Air (Vapor)
A1-D	477976-002	01/20/23 12:15	Air (Vapor)
A2-S	477976-003	01/20/23 11:53	Air (Vapor)
A2-D	477976-004	01/20/23 11:58	Air (Vapor)
A3-S	477976-005	01/20/23 11:40	Air (Vapor)
A3-D	477976-006	01/20/23 11:45	Air (Vapor)
B1-S	477976-007	01/20/23 10:52	Air (Vapor)
B1-D	477976-008	01/20/23 10:58	Air (Vapor)
B2-S	477976-009	01/20/23 11:05	Air (Vapor)
B2-D	477976-010	01/20/23 11:10	Air (Vapor)
C1-S	477976-011	01/20/23 12:46	Air (Vapor)
C1-D	477976-012	01/20/23 12:52	Air (Vapor)
D1-S	477976-013	01/20/23 10:28	Air (Vapor)
D1-D	477976-014	01/20/23 10:37	Air (Vapor)
D2-S	477976-015	01/20/23 12:28	Air (Vapor)
D2-D	477976-016	01/20/23 12:39	Air (Vapor)

ENTHALPY ANALYTICAL

Case Narrative

SCS Engineers - Long Beach	Lab Job Number:	477976
3900 Kilroy Airport Way	Location:	Walker Group, 2750 Bristol St., Costa Mesa, CA
Suite 100	Date Received:	01/23/23
Long Beach, CA 90806		
Jeff Sieng		

This data package contains sample and QC results for sixteen vapor samples, requested for the above referenced project on 01/23/23. The samples were received intact.

Volatile Organics in Air by MS (EPA TO-15):

- High responses were observed for benzyl chloride and bromoform in the CCV analyzed 01/24/23 09:08; affected data was qualified with "b".
- High recoveries were observed for benzyl chloride and bromoform in the BS/BSD for batch 305967; the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated samples.
- Many samples were diluted due to high non-target analytes.
- No other analytical problems were encountered.

Volatile Organics in Air GC (ASTM D1946):

No analytical problems were encountered.

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 477970

Page: 1 of 2

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Enthalpy Analytical - Orange
931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS Enigineers	Quote #:	
Report To:	Jeff Sieg	Proj. Name:	Walker Group
Email:	jsieg@scsengineers.com	Proj. #:	01222204.00
Address:	3900 Kilroy Airport Way #100	P.O. #:	
		Address:	2750 Bristol Street, Costa Mesa, CA
Phone:	(562) 572-4461	Global ID:	
Fax:		Sampled By:	J.Sieg

Analysis Request / **Test Instructions / Comments**

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	ASTM D1946 Methane + Fixed Gasse	TO-15 Full Scan	Test Instructions / Comments
1	A1-S	01/20/23	12:08 PM	VAPOR	1 SUMMA	N/A	X	X	
2	A1-D	01/20/23	12:15 PM	VAPOR	1 SUMMA	N/A	X	X	
3	A2-S	01/20/23	11:53 AM	VAPOR	1 SUMMA	N/A	X	X	
4	A2-D	01/20/23	11:58 AM	VAPOR	1 SUMMA	N/A	X	X	
5	A3-S	01/20/23	11:40 AM	VAPOR	1 SUMMA	N/A	X	X	
6	A3-D	01/20/23	11:45 AM	VAPOR	1 SUMMA	N/A	X	X	
7	B1-S	01/20/23	10:52 AM	VAPOR	1 SUMMA	N/A	X	X	
8	B1-D	01/20/23	10:58 AM	VAPOR	1 SUMMA	N/A	X	X	
9	B2-S	01/20/23	11:05 AM	VAPOR	1 SUMMA	N/A	X	X	
10	B2-D	01/20/23	11:10 AM	VAPOR	1 SUMMA	N/A	X	X	

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		JEFF SIEG	SCS Engineers	1/23/23
[1] Received By:		GGawat	EA	1.23.23 1054
[2] Relinquished By:		GGawat	EA	1.23.23 1137
[2] Received By:		FROWN	EA	1/23/23 1137
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Chain of Custody Record

Lab No:

Page: 2 of 2

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS Enigineers	Quote #:	
Report To:	Jeff Sieg	Proj. Name:	Walker Group
Email:	jsieg@scsengineers.com	Proj. #:	01222204.00
Address:	3900 Kilroy Airport Way #100	P.O. #:	
		Address:	2750 Bristol Street, Costa Mesa, CA
Phone:	(562) 572-4461	Global ID:	
Fax:		Sampled By:	J.Sieg

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	ASTM D1946 Methane + Fixed Gasse	TO-15 Full Scan	Test Instructions / Comments
1	C1-S	01/20/23	12:46 PM	VAPOR	1 SUMMA	N/A	X	X	
2	C1-D	01/20/23	12:52 PM	VAPOR	1 SUMMA	N/A	X	X	
3	D1-S	01/20/23	10:28 AM	VAPOR	1 SUMMA	N/A	X	X	
4	D1-D	01/20/23	10:37 AM	VAPOR	1 SUMMA	N/A	X	X	
5	D2-S	01/20/23	12:28 PM	VAPOR	1 SUMMA	N/A	X	X	
6	D2-D	01/20/23	12:39 PM	VAPOR	1 SUMMA	N/A	X	X	
7									
8									
9									
10									

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	JEFF SIEG	SCS Engineers	1/23/23
1 Received By:		GGawat	EA	1.23.22 1054
2 Relinquished By:	[signature]	GGawat	EA	1.23.23 1137
2 Received By:		Brown	EA	1/23/23 1137
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: SCS Eng Project: Walker Group

Date Received: 1/23/23 Sampler's Name Present: [X] Yes [ ] No

Section 2

Sample(s) received in a cooler? [ ] Yes, How many? ______ [X] No (skip section 2) Sample Temp (°C) (No Cooler): Amb

Sample Temp (°C), One from each cooler: #1: ______ #2: ______ #3: ______ #4: ______

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: ______

Section 3

Was the cooler packed with: [ ] Ice [ ] Ice Packs [ ] Bubble Wrap [ ] Styrofoam [ ] Paper [ ] None [ ] Other ______

Cooler Temp (°C): #1: ______ #2: ______ #3: ______ #4: ______

Section 4	YES	NO	N/A
Was a COC received?	X		
Are sample IDs present?	X		
Are sampling dates & times present?	X		
Is a relinquished signature present?	X		
Are the tests required clearly indicated on the COC?	X		
Are custody seals present?		X	
If custody seals are present, were they intact?			X
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			X
Did all samples arrive intact? If no, indicate in Section 4 below.	X		
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were the samples collected in the correct containers for the required tests?	X		
Are the containers labeled with the correct preservatives?			X
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			X
Was a sufficient amount of sample submitted for the requested tests?	X		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? [ ] Verbal PM Initials: ______ Date/Time ______

[ ] Email (email sent to/on): ______ / ______

Project Manager's response:

Completed By: [signature] Date: 1/23/23

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Analysis Results for 477976

Jeff Sieng
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Lab Job #: 477976
Location: Walker Group, 2750 Bristol St., Costa Mesa, CA
Date Received: 01/23/23

Sample ID: A1-S **Lab ID: 477976-001** **Collected: 01/20/23 12:08**
Matrix: Air

477976-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**1.2**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**97**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	6.4	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1-Difluoroethane	ND		ug/m3	17	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Freon 12	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Freon 12	ND		ug/m3	6.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Freon 114	**1.3**		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Freon 114	**9.2**		ug/m3	8.9	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Chloromethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Chloromethane	ND		ug/m3	2.6	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Vinyl Chloride	**1.4**		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Vinyl Chloride	**3.6**		ug/m3	3.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Bromomethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Bromomethane	ND		ug/m3	5.0	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Chloroethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Chloroethane	ND		ug/m3	3.4	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Trichlorofluoromethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Trichlorofluoromethane	ND		ug/m3	7.2	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1-Dichloroethene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1-Dichloroethene	ND		ug/m3	5.1	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Freon 113	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Freon 113	ND		ug/m3	9.8	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Acetone	ND		ppbv	6.4	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Acetone	ND		ug/m3	15	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Carbon Disulfide	**5.3**		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Carbon Disulfide	**16**		ug/m3	4.0	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Isopropanol (IPA)	ND		ppbv	6.4	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Isopropanol (IPA)	ND		ug/m3	16	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Methylene Chloride	**1.4**		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Methylene Chloride	**5.0**		ug/m3	4.4	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
trans-1,2-Dichloroethene	**3.4**		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
trans-1,2-Dichloroethene	**14**		ug/m3	5.1	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
MTBE	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
MTBE	ND		ug/m3	4.6	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
n-Hexane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
n-Hexane	ND		ug/m3	4.5	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1-Dichloroethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1-Dichloroethane	ND		ug/m3	5.2	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Vinyl Acetate	ND		ppbv	6.4	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Vinyl Acetate	ND		ug/m3	23	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
cis-1,2-Dichloroethene	**22**		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
cis-1,2-Dichloroethene	**89**		ug/m3	5.1	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
2-Butanone	ND		ppbv	6.4	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
2-Butanone	ND		ug/m3	19	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Chloroform	**6.4**		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Chloroform	**31**		ug/m3	6.2	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1,1-Trichloroethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1,1-Trichloroethane	ND		ug/m3	7.0	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Carbon Tetrachloride	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Carbon Tetrachloride	ND		ug/m3	8.1	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Benzene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Benzene	ND		ug/m3	4.1	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2-Dichloroethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2-Dichloroethane	ND		ug/m3	5.2	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Trichloroethene	**8.4**		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Trichloroethene	**45**		ug/m3	6.9	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2-Dichloropropane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2-Dichloropropane	ND		ug/m3	5.9	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Bromodichloromethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Bromodichloromethane	ND		ug/m3	8.6	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
cis-1,3-Dichloropropene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
cis-1,3-Dichloropropene	ND		ug/m3	5.8	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
4-Methyl-2-Pentanone	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
4-Methyl-2-Pentanone	ND		ug/m3	5.2	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Toluene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Toluene	ND		ug/m3	4.8	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
trans-1,3-Dichloropropene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
trans-1,3-Dichloropropene	ND		ug/m3	5.8	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1,2-Trichloroethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1,2-Trichloroethane	ND		ug/m3	7.0	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Tetrachloroethene	**7.8**		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Tetrachloroethene	**53**		ug/m3	8.7	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
2-Hexanone	ND		ppbv	3.2	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
2-Hexanone	ND		ug/m3	13	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Dibromochloromethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 477976

477976-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/m3	11	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2-Dibromoethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2-Dibromoethane	ND		ug/m3	9.8	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Chlorobenzene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Chlorobenzene	ND		ug/m3	5.9	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Ethylbenzene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Ethylbenzene	ND		ug/m3	5.6	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
m,p-Xylenes	ND		ppbv	2.6	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
m,p-Xylenes	ND		ug/m3	11	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
o-Xylene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
o-Xylene	ND		ug/m3	5.6	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Styrene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Styrene	ND		ug/m3	5.5	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Bromoform	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Bromoform	ND		ug/m3	13	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	8.8	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	8.8	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
4-Ethyltoluene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
4-Ethyltoluene	ND		ug/m3	6.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,3,5-Trimethylbenzene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	6.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2,4-Trimethylbenzene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	6.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,3-Dichlorobenzene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,3-Dichlorobenzene	ND		ug/m3	7.7	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,4-Dichlorobenzene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,4-Dichlorobenzene	ND		ug/m3	7.7	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Benzyl chloride	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Benzyl chloride	ND		ug/m3	6.6	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2-Dichlorobenzene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2-Dichlorobenzene	ND		ug/m3	7.7	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2,4-Trichlorobenzene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	9.5	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Hexachlorobutadiene	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Hexachlorobutadiene	ND		ug/m3	14	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Xylene (total)	ND		ppbv	1.3	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Xylene (total)	ND		ug/m3	5.6	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC
Surrogates				**Limits**					
Bromofluorobenzene	106%		%REC	60-140	6.4	305967	01/24/23 11:41	01/24/23 11:41	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

Sample ID: A1-D	Lab ID: 477976-002	Collected: 01/20/23 12:15
	Matrix: Air	

477976-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**7.4**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	**3.5**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**87**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	4.0	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1-Difluoroethane	ND		ug/m3	11	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Freon 12	**1.6**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Freon 12	**7.7**		ug/m3	4.0	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Freon 114	**4.8**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Freon 114	**34**		ug/m3	5.6	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Chloromethane	**17**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Chloromethane	**36**		ug/m3	1.7	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Vinyl Chloride	**1.0**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Vinyl Chloride	**2.7**		ug/m3	2.0	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Bromomethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Bromomethane	ND		ug/m3	3.1	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Chloroethane	**2.9**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Chloroethane	**7.7**		ug/m3	2.1	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Trichlorofluoromethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Trichlorofluoromethane	ND		ug/m3	4.5	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1-Dichloroethene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1-Dichloroethene	ND		ug/m3	3.2	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Freon 113	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Freon 113	ND		ug/m3	6.1	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Acetone	**22**		ppbv	4.0	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Acetone	**53**		ug/m3	9.5	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Carbon Disulfide	**82**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Carbon Disulfide	**250**		ug/m3	2.5	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Isopropanol (IPA)	**10**		ppbv	4.0	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Isopropanol (IPA)	**26**		ug/m3	9.8	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Methylene Chloride	**1.0**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Methylene Chloride	**3.5**		ug/m3	2.8	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
trans-1,2-Dichloroethene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
trans-1,2-Dichloroethene	ND		ug/m3	3.2	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
MTBE	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
MTBE	ND		ug/m3	2.9	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
n-Hexane	**0.86**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 477976

477976-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**3.0**		ug/m3	2.8	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1-Dichloroethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1-Dichloroethane	ND		ug/m3	3.2	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Vinyl Acetate	ND		ppbv	4.0	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Vinyl Acetate	ND		ug/m3	14	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
cis-1,2-Dichloroethene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
cis-1,2-Dichloroethene	ND		ug/m3	3.2	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
2-Butanone	ND		ppbv	4.0	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
2-Butanone	ND		ug/m3	12	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Chloroform	**3.3**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Chloroform	**16**		ug/m3	3.9	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1,1-Trichloroethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1,1-Trichloroethane	ND		ug/m3	4.4	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Carbon Tetrachloride	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Carbon Tetrachloride	ND		ug/m3	5.0	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Benzene	**0.93**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Benzene	**3.0**		ug/m3	2.6	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2-Dichloroethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2-Dichloroethane	ND		ug/m3	3.2	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Trichloroethene	**79**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Trichloroethene	**420**		ug/m3	4.3	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2-Dichloropropane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2-Dichloropropane	ND		ug/m3	3.7	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Bromodichloromethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Bromodichloromethane	ND		ug/m3	5.4	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
cis-1,3-Dichloropropene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
cis-1,3-Dichloropropene	ND		ug/m3	3.6	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
4-Methyl-2-Pentanone	**0.98**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
4-Methyl-2-Pentanone	**4.0**		ug/m3	3.3	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Toluene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Toluene	ND		ug/m3	3.0	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
trans-1,3-Dichloropropene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
trans-1,3-Dichloropropene	ND		ug/m3	3.6	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1,2-Trichloroethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1,2-Trichloroethane	ND		ug/m3	4.4	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Tetrachloroethene	**130**		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Tetrachloroethene	**850**		ug/m3	5.4	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
2-Hexanone	ND		ppbv	2.0	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
2-Hexanone	ND		ug/m3	8.2	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Dibromochloromethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Dibromochloromethane	ND		ug/m3	6.8	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2-Dibromoethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2-Dibromoethane	ND		ug/m3	6.1	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Chlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Chlorobenzene	ND		ug/m3	3.7	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Ethylbenzene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	3.5	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
m,p-Xylenes	ND		ppbv	1.6	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
m,p-Xylenes	ND		ug/m3	6.9	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
o-Xylene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
o-Xylene	ND		ug/m3	3.5	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Styrene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Styrene	ND		ug/m3	3.4	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Bromoform	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Bromoform	ND		ug/m3	8.3	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	5.5	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	5.5	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
4-Ethyltoluene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
4-Ethyltoluene	ND		ug/m3	3.9	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,3,5-Trimethylbenzene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	3.9	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2,4-Trimethylbenzene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	3.9	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,3-Dichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,3-Dichlorobenzene	ND		ug/m3	4.8	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,4-Dichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,4-Dichlorobenzene	ND		ug/m3	4.8	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Benzyl chloride	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Benzyl chloride	ND		ug/m3	4.1	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2-Dichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2-Dichlorobenzene	ND		ug/m3	4.8	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2,4-Trichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	5.9	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Hexachlorobutadiene	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Hexachlorobutadiene	ND		ug/m3	8.5	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Xylene (total)	ND		ppbv	0.80	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Xylene (total)	ND		ug/m3	3.5	4	305967	01/24/23 12:09	01/24/23 12:09	MBC
Surrogates				**Limits**					
Bromofluorobenzene	107%		%REC	60-140	4	305967	01/24/23 12:09	01/24/23 12:09	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

Sample ID: A2-S	Lab ID: 477976-003	Collected: 01/20/23 11:53
	Matrix: Air	

477976-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**0.38**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	**2.6**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	**0.39**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**95**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	64	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1-Difluoroethane	ND		ug/m3	170	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Freon 12	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Freon 12	ND		ug/m3	63	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Freon 114	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Freon 114	ND		ug/m3	89	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Chloromethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Chloromethane	ND		ug/m3	26	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Vinyl Chloride	**79**		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Vinyl Chloride	**200**		ug/m3	33	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Bromomethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Bromomethane	ND		ug/m3	50	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Chloroethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Chloroethane	ND		ug/m3	34	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Trichlorofluoromethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Trichlorofluoromethane	ND		ug/m3	72	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1-Dichloroethene	**40**		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1-Dichloroethene	**160**		ug/m3	51	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Freon 113	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Freon 113	ND		ug/m3	98	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Acetone	ND		ppbv	64	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Acetone	ND		ug/m3	150	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Carbon Disulfide	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Carbon Disulfide	ND		ug/m3	40	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Isopropanol (IPA)	ND		ppbv	64	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Isopropanol (IPA)	ND		ug/m3	160	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Methylene Chloride	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Methylene Chloride	ND		ug/m3	44	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
trans-1,2-Dichloroethene	**23**		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
trans-1,2-Dichloroethene	**89**		ug/m3	51	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
MTBE	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
MTBE	ND		ug/m3	46	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
n-Hexane	**120**		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**440**		ug/m3	45	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1-Dichloroethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1-Dichloroethane	ND		ug/m3	52	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Vinyl Acetate	ND		ppbv	64	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Vinyl Acetate	ND		ug/m3	230	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
cis-1,2-Dichloroethene	**150**		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
cis-1,2-Dichloroethene	**610**		ug/m3	51	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
2-Butanone	ND		ppbv	64	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
2-Butanone	ND		ug/m3	190	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Chloroform	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Chloroform	ND		ug/m3	62	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1,1-Trichloroethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1,1-Trichloroethane	ND		ug/m3	70	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Carbon Tetrachloride	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Carbon Tetrachloride	ND		ug/m3	81	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Benzene	**21**		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Benzene	**67**		ug/m3	41	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2-Dichloroethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2-Dichloroethane	ND		ug/m3	52	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Trichloroethene	**39**		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Trichloroethene	**210**		ug/m3	69	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2-Dichloropropane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2-Dichloropropane	ND		ug/m3	59	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Bromodichloromethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Bromodichloromethane	ND		ug/m3	86	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
cis-1,3-Dichloropropene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
cis-1,3-Dichloropropene	ND		ug/m3	58	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
4-Methyl-2-Pentanone	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
4-Methyl-2-Pentanone	ND		ug/m3	52	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Toluene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Toluene	ND		ug/m3	48	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
trans-1,3-Dichloropropene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
trans-1,3-Dichloropropene	ND		ug/m3	58	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1,2-Trichloroethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1,2-Trichloroethane	ND		ug/m3	70	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Tetrachloroethene	**20**		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Tetrachloroethene	**130**		ug/m3	87	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
2-Hexanone	ND		ppbv	32	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
2-Hexanone	ND		ug/m3	130	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Dibromochloromethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Dibromochloromethane	ND		ug/m3	110	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2-Dibromoethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2-Dibromoethane	ND		ug/m3	98	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Chlorobenzene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Chlorobenzene	ND		ug/m3	59	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Ethylbenzene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 477976

477976-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	56	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
m,p-Xylenes	ND		ppbv	26	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
m,p-Xylenes	ND		ug/m3	110	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
o-Xylene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
o-Xylene	ND		ug/m3	56	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Styrene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Styrene	ND		ug/m3	55	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Bromoform	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Bromoform	ND		ug/m3	130	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	88	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	88	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
4-Ethyltoluene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
4-Ethyltoluene	ND		ug/m3	63	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,3,5-Trimethylbenzene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	63	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2,4-Trimethylbenzene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	63	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,3-Dichlorobenzene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,3-Dichlorobenzene	ND		ug/m3	77	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,4-Dichlorobenzene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,4-Dichlorobenzene	ND		ug/m3	77	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Benzyl chloride	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Benzyl chloride	ND		ug/m3	66	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2-Dichlorobenzene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2-Dichlorobenzene	ND		ug/m3	77	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2,4-Trichlorobenzene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	95	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Hexachlorobutadiene	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Hexachlorobutadiene	ND		ug/m3	140	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Xylene (total)	ND		ppbv	13	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Xylene (total)	ND		ug/m3	56	64	305967	01/24/23 12:35	01/24/23 12:35	MBC
Surrogates				**Limits**					
Bromofluorobenzene	103%		%REC	60-140	64	305967	01/24/23 12:35	01/24/23 12:35	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

Sample ID: A2-D	Lab ID: 477976-004	Collected: 01/20/23 11:58
	Matrix: Air	

477976-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**0.56**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	**0.28**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**97**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	64	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1-Difluoroethane	ND		ug/m3	170	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Freon 12	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Freon 12	ND		ug/m3	63	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Freon 114	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Freon 114	ND		ug/m3	89	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Chloromethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Chloromethane	ND		ug/m3	26	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Vinyl Chloride	**120**		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Vinyl Chloride	**300**		ug/m3	33	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Bromomethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Bromomethane	ND		ug/m3	50	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Chloroethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Chloroethane	ND		ug/m3	34	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Trichlorofluoromethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Trichlorofluoromethane	ND		ug/m3	72	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1-Dichloroethene	**80**		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1-Dichloroethene	**320**		ug/m3	51	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Freon 113	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Freon 113	ND		ug/m3	98	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Acetone	ND		ppbv	64	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Acetone	ND		ug/m3	150	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Carbon Disulfide	**23**		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Carbon Disulfide	**71**		ug/m3	40	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Isopropanol (IPA)	ND		ppbv	64	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Isopropanol (IPA)	ND		ug/m3	160	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Methylene Chloride	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Methylene Chloride	ND		ug/m3	44	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
trans-1,2-Dichloroethene	**34**		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
trans-1,2-Dichloroethene	**130**		ug/m3	51	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
MTBE	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
MTBE	ND		ug/m3	46	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
n-Hexane	**120**		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**430**		ug/m3	45	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1-Dichloroethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1-Dichloroethane	ND		ug/m3	52	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Vinyl Acetate	ND		ppbv	64	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Vinyl Acetate	ND		ug/m3	230	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
cis-1,2-Dichloroethene	**180**		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
cis-1,2-Dichloroethene	**700**		ug/m3	51	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
2-Butanone	ND		ppbv	64	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
2-Butanone	ND		ug/m3	190	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Chloroform	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Chloroform	ND		ug/m3	62	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1,1-Trichloroethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1,1-Trichloroethane	ND		ug/m3	70	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Carbon Tetrachloride	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Carbon Tetrachloride	ND		ug/m3	81	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Benzene	**22**		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Benzene	**70**		ug/m3	41	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2-Dichloroethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2-Dichloroethane	ND		ug/m3	52	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Trichloroethene	**69**		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Trichloroethene	**370**		ug/m3	69	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2-Dichloropropane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2-Dichloropropane	ND		ug/m3	59	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Bromodichloromethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Bromodichloromethane	ND		ug/m3	86	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
cis-1,3-Dichloropropene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
cis-1,3-Dichloropropene	ND		ug/m3	58	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
4-Methyl-2-Pentanone	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
4-Methyl-2-Pentanone	ND		ug/m3	52	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Toluene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Toluene	ND		ug/m3	48	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
trans-1,3-Dichloropropene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
trans-1,3-Dichloropropene	ND		ug/m3	58	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1,2-Trichloroethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1,2-Trichloroethane	ND		ug/m3	70	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Tetrachloroethene	**27**		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Tetrachloroethene	**180**		ug/m3	87	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
2-Hexanone	ND		ppbv	32	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
2-Hexanone	ND		ug/m3	130	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Dibromochloromethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Dibromochloromethane	ND		ug/m3	110	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2-Dibromoethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2-Dibromoethane	ND		ug/m3	98	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Chlorobenzene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Chlorobenzene	ND		ug/m3	59	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Ethylbenzene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	56	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
m,p-Xylenes	ND		ppbv	26	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
m,p-Xylenes	ND		ug/m3	110	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
o-Xylene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
o-Xylene	ND		ug/m3	56	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Styrene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Styrene	ND		ug/m3	55	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Bromoform	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Bromoform	ND		ug/m3	130	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	88	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	88	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
4-Ethyltoluene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
4-Ethyltoluene	ND		ug/m3	63	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,3,5-Trimethylbenzene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	63	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2,4-Trimethylbenzene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	63	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,3-Dichlorobenzene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,3-Dichlorobenzene	ND		ug/m3	77	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,4-Dichlorobenzene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,4-Dichlorobenzene	ND		ug/m3	77	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Benzyl chloride	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Benzyl chloride	ND		ug/m3	66	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2-Dichlorobenzene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2-Dichlorobenzene	ND		ug/m3	77	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2,4-Trichlorobenzene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	95	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Hexachlorobutadiene	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Hexachlorobutadiene	ND		ug/m3	140	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Xylene (total)	ND		ppbv	13	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Xylene (total)	ND		ug/m3	56	64	305967	01/24/23 13:00	01/24/23 13:00	MBC
Surrogates				**Limits**					
Bromofluorobenzene	103%		%REC	60-140	64	305967	01/24/23 13:00	01/24/23 13:00	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

Sample ID: A3-S	Lab ID: 477976-005	Collected: 01/20/23 11:40
	Matrix: Air	

477976-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**1.3**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**96**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	16	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1-Difluoroethane	ND		ug/m3	43	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Freon 12	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Freon 12	ND		ug/m3	16	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Freon 114	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Freon 114	ND		ug/m3	22	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Chloromethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Chloromethane	ND		ug/m3	6.6	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Vinyl Chloride	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Vinyl Chloride	ND		ug/m3	8.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Bromomethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Bromomethane	ND		ug/m3	12	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Chloroethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Chloroethane	ND		ug/m3	8.4	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Trichlorofluoromethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Trichlorofluoromethane	ND		ug/m3	18	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1-Dichloroethene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1-Dichloroethene	ND		ug/m3	13	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Freon 113	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Freon 113	ND		ug/m3	25	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Acetone	ND		ppbv	16	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Acetone	ND		ug/m3	38	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Carbon Disulfide	**6.7**		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Carbon Disulfide	**21**		ug/m3	10	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Isopropanol (IPA)	ND		ppbv	16	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Isopropanol (IPA)	ND		ug/m3	39	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Methylene Chloride	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Methylene Chloride	ND		ug/m3	11	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	13	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
MTBE	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
MTBE	ND		ug/m3	12	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
n-Hexane	**9.6**		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**34**		ug/m3	11	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1-Dichloroethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1-Dichloroethane	ND		ug/m3	13	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Vinyl Acetate	ND		ppbv	16	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Vinyl Acetate	ND		ug/m3	56	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
cis-1,2-Dichloroethene	**20**		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
cis-1,2-Dichloroethene	**79**		ug/m3	13	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
2-Butanone	ND		ppbv	16	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
2-Butanone	ND		ug/m3	47	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Chloroform	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Chloroform	ND		ug/m3	16	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1,1-Trichloroethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	17	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Carbon Tetrachloride	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Carbon Tetrachloride	ND		ug/m3	20	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Benzene	**4.0**		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Benzene	**13**		ug/m3	10	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2-Dichloroethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2-Dichloroethane	ND		ug/m3	13	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Trichloroethene	**3.6**		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Trichloroethene	**19**		ug/m3	17	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2-Dichloropropane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2-Dichloropropane	ND		ug/m3	15	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Bromodichloromethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Bromodichloromethane	ND		ug/m3	21	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	15	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	13	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Toluene	**5.1**		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Toluene	**19**		ug/m3	12	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	15	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1,2-Trichloroethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	17	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Tetrachloroethene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Tetrachloroethene	ND		ug/m3	22	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
2-Hexanone	ND		ppbv	8.0	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
2-Hexanone	ND		ug/m3	33	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Dibromochloromethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Dibromochloromethane	ND		ug/m3	27	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2-Dibromoethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2-Dibromoethane	ND		ug/m3	25	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Chlorobenzene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Chlorobenzene	ND		ug/m3	15	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Ethylbenzene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	14	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
m,p-Xylenes	ND		ppbv	6.4	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
m,p-Xylenes	ND		ug/m3	28	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
o-Xylene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
o-Xylene	ND		ug/m3	14	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Styrene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Styrene	ND		ug/m3	14	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Bromoform	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Bromoform	ND		ug/m3	33	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	22	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	22	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
4-Ethyltoluene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
4-Ethyltoluene	ND		ug/m3	16	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	16	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	16	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,3-Dichlorobenzene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	19	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,4-Dichlorobenzene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	19	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Benzyl chloride	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Benzyl chloride	ND		ug/m3	17	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2-Dichlorobenzene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	19	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	24	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Hexachlorobutadiene	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Hexachlorobutadiene	ND		ug/m3	34	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Xylene (total)	ND		ppbv	3.2	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Xylene (total)	ND		ug/m3	14	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	106%		%REC	60-140	16	305967	01/24/23 13:27	01/24/23 13:27	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

Sample ID: A3-D	Lab ID: 477976-006	Collected: 01/20/23 11:45
	Matrix: Air	

477976-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**6.6**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**92**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1-Difluoroethane	ND		ug/m3	4.3	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Freon 12	**3.1**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Freon 12	**15**		ug/m3	1.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Freon 114	**9.9**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Freon 114	**69**		ug/m3	2.2	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Chloromethane	**17**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Chloromethane	**36**		ug/m3	0.66	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Vinyl Chloride	**1.1**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Vinyl Chloride	**2.7**		ug/m3	0.82	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Bromomethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Bromomethane	ND		ug/m3	1.2	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Chloroethane	**2.2**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Chloroethane	**5.8**		ug/m3	0.84	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Trichlorofluoromethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Trichlorofluoromethane	ND		ug/m3	1.8	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1-Dichloroethene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1-Dichloroethene	ND		ug/m3	1.3	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Freon 113	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Freon 113	ND		ug/m3	2.5	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Acetone	**9.5**		ppbv	1.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Acetone	**23**		ug/m3	3.8	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Carbon Disulfide	**19**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Carbon Disulfide	**60**		ug/m3	1.0	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Isopropanol (IPA)	**2.5**		ppbv	1.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Isopropanol (IPA)	**6.2**		ug/m3	3.9	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Methylene Chloride	**0.83**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Methylene Chloride	**2.9**		ug/m3	1.1	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	1.3	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
MTBE	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
MTBE	ND		ug/m3	1.2	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
n-Hexane	**4.9**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**17**		ug/m3	1.1	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1-Dichloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1-Dichloroethane	ND		ug/m3	1.3	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Vinyl Acetate	ND		ppbv	1.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Vinyl Acetate	ND		ug/m3	5.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
cis-1,2-Dichloroethene	**2.2**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
cis-1,2-Dichloroethene	**8.8**		ug/m3	1.3	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
2-Butanone	ND		ppbv	1.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
2-Butanone	ND		ug/m3	4.7	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Chloroform	**0.90**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Chloroform	**4.4**		ug/m3	1.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	1.7	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Carbon Tetrachloride	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Carbon Tetrachloride	ND		ug/m3	2.0	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Benzene	**1.2**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Benzene	**3.8**		ug/m3	1.0	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2-Dichloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2-Dichloroethane	ND		ug/m3	1.3	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Trichloroethene	**58**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Trichloroethene	**310**		ug/m3	1.7	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2-Dichloropropane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2-Dichloropropane	ND		ug/m3	1.5	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Bromodichloromethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Bromodichloromethane	ND		ug/m3	2.1	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	1.3	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Toluene	**0.77**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Toluene	**2.9**		ug/m3	1.2	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	1.7	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Tetrachloroethene	**54**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Tetrachloroethene	**360**		ug/m3	2.2	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
2-Hexanone	ND		ppbv	0.80	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
2-Hexanone	ND		ug/m3	3.3	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Dibromochloromethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Dibromochloromethane	ND		ug/m3	2.7	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2-Dibromoethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2-Dibromoethane	ND		ug/m3	2.5	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Chlorobenzene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Chlorobenzene	ND		ug/m3	1.5	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Ethylbenzene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.4	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
m,p-Xylenes	**0.87**		ppbv	0.64	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
m,p-Xylenes	**3.8**		ug/m3	2.8	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
o-Xylene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
o-Xylene	ND		ug/m3	1.4	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Styrene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Styrene	ND		ug/m3	1.4	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Bromoform	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Bromoform	ND		ug/m3	3.3	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
4-Ethyltoluene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
4-Ethyltoluene	ND		ug/m3	1.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	1.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	1.6	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	1.9	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	1.9	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Benzyl chloride	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Benzyl chloride	ND		ug/m3	1.7	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	1.9	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	2.4	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Hexachlorobutadiene	ND		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Hexachlorobutadiene	ND		ug/m3	3.4	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Xylene (total)	**0.87**		ppbv	0.32	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Xylene (total)	**3.8**		ug/m3	1.4	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	104%		%REC	60-140	1.6	305967	01/24/23 13:59	01/24/23 13:59	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

Sample ID: B1-S	Lab ID: 477976-007	Collected: 01/20/23 10:52
	Matrix: Air	

477976-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**8.2**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**90**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	4.0	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1-Difluoroethane	ND		ug/m3	11	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Freon 12	**1.3**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Freon 12	**6.2**		ug/m3	4.0	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Freon 114	**0.81**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Freon 114	**5.7**		ug/m3	5.6	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Chloromethane	**2.2**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Chloromethane	**4.6**		ug/m3	1.7	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Vinyl Chloride	**3.6**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Vinyl Chloride	**9.2**		ug/m3	2.0	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Bromomethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Bromomethane	ND		ug/m3	3.1	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Chloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Chloroethane	ND		ug/m3	2.1	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Trichlorofluoromethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Trichlorofluoromethane	ND		ug/m3	4.5	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1-Dichloroethene	**3.0**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1-Dichloroethene	**12**		ug/m3	3.2	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Freon 113	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Freon 113	ND		ug/m3	6.1	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Acetone	ND		ppbv	4.0	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Acetone	ND		ug/m3	9.5	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Carbon Disulfide	**6.5**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Carbon Disulfide	**20**		ug/m3	2.5	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Isopropanol (IPA)	ND		ppbv	4.0	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Isopropanol (IPA)	ND		ug/m3	9.8	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Methylene Chloride	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Methylene Chloride	ND		ug/m3	2.8	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
trans-1,2-Dichloroethene	**9.8**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
trans-1,2-Dichloroethene	**39**		ug/m3	3.2	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
MTBE	**31**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
MTBE	**110**		ug/m3	2.9	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
n-Hexane	**8.7**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**31**		ug/m3	2.8	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1-Dichloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1-Dichloroethane	ND		ug/m3	3.2	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Vinyl Acetate	ND		ppbv	4.0	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Vinyl Acetate	ND		ug/m3	14	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
cis-1,2-Dichloroethene	**50**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
cis-1,2-Dichloroethene	**200**		ug/m3	3.2	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
2-Butanone	ND		ppbv	4.0	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
2-Butanone	ND		ug/m3	12	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Chloroform	**1.9**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Chloroform	**9.4**		ug/m3	3.9	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	4.4	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Carbon Tetrachloride	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Carbon Tetrachloride	ND		ug/m3	5.0	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Benzene	**2.6**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Benzene	**8.3**		ug/m3	2.6	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2-Dichloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2-Dichloroethane	ND		ug/m3	3.2	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Trichloroethene	**30**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Trichloroethene	**160**		ug/m3	4.3	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2-Dichloropropane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2-Dichloropropane	ND		ug/m3	3.7	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Bromodichloromethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Bromodichloromethane	ND		ug/m3	5.4	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	3.6	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	3.3	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Toluene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Toluene	ND		ug/m3	3.0	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	3.6	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	4.4	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Tetrachloroethene	**16**		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Tetrachloroethene	**110**		ug/m3	5.4	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
2-Hexanone	ND		ppbv	2.0	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
2-Hexanone	ND		ug/m3	8.2	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Dibromochloromethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Dibromochloromethane	ND		ug/m3	6.8	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2-Dibromoethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2-Dibromoethane	ND		ug/m3	6.1	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Chlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Chlorobenzene	ND		ug/m3	3.7	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Ethylbenzene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 477976

477976-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	3.5	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
m,p-Xylenes	ND		ppbv	1.6	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
m,p-Xylenes	ND		ug/m3	6.9	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
o-Xylene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
o-Xylene	ND		ug/m3	3.5	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Styrene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Styrene	ND		ug/m3	3.4	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Bromoform	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Bromoform	ND		ug/m3	8.3	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	5.5	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	5.5	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
4-Ethyltoluene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
4-Ethyltoluene	ND		ug/m3	3.9	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	3.9	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	3.9	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	4.8	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	4.8	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Benzyl chloride	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Benzyl chloride	ND		ug/m3	4.1	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	4.8	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	5.9	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Hexachlorobutadiene	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Hexachlorobutadiene	ND		ug/m3	8.5	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Xylene (total)	ND		ppbv	0.80	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Xylene (total)	ND		ug/m3	3.5	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	106%		%REC	60-140	4	305967	01/24/23 14:26	01/24/23 14:26	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

Sample ID: B1-D	Lab ID: 477976-008	Collected: 01/20/23 10:58
	Matrix: Air	

477976-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**12**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**85**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	4.0	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1-Difluoroethane	ND		ug/m3	11	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Freon 12	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Freon 12	ND		ug/m3	4.0	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Freon 114	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Freon 114	ND		ug/m3	5.6	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Chloromethane	**6.1**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Chloromethane	**13**		ug/m3	1.7	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Vinyl Chloride	**7.0**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Vinyl Chloride	**18**		ug/m3	2.0	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Bromomethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Bromomethane	ND		ug/m3	3.1	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Chloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Chloroethane	ND		ug/m3	2.1	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Trichlorofluoromethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Trichlorofluoromethane	ND		ug/m3	4.5	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1-Dichloroethene	**3.6**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1-Dichloroethene	**14**		ug/m3	3.2	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Freon 113	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Freon 113	ND		ug/m3	6.1	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Acetone	ND		ppbv	4.0	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Acetone	ND		ug/m3	9.5	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Carbon Disulfide	**48**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Carbon Disulfide	**150**		ug/m3	2.5	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Isopropanol (IPA)	ND		ppbv	4.0	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Isopropanol (IPA)	ND		ug/m3	9.8	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Methylene Chloride	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Methylene Chloride	ND		ug/m3	2.8	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
trans-1,2-Dichloroethene	**5.8**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
trans-1,2-Dichloroethene	**23**		ug/m3	3.2	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
MTBE	**46**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
MTBE	**160**		ug/m3	2.9	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
n-Hexane	**66**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**230**		ug/m3	2.8	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1-Dichloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1-Dichloroethane	ND		ug/m3	3.2	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Vinyl Acetate	ND		ppbv	4.0	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Vinyl Acetate	ND		ug/m3	14	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
cis-1,2-Dichloroethene	**140**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
cis-1,2-Dichloroethene	**570**		ug/m3	3.2	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
2-Butanone	ND		ppbv	4.0	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
2-Butanone	ND		ug/m3	12	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Chloroform	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Chloroform	ND		ug/m3	3.9	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	4.4	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Carbon Tetrachloride	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Carbon Tetrachloride	ND		ug/m3	5.0	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Benzene	**13**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Benzene	**40**		ug/m3	2.6	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2-Dichloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2-Dichloroethane	ND		ug/m3	3.2	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Trichloroethene	**25**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Trichloroethene	**140**		ug/m3	4.3	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2-Dichloropropane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2-Dichloropropane	ND		ug/m3	3.7	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Bromodichloromethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Bromodichloromethane	ND		ug/m3	5.4	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	3.6	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	3.3	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Toluene	**3.5**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Toluene	**13**		ug/m3	3.0	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	3.6	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	4.4	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Tetrachloroethene	**14**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Tetrachloroethene	**98**		ug/m3	5.4	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
2-Hexanone	ND		ppbv	2.0	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
2-Hexanone	ND		ug/m3	8.2	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Dibromochloromethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Dibromochloromethane	ND		ug/m3	6.8	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2-Dibromoethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2-Dibromoethane	ND		ug/m3	6.1	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Chlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Chlorobenzene	ND		ug/m3	3.7	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Ethylbenzene	**1.1**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	**5.0**		ug/m3	3.5	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
m,p-Xylenes	**2.7**		ppbv	1.6	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
m,p-Xylenes	**12**		ug/m3	6.9	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
o-Xylene	**0.82**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
o-Xylene	**3.6**		ug/m3	3.5	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Styrene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Styrene	ND		ug/m3	3.4	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Bromoform	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Bromoform	ND		ug/m3	8.3	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	5.5	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	5.5	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
4-Ethyltoluene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
4-Ethyltoluene	ND		ug/m3	3.9	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	3.9	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	3.9	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	4.8	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	4.8	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Benzyl chloride	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Benzyl chloride	ND		ug/m3	4.1	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	4.8	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	5.9	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Hexachlorobutadiene	ND		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Hexachlorobutadiene	ND		ug/m3	8.5	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Xylene (total)	**3.5**		ppbv	0.80	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Xylene (total)	**15**		ug/m3	3.5	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	107%		%REC	60-140	4	305967	01/24/23 14:54	01/24/23 14:54	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

Sample ID: B2-S	Lab ID: 477976-009	Collected: 01/20/23 11:05
	Matrix: Air	

477976-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**3.9**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**95**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	**11**		ppbv	5.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1-Difluoroethane	**30**		ug/m3	14	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Freon 12	**2.2**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Freon 12	**11**		ug/m3	5.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Freon 114	**1.3**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Freon 114	**9.0**		ug/m3	7.2	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Chloromethane	**1.2**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Chloromethane	**2.6**		ug/m3	2.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Vinyl Chloride	**20**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Vinyl Chloride	**52**		ug/m3	2.6	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Bromomethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Bromomethane	ND		ug/m3	4.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Chloroethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Chloroethane	ND		ug/m3	2.7	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Trichlorofluoromethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Trichlorofluoromethane	ND		ug/m3	5.8	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1-Dichloroethene	**7.0**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1-Dichloroethene	**28**		ug/m3	4.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Freon 113	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Freon 113	ND		ug/m3	7.8	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Acetone	ND		ppbv	5.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Acetone	ND		ug/m3	12	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Carbon Disulfide	**13**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Carbon Disulfide	**41**		ug/m3	3.2	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Isopropanol (IPA)	ND		ppbv	5.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Isopropanol (IPA)	ND		ug/m3	13	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Methylene Chloride	**1.6**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Methylene Chloride	**5.5**		ug/m3	3.6	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
trans-1,2-Dichloroethene	**9.0**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
trans-1,2-Dichloroethene	**36**		ug/m3	4.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
MTBE	**19**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
MTBE	**68**		ug/m3	3.7	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
n-Hexane	**10**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**36**		ug/m3	3.6	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1-Dichloroethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1-Dichloroethane	ND		ug/m3	4.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Vinyl Acetate	ND		ppbv	5.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Vinyl Acetate	ND		ug/m3	18	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
cis-1,2-Dichloroethene	**54**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
cis-1,2-Dichloroethene	**210**		ug/m3	4.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
2-Butanone	ND		ppbv	5.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
2-Butanone	ND		ug/m3	15	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Chloroform	**2.6**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Chloroform	**13**		ug/m3	5.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1,1-Trichloroethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	5.6	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Carbon Tetrachloride	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Carbon Tetrachloride	ND		ug/m3	6.4	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Benzene	**5.7**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Benzene	**18**		ug/m3	3.3	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2-Dichloroethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2-Dichloroethane	ND		ug/m3	4.1	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Trichloroethene	**35**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Trichloroethene	**190**		ug/m3	5.5	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2-Dichloropropane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2-Dichloropropane	ND		ug/m3	4.7	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Bromodichloromethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Bromodichloromethane	ND		ug/m3	6.9	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	4.6	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	4.2	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Toluene	**1.2**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Toluene	**4.5**		ug/m3	3.9	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	4.6	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1,2-Trichloroethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	5.6	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Tetrachloroethene	**26**		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Tetrachloroethene	**170**		ug/m3	6.9	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
2-Hexanone	ND		ppbv	2.6	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
2-Hexanone	ND		ug/m3	10	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Dibromochloromethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Dibromochloromethane	ND		ug/m3	8.7	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2-Dibromoethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2-Dibromoethane	ND		ug/m3	7.9	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Chlorobenzene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Chlorobenzene	ND		ug/m3	4.7	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Ethylbenzene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	4.4	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
m,p-Xylenes	ND		ppbv	2.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
m,p-Xylenes	ND		ug/m3	8.9	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
o-Xylene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
o-Xylene	ND		ug/m3	4.4	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Styrene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Styrene	ND		ug/m3	4.4	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Bromoform	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Bromoform	ND		ug/m3	11	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	7.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	7.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
4-Ethyltoluene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
4-Ethyltoluene	ND		ug/m3	5.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	5.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	5.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,3-Dichlorobenzene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	6.2	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,4-Dichlorobenzene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	6.2	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Benzyl chloride	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Benzyl chloride	ND		ug/m3	5.3	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2-Dichlorobenzene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	6.2	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	7.6	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Hexachlorobutadiene	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Hexachlorobutadiene	ND		ug/m3	11	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Xylene (total)	ND		ppbv	1.0	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Xylene (total)	ND		ug/m3	4.4	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	107%		%REC	60-140	5.1	305967	01/24/23 15:22	01/24/23 15:22	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

Sample ID: B2-D	Lab ID: 477976-010	Collected: 01/20/23 11:10
	Matrix: Air	

477976-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**9.8**		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Oxygen	**1.3**		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Nitrogen	**88**		%v/v	9.0	1.8	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	7.2	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1-Difluoroethane	ND		ug/m3	19	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Freon 12	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Freon 12	ND		ug/m3	7.1	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Freon 114	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Freon 114	ND		ug/m3	10	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Chloromethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Chloromethane	ND		ug/m3	3.0	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Vinyl Chloride	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Vinyl Chloride	ND		ug/m3	3.7	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Bromomethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Bromomethane	ND		ug/m3	5.6	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Chloroethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Chloroethane	ND		ug/m3	3.8	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Trichlorofluoromethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Trichlorofluoromethane	ND		ug/m3	8.1	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1-Dichloroethene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1-Dichloroethene	ND		ug/m3	5.7	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Freon 113	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Freon 113	ND		ug/m3	11	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Acetone	ND		ppbv	7.2	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Acetone	ND		ug/m3	17	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Carbon Disulfide	**1.9**		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Carbon Disulfide	**5.9**		ug/m3	4.5	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Isopropanol (IPA)	ND		ppbv	7.2	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Isopropanol (IPA)	ND		ug/m3	18	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Methylene Chloride	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Methylene Chloride	ND		ug/m3	5.0	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	5.7	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
MTBE	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
MTBE	ND		ug/m3	5.2	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
n-Hexane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	5.1	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1-Dichloroethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1-Dichloroethane	ND		ug/m3	5.8	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Vinyl Acetate	ND		ppbv	7.2	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Vinyl Acetate	ND		ug/m3	25	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
cis-1,2-Dichloroethene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
cis-1,2-Dichloroethene	ND		ug/m3	5.7	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
2-Butanone	ND		ppbv	7.2	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
2-Butanone	ND		ug/m3	21	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Chloroform	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Chloroform	ND		ug/m3	7.0	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1,1-Trichloroethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	7.9	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Carbon Tetrachloride	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Carbon Tetrachloride	ND		ug/m3	9.1	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Benzene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Benzene	ND		ug/m3	4.6	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2-Dichloroethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2-Dichloroethane	ND		ug/m3	5.8	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Trichloroethene	**11**		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Trichloroethene	**62**		ug/m3	7.7	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2-Dichloropropane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2-Dichloropropane	ND		ug/m3	6.7	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Bromodichloromethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Bromodichloromethane	ND		ug/m3	9.6	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	6.5	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	5.9	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Toluene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Toluene	ND		ug/m3	5.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	6.5	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1,2-Trichloroethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	7.9	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Tetrachloroethene	**240**		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Tetrachloroethene	**1,600**		ug/m3	9.8	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
2-Hexanone	ND		ppbv	3.6	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
2-Hexanone	ND		ug/m3	15	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Dibromochloromethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Dibromochloromethane	ND		ug/m3	12	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2-Dibromoethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2-Dibromoethane	ND		ug/m3	11	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Chlorobenzene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Chlorobenzene	ND		ug/m3	6.6	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Ethylbenzene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	6.3	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
m,p-Xylenes	ND		ppbv	2.9	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
m,p-Xylenes	ND		ug/m3	13	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
o-Xylene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
o-Xylene	ND		ug/m3	6.3	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Styrene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Styrene	ND		ug/m3	6.1	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Bromoform	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Bromoform	ND		ug/m3	15	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	9.9	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	9.9	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
4-Ethyltoluene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
4-Ethyltoluene	ND		ug/m3	7.1	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	7.1	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	7.1	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,3-Dichlorobenzene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	8.7	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,4-Dichlorobenzene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	8.7	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Benzyl chloride	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Benzyl chloride	ND		ug/m3	7.5	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2-Dichlorobenzene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	8.7	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	11	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Hexachlorobutadiene	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Hexachlorobutadiene	ND		ug/m3	15	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Xylene (total)	ND		ppbv	1.4	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Xylene (total)	ND		ug/m3	6.3	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	101%		%REC	60-140	7.2	305967	01/24/23 15:48	01/24/23 15:48	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

Sample ID: C1-S	Lab ID: 477976-011	Collected: 01/20/23 12:46
	Matrix: Air	

477976-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**0.39**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	**14**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**85**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1-Difluoroethane	ND		ug/m3	4.3	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Freon 12	**0.45**		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Freon 12	**2.2**		ug/m3	1.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Freon 114	**1.0**		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Freon 114	**7.0**		ug/m3	2.2	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Chloromethane	**1.3**		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Chloromethane	**2.7**		ug/m3	0.66	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Vinyl Chloride	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Vinyl Chloride	ND		ug/m3	0.82	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Bromomethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Bromomethane	ND		ug/m3	1.2	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Chloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Chloroethane	ND		ug/m3	0.84	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Trichlorofluoromethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Trichlorofluoromethane	ND		ug/m3	1.8	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1-Dichloroethene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1-Dichloroethene	ND		ug/m3	1.3	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Freon 113	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Freon 113	ND		ug/m3	2.5	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Acetone	**4.4**		ppbv	1.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Acetone	**10**		ug/m3	3.8	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Carbon Disulfide	**4.1**		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Carbon Disulfide	**13**		ug/m3	1.0	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Isopropanol (IPA)	**2.3**		ppbv	1.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Isopropanol (IPA)	**5.7**		ug/m3	3.9	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Methylene Chloride	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Methylene Chloride	ND		ug/m3	1.1	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	1.3	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
MTBE	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
MTBE	ND		ug/m3	1.2	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
n-Hexane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	1.1	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1-Dichloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1-Dichloroethane	ND		ug/m3	1.3	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Vinyl Acetate	ND		ppbv	1.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Vinyl Acetate	ND		ug/m3	5.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
cis-1,2-Dichloroethene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
cis-1,2-Dichloroethene	ND		ug/m3	1.3	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
2-Butanone	ND		ppbv	1.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
2-Butanone	ND		ug/m3	4.7	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Chloroform	**1.6**		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Chloroform	**8.0**		ug/m3	1.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	1.7	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Carbon Tetrachloride	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Carbon Tetrachloride	ND		ug/m3	2.0	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Benzene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Benzene	ND		ug/m3	1.0	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2-Dichloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2-Dichloroethane	ND		ug/m3	1.3	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Trichloroethene	**6.0**		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Trichloroethene	**32**		ug/m3	1.7	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2-Dichloropropane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2-Dichloropropane	ND		ug/m3	1.5	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Bromodichloromethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Bromodichloromethane	ND		ug/m3	2.1	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	1.3	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Toluene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Toluene	ND		ug/m3	1.2	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	1.7	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Tetrachloroethene	**16**		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Tetrachloroethene	**110**		ug/m3	2.2	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
2-Hexanone	ND		ppbv	0.80	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
2-Hexanone	ND		ug/m3	3.3	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Dibromochloromethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Dibromochloromethane	ND		ug/m3	2.7	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2-Dibromoethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2-Dibromoethane	ND		ug/m3	2.5	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Chlorobenzene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Chlorobenzene	ND		ug/m3	1.5	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Ethylbenzene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 477976

477976-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.4	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
m,p-Xylenes	ND		ppbv	0.64	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
m,p-Xylenes	ND		ug/m3	2.8	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
o-Xylene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
o-Xylene	ND		ug/m3	1.4	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Styrene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Styrene	ND		ug/m3	1.4	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Bromoform	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Bromoform	ND		ug/m3	3.3	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
4-Ethyltoluene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
4-Ethyltoluene	ND		ug/m3	1.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	1.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	1.6	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	1.9	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	1.9	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Benzyl chloride	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Benzyl chloride	ND		ug/m3	1.7	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	1.9	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	2.4	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Hexachlorobutadiene	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Hexachlorobutadiene	ND		ug/m3	3.4	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Xylene (total)	ND		ppbv	0.32	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Xylene (total)	ND		ug/m3	1.4	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	105%		%REC	60-140	1.6	305967	01/24/23 16:21	01/24/23 16:21	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

Sample ID: C1-D	Lab ID: 477976-012	Collected: 01/20/23 12:52
	Matrix: Air	

477976-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**6.2**		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Oxygen	**1.1**		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Nitrogen	**90**		%v/v	9.0	1.8	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	4.5	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1-Difluoroethane	ND		ug/m3	12	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Freon 12	**1.1**		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Freon 12	**5.3**		ug/m3	4.5	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Freon 114	**4.2**		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Freon 114	**29**		ug/m3	6.3	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Chloromethane	**1.6**		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Chloromethane	**3.3**		ug/m3	1.9	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Vinyl Chloride	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Vinyl Chloride	ND		ug/m3	2.3	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Bromomethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Bromomethane	ND		ug/m3	3.5	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Chloroethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Chloroethane	ND		ug/m3	2.4	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Trichlorofluoromethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Trichlorofluoromethane	ND		ug/m3	5.1	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1-Dichloroethene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1-Dichloroethene	ND		ug/m3	3.6	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Freon 113	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Freon 113	ND		ug/m3	6.9	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Acetone	**5.2**		ppbv	4.5	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Acetone	**12**		ug/m3	11	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Carbon Disulfide	**18**		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Carbon Disulfide	**57**		ug/m3	2.8	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Isopropanol (IPA)	ND		ppbv	4.5	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Isopropanol (IPA)	ND		ug/m3	11	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Methylene Chloride	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Methylene Chloride	ND		ug/m3	3.1	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
trans-1,2-Dichloroethene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
trans-1,2-Dichloroethene	ND		ug/m3	3.6	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
MTBE	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
MTBE	ND		ug/m3	3.2	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
n-Hexane	**1.6**		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**5.5**		ug/m3	3.2	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1-Dichloroethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1-Dichloroethane	ND		ug/m3	3.6	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Vinyl Acetate	ND		ppbv	4.5	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Vinyl Acetate	ND		ug/m3	16	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
cis-1,2-Dichloroethene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
cis-1,2-Dichloroethene	ND		ug/m3	3.6	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
2-Butanone	ND		ppbv	4.5	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
2-Butanone	ND		ug/m3	13	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Chloroform	**2.8**		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Chloroform	**14**		ug/m3	4.4	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1,1-Trichloroethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1,1-Trichloroethane	ND		ug/m3	4.9	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Carbon Tetrachloride	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Carbon Tetrachloride	ND		ug/m3	5.7	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Benzene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Benzene	ND		ug/m3	2.9	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2-Dichloroethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2-Dichloroethane	ND		ug/m3	3.6	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Trichloroethene	**110**		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Trichloroethene	**590**		ug/m3	4.8	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2-Dichloropropane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2-Dichloropropane	ND		ug/m3	4.2	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Bromodichloromethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Bromodichloromethane	ND		ug/m3	6.0	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
cis-1,3-Dichloropropene	ND		ug/m3	4.1	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
4-Methyl-2-Pentanone	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
4-Methyl-2-Pentanone	ND		ug/m3	3.7	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Toluene	**1.6**		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Toluene	**5.9**		ug/m3	3.4	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
trans-1,3-Dichloropropene	ND		ug/m3	4.1	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1,2-Trichloroethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1,2-Trichloroethane	ND		ug/m3	4.9	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Tetrachloroethene	**180**		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Tetrachloroethene	**1,200**		ug/m3	6.1	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
2-Hexanone	ND		ppbv	2.3	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
2-Hexanone	ND		ug/m3	9.2	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Dibromochloromethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Dibromochloromethane	ND		ug/m3	7.7	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2-Dibromoethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2-Dibromoethane	ND		ug/m3	6.9	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Chlorobenzene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Chlorobenzene	ND		ug/m3	4.1	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Ethylbenzene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	3.9	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
m,p-Xylenes	ND		ppbv	1.8	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
m,p-Xylenes	ND		ug/m3	7.8	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
o-Xylene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
o-Xylene	ND		ug/m3	3.9	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Styrene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Styrene	ND		ug/m3	3.8	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Bromoform	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Bromoform	ND		ug/m3	9.3	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	6.2	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	6.2	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
4-Ethyltoluene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
4-Ethyltoluene	ND		ug/m3	4.4	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	4.4	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2,4-Trimethylbenzene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2,4-Trimethylbenzene	ND		ug/m3	4.4	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,3-Dichlorobenzene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,3-Dichlorobenzene	ND		ug/m3	5.4	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,4-Dichlorobenzene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,4-Dichlorobenzene	ND		ug/m3	5.4	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Benzyl chloride	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Benzyl chloride	ND		ug/m3	4.7	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2-Dichlorobenzene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2-Dichlorobenzene	ND		ug/m3	5.4	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	6.7	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Hexachlorobutadiene	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Hexachlorobutadiene	ND		ug/m3	9.6	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Xylene (total)	ND		ppbv	0.90	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Xylene (total)	ND		ug/m3	3.9	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL
Surrogates				**Limits**					
Bromofluorobenzene	102%		%REC	60-140	4.5	305967	01/24/23 16:49	01/24/23 16:49	DJL

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 477976

Sample ID: D1-S	**Lab ID: 477976-013**	**Collected: 01/20/23 10:28**
	Matrix: Air	

477976-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**3.8**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	**14**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**82**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	2.6	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1-Difluoroethane	ND		ug/m3	6.9	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Freon 12	**0.55**		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Freon 12	**2.7**		ug/m3	2.5	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Freon 114	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Freon 114	ND		ug/m3	3.6	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Chloromethane	**0.84**		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Chloromethane	**1.7**		ug/m3	1.1	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Vinyl Chloride	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Vinyl Chloride	ND		ug/m3	1.3	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Bromomethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Bromomethane	ND		ug/m3	2.0	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Chloroethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Chloroethane	ND		ug/m3	1.4	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Trichlorofluoromethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Trichlorofluoromethane	ND		ug/m3	2.9	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1-Dichloroethene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1-Dichloroethene	ND		ug/m3	2.0	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Freon 113	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Freon 113	ND		ug/m3	3.9	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Acetone	ND		ppbv	2.6	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Acetone	ND		ug/m3	6.1	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Carbon Disulfide	**0.96**		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Carbon Disulfide	**3.0**		ug/m3	1.6	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Isopropanol (IPA)	**3.2**		ppbv	2.6	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Isopropanol (IPA)	**7.8**		ug/m3	6.3	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Methylene Chloride	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Methylene Chloride	ND		ug/m3	1.8	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
trans-1,2-Dichloroethene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
trans-1,2-Dichloroethene	ND		ug/m3	2.0	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
MTBE	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
MTBE	ND		ug/m3	1.8	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
n-Hexane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	1.8	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1-Dichloroethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1-Dichloroethane	ND		ug/m3	2.1	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Vinyl Acetate	ND		ppbv	2.6	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Vinyl Acetate	ND		ug/m3	9.0	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
cis-1,2-Dichloroethene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
cis-1,2-Dichloroethene	ND		ug/m3	2.0	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
2-Butanone	ND		ppbv	2.6	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
2-Butanone	ND		ug/m3	7.5	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Chloroform	**0.57**		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Chloroform	**2.8**		ug/m3	2.5	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1,1-Trichloroethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.8	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Carbon Tetrachloride	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Carbon Tetrachloride	ND		ug/m3	3.2	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Benzene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Benzene	ND		ug/m3	1.6	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2-Dichloroethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2-Dichloroethane	ND		ug/m3	2.1	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Trichloroethene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Trichloroethene	ND		ug/m3	2.8	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2-Dichloropropane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2-Dichloropropane	ND		ug/m3	2.4	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Bromodichloromethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Bromodichloromethane	ND		ug/m3	3.4	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
cis-1,3-Dichloropropene	ND		ug/m3	2.3	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
4-Methyl-2-Pentanone	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
4-Methyl-2-Pentanone	ND		ug/m3	2.1	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Toluene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Toluene	ND		ug/m3	1.9	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
trans-1,3-Dichloropropene	ND		ug/m3	2.3	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1,2-Trichloroethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.8	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Tetrachloroethene	**74**		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Tetrachloroethene	**500**		ug/m3	3.5	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
2-Hexanone	ND		ppbv	1.3	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
2-Hexanone	ND		ug/m3	5.2	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Dibromochloromethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Dibromochloromethane	ND		ug/m3	4.4	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2-Dibromoethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2-Dibromoethane	ND		ug/m3	3.9	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Chlorobenzene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Chlorobenzene	ND		ug/m3	2.4	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Ethylbenzene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	2.2	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
m,p-Xylenes	ND		ppbv	1.0	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
m,p-Xylenes	ND		ug/m3	4.4	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
o-Xylene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
o-Xylene	ND		ug/m3	2.2	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Styrene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Styrene	ND		ug/m3	2.2	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Bromoform	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Bromoform	ND		ug/m3	5.3	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	3.5	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	3.5	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
4-Ethyltoluene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
4-Ethyltoluene	ND		ug/m3	2.5	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	2.5	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2,4-Trimethylbenzene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2,4-Trimethylbenzene	ND		ug/m3	2.5	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,3-Dichlorobenzene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,3-Dichlorobenzene	ND		ug/m3	3.1	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,4-Dichlorobenzene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,4-Dichlorobenzene	ND		ug/m3	3.1	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Benzyl chloride	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Benzyl chloride	ND		ug/m3	2.7	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2-Dichlorobenzene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2-Dichlorobenzene	ND		ug/m3	3.1	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	3.8	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Hexachlorobutadiene	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Hexachlorobutadiene	ND		ug/m3	5.5	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Xylene (total)	ND		ppbv	0.51	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Xylene (total)	ND		ug/m3	2.2	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL
Surrogates				**Limits**					
Bromofluorobenzene	103%		%REC	60-140	2.6	305967	01/24/23 17:18	01/24/23 17:18	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

Sample ID: D1-D	Lab ID: 477976-014	Collected: 01/20/23 10:37
	Matrix: Air	

477976-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**9.4**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	**5.9**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**85**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	8.0	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1-Difluoroethane	ND		ug/m3	22	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Freon 12	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Freon 12	ND		ug/m3	7.9	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Freon 114	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Freon 114	ND		ug/m3	11	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Chloromethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Chloromethane	ND		ug/m3	3.3	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Vinyl Chloride	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Vinyl Chloride	ND		ug/m3	4.1	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Bromomethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Bromomethane	ND		ug/m3	6.2	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Chloroethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Chloroethane	ND		ug/m3	4.2	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Trichlorofluoromethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Trichlorofluoromethane	ND		ug/m3	9.0	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1-Dichloroethene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1-Dichloroethene	ND		ug/m3	6.3	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Freon 113	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Freon 113	ND		ug/m3	12	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Acetone	ND		ppbv	8.0	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Acetone	ND		ug/m3	19	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Carbon Disulfide	**5.5**		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Carbon Disulfide	**17**		ug/m3	5.0	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Isopropanol (IPA)	ND		ppbv	8.0	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Isopropanol (IPA)	ND		ug/m3	20	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Methylene Chloride	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Methylene Chloride	ND		ug/m3	5.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
trans-1,2-Dichloroethene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
trans-1,2-Dichloroethene	ND		ug/m3	6.3	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
MTBE	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
MTBE	ND		ug/m3	5.8	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
n-Hexane	**2.4**		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**8.3**		ug/m3	5.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1-Dichloroethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1-Dichloroethane	ND		ug/m3	6.5	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Vinyl Acetate	ND		ppbv	8.0	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Vinyl Acetate	ND		ug/m3	28	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
cis-1,2-Dichloroethene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
cis-1,2-Dichloroethene	ND		ug/m3	6.3	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
2-Butanone	ND		ppbv	8.0	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
2-Butanone	ND		ug/m3	24	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Chloroform	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Chloroform	ND		ug/m3	7.8	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1,1-Trichloroethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1,1-Trichloroethane	ND		ug/m3	8.7	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Carbon Tetrachloride	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Carbon Tetrachloride	ND		ug/m3	10	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Benzene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Benzene	ND		ug/m3	5.1	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2-Dichloroethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2-Dichloroethane	ND		ug/m3	6.5	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Trichloroethene	**14**		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Trichloroethene	**75**		ug/m3	8.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2-Dichloropropane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2-Dichloropropane	ND		ug/m3	7.4	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Bromodichloromethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Bromodichloromethane	ND		ug/m3	11	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
cis-1,3-Dichloropropene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
cis-1,3-Dichloropropene	ND		ug/m3	7.3	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
4-Methyl-2-Pentanone	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
4-Methyl-2-Pentanone	ND		ug/m3	6.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Toluene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Toluene	ND		ug/m3	6.0	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
trans-1,3-Dichloropropene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
trans-1,3-Dichloropropene	ND		ug/m3	7.3	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1,2-Trichloroethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1,2-Trichloroethane	ND		ug/m3	8.7	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Tetrachloroethene	**300**		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Tetrachloroethene	**2,100**		ug/m3	11	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
2-Hexanone	ND		ppbv	4.0	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
2-Hexanone	ND		ug/m3	16	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Dibromochloromethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Dibromochloromethane	ND		ug/m3	14	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2-Dibromoethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2-Dibromoethane	ND		ug/m3	12	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Chlorobenzene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Chlorobenzene	ND		ug/m3	7.4	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Ethylbenzene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	6.9	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
m,p-Xylenes	ND		ppbv	3.2	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
m,p-Xylenes	ND		ug/m3	14	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
o-Xylene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
o-Xylene	ND		ug/m3	6.9	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Styrene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Styrene	ND		ug/m3	6.8	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Bromoform	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Bromoform	ND		ug/m3	17	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	11	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	11	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
4-Ethyltoluene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
4-Ethyltoluene	ND		ug/m3	7.9	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,3,5-Trimethylbenzene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	7.9	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2,4-Trimethylbenzene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2,4-Trimethylbenzene	ND		ug/m3	7.9	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,3-Dichlorobenzene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,3-Dichlorobenzene	ND		ug/m3	9.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,4-Dichlorobenzene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,4-Dichlorobenzene	ND		ug/m3	9.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Benzyl chloride	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Benzyl chloride	ND		ug/m3	8.3	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2-Dichlorobenzene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2-Dichlorobenzene	ND		ug/m3	9.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2,4-Trichlorobenzene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	12	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Hexachlorobutadiene	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Hexachlorobutadiene	ND		ug/m3	17	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Xylene (total)	ND		ppbv	1.6	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Xylene (total)	ND		ug/m3	6.9	8	305967	01/24/23 17:44	01/24/23 17:44	DJL
Surrogates				**Limits**					
Bromofluorobenzene	101%		%REC	60-140	8	305967	01/24/23 17:44	01/24/23 17:44	DJL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

Sample ID: D2-S	Lab ID: 477976-015	Collected: 01/20/23 12:28
	Matrix: Air	

477976-015 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**3.4**		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Oxygen	**3.7**		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.18	1.8	305939	01/23/23	01/23/23	JLL
Nitrogen	**92**		%v/v	9.0	1.8	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1-Difluoroethane	ND		ug/m3	4.9	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Freon 12	**1.2**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Freon 12	**5.7**		ug/m3	1.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Freon 114	**2.2**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Freon 114	**15**		ug/m3	2.5	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Chloromethane	**2.5**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Chloromethane	**5.2**		ug/m3	0.74	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Vinyl Chloride	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Vinyl Chloride	ND		ug/m3	0.92	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Bromomethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Bromomethane	ND		ug/m3	1.4	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Chloroethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Chloroethane	ND		ug/m3	0.95	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Trichlorofluoromethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Trichlorofluoromethane	ND		ug/m3	2.0	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1-Dichloroethene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1-Dichloroethene	ND		ug/m3	1.4	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Freon 113	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Freon 113	ND		ug/m3	2.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Acetone	**10**		ppbv	1.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Acetone	**25**		ug/m3	4.3	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Carbon Disulfide	**14**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Carbon Disulfide	**43**		ug/m3	1.1	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Isopropanol (IPA)	**4.2**		ppbv	1.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Isopropanol (IPA)	**10**		ug/m3	4.4	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Methylene Chloride	**0.79**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Methylene Chloride	**2.7**		ug/m3	1.3	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
trans-1,2-Dichloroethene	**1.5**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
trans-1,2-Dichloroethene	**6.1**		ug/m3	1.4	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
MTBE	**26**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
MTBE	**92**		ug/m3	1.3	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
n-Hexane	**0.65**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-015 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**2.3**		ug/m3	1.3	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1-Dichloroethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1-Dichloroethane	ND		ug/m3	1.5	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Vinyl Acetate	ND		ppbv	1.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Vinyl Acetate	ND		ug/m3	6.3	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
cis-1,2-Dichloroethene	**12**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
cis-1,2-Dichloroethene	**46**		ug/m3	1.4	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
2-Butanone	ND		ppbv	1.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
2-Butanone	ND		ug/m3	5.3	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Chloroform	**5.8**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Chloroform	**29**		ug/m3	1.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1,1-Trichloroethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.0	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Carbon Tetrachloride	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Carbon Tetrachloride	ND		ug/m3	2.3	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Benzene	**0.45**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Benzene	**1.4**		ug/m3	1.2	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2-Dichloroethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2-Dichloroethane	ND		ug/m3	1.5	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Trichloroethene	**30**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Trichloroethene	**160**		ug/m3	1.9	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2-Dichloropropane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2-Dichloropropane	ND		ug/m3	1.7	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Bromodichloromethane	**0.60**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Bromodichloromethane	**4.1**		ug/m3	2.4	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
4-Methyl-2-Pentanone	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
4-Methyl-2-Pentanone	ND		ug/m3	1.5	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Toluene	**0.60**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Toluene	**2.3**		ug/m3	1.4	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1,2-Trichloroethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.0	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Tetrachloroethene	**18**		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Tetrachloroethene	**120**		ug/m3	2.4	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
2-Hexanone	ND		ppbv	0.90	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
2-Hexanone	ND		ug/m3	3.7	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Dibromochloromethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Dibromochloromethane	ND		ug/m3	3.1	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2-Dibromoethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2-Dibromoethane	ND		ug/m3	2.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Chlorobenzene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Chlorobenzene	ND		ug/m3	1.7	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Ethylbenzene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 477976

477976-015 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.6	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
m,p-Xylenes	ND		ppbv	0.72	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
m,p-Xylenes	ND		ug/m3	3.1	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
o-Xylene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
o-Xylene	ND		ug/m3	1.6	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Styrene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Styrene	ND		ug/m3	1.5	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Bromoform	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Bromoform	ND		ug/m3	3.7	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
4-Ethyltoluene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
4-Ethyltoluene	ND		ug/m3	1.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	1.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2,4-Trimethylbenzene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2,4-Trimethylbenzene	ND		ug/m3	1.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,3-Dichlorobenzene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,3-Dichlorobenzene	ND		ug/m3	2.2	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,4-Dichlorobenzene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,4-Dichlorobenzene	ND		ug/m3	2.2	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Benzyl chloride	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Benzyl chloride	ND		ug/m3	1.9	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2-Dichlorobenzene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2-Dichlorobenzene	ND		ug/m3	2.2	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	2.7	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Hexachlorobutadiene	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Hexachlorobutadiene	ND		ug/m3	3.8	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Xylene (total)	ND		ppbv	0.36	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Xylene (total)	ND		ug/m3	1.6	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL
Surrogates				**Limits**					
Bromofluorobenzene	107%		%REC	60-140	1.8	305967	01/24/23 18:16	01/24/23 18:16	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

Sample ID: D2-D	Lab ID: 477976-016	Collected: 01/20/23 12:39
	Matrix: Air	

477976-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Carbon Dioxide	**7.6**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Oxygen	**5.5**		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Methane	ND		%v/v	0.16	1.6	305939	01/23/23	01/23/23	JLL
Nitrogen	**86**		%v/v	8.0	1.6	305939	01/23/23	01/23/23	JLL
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	8.0	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1-Difluoroethane	ND		ug/m3	22	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Freon 12	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Freon 12	ND		ug/m3	7.9	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Freon 114	**3.5**		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Freon 114	**25**		ug/m3	11	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Chloromethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Chloromethane	ND		ug/m3	3.3	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Vinyl Chloride	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Vinyl Chloride	ND		ug/m3	4.1	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Bromomethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Bromomethane	ND		ug/m3	6.2	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Chloroethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Chloroethane	ND		ug/m3	4.2	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Trichlorofluoromethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Trichlorofluoromethane	ND		ug/m3	9.0	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1-Dichloroethene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1-Dichloroethene	ND		ug/m3	6.3	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Freon 113	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Freon 113	ND		ug/m3	12	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Acetone	ND		ppbv	8.0	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Acetone	ND		ug/m3	19	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Carbon Disulfide	**2.6**		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Carbon Disulfide	**8.0**		ug/m3	5.0	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Isopropanol (IPA)	ND		ppbv	8.0	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Isopropanol (IPA)	ND		ug/m3	20	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Methylene Chloride	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Methylene Chloride	ND		ug/m3	5.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
trans-1,2-Dichloroethene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
trans-1,2-Dichloroethene	ND		ug/m3	6.3	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
MTBE	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
MTBE	ND		ug/m3	5.8	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
n-Hexane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 477976

477976-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	5.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1-Dichloroethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1-Dichloroethane	ND		ug/m3	6.5	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Vinyl Acetate	ND		ppbv	8.0	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Vinyl Acetate	ND		ug/m3	28	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
cis-1,2-Dichloroethene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
cis-1,2-Dichloroethene	ND		ug/m3	6.3	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
2-Butanone	ND		ppbv	8.0	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
2-Butanone	ND		ug/m3	24	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Chloroform	**2.4**		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Chloroform	**12**		ug/m3	7.8	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1,1-Trichloroethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1,1-Trichloroethane	ND		ug/m3	8.7	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Carbon Tetrachloride	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Carbon Tetrachloride	ND		ug/m3	10	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Benzene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Benzene	ND		ug/m3	5.1	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2-Dichloroethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2-Dichloroethane	ND		ug/m3	6.5	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Trichloroethene	**250**		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Trichloroethene	**1,300**		ug/m3	8.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2-Dichloropropane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2-Dichloropropane	ND		ug/m3	7.4	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Bromodichloromethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Bromodichloromethane	ND		ug/m3	11	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
cis-1,3-Dichloropropene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
cis-1,3-Dichloropropene	ND		ug/m3	7.3	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
4-Methyl-2-Pentanone	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
4-Methyl-2-Pentanone	ND		ug/m3	6.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Toluene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Toluene	ND		ug/m3	6.0	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
trans-1,3-Dichloropropene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
trans-1,3-Dichloropropene	ND		ug/m3	7.3	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1,2-Trichloroethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1,2-Trichloroethane	ND		ug/m3	8.7	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Tetrachloroethene	**190**		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Tetrachloroethene	**1,300**		ug/m3	11	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
2-Hexanone	ND		ppbv	4.0	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
2-Hexanone	ND		ug/m3	16	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Dibromochloromethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Dibromochloromethane	ND		ug/m3	14	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2-Dibromoethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2-Dibromoethane	ND		ug/m3	12	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Chlorobenzene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Chlorobenzene	ND		ug/m3	7.4	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Ethylbenzene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 477976

477976-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	6.9	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
m,p-Xylenes	ND		ppbv	3.2	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
m,p-Xylenes	ND		ug/m3	14	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
o-Xylene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
o-Xylene	ND		ug/m3	6.9	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Styrene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Styrene	ND		ug/m3	6.8	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Bromoform	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Bromoform	ND		ug/m3	17	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	11	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	11	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
4-Ethyltoluene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
4-Ethyltoluene	ND		ug/m3	7.9	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,3,5-Trimethylbenzene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	7.9	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2,4-Trimethylbenzene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2,4-Trimethylbenzene	ND		ug/m3	7.9	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,3-Dichlorobenzene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,3-Dichlorobenzene	ND		ug/m3	9.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,4-Dichlorobenzene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,4-Dichlorobenzene	ND		ug/m3	9.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Benzyl chloride	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Benzyl chloride	ND		ug/m3	8.3	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2-Dichlorobenzene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2-Dichlorobenzene	ND		ug/m3	9.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2,4-Trichlorobenzene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	12	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Hexachlorobutadiene	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Hexachlorobutadiene	ND		ug/m3	17	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Xylene (total)	ND		ppbv	1.6	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Xylene (total)	ND		ug/m3	6.9	8	305967	01/24/23 18:43	01/24/23 18:43	DJL
Surrogates				**Limits**					
Bromofluorobenzene	101%		%REC	60-140	8	305967	01/24/23 18:43	01/24/23 18:43	DJL

ND Not Detected

Results for any subcontracted analyses are not included in this section.

Batch QC

Type: Lab Control Sample	Lab ID: QC1040591	Batch: 305939
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC1040591 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Carbon Monoxide	4.722	5.000	%v/v	94%		85-115
Carbon Dioxide	4.714	5.000	%v/v	94%		85-115
Oxygen	3.487	3.500	%v/v	100%		85-115
Methane	4.665	5.000	%v/v	93%		85-115
Nitrogen	5.298	5.000	%v/v	106%		85-115

Type: Lab Control Sample Duplicate	Lab ID: QC1040592	Batch: 305939
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC1040592 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
Carbon Monoxide	4.714	5.000	%v/v	94%		85-115	0	10
Carbon Dioxide	4.722	5.000	%v/v	94%		85-115	0	10
Oxygen	3.529	3.500	%v/v	101%		85-115	1	10
Methane	4.692	5.000	%v/v	94%		85-115	1	10
Nitrogen	5.316	5.000	%v/v	106%		85-115	0	10

Type: Blank	Lab ID: QC1040593	Batch: 305939
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC1040593 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Carbon Monoxide	ND		%v/v	0.10	01/23/23	01/23/23
Carbon Dioxide	ND		%v/v	0.10	01/23/23	01/23/23
Oxygen	ND		%v/v	0.10	01/23/23	01/23/23
Methane	ND		%v/v	0.10	01/23/23	01/23/23
Nitrogen	ND		%v/v	5.0	01/23/23	01/23/23

Type: Sample Duplicate	Lab ID: QC1040594	Batch: 305939
Matrix (Source ID): Air (477976-001)	Method: ASTM D1946	Prep Method: METHOD

QC1040594 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Carbon Monoxide	ND	ND	%v/v			20	1.6
Carbon Dioxide	1.250	1.241	%v/v		1	20	1.6
Oxygen	ND	ND	%v/v			20	1.6
Methane	ND	ND	%v/v			20	1.6
Nitrogen	96.22	96.65	%v/v		0	20	1.6

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Batch QC

Type:	**Sample Duplicate**	**Lab ID:**	**QC1040595**	**Batch:**	**305939**
Matrix (Source ID):	**Air (477976-011)**	**Method:**	**ASTM D1946**	**Prep Method:**	**METHOD**

QC1040595 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Carbon Monoxide	ND	ND	%v/v			20	1.6
Carbon Dioxide	0.3984	0.3938	%v/v		1	20	1.6
Oxygen	14.32	14.38	%v/v		0	20	1.6
Methane	ND	ND	%v/v			20	1.6
Nitrogen	84.10	84.61	%v/v		1	20	1.6

Batch QC

Type: Lab Control Sample	Lab ID: QC1040641	Batch: 305967
Matrix: Air	Method: EPA TO-15	Prep Method: METHOD

QC1040641 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Difluoroethane	9.713	10.00	ppbv	97%		70-130
Freon 12	10.86	10.00	ppbv	109%		70-130
Freon 114	10.68	10.00	ppbv	107%		70-130
Chloromethane	9.564	10.00	ppbv	96%		70-130
Vinyl Chloride	9.742	10.00	ppbv	97%		70-130
Bromomethane	10.08	10.00	ppbv	101%		70-130
Chloroethane	9.583	10.00	ppbv	96%		70-130
Trichlorofluoromethane	10.42	10.00	ppbv	104%		70-130
1,1-Dichloroethene	9.345	10.00	ppbv	93%		70-130
Freon 113	9.963	10.00	ppbv	100%		70-130
Acetone	9.145	10.00	ppbv	91%		70-130
Carbon Disulfide	9.616	10.00	ppbv	96%		70-130
Isopropanol (IPA)	9.415	10.00	ppbv	94%		70-130
Methylene Chloride	8.507	10.00	ppbv	85%		70-130
trans-1,2-Dichloroethene	9.562	10.00	ppbv	96%		70-130
MTBE	9.119	10.00	ppbv	91%		70-130
n-Hexane	9.663	10.00	ppbv	97%		70-130
1,1-Dichloroethane	9.562	10.00	ppbv	96%		70-130
Vinyl Acetate	7.226	10.00	ppbv	72%		70-130
cis-1,2-Dichloroethene	9.375	10.00	ppbv	94%		70-130
2-Butanone	9.447	10.00	ppbv	94%		70-130
Chloroform	9.761	10.00	ppbv	98%		70-130
1,1,1-Trichloroethane	10.53	10.00	ppbv	105%		70-130
Carbon Tetrachloride	10.53	10.00	ppbv	105%		70-130
Benzene	9.477	10.00	ppbv	95%		70-130
1,2-Dichloroethane	9.626	10.00	ppbv	96%		70-130
Trichloroethene	10.16	10.00	ppbv	102%		70-130
1,2-Dichloropropane	9.233	10.00	ppbv	92%		70-130
Bromodichloromethane	10.14	10.00	ppbv	101%		70-130
cis-1,3-Dichloropropene	10.67	10.00	ppbv	107%		70-130
4-Methyl-2-Pentanone	9.907	10.00	ppbv	99%		70-130
Toluene	10.19	10.00	ppbv	102%		70-130
trans-1,3-Dichloropropene	11.23	10.00	ppbv	112%		70-130
1,1,2-Trichloroethane	10.03	10.00	ppbv	100%		70-130
Tetrachloroethene	10.18	10.00	ppbv	102%		70-130
2-Hexanone	9.909	10.00	ppbv	99%		70-130
Dibromochloromethane	11.48	10.00	ppbv	115%		70-130
1,2-Dibromoethane	10.38	10.00	ppbv	104%		70-130
Chlorobenzene	10.10	10.00	ppbv	101%		70-130
Ethylbenzene	10.36	10.00	ppbv	104%		70-130
m,p-Xylenes	21.79	20.00	ppbv	109%		70-130
o-Xylene	10.84	10.00	ppbv	108%		70-130

ENTHALPY ANALYTICAL

Batch QC

QC1040641 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Styrene	11.00	10.00	ppbv	110%		70-130
Bromoform	14.21	10.00	ppbv	142%	b,*	70-130
1,1,2,2-Tetrachloroethane	10.05	10.00	ppbv	101%		70-130
1,1,1,2-Tetrachloroethane	10.74	10.00	ppbv	107%		70-130
4-Ethyltoluene	11.11	10.00	ppbv	111%		70-130
1,3,5-Trimethylbenzene	11.19	10.00	ppbv	112%		70-130
1,2,4-Trimethylbenzene	11.49	10.00	ppbv	115%		70-130
1,3-Dichlorobenzene	10.72	10.00	ppbv	107%		70-130
1,4-Dichlorobenzene	10.84	10.00	ppbv	108%		70-130
Benzyl chloride	13.62	10.00	ppbv	136%	b,*	70-130
1,2-Dichlorobenzene	10.77	10.00	ppbv	108%		70-130
1,2,4-Trichlorobenzene	12.05	10.00	ppbv	120%		70-130
Hexachlorobutadiene	11.61	10.00	ppbv	116%		70-130
Surrogates						
Bromofluorobenzene	10.60	10.00	ppbv	106%		60-140

Batch QC

Type:	Lab Control Sample Duplicate	Lab ID:	QC1040642	Batch:	305967
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1040642 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Difluoroethane	9.729	10.00	ppbv	97%		70-130	0	25
Freon 12	10.73	10.00	ppbv	107%		70-130	1	25
Freon 114	10.81	10.00	ppbv	108%		70-130	1	25
Chloromethane	9.648	10.00	ppbv	96%		70-130	1	25
Vinyl Chloride	9.945	10.00	ppbv	99%		70-130	2	25
Bromomethane	10.15	10.00	ppbv	101%		70-130	1	25
Chloroethane	9.741	10.00	ppbv	97%		70-130	2	25
Trichlorofluoromethane	10.45	10.00	ppbv	104%		70-130	0	25
1,1-Dichloroethene	9.653	10.00	ppbv	97%		70-130	3	25
Freon 113	10.07	10.00	ppbv	101%		70-130	1	25
Acetone	9.273	10.00	ppbv	93%		70-130	1	25
Carbon Disulfide	9.740	10.00	ppbv	97%		70-130	1	25
Isopropanol (IPA)	9.565	10.00	ppbv	96%		70-130	2	25
Methylene Chloride	8.559	10.00	ppbv	86%		70-130	1	25
trans-1,2-Dichloroethene	9.600	10.00	ppbv	96%		70-130	0	25
MTBE	9.210	10.00	ppbv	92%		70-130	1	25
n-Hexane	9.705	10.00	ppbv	97%		70-130	0	25
1,1-Dichloroethane	9.606	10.00	ppbv	96%		70-130	0	25
Vinyl Acetate	7.439	10.00	ppbv	74%		70-130	3	25
cis-1,2-Dichloroethene	9.391	10.00	ppbv	94%		70-130	0	25
2-Butanone	9.566	10.00	ppbv	96%		70-130	1	25
Chloroform	9.890	10.00	ppbv	99%		70-130	1	25
1,1,1-Trichloroethane	10.48	10.00	ppbv	105%		70-130	0	25
Carbon Tetrachloride	10.54	10.00	ppbv	105%		70-130	0	25
Benzene	9.613	10.00	ppbv	96%		70-130	1	25
1,2-Dichloroethane	9.618	10.00	ppbv	96%		70-130	0	25
Trichloroethene	10.24	10.00	ppbv	102%		70-130	1	25
1,2-Dichloropropane	9.266	10.00	ppbv	93%		70-130	0	25
Bromodichloromethane	10.21	10.00	ppbv	102%		70-130	1	25
cis-1,3-Dichloropropene	10.86	10.00	ppbv	109%		70-130	2	25
4-Methyl-2-Pentanone	10.10	10.00	ppbv	101%		70-130	2	25
Toluene	10.34	10.00	ppbv	103%		70-130	1	25
trans-1,3-Dichloropropene	11.35	10.00	ppbv	114%		70-130	1	25
1,1,2-Trichloroethane	10.17	10.00	ppbv	102%		70-130	1	25
Tetrachloroethene	10.26	10.00	ppbv	103%		70-130	1	25
2-Hexanone	9.964	10.00	ppbv	100%		70-130	1	25
Dibromochloromethane	11.49	10.00	ppbv	115%		70-130	0	25
1,2-Dibromoethane	10.47	10.00	ppbv	105%		70-130	1	25
Chlorobenzene	10.06	10.00	ppbv	101%		70-130	0	25
Ethylbenzene	10.36	10.00	ppbv	104%		70-130	0	25
m,p-Xylenes	21.86	20.00	ppbv	109%		70-130	0	25

Batch QC

QC1040642 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
o-Xylene	10.83	10.00	ppbv	108%		70-130	0	25
Styrene	11.00	10.00	ppbv	110%		70-130	0	25
Bromoform	14.13	10.00	ppbv	141%	b,*	70-130	1	25
1,1,2,2-Tetrachloroethane	10.03	10.00	ppbv	100%		70-130	0	25
1,1,1,2-Tetrachloroethane	10.68	10.00	ppbv	107%		70-130	1	25
4-Ethyltoluene	11.19	10.00	ppbv	112%		70-130	1	25
1,3,5-Trimethylbenzene	11.18	10.00	ppbv	112%		70-130	0	25
1,2,4-Trimethylbenzene	11.48	10.00	ppbv	115%		70-130	0	25
1,3-Dichlorobenzene	10.61	10.00	ppbv	106%		70-130	1	25
1,4-Dichlorobenzene	10.77	10.00	ppbv	108%		70-130	1	25
Benzyl chloride	13.65	10.00	ppbv	136%	b,*	70-130	0	25
1,2-Dichlorobenzene	10.77	10.00	ppbv	108%		70-130	0	25
1,2,4-Trichlorobenzene	12.11	10.00	ppbv	121%		70-130	0	25
Hexachlorobutadiene	11.64	10.00	ppbv	116%		70-130	0	25
Surrogates								
Bromofluorobenzene	10.51	10.00	ppbv	105%		60-140		

ENTHALPY ANALYTICAL

Batch QC

Type:	Blank	Lab ID:	QC1040643	Batch:	305967
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1040643 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,1-Difluoroethane	ND		ppbv	1.0	01/24/23 11:01	01/24/23 11:01
Freon 12	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Freon 114	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Chloromethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Vinyl Chloride	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Bromomethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Chloroethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Trichlorofluoromethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,1-Dichloroethene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Freon 113	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Acetone	ND		ppbv	1.0	01/24/23 11:01	01/24/23 11:01
Carbon Disulfide	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Isopropanol (IPA)	ND		ppbv	1.0	01/24/23 11:01	01/24/23 11:01
Methylene Chloride	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
trans-1,2-Dichloroethene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
MTBE	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
n-Hexane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,1-Dichloroethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Vinyl Acetate	ND		ppbv	1.0	01/24/23 11:01	01/24/23 11:01
cis-1,2-Dichloroethene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
2-Butanone	ND		ppbv	1.0	01/24/23 11:01	01/24/23 11:01
Chloroform	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,1,1-Trichloroethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Carbon Tetrachloride	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Benzene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,2-Dichloroethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Trichloroethene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,2-Dichloropropane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Bromodichloromethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
cis-1,3-Dichloropropene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
4-Methyl-2-Pentanone	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Toluene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
trans-1,3-Dichloropropene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,1,2-Trichloroethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Tetrachloroethene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
2-Hexanone	ND		ppbv	0.50	01/24/23 11:01	01/24/23 11:01
Dibromochloromethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,2-Dibromoethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Chlorobenzene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Ethylbenzene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
m,p-Xylenes	ND		ppbv	0.40	01/24/23 11:01	01/24/23 11:01
o-Xylene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01

Batch QC

QC1040643 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Styrene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Bromoform	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
4-Ethyltoluene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,3,5-Trimethylbenzene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,2,4-Trimethylbenzene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,3-Dichlorobenzene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,4-Dichlorobenzene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Benzyl chloride	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,2-Dichlorobenzene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
1,2,4-Trichlorobenzene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Hexachlorobutadiene	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Xylene (total)	ND		ppbv	0.20	01/24/23 11:01	01/24/23 11:01
Surrogates				**Limits**		
Bromofluorobenzene	103%		%REC	60-140	01/24/23 11:01	01/24/23 11:01

*	Value is outside QC limits
ND	Not Detected
b	See narrative

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number:	478887
Report Level:	II
Report Date:	02/13/2023

Analytical Report *prepared for:*

Jeff Sieg
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Location: Walker Group, 2750 Bristol St., Costa Mesa, CA

Authorized for release by:

Jim Lin, Service Center Manager
Jim.lin@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Jeff Sieg		Lab Job #:	478887
SCS Engineers - Long Beach		Location:	Walker Group, 2750 Bristol St., Costa Mesa, CA
3900 Kilroy Airport Way			
Suite 100		Date Received:	02/06/23
Long Beach, CA 90806			

Sample ID	Lab ID	Collected	Matrix
B2-S	478887-001	02/03/23 10:00	Air
B2-D	478887-002	02/03/23 10:10	Air
B1-S	478887-003	02/03/23 10:25	Air
B1-D	478887-004	02/03/23 10:40	Air
D1-S	478887-005	02/03/23 11:00	Air
D1-D	478887-006	02/03/23 11:15	Air
C1-S	478887-007	02/03/23 11:45	Air
C1-D	478887-008	02/03/23 11:30	Air
A1-S	478887-009	02/03/23 12:00	Air
A1-D	478887-010	02/03/23 12:15	Air
D2-S	478887-011	02/03/23 12:35	Air
D2-D	478887-012	02/03/23 12:45	Air
A3-S	478887-013	02/03/23 13:00	Air
A3-D	478887-014	02/03/23 13:15	Air
A2-S	478887-015	02/03/23 13:25	Air
A2-D	478887-016	02/03/23 13:35	Air

Case Narrative

SCS Engineers - Long Beach 3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806 Jeff Sieg	Lab Job Number: Location: Date Received:	478887 Walker Group, 2750 Bristol St., Costa Mesa, CA 02/06/23

This data package contains sample and QC results for sixteen air samples, requested for the above referenced project on 02/06/23. The samples were received intact.

Volatile Organics in Air by MS (EPA TO-15):

- High responses were observed for benzyl chloride and bromoform in the CCV analyzed 02/09/23 10:43; affected data was qualified with "b".
- High recoveries were observed for benzyl chloride and bromoform in the BS/BSD for batch 307149; the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated sample.
- A3-S (lab # 478887-013), A2-S (lab # 478887-015), and A2-D (lab # 478887-016) were diluted due to high non-target analytes.
- No other analytical problems were encountered.

Volatile Organics in Air GC (ASTM D1946):

No analytical problems were encountered.

ENTHALPY ANALYTICAL

Enthalpy Analytical - Berkeley

2323 5th Street, Berkeley, CA 94710

Phone 510-486-0900

Air Chain of Custody Record

Lab No: 478887

Page: 1 of 2

Turn Around Time (rush by advanced notice only)

Standard:		5 Day:	X	3 Day:	
2 Day:		1 Day:		Custom TAT:	

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS Engineers	Name:	Walker Group
Report To:	Jeff Sieg	Number:	01222204.00 +1
Email:	jsieg@scsengineers.com	P.O. #:	
Address:	3900 Kilroy Airport Way Long Beach, CA 90806	Address:	2780 Bristol St Costa Mesa
Phone:	562-426-9544	Global ID:	
Fax:		Sampled By:	

Special Instructions:

	Sample ID	Source: (I) Indoor (A) Ambient (SV) Soil Vapor	Equipment Information: Canister ID	Size (6L or 1L)	Flow Controller ID	Sampling Information: Sample Start Date	Sample Start Time	Vacuum Start ("Hg)	Sample End Date	Sample End Time	Vacuum End ("Hg)	Analysis Requested: TO-15 full scan	ASTM D1946	Methane + Fixed Gases
1	B2-S	SV		1L		2/3/23		28	2/3/23	10:00	0	X	X	
2	B2-D									10:10		X	X	
3	B1-S									10:25		X	X	
4	B1-D									10:40		X	X	
5	D1-S									11:00		X	X	
6	D1-D									11:15		X	X	
7	C1-S									11:45		X	X	
8	C1-D									11:30		X	X	
9	A1-S									12:00		X	X	
10	A1-D									12:15		X	X	

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:	Lance Weaver	Lance Weaver	SCS Engineers / tech	2/6/23
[1] Received By:	[illegible]	G Gawat	EA	2.6.23 1130
[2] Relinquished By:	[illegible]	G Gawat	EA	2.6.23 1220
[2] Received By:	[illegible]	NLuo	BA	2-6-23 1220
[3] Relinquished By:				

ENTHALPY ANALYTICAL

Enthalpy Analytical - Berkeley
2323 5th Street, Berkeley, CA 94710
Phone 510-486-0900

Air Chain of Custody Record

Lab No: 478887
Page: 2 of 2

Turn Around Time (rush by advanced notice only)

Standard:		5 Day:	X	3 Day:	
2 Day:		1 Day:		Custom TAT:	

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	SCS Engineers	Name:	Walker Graf
Report To:	Jeff Sieg	Number:	01222-204.00 +1
Email:	JSieg@scsengineers.com	P.O. #:	
Address:	3900 Kilroy Airport Way Long Beach, CA 90806	Address:	2250 Bristol St. CM
Phone:	562-426-9544	Global ID:	
Fax:		Sampled By:	Lance Wenn

Special Instructions:

	Sample ID	Source (I) Indoor (A) Ambient (SV) Soil Vapor	Canister ID	Size (6L or 1L)	Flow Controller ID	Sample Start Date	Sample Start Time	Vacuum Start ("Hg)	Sample End Date	Sample End Time	Vacuum End ("Hg)	TO-15 Fullscan	ASTM D1946	Methane + fixed gases							
1	D2-S	SV		1L		2/3/23		28	2/3/23	1:35	0	X	X								
2	D2-D									12:45		X	X								
3	A3-S									1:00		X	X								
4	A3-D									1:15		X	X								
5	A2-S									1:25		X	X								
6	A2-D									1:35		X	X								
7																					
8																					
9																					
10																					

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Lance Wenn	SCS Engineers / Tech	2/6/23
1 Received By:	[signature]	G Gawat	EA	2.6.23 1130
2 Relinquished By:	[signature]	G Gawat	EA	2.6.23 1220
2 Received By:	[signature]	W Vuk	EA	2-6-23 1200
3 Relinquished By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: SCS Engineers - Long Beach   Project: Walker Group

Date Received: 2/6/23   Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☐ Yes, How many? ______ ☑ No (skip section 2)   Sample Temp (°C) (No Cooler): AMB

Sample Temp (°C), One from each cooler: #1: ________ #2: ________ #3: ________ #4: ________

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: ________

Section 3

Was the cooler packed with: ☐ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other________

Cooler Temp (°C): #1: ________ #2: ________ #3: ________ #4: ________

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials:______ Date/Time__________

☐ Email (email sent to/on):______/__________

Project Manager's response:

Completed By: [signature]   Date: 2-6-23

ENTHALPY ANALYTICAL

Analysis Results for 478887

Jeff Sieg
SCS Engineers - Long Beach
3900 Kilroy Airport Way
Suite 100
Long Beach, CA 90806

Lab Job #: 478887
Location: Walker Group, 2750 Bristol St., Costa Mesa, CA
Date Received: 02/06/23

Sample ID: B2-S **Lab ID: 478887-001** **Collected: 02/03/23 10:00**
Matrix: Air

478887-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**9.6**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	**1.4**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**89**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	7.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1-Difluoroethane	ND		ug/m3	20	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Freon 12	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Freon 12	ND		ug/m3	7.4	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Freon 114	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Freon 114	ND		ug/m3	10	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Chloromethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Chloromethane	ND		ug/m3	3.1	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Vinyl Chloride	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Vinyl Chloride	ND		ug/m3	3.8	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Bromomethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Bromomethane	ND		ug/m3	5.8	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Chloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Chloroethane	ND		ug/m3	4.0	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Trichlorofluoromethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Trichlorofluoromethane	ND		ug/m3	8.4	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1-Dichloroethene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1-Dichloroethene	ND		ug/m3	5.9	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Freon 113	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Freon 113	ND		ug/m3	11	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Acetone	ND		ppbv	7.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Acetone	ND		ug/m3	18	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Carbon Disulfide	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Carbon Disulfide	ND		ug/m3	4.7	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Isopropanol (IPA)	ND		ppbv	7.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Isopropanol (IPA)	ND		ug/m3	18	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Methylene Chloride	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Methylene Chloride	ND		ug/m3	5.2	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	5.9	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
MTBE	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
MTBE	ND		ug/m3	5.4	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
n-Hexane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
n-Hexane	ND		ug/m3	5.3	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1-Dichloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1-Dichloroethane	ND		ug/m3	6.1	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Vinyl Acetate	ND		ppbv	7.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Vinyl Acetate	ND		ug/m3	26	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
cis-1,2-Dichloroethene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
cis-1,2-Dichloroethene	ND		ug/m3	5.9	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
2-Butanone	ND		ppbv	7.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
2-Butanone	ND		ug/m3	22	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Chloroform	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Chloroform	ND		ug/m3	7.3	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1,1-Trichloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	8.2	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Carbon Tetrachloride	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Carbon Tetrachloride	ND		ug/m3	9.4	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Benzene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Benzene	ND		ug/m3	4.8	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2-Dichloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2-Dichloroethane	ND		ug/m3	6.1	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Trichloroethene	**10**		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Trichloroethene	**56**		ug/m3	8.1	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2-Dichloropropane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2-Dichloropropane	ND		ug/m3	6.9	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Bromodichloromethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Bromodichloromethane	ND		ug/m3	10	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	6.8	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	6.1	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Toluene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Toluene	ND		ug/m3	5.7	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	6.8	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1,2-Trichloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	8.2	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Tetrachloroethene	**210**		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Tetrachloroethene	**1,400**		ug/m3	10	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
2-Hexanone	ND		ppbv	3.8	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
2-Hexanone	ND		ug/m3	15	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Dibromochloromethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/m3	13	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2-Dibromoethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2-Dibromoethane	ND		ug/m3	12	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Chlorobenzene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Chlorobenzene	ND		ug/m3	6.9	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Ethylbenzene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Ethylbenzene	ND		ug/m3	6.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
m,p-Xylenes	ND		ppbv	3.0	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
m,p-Xylenes	ND		ug/m3	13	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
o-Xylene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
o-Xylene	ND		ug/m3	6.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Styrene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Styrene	ND		ug/m3	6.4	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Bromoform	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Bromoform	ND		ug/m3	16	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	10	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	10	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
4-Ethyltoluene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
4-Ethyltoluene	ND		ug/m3	7.4	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	7.4	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	7.4	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,3-Dichlorobenzene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	9.0	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,4-Dichlorobenzene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	9.0	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Benzyl chloride	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Benzyl chloride	ND		ug/m3	7.8	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2-Dichlorobenzene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	9.0	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	11	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Hexachlorobutadiene	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Hexachlorobutadiene	ND		ug/m3	16	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Xylene (total)	ND		ppbv	1.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Xylene (total)	ND		ug/m3	6.5	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	96%		%REC	60-140	7.5	307148	02/09/23 15:17	02/09/23 15:17	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

Sample ID: B2-D	Lab ID: 478887-002	Collected: 02/03/23 10:10
	Matrix: Air	

478887-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**4.4**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**94**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.5	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1-Difluoroethane	ND		ug/m3	4.1	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Freon 12	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Freon 12	ND		ug/m3	1.5	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Freon 114	**1.6**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Freon 114	**12**		ug/m3	2.1	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Chloromethane	**1.0**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Chloromethane	**2.1**		ug/m3	0.62	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Vinyl Chloride	**14**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Vinyl Chloride	**36**		ug/m3	0.77	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Bromomethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Bromomethane	ND		ug/m3	1.2	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Chloroethane	**0.38**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Chloroethane	**1.0**		ug/m3	0.79	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Trichlorofluoromethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Trichlorofluoromethane	ND		ug/m3	1.7	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1-Dichloroethene	**4.6**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1-Dichloroethene	**18**		ug/m3	1.2	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Freon 113	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Freon 113	ND		ug/m3	2.3	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Acetone	ND		ppbv	1.5	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Acetone	ND		ug/m3	3.6	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Carbon Disulfide	**5.7**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Carbon Disulfide	**18**		ug/m3	0.93	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Isopropanol (IPA)	**3.3**		ppbv	1.5	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Isopropanol (IPA)	**8.0**		ug/m3	3.7	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Methylene Chloride	**1.0**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Methylene Chloride	**3.6**		ug/m3	1.0	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
trans-1,2-Dichloroethene	**9.4**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
trans-1,2-Dichloroethene	**37**		ug/m3	1.2	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
MTBE	**12**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
MTBE	**45**		ug/m3	1.1	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
n-Hexane	**4.6**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**16**		ug/m3	1.1	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1-Dichloroethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1-Dichloroethane	ND		ug/m3	1.2	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Vinyl Acetate	ND		ppbv	1.5	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Vinyl Acetate	ND		ug/m3	5.3	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
cis-1,2-Dichloroethene	**57**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
cis-1,2-Dichloroethene	**230**		ug/m3	1.2	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
2-Butanone	ND		ppbv	1.5	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
2-Butanone	ND		ug/m3	4.4	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Chloroform	**1.8**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Chloroform	**8.9**		ug/m3	1.5	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	1.6	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Carbon Tetrachloride	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Carbon Tetrachloride	ND		ug/m3	1.9	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Benzene	**4.6**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Benzene	**15**		ug/m3	0.96	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2-Dichloroethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2-Dichloroethane	ND		ug/m3	1.2	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Trichloroethene	**29**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Trichloroethene	**160**		ug/m3	1.6	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2-Dichloropropane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2-Dichloropropane	ND		ug/m3	1.4	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Bromodichloromethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Bromodichloromethane	ND		ug/m3	2.0	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	1.2	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Toluene	**0.84**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Toluene	**3.2**		ug/m3	1.1	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	1.6	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Tetrachloroethene	**20**		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Tetrachloroethene	**140**		ug/m3	2.0	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
2-Hexanone	ND		ppbv	0.75	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
2-Hexanone	ND		ug/m3	3.1	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Dibromochloromethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Dibromochloromethane	ND		ug/m3	2.6	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2-Dibromoethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2-Dibromoethane	ND		ug/m3	2.3	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Chlorobenzene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Chlorobenzene	ND		ug/m3	1.4	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Ethylbenzene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 478887

478887-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.3	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
m,p-Xylenes	ND		ppbv	0.60	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
m,p-Xylenes	ND		ug/m3	2.6	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
o-Xylene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
o-Xylene	ND		ug/m3	1.3	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Styrene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Styrene	ND		ug/m3	1.3	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Bromoform	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Bromoform	ND		ug/m3	3.1	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
4-Ethyltoluene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
4-Ethyltoluene	ND		ug/m3	1.5	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	1.5	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	1.5	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Benzyl chloride	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Benzyl chloride	ND		ug/m3	1.6	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	2.2	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Hexachlorobutadiene	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Hexachlorobutadiene	ND		ug/m3	3.2	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Xylene (total)	ND		ppbv	0.30	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Xylene (total)	ND		ug/m3	1.3	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	96%		%REC	60-140	1.5	307148	02/10/23 03:56	02/10/23 03:56	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 478887

Sample ID: B1-S	Lab ID: 478887-003	Collected: 02/03/23 10:25
	Matrix: Air	

478887-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**8.1**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**89**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.5	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1-Difluoroethane	ND		ug/m3	4.1	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Freon 12	**0.52**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Freon 12	**2.6**		ug/m3	1.5	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Freon 114	**1.1**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Freon 114	**7.5**		ug/m3	2.1	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Chloromethane	**1.5**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Chloromethane	**3.1**		ug/m3	0.62	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Vinyl Chloride	**2.0**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Vinyl Chloride	**5.0**		ug/m3	0.77	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Bromomethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Bromomethane	ND		ug/m3	1.2	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Chloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Chloroethane	ND		ug/m3	0.79	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Trichlorofluoromethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Trichlorofluoromethane	ND		ug/m3	1.7	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1-Dichloroethene	**1.5**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1-Dichloroethene	**6.1**		ug/m3	1.2	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Freon 113	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Freon 113	ND		ug/m3	2.3	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Acetone	ND		ppbv	1.5	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Acetone	ND		ug/m3	3.6	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Carbon Disulfide	**3.7**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Carbon Disulfide	**12**		ug/m3	0.93	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Isopropanol (IPA)	**1.8**		ppbv	1.5	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Isopropanol (IPA)	**4.4**		ug/m3	3.7	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Methylene Chloride	**0.37**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Methylene Chloride	**1.3**		ug/m3	1.0	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
trans-1,2-Dichloroethene	**9.4**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
trans-1,2-Dichloroethene	**37**		ug/m3	1.2	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
MTBE	**24**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
MTBE	**88**		ug/m3	1.1	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
n-Hexane	**2.9**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**10**		ug/m3	1.1	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1-Dichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1-Dichloroethane	ND		ug/m3	1.2	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Vinyl Acetate	ND		ppbv	1.5	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Vinyl Acetate	ND		ug/m3	5.3	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
cis-1,2-Dichloroethene	**40**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
cis-1,2-Dichloroethene	**160**		ug/m3	1.2	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
2-Butanone	ND		ppbv	1.5	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
2-Butanone	ND		ug/m3	4.4	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Chloroform	**1.3**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Chloroform	**6.2**		ug/m3	1.5	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	1.6	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Carbon Tetrachloride	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Carbon Tetrachloride	ND		ug/m3	1.9	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Benzene	**0.78**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Benzene	**2.5**		ug/m3	0.96	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2-Dichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2-Dichloroethane	ND		ug/m3	1.2	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Trichloroethene	**26**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Trichloroethene	**140**		ug/m3	1.6	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2-Dichloropropane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2-Dichloropropane	ND		ug/m3	1.4	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Bromodichloromethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Bromodichloromethane	ND		ug/m3	2.0	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	1.2	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Toluene	**0.46**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Toluene	**1.7**		ug/m3	1.1	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	1.6	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Tetrachloroethene	**13**		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Tetrachloroethene	**87**		ug/m3	2.0	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
2-Hexanone	ND		ppbv	0.75	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
2-Hexanone	ND		ug/m3	3.1	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Dibromochloromethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Dibromochloromethane	ND		ug/m3	2.6	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2-Dibromoethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2-Dibromoethane	ND		ug/m3	2.3	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Chlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Chlorobenzene	ND		ug/m3	1.4	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Ethylbenzene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 478887

478887-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.3	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
m,p-Xylenes	ND		ppbv	0.60	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
m,p-Xylenes	ND		ug/m3	2.6	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
o-Xylene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
o-Xylene	ND		ug/m3	1.3	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Styrene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Styrene	ND		ug/m3	1.3	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Bromoform	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Bromoform	ND		ug/m3	3.1	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
4-Ethyltoluene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
4-Ethyltoluene	ND		ug/m3	1.5	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	1.5	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	1.5	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Benzyl chloride	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Benzyl chloride	ND		ug/m3	1.6	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	2.2	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Hexachlorobutadiene	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Hexachlorobutadiene	ND		ug/m3	3.2	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Xylene (total)	ND		ppbv	0.30	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Xylene (total)	ND		ug/m3	1.3	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	98%		%REC	60-140	1.5	307148	02/09/23 16:50	02/09/23 16:50	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 478887

Sample ID: B1-D	Lab ID: 478887-004	Collected: 02/03/23 10:40
	Matrix: Air	

478887-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**11**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**86**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	5.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1-Difluoroethane	ND		ug/m3	14	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Freon 12	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Freon 12	ND		ug/m3	4.9	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Freon 114	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Freon 114	ND		ug/m3	7.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Chloromethane	**1.2**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Chloromethane	**2.6**		ug/m3	2.1	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Vinyl Chloride	**3.8**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Vinyl Chloride	**9.7**		ug/m3	2.6	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Bromomethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Bromomethane	ND		ug/m3	3.9	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Chloroethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Chloroethane	ND		ug/m3	2.6	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Trichlorofluoromethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Trichlorofluoromethane	ND		ug/m3	5.6	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1-Dichloroethene	**1.3**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1-Dichloroethene	**5.3**		ug/m3	4.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Freon 113	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Freon 113	ND		ug/m3	7.7	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Acetone	ND		ppbv	5.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Acetone	ND		ug/m3	12	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Carbon Disulfide	**6.1**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Carbon Disulfide	**19**		ug/m3	3.1	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Isopropanol (IPA)	ND		ppbv	5.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Isopropanol (IPA)	ND		ug/m3	12	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Methylene Chloride	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Methylene Chloride	ND		ug/m3	3.5	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
trans-1,2-Dichloroethene	**4.1**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
trans-1,2-Dichloroethene	**16**		ug/m3	4.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
MTBE	**37**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
MTBE	**130**		ug/m3	3.6	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
n-Hexane	**46**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**160**		ug/m3	3.5	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1-Dichloroethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1-Dichloroethane	ND		ug/m3	4.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Vinyl Acetate	ND		ppbv	5.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Vinyl Acetate	ND		ug/m3	18	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
cis-1,2-Dichloroethene	**160**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
cis-1,2-Dichloroethene	**620**		ug/m3	4.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
2-Butanone	ND		ppbv	5.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
2-Butanone	ND		ug/m3	15	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Chloroform	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Chloroform	ND		ug/m3	4.9	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1,1-Trichloroethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	5.5	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Carbon Tetrachloride	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Carbon Tetrachloride	ND		ug/m3	6.3	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Benzene	**11**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Benzene	**36**		ug/m3	3.2	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2-Dichloroethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2-Dichloroethane	ND		ug/m3	4.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Trichloroethene	**21**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Trichloroethene	**110**		ug/m3	5.4	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2-Dichloropropane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2-Dichloropropane	ND		ug/m3	4.6	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Bromodichloromethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Bromodichloromethane	ND		ug/m3	6.7	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	4.5	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	4.1	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Toluene	**2.8**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Toluene	**11**		ug/m3	3.8	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	4.5	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1,2-Trichloroethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	5.5	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Tetrachloroethene	**15**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Tetrachloroethene	**100**		ug/m3	6.8	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
2-Hexanone	ND		ppbv	2.5	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
2-Hexanone	ND		ug/m3	10	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Dibromochloromethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Dibromochloromethane	ND		ug/m3	8.5	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2-Dibromoethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2-Dibromoethane	ND		ug/m3	7.7	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Chlorobenzene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Chlorobenzene	ND		ug/m3	4.6	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Ethylbenzene	**1.1**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 478887

478887-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	**4.8**		ug/m3	4.3	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
m,p-Xylenes	**3.0**		ppbv	2.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
m,p-Xylenes	**13**		ug/m3	8.7	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
o-Xylene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
o-Xylene	ND		ug/m3	4.3	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Styrene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Styrene	ND		ug/m3	4.3	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Bromoform	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Bromoform	ND		ug/m3	10	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	6.9	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	6.9	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
4-Ethyltoluene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
4-Ethyltoluene	ND		ug/m3	4.9	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	4.9	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	4.9	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,3-Dichlorobenzene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	6.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,4-Dichlorobenzene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	6.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Benzyl chloride	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Benzyl chloride	ND		ug/m3	5.2	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2-Dichlorobenzene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	6.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	7.4	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Hexachlorobutadiene	ND		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Hexachlorobutadiene	ND		ug/m3	11	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Xylene (total)	**3.0**		ppbv	1.0	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Xylene (total)	**13**		ug/m3	4.3	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	95%		%REC	60-140	5	307148	02/09/23 17:32	02/09/23 17:32	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 478887

Sample ID: D1-S	Lab ID: 478887-005	Collected: 02/03/23 11:00
	Matrix: Air	

478887-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**3.4**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	**15**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**82**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	2.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1-Difluoroethane	ND		ug/m3	5.4	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Freon 12	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Freon 12	ND		ug/m3	2.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Freon 114	**0.53**		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Freon 114	**3.7**		ug/m3	2.8	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Chloromethane	**0.50**		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Chloromethane	**1.0**		ug/m3	0.83	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Vinyl Chloride	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Vinyl Chloride	ND		ug/m3	1.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Bromomethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Bromomethane	ND		ug/m3	1.6	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Chloroethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Chloroethane	ND		ug/m3	1.1	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Trichlorofluoromethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Trichlorofluoromethane	ND		ug/m3	2.2	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1-Dichloroethene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1-Dichloroethene	ND		ug/m3	1.6	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Freon 113	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Freon 113	ND		ug/m3	3.1	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Acetone	**2.4**		ppbv	2.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Acetone	**5.7**		ug/m3	4.8	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Carbon Disulfide	**0.66**		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Carbon Disulfide	**2.1**		ug/m3	1.2	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Isopropanol (IPA)	ND		ppbv	2.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Isopropanol (IPA)	ND		ug/m3	4.9	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Methylene Chloride	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Methylene Chloride	ND		ug/m3	1.4	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
trans-1,2-Dichloroethene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
trans-1,2-Dichloroethene	ND		ug/m3	1.6	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
MTBE	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
MTBE	ND		ug/m3	1.4	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
n-Hexane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	1.4	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1-Dichloroethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1-Dichloroethane	ND		ug/m3	1.6	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Vinyl Acetate	ND		ppbv	2.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Vinyl Acetate	ND		ug/m3	7.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
cis-1,2-Dichloroethene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
cis-1,2-Dichloroethene	ND		ug/m3	1.6	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
2-Butanone	ND		ppbv	2.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
2-Butanone	ND		ug/m3	5.9	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Chloroform	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Chloroform	ND		ug/m3	2.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1,1-Trichloroethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.2	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Carbon Tetrachloride	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Carbon Tetrachloride	ND		ug/m3	2.5	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Benzene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Benzene	ND		ug/m3	1.3	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2-Dichloroethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2-Dichloroethane	ND		ug/m3	1.6	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Trichloroethene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Trichloroethene	ND		ug/m3	2.1	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2-Dichloropropane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2-Dichloropropane	ND		ug/m3	1.8	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Bromodichloromethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Bromodichloromethane	ND		ug/m3	2.7	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.8	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
4-Methyl-2-Pentanone	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
4-Methyl-2-Pentanone	ND		ug/m3	1.6	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Toluene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Toluene	ND		ug/m3	1.5	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.8	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1,2-Trichloroethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.2	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Tetrachloroethene	**60**		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Tetrachloroethene	**400**		ug/m3	2.7	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
2-Hexanone	ND		ppbv	1.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
2-Hexanone	ND		ug/m3	4.1	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Dibromochloromethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Dibromochloromethane	ND		ug/m3	3.4	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2-Dibromoethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2-Dibromoethane	ND		ug/m3	3.1	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Chlorobenzene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Chlorobenzene	ND		ug/m3	1.8	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Ethylbenzene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 478887

478887-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.7	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
m,p-Xylenes	ND		ppbv	0.80	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
m,p-Xylenes	ND		ug/m3	3.5	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
o-Xylene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
o-Xylene	ND		ug/m3	1.7	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Styrene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Styrene	ND		ug/m3	1.7	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Bromoform	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Bromoform	ND		ug/m3	4.1	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.7	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.7	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
4-Ethyltoluene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
4-Ethyltoluene	ND		ug/m3	2.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	2.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2,4-Trimethylbenzene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2,4-Trimethylbenzene	ND		ug/m3	2.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,3-Dichlorobenzene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,3-Dichlorobenzene	ND		ug/m3	2.4	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,4-Dichlorobenzene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,4-Dichlorobenzene	ND		ug/m3	2.4	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Benzyl chloride	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Benzyl chloride	ND		ug/m3	2.1	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2-Dichlorobenzene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2-Dichlorobenzene	ND		ug/m3	2.4	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	3.0	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Hexachlorobutadiene	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Hexachlorobutadiene	ND		ug/m3	4.3	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Xylene (total)	ND		ppbv	0.40	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Xylene (total)	ND		ug/m3	1.7	2	307148	02/09/23 18:18	02/09/23 18:18	DJL
Surrogates				**Limits**					
Bromofluorobenzene	97%		%REC	60-140	2	307148	02/09/23 18:18	02/09/23 18:18	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

Sample ID: D1-D	Lab ID: 478887-006	Collected: 02/03/23 11:15
	Matrix: Air	

478887-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**8.3**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	**7.2**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**84**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	7.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1-Difluoroethane	ND		ug/m3	20	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Freon 12	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Freon 12	ND		ug/m3	7.4	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Freon 114	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Freon 114	ND		ug/m3	10	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Chloromethane	**6.6**		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Chloromethane	**14**		ug/m3	3.1	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Vinyl Chloride	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Vinyl Chloride	ND		ug/m3	3.8	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Bromomethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Bromomethane	ND		ug/m3	5.8	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Chloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Chloroethane	ND		ug/m3	4.0	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Trichlorofluoromethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Trichlorofluoromethane	ND		ug/m3	8.4	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1-Dichloroethene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1-Dichloroethene	ND		ug/m3	5.9	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Freon 113	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Freon 113	ND		ug/m3	11	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Acetone	**12**		ppbv	7.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Acetone	**30**		ug/m3	18	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Carbon Disulfide	**65**		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Carbon Disulfide	**200**		ug/m3	4.7	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Isopropanol (IPA)	ND		ppbv	7.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Isopropanol (IPA)	ND		ug/m3	18	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Methylene Chloride	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Methylene Chloride	ND		ug/m3	5.2	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
trans-1,2-Dichloroethene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
trans-1,2-Dichloroethene	ND		ug/m3	5.9	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
MTBE	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
MTBE	ND		ug/m3	5.4	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
n-Hexane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	5.3	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1-Dichloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1-Dichloroethane	ND		ug/m3	6.1	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Vinyl Acetate	ND		ppbv	7.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Vinyl Acetate	ND		ug/m3	26	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
cis-1,2-Dichloroethene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
cis-1,2-Dichloroethene	ND		ug/m3	5.9	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
2-Butanone	ND		ppbv	7.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
2-Butanone	ND		ug/m3	22	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Chloroform	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Chloroform	ND		ug/m3	7.3	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1,1-Trichloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1,1-Trichloroethane	ND		ug/m3	8.2	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Carbon Tetrachloride	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Carbon Tetrachloride	ND		ug/m3	9.4	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Benzene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Benzene	ND		ug/m3	4.8	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2-Dichloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2-Dichloroethane	ND		ug/m3	6.1	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Trichloroethene	**8.5**		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Trichloroethene	**45**		ug/m3	8.1	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2-Dichloropropane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2-Dichloropropane	ND		ug/m3	6.9	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Bromodichloromethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Bromodichloromethane	ND		ug/m3	10	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
cis-1,3-Dichloropropene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
cis-1,3-Dichloropropene	ND		ug/m3	6.8	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
4-Methyl-2-Pentanone	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
4-Methyl-2-Pentanone	ND		ug/m3	6.1	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Toluene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Toluene	ND		ug/m3	5.7	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
trans-1,3-Dichloropropene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
trans-1,3-Dichloropropene	ND		ug/m3	6.8	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1,2-Trichloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1,2-Trichloroethane	ND		ug/m3	8.2	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Tetrachloroethene	**230**		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Tetrachloroethene	**1,600**		ug/m3	10	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
2-Hexanone	ND		ppbv	3.8	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
2-Hexanone	ND		ug/m3	15	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Dibromochloromethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Dibromochloromethane	ND		ug/m3	13	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2-Dibromoethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2-Dibromoethane	ND		ug/m3	12	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Chlorobenzene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Chlorobenzene	ND		ug/m3	6.9	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Ethylbenzene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 478887

478887-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	6.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
m,p-Xylenes	ND		ppbv	3.0	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
m,p-Xylenes	ND		ug/m3	13	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
o-Xylene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
o-Xylene	ND		ug/m3	6.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Styrene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Styrene	ND		ug/m3	6.4	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Bromoform	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Bromoform	ND		ug/m3	16	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	10	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	10	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
4-Ethyltoluene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
4-Ethyltoluene	ND		ug/m3	7.4	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,3,5-Trimethylbenzene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	7.4	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2,4-Trimethylbenzene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	7.4	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,3-Dichlorobenzene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,3-Dichlorobenzene	ND		ug/m3	9.0	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,4-Dichlorobenzene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,4-Dichlorobenzene	ND		ug/m3	9.0	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Benzyl chloride	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Benzyl chloride	ND		ug/m3	7.8	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2-Dichlorobenzene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2-Dichlorobenzene	ND		ug/m3	9.0	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2,4-Trichlorobenzene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	11	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Hexachlorobutadiene	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Hexachlorobutadiene	ND		ug/m3	16	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Xylene (total)	ND		ppbv	1.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Xylene (total)	ND		ug/m3	6.5	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC
Surrogates				**Limits**					
Bromofluorobenzene	97%		%REC	60-140	7.5	307148	02/09/23 18:59	02/09/23 18:59	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

Sample ID: C1-S	Lab ID: 478887-007	Collected: 02/03/23 11:45
	Matrix: Air	

478887-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**0.70**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	**14**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**83**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.5	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1-Difluoroethane	ND		ug/m3	4.1	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Freon 12	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Freon 12	ND		ug/m3	1.5	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Freon 114	**0.88**		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Freon 114	**6.1**		ug/m3	2.1	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Chloromethane	**1.2**		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Chloromethane	**2.5**		ug/m3	0.62	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Vinyl Chloride	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Vinyl Chloride	ND		ug/m3	0.77	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Bromomethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Bromomethane	ND		ug/m3	1.2	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Chloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Chloroethane	ND		ug/m3	0.79	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Trichlorofluoromethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Trichlorofluoromethane	ND		ug/m3	1.7	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1-Dichloroethene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1-Dichloroethene	ND		ug/m3	1.2	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Freon 113	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Freon 113	ND		ug/m3	2.3	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Acetone	**5.2**		ppbv	1.5	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Acetone	**12**		ug/m3	3.6	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Carbon Disulfide	**1.2**		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Carbon Disulfide	**3.9**		ug/m3	0.93	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Isopropanol (IPA)	**2.3**		ppbv	1.5	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Isopropanol (IPA)	**5.5**		ug/m3	3.7	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Methylene Chloride	**0.49**		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Methylene Chloride	**1.7**		ug/m3	1.0	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
trans-1,2-Dichloroethene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
trans-1,2-Dichloroethene	ND		ug/m3	1.2	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
MTBE	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
MTBE	ND		ug/m3	1.1	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
n-Hexane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	1.1	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1-Dichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1-Dichloroethane	ND		ug/m3	1.2	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Vinyl Acetate	ND		ppbv	1.5	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Vinyl Acetate	ND		ug/m3	5.3	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
cis-1,2-Dichloroethene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
cis-1,2-Dichloroethene	ND		ug/m3	1.2	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
2-Butanone	ND		ppbv	1.5	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
2-Butanone	ND		ug/m3	4.4	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Chloroform	**1.8**		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Chloroform	**8.8**		ug/m3	1.5	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1,1-Trichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1,1-Trichloroethane	ND		ug/m3	1.6	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Carbon Tetrachloride	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Carbon Tetrachloride	ND		ug/m3	1.9	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Benzene	**0.52**		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Benzene	**1.7**		ug/m3	0.96	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2-Dichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2-Dichloroethane	ND		ug/m3	1.2	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Trichloroethene	**6.4**		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Trichloroethene	**35**		ug/m3	1.6	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2-Dichloropropane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2-Dichloropropane	ND		ug/m3	1.4	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Bromodichloromethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Bromodichloromethane	ND		ug/m3	2.0	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
4-Methyl-2-Pentanone	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
4-Methyl-2-Pentanone	ND		ug/m3	1.2	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Toluene	**0.56**		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Toluene	**2.1**		ug/m3	1.1	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1,2-Trichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1,2-Trichloroethane	ND		ug/m3	1.6	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Tetrachloroethene	**14**		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Tetrachloroethene	**95**		ug/m3	2.0	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
2-Hexanone	ND		ppbv	0.75	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
2-Hexanone	ND		ug/m3	3.1	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Dibromochloromethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Dibromochloromethane	ND		ug/m3	2.6	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2-Dibromoethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2-Dibromoethane	ND		ug/m3	2.3	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Chlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Chlorobenzene	ND		ug/m3	1.4	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Ethylbenzene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.3	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
m,p-Xylenes	ND		ppbv	0.60	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
m,p-Xylenes	ND		ug/m3	2.6	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
o-Xylene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
o-Xylene	ND		ug/m3	1.3	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Styrene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Styrene	ND		ug/m3	1.3	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Bromoform	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Bromoform	ND		ug/m3	3.1	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
4-Ethyltoluene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
4-Ethyltoluene	ND		ug/m3	1.5	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	1.5	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2,4-Trimethylbenzene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2,4-Trimethylbenzene	ND		ug/m3	1.5	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,3-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,3-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,4-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,4-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Benzyl chloride	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Benzyl chloride	ND		ug/m3	1.6	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	2.2	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Hexachlorobutadiene	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Hexachlorobutadiene	ND		ug/m3	3.2	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Xylene (total)	ND		ppbv	0.30	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Xylene (total)	ND		ug/m3	1.3	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL
Surrogates				**Limits**					
Bromofluorobenzene	100%		%REC	60-140	1.5	307148	02/09/23 19:48	02/09/23 19:48	DJL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 478887

Sample ID: C1-D	Lab ID: 478887-008	Collected: 02/03/23 11:30
	Matrix: Air	

478887-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**5.7**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	**1.4**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**87**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	6.0	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1-Difluoroethane	ND		ug/m3	16	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Freon 12	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Freon 12	ND		ug/m3	5.9	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Freon 114	**3.8**		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Freon 114	**26**		ug/m3	8.4	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Chloromethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Chloromethane	ND		ug/m3	2.5	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Vinyl Chloride	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Vinyl Chloride	ND		ug/m3	3.1	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Bromomethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Bromomethane	ND		ug/m3	4.7	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Chloroethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Chloroethane	ND		ug/m3	3.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Trichlorofluoromethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Trichlorofluoromethane	ND		ug/m3	6.7	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1-Dichloroethene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1-Dichloroethene	ND		ug/m3	4.8	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Freon 113	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Freon 113	ND		ug/m3	9.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Acetone	ND		ppbv	6.0	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Acetone	ND		ug/m3	14	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Carbon Disulfide	**4.1**		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Carbon Disulfide	**13**		ug/m3	3.7	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Isopropanol (IPA)	ND		ppbv	6.0	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Isopropanol (IPA)	ND		ug/m3	15	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Methylene Chloride	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Methylene Chloride	ND		ug/m3	4.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
trans-1,2-Dichloroethene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
trans-1,2-Dichloroethene	ND		ug/m3	4.8	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
MTBE	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
MTBE	ND		ug/m3	4.3	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
n-Hexane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 478887

478887-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	4.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1-Dichloroethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1-Dichloroethane	ND		ug/m3	4.9	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Vinyl Acetate	ND		ppbv	6.0	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Vinyl Acetate	ND		ug/m3	21	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
cis-1,2-Dichloroethene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
cis-1,2-Dichloroethene	ND		ug/m3	4.8	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
2-Butanone	ND		ppbv	6.0	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
2-Butanone	ND		ug/m3	18	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Chloroform	**2.3**		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Chloroform	**11**		ug/m3	5.9	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1,1-Trichloroethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1,1-Trichloroethane	ND		ug/m3	6.5	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Carbon Tetrachloride	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Carbon Tetrachloride	ND		ug/m3	7.5	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Benzene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Benzene	ND		ug/m3	3.8	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2-Dichloroethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2-Dichloroethane	ND		ug/m3	4.9	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Trichloroethene	**100**		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Trichloroethene	**550**		ug/m3	6.4	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2-Dichloropropane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2-Dichloropropane	ND		ug/m3	5.5	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Bromodichloromethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Bromodichloromethane	ND		ug/m3	8.0	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
cis-1,3-Dichloropropene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
cis-1,3-Dichloropropene	ND		ug/m3	5.4	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
4-Methyl-2-Pentanone	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
4-Methyl-2-Pentanone	ND		ug/m3	4.9	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Toluene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Toluene	ND		ug/m3	4.5	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
trans-1,3-Dichloropropene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
trans-1,3-Dichloropropene	ND		ug/m3	5.4	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1,2-Trichloroethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1,2-Trichloroethane	ND		ug/m3	6.5	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Tetrachloroethene	**160**		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Tetrachloroethene	**1,100**		ug/m3	8.1	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
2-Hexanone	ND		ppbv	3.0	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
2-Hexanone	ND		ug/m3	12	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Dibromochloromethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Dibromochloromethane	ND		ug/m3	10	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2-Dibromoethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2-Dibromoethane	ND		ug/m3	9.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Chlorobenzene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Chlorobenzene	ND		ug/m3	5.5	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Ethylbenzene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 478887

478887-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	5.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
m,p-Xylenes	ND		ppbv	2.4	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
m,p-Xylenes	ND		ug/m3	10	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
o-Xylene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
o-Xylene	ND		ug/m3	5.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Styrene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Styrene	ND		ug/m3	5.1	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Bromoform	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Bromoform	ND		ug/m3	12	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	8.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	8.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
4-Ethyltoluene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
4-Ethyltoluene	ND		ug/m3	5.9	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,3,5-Trimethylbenzene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	5.9	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2,4-Trimethylbenzene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	5.9	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,3-Dichlorobenzene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,3-Dichlorobenzene	ND		ug/m3	7.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,4-Dichlorobenzene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,4-Dichlorobenzene	ND		ug/m3	7.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Benzyl chloride	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Benzyl chloride	ND		ug/m3	6.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2-Dichlorobenzene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2-Dichlorobenzene	ND		ug/m3	7.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2,4-Trichlorobenzene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	8.9	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Hexachlorobutadiene	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Hexachlorobutadiene	ND		ug/m3	13	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Xylene (total)	ND		ppbv	1.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Xylene (total)	ND		ug/m3	5.2	6	307148	02/09/23 20:30	02/09/23 20:30	MBC
Surrogates				**Limits**					
Bromofluorobenzene	95%		%REC	60-140	6	307148	02/09/23 20:30	02/09/23 20:30	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

Sample ID: A1-S	Lab ID: 478887-009	Collected: 02/03/23 12:00
	Matrix: Air	

478887-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**0.95**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	**1.8**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**95**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.5	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1-Difluoroethane	ND		ug/m3	4.1	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Freon 12	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Freon 12	ND		ug/m3	1.5	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Freon 114	**1.8**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Freon 114	**13**		ug/m3	2.1	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Chloromethane	**1.3**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Chloromethane	**2.7**		ug/m3	0.62	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Vinyl Chloride	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Vinyl Chloride	ND		ug/m3	0.77	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Bromomethane	**0.33**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Bromomethane	**1.3**		ug/m3	1.2	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Chloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Chloroethane	ND		ug/m3	0.79	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Trichlorofluoromethane	**0.35**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Trichlorofluoromethane	**2.0**		ug/m3	1.7	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1-Dichloroethene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1-Dichloroethene	ND		ug/m3	1.2	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Freon 113	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Freon 113	ND		ug/m3	2.3	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Acetone	ND		ppbv	1.5	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Acetone	ND		ug/m3	3.6	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Carbon Disulfide	**2.0**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Carbon Disulfide	**6.1**		ug/m3	0.93	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Isopropanol (IPA)	**1.5**		ppbv	1.5	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Isopropanol (IPA)	**3.8**		ug/m3	3.7	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Methylene Chloride	**0.49**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Methylene Chloride	**1.7**		ug/m3	1.0	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
trans-1,2-Dichloroethene	**2.8**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
trans-1,2-Dichloroethene	**11**		ug/m3	1.2	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
MTBE	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
MTBE	ND		ug/m3	1.1	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
n-Hexane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	1.1	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1-Dichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1-Dichloroethane	ND		ug/m3	1.2	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Vinyl Acetate	ND		ppbv	1.5	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Vinyl Acetate	ND		ug/m3	5.3	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
cis-1,2-Dichloroethene	**16**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
cis-1,2-Dichloroethene	**65**		ug/m3	1.2	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
2-Butanone	ND		ppbv	1.5	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
2-Butanone	ND		ug/m3	4.4	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Chloroform	**3.5**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Chloroform	**17**		ug/m3	1.5	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1,1-Trichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1,1-Trichloroethane	ND		ug/m3	1.6	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Carbon Tetrachloride	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Carbon Tetrachloride	ND		ug/m3	1.9	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Benzene	**0.67**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Benzene	**2.1**		ug/m3	0.96	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2-Dichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2-Dichloroethane	ND		ug/m3	1.2	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Trichloroethene	**5.4**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Trichloroethene	**29**		ug/m3	1.6	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2-Dichloropropane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2-Dichloropropane	ND		ug/m3	1.4	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Bromodichloromethane	**0.36**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Bromodichloromethane	**2.4**		ug/m3	2.0	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
cis-1,3-Dichloropropene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
cis-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
4-Methyl-2-Pentanone	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
4-Methyl-2-Pentanone	ND		ug/m3	1.2	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Toluene	**0.43**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Toluene	**1.6**		ug/m3	1.1	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
trans-1,3-Dichloropropene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
trans-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1,2-Trichloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1,2-Trichloroethane	ND		ug/m3	1.6	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Tetrachloroethene	**6.1**		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Tetrachloroethene	**42**		ug/m3	2.0	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
2-Hexanone	ND		ppbv	0.75	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
2-Hexanone	ND		ug/m3	3.1	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Dibromochloromethane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Dibromochloromethane	ND		ug/m3	2.6	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2-Dibromoethane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2-Dibromoethane	ND		ug/m3	2.3	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Chlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Chlorobenzene	ND		ug/m3	1.4	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Ethylbenzene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 478887

478887-009 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.3	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
m,p-Xylenes	ND		ppbv	0.60	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
m,p-Xylenes	ND		ug/m3	2.6	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
o-Xylene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
o-Xylene	ND		ug/m3	1.3	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Styrene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Styrene	ND		ug/m3	1.3	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Bromoform	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Bromoform	ND		ug/m3	3.1	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1,2,2-Tetrachloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1,1,2-Tetrachloroethane	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
4-Ethyltoluene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
4-Ethyltoluene	ND		ug/m3	1.5	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,3,5-Trimethylbenzene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,3,5-Trimethylbenzene	ND		ug/m3	1.5	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2,4-Trimethylbenzene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2,4-Trimethylbenzene	ND		ug/m3	1.5	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,3-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,3-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,4-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,4-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Benzyl chloride	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Benzyl chloride	ND		ug/m3	1.6	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2-Dichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2-Dichlorobenzene	ND		ug/m3	1.8	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2,4-Trichlorobenzene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
1,2,4-Trichlorobenzene	ND		ug/m3	2.2	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Hexachlorobutadiene	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Hexachlorobutadiene	ND		ug/m3	3.2	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Xylene (total)	ND		ppbv	0.30	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Xylene (total)	ND		ug/m3	1.3	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC
Surrogates				**Limits**					
Bromofluorobenzene	99%		%REC	60-140	1.5	307148	02/09/23 21:19	02/09/23 21:19	MBC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 478887

Sample ID: A1-D	Lab ID: 478887-010	Collected: 02/03/23 12:15
	Matrix: Air	

478887-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**8.3**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	**1.1**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**87**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	3.8	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1-Difluoroethane	ND		ug/m3	10	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Freon 12	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Freon 12	ND		ug/m3	3.7	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Freon 114	**5.2**		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Freon 114	**37**		ug/m3	5.2	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Chloromethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Chloromethane	ND		ug/m3	1.5	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Vinyl Chloride	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Vinyl Chloride	ND		ug/m3	1.9	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Bromomethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Bromomethane	ND		ug/m3	2.9	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Chloroethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Chloroethane	ND		ug/m3	2.0	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Trichlorofluoromethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Trichlorofluoromethane	ND		ug/m3	4.2	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1-Dichloroethene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1-Dichloroethene	ND		ug/m3	3.0	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Freon 113	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Freon 113	ND		ug/m3	5.7	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Acetone	ND		ppbv	3.8	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Acetone	ND		ug/m3	8.9	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Carbon Disulfide	**5.6**		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Carbon Disulfide	**17**		ug/m3	2.3	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Isopropanol (IPA)	ND		ppbv	3.8	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Isopropanol (IPA)	ND		ug/m3	9.2	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Methylene Chloride	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Methylene Chloride	ND		ug/m3	2.6	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	3.0	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
MTBE	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
MTBE	ND		ug/m3	2.7	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
n-Hexane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	2.6	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1-Dichloroethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1-Dichloroethane	ND		ug/m3	3.0	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Vinyl Acetate	ND		ppbv	3.8	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Vinyl Acetate	ND		ug/m3	13	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
cis-1,2-Dichloroethene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
cis-1,2-Dichloroethene	ND		ug/m3	3.0	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
2-Butanone	ND		ppbv	3.8	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
2-Butanone	ND		ug/m3	11	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Chloroform	**4.1**		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Chloroform	**20**		ug/m3	3.7	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	4.1	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Carbon Tetrachloride	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Carbon Tetrachloride	ND		ug/m3	4.7	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Benzene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Benzene	ND		ug/m3	2.4	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2-Dichloroethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2-Dichloroethane	ND		ug/m3	3.0	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Trichloroethene	**98**		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Trichloroethene	**520**		ug/m3	4.0	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2-Dichloropropane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2-Dichloropropane	ND		ug/m3	3.5	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Bromodichloromethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Bromodichloromethane	ND		ug/m3	5.0	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	3.4	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	3.1	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Toluene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Toluene	ND		ug/m3	2.8	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	3.4	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	4.1	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Tetrachloroethene	**150**		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Tetrachloroethene	**990**		ug/m3	5.1	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
2-Hexanone	ND		ppbv	1.9	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
2-Hexanone	ND		ug/m3	7.7	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Dibromochloromethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Dibromochloromethane	ND		ug/m3	6.4	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2-Dibromoethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2-Dibromoethane	ND		ug/m3	5.8	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Chlorobenzene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Chlorobenzene	ND		ug/m3	3.5	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Ethylbenzene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	3.3	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
m,p-Xylenes	ND		ppbv	1.5	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
m,p-Xylenes	ND		ug/m3	6.5	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
o-Xylene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
o-Xylene	ND		ug/m3	3.3	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Styrene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Styrene	ND		ug/m3	3.2	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Bromoform	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Bromoform	ND		ug/m3	7.8	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	5.1	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	5.1	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
4-Ethyltoluene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
4-Ethyltoluene	ND		ug/m3	3.7	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	3.7	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	3.7	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	4.5	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	4.5	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Benzyl chloride	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Benzyl chloride	ND		ug/m3	3.9	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	4.5	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	5.6	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Hexachlorobutadiene	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Hexachlorobutadiene	ND		ug/m3	8.0	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Xylene (total)	ND		ppbv	0.75	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Xylene (total)	ND		ug/m3	3.3	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	93%		%REC	60-140	3.8	307148	02/10/23 04:39	02/10/23 04:39	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

Sample ID: D2-S	Lab ID: 478887-011	Collected: 02/03/23 12:35
	Matrix: Air	

478887-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**4.5**		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Oxygen	**3.4**		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Nitrogen	**89**		%v/v	8.0	1.6	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15									
Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1-Difluoroethane	ND		ug/m3	4.3	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Freon 12	**0.51**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Freon 12	**2.5**		ug/m3	1.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Freon 114	**3.1**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Freon 114	**22**		ug/m3	2.2	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Chloromethane	**1.5**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Chloromethane	**3.1**		ug/m3	0.66	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Vinyl Chloride	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Vinyl Chloride	ND		ug/m3	0.82	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Bromomethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Bromomethane	ND		ug/m3	1.2	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Chloroethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Chloroethane	ND		ug/m3	0.84	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Trichlorofluoromethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Trichlorofluoromethane	ND		ug/m3	1.8	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1-Dichloroethene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1-Dichloroethene	ND		ug/m3	1.3	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Freon 113	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Freon 113	ND		ug/m3	2.5	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Acetone	**7.8**		ppbv	1.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Acetone	**18**		ug/m3	3.8	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Carbon Disulfide	**4.8**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Carbon Disulfide	**15**		ug/m3	1.0	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Isopropanol (IPA)	ND		ppbv	1.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Isopropanol (IPA)	ND		ug/m3	3.9	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Methylene Chloride	**0.56**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Methylene Chloride	**1.9**		ug/m3	1.1	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
trans-1,2-Dichloroethene	**1.4**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
trans-1,2-Dichloroethene	**5.6**		ug/m3	1.3	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
MTBE	**26**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
MTBE	**95**		ug/m3	1.2	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
n-Hexane	**0.38**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**1.3**		ug/m3	1.1	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1-Dichloroethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1-Dichloroethane	ND		ug/m3	1.3	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Vinyl Acetate	ND		ppbv	1.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Vinyl Acetate	ND		ug/m3	5.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
cis-1,2-Dichloroethene	**10**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
cis-1,2-Dichloroethene	**41**		ug/m3	1.3	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
2-Butanone	ND		ppbv	1.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
2-Butanone	ND		ug/m3	4.7	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Chloroform	**2.9**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Chloroform	**14**		ug/m3	1.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	1.7	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Carbon Tetrachloride	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Carbon Tetrachloride	ND		ug/m3	2.0	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Benzene	**0.60**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Benzene	**1.9**		ug/m3	1.0	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2-Dichloroethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2-Dichloroethane	ND		ug/m3	1.3	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Trichloroethene	**39**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Trichloroethene	**210**		ug/m3	1.7	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2-Dichloropropane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2-Dichloropropane	ND		ug/m3	1.5	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Bromodichloromethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Bromodichloromethane	ND		ug/m3	2.1	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	1.3	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Toluene	**0.46**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Toluene	**1.7**		ug/m3	1.2	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	1.5	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	1.7	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Tetrachloroethene	**27**		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Tetrachloroethene	**180**		ug/m3	2.2	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
2-Hexanone	ND		ppbv	0.80	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
2-Hexanone	ND		ug/m3	3.3	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Dibromochloromethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Dibromochloromethane	ND		ug/m3	2.7	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2-Dibromoethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2-Dibromoethane	ND		ug/m3	2.5	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Chlorobenzene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Chlorobenzene	ND		ug/m3	1.5	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Ethylbenzene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.4	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
m,p-Xylenes	ND		ppbv	0.64	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
m,p-Xylenes	ND		ug/m3	2.8	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
o-Xylene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
o-Xylene	ND		ug/m3	1.4	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Styrene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Styrene	ND		ug/m3	1.4	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Bromoform	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Bromoform	ND		ug/m3	3.3	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.2	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
4-Ethyltoluene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
4-Ethyltoluene	ND		ug/m3	1.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	1.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	1.6	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	1.9	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	1.9	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Benzyl chloride	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Benzyl chloride	ND		ug/m3	1.7	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	1.9	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	2.4	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Hexachlorobutadiene	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Hexachlorobutadiene	ND		ug/m3	3.4	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Xylene (total)	ND		ppbv	0.32	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Xylene (total)	ND		ug/m3	1.4	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	101%		%REC	60-140	1.6	307148	02/09/23 22:49	02/09/23 22:49	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 478887

Sample ID: D2-D	Lab ID: 478887-012	Collected: 02/03/23 12:45
	Matrix: Air	

478887-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**7.5**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	**5.1**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**85**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	6.0	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1-Difluoroethane	ND		ug/m3	16	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Freon 12	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Freon 12	ND		ug/m3	5.9	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Freon 114	**3.3**		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Freon 114	**23**		ug/m3	8.4	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Chloromethane	**1.6**		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Chloromethane	**3.4**		ug/m3	2.5	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Vinyl Chloride	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Vinyl Chloride	ND		ug/m3	3.1	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Bromomethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Bromomethane	ND		ug/m3	4.7	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Chloroethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Chloroethane	ND		ug/m3	3.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Trichlorofluoromethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Trichlorofluoromethane	ND		ug/m3	6.7	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1-Dichloroethene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1-Dichloroethene	ND		ug/m3	4.8	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Freon 113	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Freon 113	ND		ug/m3	9.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Acetone	ND		ppbv	6.0	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Acetone	ND		ug/m3	14	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Carbon Disulfide	**5.1**		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Carbon Disulfide	**16**		ug/m3	3.7	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Isopropanol (IPA)	ND		ppbv	6.0	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Isopropanol (IPA)	ND		ug/m3	15	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Methylene Chloride	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Methylene Chloride	ND		ug/m3	4.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	4.8	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
MTBE	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
MTBE	ND		ug/m3	4.3	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
n-Hexane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	ND		ug/m3	4.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1-Dichloroethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1-Dichloroethane	ND		ug/m3	4.9	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Vinyl Acetate	ND		ppbv	6.0	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Vinyl Acetate	ND		ug/m3	21	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
cis-1,2-Dichloroethene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
cis-1,2-Dichloroethene	ND		ug/m3	4.8	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
2-Butanone	ND		ppbv	6.0	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
2-Butanone	ND		ug/m3	18	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Chloroform	**2.5**		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Chloroform	**12**		ug/m3	5.9	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1,1-Trichloroethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	6.5	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Carbon Tetrachloride	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Carbon Tetrachloride	ND		ug/m3	7.5	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Benzene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Benzene	ND		ug/m3	3.8	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2-Dichloroethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2-Dichloroethane	ND		ug/m3	4.9	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Trichloroethene	**230**		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Trichloroethene	**1,200**		ug/m3	6.4	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2-Dichloropropane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2-Dichloropropane	ND		ug/m3	5.5	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Bromodichloromethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Bromodichloromethane	ND		ug/m3	8.0	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	5.4	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	4.9	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Toluene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Toluene	ND		ug/m3	4.5	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	5.4	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1,2-Trichloroethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	6.5	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Tetrachloroethene	**160**		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Tetrachloroethene	**1,100**		ug/m3	8.1	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
2-Hexanone	ND		ppbv	3.0	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
2-Hexanone	ND		ug/m3	12	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Dibromochloromethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Dibromochloromethane	ND		ug/m3	10	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2-Dibromoethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2-Dibromoethane	ND		ug/m3	9.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Chlorobenzene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Chlorobenzene	ND		ug/m3	5.5	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Ethylbenzene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	5.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
m,p-Xylenes	ND		ppbv	2.4	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
m,p-Xylenes	ND		ug/m3	10	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
o-Xylene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
o-Xylene	ND		ug/m3	5.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Styrene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Styrene	ND		ug/m3	5.1	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Bromoform	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Bromoform	ND		ug/m3	12	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	8.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	8.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
4-Ethyltoluene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
4-Ethyltoluene	ND		ug/m3	5.9	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	5.9	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	5.9	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,3-Dichlorobenzene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	7.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,4-Dichlorobenzene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	7.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Benzyl chloride	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Benzyl chloride	ND		ug/m3	6.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2-Dichlorobenzene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	7.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	8.9	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Hexachlorobutadiene	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Hexachlorobutadiene	ND		ug/m3	13	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Xylene (total)	ND		ppbv	1.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Xylene (total)	ND		ug/m3	5.2	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	95%		%REC	60-140	6	307148	02/09/23 23:31	02/09/23 23:31	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

Sample ID: A3-S	Lab ID: 478887-013	Collected: 02/03/23 13:00
	Matrix: Air	

478887-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**2.4**		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Oxygen	ND		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Nitrogen	**96**		%v/v	8.0	1.6	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15									
Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	3.2	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1-Difluoroethane	ND		ug/m3	8.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Freon 12	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Freon 12	ND		ug/m3	3.2	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Freon 114	**3.9**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Freon 114	**27**		ug/m3	4.5	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Chloromethane	**1.1**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Chloromethane	**2.2**		ug/m3	1.3	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Vinyl Chloride	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Vinyl Chloride	ND		ug/m3	1.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Bromomethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Bromomethane	ND		ug/m3	2.5	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Chloroethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Chloroethane	ND		ug/m3	1.7	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Trichlorofluoromethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Trichlorofluoromethane	ND		ug/m3	3.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1-Dichloroethene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1-Dichloroethene	ND		ug/m3	2.5	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Freon 113	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Freon 113	ND		ug/m3	4.9	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Acetone	ND		ppbv	3.2	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Acetone	ND		ug/m3	7.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Carbon Disulfide	**3.8**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Carbon Disulfide	**12**		ug/m3	2.0	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Isopropanol (IPA)	ND		ppbv	3.2	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Isopropanol (IPA)	ND		ug/m3	7.9	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Methylene Chloride	**0.84**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Methylene Chloride	**2.9**		ug/m3	2.2	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
trans-1,2-Dichloroethene	**3.2**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
trans-1,2-Dichloroethene	**12**		ug/m3	2.5	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
MTBE	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
MTBE	ND		ug/m3	2.3	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
n-Hexane	**5.1**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 478887

478887-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**18**		ug/m3	2.3	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1-Dichloroethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1-Dichloroethane	ND		ug/m3	2.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Vinyl Acetate	ND		ppbv	3.2	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Vinyl Acetate	ND		ug/m3	11	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
cis-1,2-Dichloroethene	**32**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
cis-1,2-Dichloroethene	**130**		ug/m3	2.5	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
2-Butanone	ND		ppbv	3.2	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
2-Butanone	ND		ug/m3	9.4	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Chloroform	**2.0**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Chloroform	**9.6**		ug/m3	3.1	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	3.5	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Carbon Tetrachloride	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Carbon Tetrachloride	ND		ug/m3	4.0	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Benzene	**1.7**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Benzene	**5.3**		ug/m3	2.0	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2-Dichloroethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2-Dichloroethane	ND		ug/m3	2.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Trichloroethene	**6.1**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Trichloroethene	**33**		ug/m3	3.4	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2-Dichloropropane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2-Dichloropropane	ND		ug/m3	3.0	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Bromodichloromethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Bromodichloromethane	ND		ug/m3	4.3	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	2.9	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	2.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Toluene	**1.0**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Toluene	**3.8**		ug/m3	2.4	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	2.9	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	3.5	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Tetrachloroethene	**2.8**		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Tetrachloroethene	**19**		ug/m3	4.3	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
2-Hexanone	ND		ppbv	1.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
2-Hexanone	ND		ug/m3	6.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Dibromochloromethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Dibromochloromethane	ND		ug/m3	5.5	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2-Dibromoethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2-Dibromoethane	ND		ug/m3	4.9	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Chlorobenzene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Chlorobenzene	ND		ug/m3	2.9	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Ethylbenzene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-013 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	2.8	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
m,p-Xylenes	ND		ppbv	1.3	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
m,p-Xylenes	ND		ug/m3	5.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
o-Xylene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
o-Xylene	ND		ug/m3	2.8	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Styrene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Styrene	ND		ug/m3	2.7	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Bromoform	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Bromoform	ND		ug/m3	6.6	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	4.4	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	4.4	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
4-Ethyltoluene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
4-Ethyltoluene	ND		ug/m3	3.1	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	3.1	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	3.1	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	3.8	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	3.8	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Benzyl chloride	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Benzyl chloride	ND		ug/m3	3.3	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	3.8	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	4.7	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Hexachlorobutadiene	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Hexachlorobutadiene	ND		ug/m3	6.8	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Xylene (total)	ND		ppbv	0.64	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Xylene (total)	ND		ug/m3	2.8	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	96%		%REC	60-140	3.2	307148	02/10/23 07:06	02/10/23 07:06	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

Sample ID: A3-D	Lab ID: 478887-014	Collected: 02/03/23 13:15
	Matrix: Air	

478887-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**6.6**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**92**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	2.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1-Difluoroethane	ND		ug/m3	5.4	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Freon 12	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Freon 12	ND		ug/m3	2.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Freon 114	**10**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Freon 114	**71**		ug/m3	2.8	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Chloromethane	**0.88**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Chloromethane	**1.8**		ug/m3	0.83	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Vinyl Chloride	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Vinyl Chloride	ND		ug/m3	1.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Bromomethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Bromomethane	ND		ug/m3	1.6	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Chloroethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Chloroethane	ND		ug/m3	1.1	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Trichlorofluoromethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Trichlorofluoromethane	ND		ug/m3	2.2	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1-Dichloroethene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1-Dichloroethene	ND		ug/m3	1.6	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Freon 113	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Freon 113	ND		ug/m3	3.1	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Acetone	**3.2**		ppbv	2.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Acetone	**7.6**		ug/m3	4.8	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Carbon Disulfide	**1.0**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Carbon Disulfide	**3.2**		ug/m3	1.2	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Isopropanol (IPA)	ND		ppbv	2.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Isopropanol (IPA)	ND		ug/m3	4.9	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Methylene Chloride	**0.57**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Methylene Chloride	**2.0**		ug/m3	1.4	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
trans-1,2-Dichloroethene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
trans-1,2-Dichloroethene	ND		ug/m3	1.6	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
MTBE	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
MTBE	ND		ug/m3	1.4	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
n-Hexane	**0.54**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**1.9**		ug/m3	1.4	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1-Dichloroethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1-Dichloroethane	ND		ug/m3	1.6	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Vinyl Acetate	ND		ppbv	2.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Vinyl Acetate	ND		ug/m3	7.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
cis-1,2-Dichloroethene	**2.5**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
cis-1,2-Dichloroethene	**9.8**		ug/m3	1.6	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
2-Butanone	ND		ppbv	2.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
2-Butanone	ND		ug/m3	5.9	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Chloroform	**0.81**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Chloroform	**4.0**		ug/m3	2.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1,1-Trichloroethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	2.2	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Carbon Tetrachloride	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Carbon Tetrachloride	ND		ug/m3	2.5	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Benzene	**0.85**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Benzene	**2.7**		ug/m3	1.3	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2-Dichloroethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2-Dichloroethane	ND		ug/m3	1.6	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Trichloroethene	**63**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Trichloroethene	**340**		ug/m3	2.1	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2-Dichloropropane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2-Dichloropropane	ND		ug/m3	1.8	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Bromodichloromethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Bromodichloromethane	ND		ug/m3	2.7	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	1.8	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	1.6	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Toluene	**0.40**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Toluene	**1.5**		ug/m3	1.5	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	1.8	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1,2-Trichloroethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	2.2	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Tetrachloroethene	**52**		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Tetrachloroethene	**350**		ug/m3	2.7	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
2-Hexanone	ND		ppbv	1.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
2-Hexanone	ND		ug/m3	4.1	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Dibromochloromethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Dibromochloromethane	ND		ug/m3	3.4	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2-Dibromoethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2-Dibromoethane	ND		ug/m3	3.1	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Chlorobenzene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Chlorobenzene	ND		ug/m3	1.8	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Ethylbenzene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-014 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	1.7	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
m,p-Xylenes	ND		ppbv	0.80	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
m,p-Xylenes	ND		ug/m3	3.5	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
o-Xylene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
o-Xylene	ND		ug/m3	1.7	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Styrene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Styrene	ND		ug/m3	1.7	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Bromoform	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Bromoform	ND		ug/m3	4.1	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.7	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.7	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
4-Ethyltoluene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
4-Ethyltoluene	ND		ug/m3	2.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	2.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	2.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,3-Dichlorobenzene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	2.4	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,4-Dichlorobenzene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	2.4	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Benzyl chloride	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Benzyl chloride	ND		ug/m3	2.1	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2-Dichlorobenzene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	2.4	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	3.0	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Hexachlorobutadiene	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Hexachlorobutadiene	ND		ug/m3	4.3	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Xylene (total)	ND		ppbv	0.40	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Xylene (total)	ND		ug/m3	1.7	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	98%		%REC	60-140	2	307148	02/10/23 00:58	02/10/23 00:58	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 478887

Sample ID: A2-S	Lab ID: 478887-015	Collected: 02/03/23 13:25
	Matrix: Air	

478887-015 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**0.33**		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Oxygen	**6.8**		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Methane	**0.28**		%v/v	0.16	1.6	306962	02/07/23	02/07/23	MPD
Nitrogen	**92**		%v/v	8.0	1.6	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	16	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1-Difluoroethane	ND		ug/m3	43	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Freon 12	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Freon 12	ND		ug/m3	16	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Freon 114	**3.5**		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Freon 114	**25**		ug/m3	22	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Chloromethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Chloromethane	ND		ug/m3	6.6	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Vinyl Chloride	**9.9**		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Vinyl Chloride	**25**		ug/m3	8.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Bromomethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Bromomethane	ND		ug/m3	12	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Chloroethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Chloroethane	ND		ug/m3	8.4	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Trichlorofluoromethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Trichlorofluoromethane	ND		ug/m3	18	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1-Dichloroethene	**7.4**		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1-Dichloroethene	**29**		ug/m3	13	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Freon 113	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Freon 113	ND		ug/m3	25	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Acetone	ND		ppbv	16	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Acetone	ND		ug/m3	38	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Carbon Disulfide	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Carbon Disulfide	ND		ug/m3	10	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Isopropanol (IPA)	ND		ppbv	16	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Isopropanol (IPA)	ND		ug/m3	39	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Methylene Chloride	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Methylene Chloride	ND		ug/m3	11	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
trans-1,2-Dichloroethene	**14**		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
trans-1,2-Dichloroethene	**57**		ug/m3	13	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
MTBE	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
MTBE	ND		ug/m3	12	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
n-Hexane	**9.2**		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 478887

478887-015 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**32**		ug/m3	11	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1-Dichloroethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1-Dichloroethane	ND		ug/m3	13	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Vinyl Acetate	ND		ppbv	16	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Vinyl Acetate	ND		ug/m3	56	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
cis-1,2-Dichloroethene	**94**		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
cis-1,2-Dichloroethene	**370**		ug/m3	13	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
2-Butanone	ND		ppbv	16	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
2-Butanone	ND		ug/m3	47	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Chloroform	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Chloroform	ND		ug/m3	16	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1,1-Trichloroethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	17	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Carbon Tetrachloride	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Carbon Tetrachloride	ND		ug/m3	20	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Benzene	**4.9**		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Benzene	**16**		ug/m3	10	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2-Dichloroethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2-Dichloroethane	ND		ug/m3	13	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Trichloroethene	**22**		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Trichloroethene	**120**		ug/m3	17	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2-Dichloropropane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2-Dichloropropane	ND		ug/m3	15	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Bromodichloromethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Bromodichloromethane	ND		ug/m3	21	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	15	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	13	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Toluene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Toluene	ND		ug/m3	12	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	15	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1,2-Trichloroethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	17	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Tetrachloroethene	**11**		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Tetrachloroethene	**73**		ug/m3	22	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
2-Hexanone	ND		ppbv	8.0	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
2-Hexanone	ND		ug/m3	33	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Dibromochloromethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Dibromochloromethane	ND		ug/m3	27	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2-Dibromoethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2-Dibromoethane	ND		ug/m3	25	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Chlorobenzene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Chlorobenzene	ND		ug/m3	15	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Ethylbenzene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-015 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	14	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
m,p-Xylenes	ND		ppbv	6.4	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
m,p-Xylenes	ND		ug/m3	28	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
o-Xylene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
o-Xylene	ND		ug/m3	14	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Styrene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Styrene	ND		ug/m3	14	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Bromoform	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Bromoform	ND		ug/m3	33	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	22	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	22	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
4-Ethyltoluene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
4-Ethyltoluene	ND		ug/m3	16	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	16	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	16	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,3-Dichlorobenzene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	19	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,4-Dichlorobenzene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	19	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Benzyl chloride	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Benzyl chloride	ND		ug/m3	17	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2-Dichlorobenzene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	19	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	24	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Hexachlorobutadiene	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Hexachlorobutadiene	ND		ug/m3	34	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Xylene (total)	ND		ppbv	3.2	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Xylene (total)	ND		ug/m3	14	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	93%		%REC	60-140	16	307148	02/10/23 07:46	02/10/23 07:46	ZNZ

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 478887

Sample ID: A2-D	Lab ID: 478887-016	Collected: 02/03/23 13:35
	Matrix: Air	

478887-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946 Prep Method: METHOD									
Carbon Monoxide	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Carbon Dioxide	**0.80**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Oxygen	ND		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Methane	**0.17**		%v/v	0.15	1.5	306962	02/07/23	02/07/23	MPD
Nitrogen	**96**		%v/v	7.5	1.5	306962	02/07/23	02/07/23	MPD
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	60	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1-Difluoroethane	ND		ug/m3	160	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Freon 12	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Freon 12	ND		ug/m3	59	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Freon 114	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Freon 114	ND		ug/m3	84	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Chloromethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Chloromethane	ND		ug/m3	25	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Vinyl Chloride	**94**		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Vinyl Chloride	**240**		ug/m3	31	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Bromomethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Bromomethane	ND		ug/m3	47	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Chloroethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Chloroethane	ND		ug/m3	32	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Trichlorofluoromethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Trichlorofluoromethane	ND		ug/m3	67	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1-Dichloroethene	**85**		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1-Dichloroethene	**340**		ug/m3	48	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Freon 113	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Freon 113	ND		ug/m3	92	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Acetone	ND		ppbv	60	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Acetone	ND		ug/m3	140	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Carbon Disulfide	**15**		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Carbon Disulfide	**46**		ug/m3	37	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Isopropanol (IPA)	ND		ppbv	60	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Isopropanol (IPA)	ND		ug/m3	150	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Methylene Chloride	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Methylene Chloride	ND		ug/m3	42	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
trans-1,2-Dichloroethene	**34**		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
trans-1,2-Dichloroethene	**130**		ug/m3	48	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
MTBE	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
MTBE	ND		ug/m3	43	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
n-Hexane	**24**		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
n-Hexane	**85**		ug/m3	42	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1-Dichloroethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1-Dichloroethane	ND		ug/m3	49	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Vinyl Acetate	ND		ppbv	60	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Vinyl Acetate	ND		ug/m3	210	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
cis-1,2-Dichloroethene	**160**		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
cis-1,2-Dichloroethene	**640**		ug/m3	48	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
2-Butanone	ND		ppbv	60	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
2-Butanone	ND		ug/m3	180	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Chloroform	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Chloroform	ND		ug/m3	59	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1,1-Trichloroethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1,1-Trichloroethane	ND		ug/m3	65	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Carbon Tetrachloride	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Carbon Tetrachloride	ND		ug/m3	75	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Benzene	**13**		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Benzene	**42**		ug/m3	38	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2-Dichloroethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2-Dichloroethane	ND		ug/m3	49	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Trichloroethene	**79**		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Trichloroethene	**420**		ug/m3	64	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2-Dichloropropane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2-Dichloropropane	ND		ug/m3	55	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Bromodichloromethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Bromodichloromethane	ND		ug/m3	80	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
cis-1,3-Dichloropropene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
cis-1,3-Dichloropropene	ND		ug/m3	54	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
4-Methyl-2-Pentanone	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
4-Methyl-2-Pentanone	ND		ug/m3	49	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Toluene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Toluene	ND		ug/m3	45	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
trans-1,3-Dichloropropene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
trans-1,3-Dichloropropene	ND		ug/m3	54	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1,2-Trichloroethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1,2-Trichloroethane	ND		ug/m3	65	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Tetrachloroethene	**28**		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Tetrachloroethene	**190**		ug/m3	81	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
2-Hexanone	ND		ppbv	30	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
2-Hexanone	ND		ug/m3	120	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Dibromochloromethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Dibromochloromethane	ND		ug/m3	100	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2-Dibromoethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2-Dibromoethane	ND		ug/m3	92	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Chlorobenzene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Chlorobenzene	ND		ug/m3	55	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Ethylbenzene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ

Results for any subcontracted analyses are not included in this section.

Analysis Results for 478887

478887-016 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Ethylbenzene	ND		ug/m3	52	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
m,p-Xylenes	ND		ppbv	24	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
m,p-Xylenes	ND		ug/m3	100	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
o-Xylene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
o-Xylene	ND		ug/m3	52	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Styrene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Styrene	ND		ug/m3	51	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Bromoform	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Bromoform	ND		ug/m3	120	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1,2,2-Tetrachloroethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1,2,2-Tetrachloroethane	ND		ug/m3	82	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1,1,2-Tetrachloroethane	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,1,1,2-Tetrachloroethane	ND		ug/m3	82	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
4-Ethyltoluene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
4-Ethyltoluene	ND		ug/m3	59	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,3,5-Trimethylbenzene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,3,5-Trimethylbenzene	ND		ug/m3	59	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2,4-Trimethylbenzene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2,4-Trimethylbenzene	ND		ug/m3	59	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,3-Dichlorobenzene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,3-Dichlorobenzene	ND		ug/m3	72	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,4-Dichlorobenzene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,4-Dichlorobenzene	ND		ug/m3	72	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Benzyl chloride	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Benzyl chloride	ND		ug/m3	62	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2-Dichlorobenzene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2-Dichlorobenzene	ND		ug/m3	72	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2,4-Trichlorobenzene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
1,2,4-Trichlorobenzene	ND		ug/m3	89	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Hexachlorobutadiene	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Hexachlorobutadiene	ND		ug/m3	130	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Xylene (total)	ND		ppbv	12	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Xylene (total)	ND		ug/m3	52	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ
Surrogates				**Limits**					
Bromofluorobenzene	109%		%REC	60-140	60	307149	02/09/23 19:03	02/09/23 19:03	ZNZ

ND Not Detected

Results for any subcontracted analyses are not included in this section.

Batch QC

Type:	Lab Control Sample	Lab ID:	QC1043701	Batch:	306962
Matrix:	Air	Method:	ASTM D1946	Prep Method:	METHOD

QC1043701 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Carbon Monoxide	0.9388	1.000	%v/v	94%		85-115
Carbon Dioxide	0.9346	1.000	%v/v	93%		85-115
Oxygen	0.8510	1.000	%v/v	85%		85-115
Methane	0.9050	1.000	%v/v	91%		85-115
Nitrogen	78.83	78.10	%v/v	101%		85-115

Type:	Lab Control Sample Duplicate	Lab ID:	QC1043702	Batch:	306962
Matrix:	Air	Method:	ASTM D1946	Prep Method:	METHOD

QC1043702 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
Carbon Monoxide	0.9280	1.000	%v/v	93%		85-115	1	10
Carbon Dioxide	0.9254	1.000	%v/v	93%		85-115	1	10
Oxygen	0.8667	1.000	%v/v	87%		85-115	2	10
Methane	0.9063	1.000	%v/v	91%		85-115	0	10
Nitrogen	78.99	78.10	%v/v	101%		85-115	0	10

Type:	Blank	Lab ID:	QC1043703	Batch:	306962
Matrix:	Air	Method:	ASTM D1946	Prep Method:	METHOD

QC1043703 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Carbon Monoxide	ND		%v/v	0.10	02/07/23	02/07/23
Carbon Dioxide	ND		%v/v	0.10	02/07/23	02/07/23
Oxygen	ND		%v/v	0.10	02/07/23	02/07/23
Methane	ND		%v/v	0.10	02/07/23	02/07/23
Nitrogen	ND		%v/v	5.0	02/07/23	02/07/23

Type:	Sample Duplicate	Lab ID:	QC1043704	Batch:	306962
Matrix (Source ID):	Air (478887-001)	Method:	ASTM D1946	Prep Method:	METHOD

QC1043704 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Carbon Monoxide	ND	ND	%v/v			20	1.5
Carbon Dioxide	9.473	9.554	%v/v		1	20	1.5
Oxygen	1.375	1.370	%v/v		0	20	1.5
Methane	ND	ND	%v/v			20	1.5
Nitrogen	88.25	88.72	%v/v		1	20	1.5

ENTHALPY ANALYTICAL

Batch QC

Type:	**Sample Duplicate**	**Lab ID:**	**QC1043705**	**Batch:**	**306962**
Matrix (Source ID):	**Air (478887-011)**	**Method:**	**ASTM D1946**	**Prep Method:**	**METHOD**

QC1043705 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Carbon Monoxide	ND	ND	%v/v			20	1.6
Carbon Dioxide	4.475	4.451	%v/v		1	20	1.6
Oxygen	3.343	3.366	%v/v		1	20	1.6
Methane	ND	ND	%v/v			20	1.6
Nitrogen	88.59	88.76	%v/v		0	20	1.6

ENTHALPY ANALYTICAL

Batch QC

Type:	Lab Control Sample	Lab ID:	QC1044298	Batch:	307148
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1044298 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Difluoroethane	9.090	10.00	ppbv	91%		70-130
Freon 12	10.02	10.00	ppbv	100%		70-130
Freon 114	9.666	10.00	ppbv	97%		70-130
Chloromethane	10.12	10.00	ppbv	101%		70-130
Vinyl Chloride	10.09	10.00	ppbv	101%		70-130
Bromomethane	9.710	10.00	ppbv	97%		70-130
Chloroethane	9.733	10.00	ppbv	97%		70-130
Trichlorofluoromethane	10.27	10.00	ppbv	103%		70-130
1,1-Dichloroethene	10.22	10.00	ppbv	102%		70-130
Freon 113	10.24	10.00	ppbv	102%		70-130
Acetone	9.695	10.00	ppbv	97%		70-130
Carbon Disulfide	9.746	10.00	ppbv	97%		70-130
Isopropanol (IPA)	10.55	10.00	ppbv	106%		70-130
Methylene Chloride	8.798	10.00	ppbv	88%		70-130
trans-1,2-Dichloroethene	10.46	10.00	ppbv	105%		70-130
MTBE	10.26	10.00	ppbv	103%		70-130
n-Hexane	9.873	10.00	ppbv	99%		70-130
1,1-Dichloroethane	10.68	10.00	ppbv	107%		70-130
Vinyl Acetate	10.00	10.00	ppbv	100%		70-130
cis-1,2-Dichloroethene	10.63	10.00	ppbv	106%		70-130
2-Butanone	9.866	10.00	ppbv	99%		70-130
Chloroform	10.36	10.00	ppbv	104%		70-130
1,1,1-Trichloroethane	10.36	10.00	ppbv	104%		70-130
Carbon Tetrachloride	10.30	10.00	ppbv	103%		70-130
Benzene	9.755	10.00	ppbv	98%		70-130
1,2-Dichloroethane	10.55	10.00	ppbv	106%		70-130
Trichloroethene	9.759	10.00	ppbv	98%		70-130
1,2-Dichloropropane	9.546	10.00	ppbv	95%		70-130
Bromodichloromethane	10.42	10.00	ppbv	104%		70-130
cis-1,3-Dichloropropene	10.37	10.00	ppbv	104%		70-130
4-Methyl-2-Pentanone	9.898	10.00	ppbv	99%		70-130
Toluene	10.05	10.00	ppbv	101%		70-130
trans-1,3-Dichloropropene	10.63	10.00	ppbv	106%		70-130
1,1,2-Trichloroethane	10.06	10.00	ppbv	101%		70-130
Tetrachloroethene	9.497	10.00	ppbv	95%		70-130
2-Hexanone	10.06	10.00	ppbv	101%		70-130
Dibromochloromethane	10.23	10.00	ppbv	102%		70-130
1,2-Dibromoethane	10.25	10.00	ppbv	102%		70-130
Chlorobenzene	9.668	10.00	ppbv	97%		70-130
Ethylbenzene	10.13	10.00	ppbv	101%		70-130
m,p-Xylenes	20.14	20.00	ppbv	101%		70-130
o-Xylene	10.13	10.00	ppbv	101%		70-130

ENTHALPY ANALYTICAL

Batch QC

QC1044298 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Styrene	9.906	10.00	ppbv	99%		70-130
Bromoform	9.351	10.00	ppbv	94%		70-130
1,1,2,2-Tetrachloroethane	9.910	10.00	ppbv	99%		70-130
1,1,1,2-Tetrachloroethane	9.801	10.00	ppbv	98%		70-130
4-Ethyltoluene	10.65	10.00	ppbv	107%		70-130
1,3,5-Trimethylbenzene	10.22	10.00	ppbv	102%		70-130
1,2,4-Trimethylbenzene	10.30	10.00	ppbv	103%		70-130
1,3-Dichlorobenzene	9.779	10.00	ppbv	98%		70-130
1,4-Dichlorobenzene	9.672	10.00	ppbv	97%		70-130
Benzyl chloride	10.28	10.00	ppbv	103%		70-130
1,2-Dichlorobenzene	9.945	10.00	ppbv	99%		70-130
1,2,4-Trichlorobenzene	8.975	10.00	ppbv	90%		70-130
Hexachlorobutadiene	10.06	10.00	ppbv	101%		70-130
Surrogates						
Bromofluorobenzene	9.433	10.00	ppbv	94%		60-140

Batch QC

Type:	Lab Control Sample Duplicate	Lab ID:	QC1044299	Batch:	307148
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1044299 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Difluoroethane	9.176	10.00	ppbv	92%		70-130	1	25
Freon 12	10.17	10.00	ppbv	102%		70-130	1	25
Freon 114	9.656	10.00	ppbv	97%		70-130	0	25
Chloromethane	10.24	10.00	ppbv	102%		70-130	1	25
Vinyl Chloride	10.06	10.00	ppbv	101%		70-130	0	25
Bromomethane	9.725	10.00	ppbv	97%		70-130	0	25
Chloroethane	9.701	10.00	ppbv	97%		70-130	0	25
Trichlorofluoromethane	10.23	10.00	ppbv	102%		70-130	0	25
1,1-Dichloroethene	10.25	10.00	ppbv	102%		70-130	0	25
Freon 113	10.22	10.00	ppbv	102%		70-130	0	25
Acetone	9.719	10.00	ppbv	97%		70-130	0	25
Carbon Disulfide	9.688	10.00	ppbv	97%		70-130	1	25
Isopropanol (IPA)	10.45	10.00	ppbv	104%		70-130	1	25
Methylene Chloride	8.848	10.00	ppbv	88%		70-130	1	25
trans-1,2-Dichloroethene	10.52	10.00	ppbv	105%		70-130	1	25
MTBE	10.50	10.00	ppbv	105%		70-130	2	25
n-Hexane	10.01	10.00	ppbv	100%		70-130	1	25
1,1-Dichloroethane	10.90	10.00	ppbv	109%		70-130	2	25
Vinyl Acetate	10.04	10.00	ppbv	100%		70-130	0	25
cis-1,2-Dichloroethene	10.85	10.00	ppbv	108%		70-130	2	25
2-Butanone	9.791	10.00	ppbv	98%		70-130	1	25
Chloroform	10.59	10.00	ppbv	106%		70-130	2	25
1,1,1-Trichloroethane	10.51	10.00	ppbv	105%		70-130	1	25
Carbon Tetrachloride	10.43	10.00	ppbv	104%		70-130	1	25
Benzene	9.810	10.00	ppbv	98%		70-130	1	25
1,2-Dichloroethane	10.68	10.00	ppbv	107%		70-130	1	25
Trichloroethene	10.37	10.00	ppbv	104%		70-130	6	25
1,2-Dichloropropane	9.934	10.00	ppbv	99%		70-130	4	25
Bromodichloromethane	10.89	10.00	ppbv	109%		70-130	4	25
cis-1,3-Dichloropropene	10.92	10.00	ppbv	109%		70-130	5	25
4-Methyl-2-Pentanone	10.57	10.00	ppbv	106%		70-130	7	25
Toluene	10.52	10.00	ppbv	105%		70-130	5	25
trans-1,3-Dichloropropene	11.11	10.00	ppbv	111%		70-130	4	25
1,1,2-Trichloroethane	10.62	10.00	ppbv	106%		70-130	5	25
Tetrachloroethene	10.09	10.00	ppbv	101%		70-130	6	25
2-Hexanone	10.46	10.00	ppbv	105%		70-130	4	25
Dibromochloromethane	10.77	10.00	ppbv	108%		70-130	5	25
1,2-Dibromoethane	10.65	10.00	ppbv	106%		70-130	4	25
Chlorobenzene	10.15	10.00	ppbv	102%		70-130	5	25
Ethylbenzene	10.60	10.00	ppbv	106%		70-130	4	25
m,p-Xylenes	21.18	20.00	ppbv	106%		70-130	5	25

ENTHALPY ANALYTICAL

Batch QC

QC1044299 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
o-Xylene	9.730	10.00	ppbv	97%		70-130	4	25
Styrene	10.22	10.00	ppbv	102%		70-130	3	25
Bromoform	9.692	10.00	ppbv	97%		70-130	4	25
1,1,2,2-Tetrachloroethane	10.44	10.00	ppbv	104%		70-130	5	25
1,1,1,2-Tetrachloroethane	10.31	10.00	ppbv	103%		70-130	5	25
4-Ethyltoluene	11.25	10.00	ppbv	113%		70-130	5	25
1,3,5-Trimethylbenzene	10.81	10.00	ppbv	108%		70-130	6	25
1,2,4-Trimethylbenzene	10.86	10.00	ppbv	109%		70-130	5	25
1,3-Dichlorobenzene	10.25	10.00	ppbv	103%		70-130	5	25
1,4-Dichlorobenzene	10.12	10.00	ppbv	101%		70-130	5	25
Benzyl chloride	10.71	10.00	ppbv	107%		70-130	4	25
1,2-Dichlorobenzene	10.50	10.00	ppbv	105%		70-130	5	25
1,2,4-Trichlorobenzene	9.246	10.00	ppbv	92%		70-130	3	25
Hexachlorobutadiene	10.26	10.00	ppbv	103%		70-130	2	25
Surrogates								
Bromofluorobenzene	9.617	10.00	ppbv	96%		60-140		

Batch QC

Type:	Blank	Lab ID:	QC1044300	Batch:	307148
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1044300 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,1-Difluoroethane	ND		ppbv	1.0	02/09/23 14:36	02/09/23 14:36
Freon 12	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Freon 114	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Chloromethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Vinyl Chloride	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Bromomethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Chloroethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Trichlorofluoromethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,1-Dichloroethene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Freon 113	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Acetone	ND		ppbv	1.0	02/09/23 14:36	02/09/23 14:36
Carbon Disulfide	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Isopropanol (IPA)	ND		ppbv	1.0	02/09/23 14:36	02/09/23 14:36
Methylene Chloride	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
trans-1,2-Dichloroethene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
MTBE	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
n-Hexane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,1-Dichloroethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Vinyl Acetate	ND		ppbv	1.0	02/09/23 14:36	02/09/23 14:36
cis-1,2-Dichloroethene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
2-Butanone	ND		ppbv	1.0	02/09/23 14:36	02/09/23 14:36
Chloroform	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,1,1-Trichloroethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Carbon Tetrachloride	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Benzene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,2-Dichloroethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Trichloroethene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,2-Dichloropropane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Bromodichloromethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
cis-1,3-Dichloropropene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
4-Methyl-2-Pentanone	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Toluene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
trans-1,3-Dichloropropene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,1,2-Trichloroethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Tetrachloroethene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
2-Hexanone	ND		ppbv	0.50	02/09/23 14:36	02/09/23 14:36
Dibromochloromethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,2-Dibromoethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Chlorobenzene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Ethylbenzene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
m,p-Xylenes	ND		ppbv	0.40	02/09/23 14:36	02/09/23 14:36
o-Xylene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36

ENTHALPY ANALYTICAL

Batch QC

QC1044300 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Styrene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Bromoform	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
4-Ethyltoluene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,3,5-Trimethylbenzene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,2,4-Trimethylbenzene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,3-Dichlorobenzene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,4-Dichlorobenzene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Benzyl chloride	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,2-Dichlorobenzene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
1,2,4-Trichlorobenzene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Hexachlorobutadiene	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Xylene (total)	ND		ppbv	0.20	02/09/23 14:36	02/09/23 14:36
Surrogates				**Limits**		
Bromofluorobenzene	93%		%REC	60-140	02/09/23 14:36	02/09/23 14:36

Batch QC

Type:	Lab Control Sample	Lab ID:	QC1044301	Batch:	307149
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1044301 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Difluoroethane	9.255	10.00	ppbv	93%		70-130
Freon 12	11.17	10.00	ppbv	112%		70-130
Freon 114	11.59	10.00	ppbv	116%		70-130
Chloromethane	10.15	10.00	ppbv	101%		70-130
Vinyl Chloride	10.25	10.00	ppbv	103%		70-130
Bromomethane	10.71	10.00	ppbv	107%		70-130
Chloroethane	9.950	10.00	ppbv	99%		70-130
Trichlorofluoromethane	10.43	10.00	ppbv	104%		70-130
1,1-Dichloroethene	9.434	10.00	ppbv	94%		70-130
Freon 113	10.34	10.00	ppbv	103%		70-130
Acetone	9.235	10.00	ppbv	92%		70-130
Carbon Disulfide	9.923	10.00	ppbv	99%		70-130
Isopropanol (IPA)	9.340	10.00	ppbv	93%		70-130
Methylene Chloride	8.754	10.00	ppbv	88%		70-130
trans-1,2-Dichloroethene	9.538	10.00	ppbv	95%		70-130
MTBE	9.036	10.00	ppbv	90%		70-130
n-Hexane	9.329	10.00	ppbv	93%		70-130
1,1-Dichloroethane	9.578	10.00	ppbv	96%		70-130
Vinyl Acetate	7.913	10.00	ppbv	79%		70-130
cis-1,2-Dichloroethene	8.852	10.00	ppbv	89%		70-130
2-Butanone	9.058	10.00	ppbv	91%		70-130
Chloroform	9.527	10.00	ppbv	95%		70-130
1,1,1-Trichloroethane	10.27	10.00	ppbv	103%		70-130
Carbon Tetrachloride	10.47	10.00	ppbv	105%		70-130
Benzene	9.280	10.00	ppbv	93%		70-130
1,2-Dichloroethane	8.935	10.00	ppbv	89%		70-130
Trichloroethene	10.42	10.00	ppbv	104%		70-130
1,2-Dichloropropane	8.884	10.00	ppbv	89%		70-130
Bromodichloromethane	9.821	10.00	ppbv	98%		70-130
cis-1,3-Dichloropropene	10.74	10.00	ppbv	107%		70-130
4-Methyl-2-Pentanone	9.801	10.00	ppbv	98%		70-130
Toluene	10.04	10.00	ppbv	100%		70-130
trans-1,3-Dichloropropene	11.13	10.00	ppbv	111%		70-130
1,1,2-Trichloroethane	10.17	10.00	ppbv	102%		70-130
Tetrachloroethene	10.61	10.00	ppbv	106%		70-130
2-Hexanone	9.891	10.00	ppbv	99%		70-130
Dibromochloromethane	11.44	10.00	ppbv	114%		70-130
1,2-Dibromoethane	10.39	10.00	ppbv	104%		70-130
Chlorobenzene	10.38	10.00	ppbv	104%		70-130
Ethylbenzene	10.44	10.00	ppbv	104%		70-130
m,p-Xylenes	22.06	20.00	ppbv	110%		70-130
o-Xylene	10.95	10.00	ppbv	110%		70-130

ENTHALPY ANALYTICAL

Batch QC

QC1044301 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Styrene	11.31	10.00	ppbv	113%		70-130
Bromoform	15.46	10.00	ppbv	155%	b,*	70-130
1,1,2,2-Tetrachloroethane	10.33	10.00	ppbv	103%		70-130
1,1,1,2-Tetrachloroethane	11.33	10.00	ppbv	113%		70-130
4-Ethyltoluene	11.42	10.00	ppbv	114%		70-130
1,3,5-Trimethylbenzene	11.39	10.00	ppbv	114%		70-130
1,2,4-Trimethylbenzene	11.92	10.00	ppbv	119%		70-130
1,3-Dichlorobenzene	11.44	10.00	ppbv	114%		70-130
1,4-Dichlorobenzene	11.39	10.00	ppbv	114%		70-130
Benzyl chloride	14.43	10.00	ppbv	144%	b,*	70-130
1,2-Dichlorobenzene	11.46	10.00	ppbv	115%		70-130
1,2,4-Trichlorobenzene	12.39	10.00	ppbv	124%		70-130
Hexachlorobutadiene	12.95	10.00	ppbv	129%		70-130
Surrogates						
Bromofluorobenzene	11.34	10.00	ppbv	113%		60-140

ENTHALPY ANALYTICAL

Batch QC

Type:	Lab Control Sample Duplicate	Lab ID:	QC1044302	Batch:	307149
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1044302 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Difluoroethane	9.365	10.00	ppbv	94%		70-130	1	25
Freon 12	11.20	10.00	ppbv	112%		70-130	0	25
Freon 114	11.68	10.00	ppbv	117%		70-130	1	25
Chloromethane	10.28	10.00	ppbv	103%		70-130	1	25
Vinyl Chloride	10.35	10.00	ppbv	104%		70-130	1	25
Bromomethane	10.74	10.00	ppbv	107%		70-130	0	25
Chloroethane	10.01	10.00	ppbv	100%		70-130	1	25
Trichlorofluoromethane	10.49	10.00	ppbv	105%		70-130	1	25
1,1-Dichloroethene	9.491	10.00	ppbv	95%		70-130	1	25
Freon 113	10.26	10.00	ppbv	103%		70-130	1	25
Acetone	9.223	10.00	ppbv	92%		70-130	0	25
Carbon Disulfide	9.804	10.00	ppbv	98%		70-130	1	25
Isopropanol (IPA)	9.371	10.00	ppbv	94%		70-130	0	25
Methylene Chloride	8.607	10.00	ppbv	86%		70-130	2	25
trans-1,2-Dichloroethene	9.531	10.00	ppbv	95%		70-130	0	25
MTBE	9.742	10.00	ppbv	97%		70-130	8	25
n-Hexane	9.404	10.00	ppbv	94%		70-130	1	25
1,1-Dichloroethane	9.693	10.00	ppbv	97%		70-130	1	25
Vinyl Acetate	7.983	10.00	ppbv	80%		70-130	1	25
cis-1,2-Dichloroethene	8.883	10.00	ppbv	89%		70-130	0	25
2-Butanone	9.275	10.00	ppbv	93%		70-130	2	25
Chloroform	9.582	10.00	ppbv	96%		70-130	1	25
1,1,1-Trichloroethane	10.28	10.00	ppbv	103%		70-130	0	25
Carbon Tetrachloride	10.52	10.00	ppbv	105%		70-130	1	25
Benzene	9.356	10.00	ppbv	94%		70-130	1	25
1,2-Dichloroethane	8.962	10.00	ppbv	90%		70-130	0	25
Trichloroethene	10.42	10.00	ppbv	104%		70-130	0	25
1,2-Dichloropropane	8.901	10.00	ppbv	89%		70-130	0	25
Bromodichloromethane	9.788	10.00	ppbv	98%		70-130	0	25
cis-1,3-Dichloropropene	10.66	10.00	ppbv	107%		70-130	1	25
4-Methyl-2-Pentanone	9.716	10.00	ppbv	97%		70-130	1	25
Toluene	10.03	10.00	ppbv	100%		70-130	0	25
trans-1,3-Dichloropropene	11.34	10.00	ppbv	113%		70-130	2	25
1,1,2-Trichloroethane	9.972	10.00	ppbv	100%		70-130	2	25
Tetrachloroethene	10.62	10.00	ppbv	106%		70-130	0	25
2-Hexanone	9.657	10.00	ppbv	97%		70-130	2	25
Dibromochloromethane	11.45	10.00	ppbv	115%		70-130	0	25
1,2-Dibromoethane	10.42	10.00	ppbv	104%		70-130	0	25
Chlorobenzene	10.45	10.00	ppbv	104%		70-130	1	25
Ethylbenzene	10.46	10.00	ppbv	105%		70-130	0	25
m,p-Xylenes	22.12	20.00	ppbv	111%		70-130	0	25

Batch QC

QC1044302 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
o-Xylene	11.09	10.00	ppbv	111%		70-130	1	25
Styrene	11.36	10.00	ppbv	114%		70-130	0	25
Bromoform	15.71	10.00	ppbv	157%	b,*	70-130	2	25
1,1,2,2-Tetrachloroethane	10.38	10.00	ppbv	104%		70-130	0	25
1,1,1,2-Tetrachloroethane	11.39	10.00	ppbv	114%		70-130	1	25
4-Ethyltoluene	11.50	10.00	ppbv	115%		70-130	1	25
1,3,5-Trimethylbenzene	11.49	10.00	ppbv	115%		70-130	1	25
1,2,4-Trimethylbenzene	11.96	10.00	ppbv	120%		70-130	0	25
1,3-Dichlorobenzene	11.50	10.00	ppbv	115%		70-130	1	25
1,4-Dichlorobenzene	11.36	10.00	ppbv	114%		70-130	0	25
Benzyl chloride	14.44	10.00	ppbv	144%	b,*	70-130	0	25
1,2-Dichlorobenzene	11.46	10.00	ppbv	115%		70-130	0	25
1,2,4-Trichlorobenzene	12.53	10.00	ppbv	125%		70-130	1	25
Hexachlorobutadiene	12.90	10.00	ppbv	129%		70-130	0	25
Surrogates								
Bromofluorobenzene	11.46	10.00	ppbv	115%		60-140		

Batch QC

Type:	Blank	Lab ID:	QC1044303	Batch:	307149
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1044303 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,1-Difluoroethane	ND		ppbv	1.0	02/09/23 12:25	02/09/23 12:25
Freon 12	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Freon 114	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Chloromethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Vinyl Chloride	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Bromomethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Chloroethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Trichlorofluoromethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,1-Dichloroethene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Freon 113	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Acetone	ND		ppbv	1.0	02/09/23 12:25	02/09/23 12:25
Carbon Disulfide	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Isopropanol (IPA)	ND		ppbv	1.0	02/09/23 12:25	02/09/23 12:25
Methylene Chloride	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
trans-1,2-Dichloroethene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
MTBE	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
n-Hexane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,1-Dichloroethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Vinyl Acetate	ND		ppbv	1.0	02/09/23 12:25	02/09/23 12:25
cis-1,2-Dichloroethene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
2-Butanone	ND		ppbv	1.0	02/09/23 12:25	02/09/23 12:25
Chloroform	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,1,1-Trichloroethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Carbon Tetrachloride	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Benzene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,2-Dichloroethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Trichloroethene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,2-Dichloropropane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Bromodichloromethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
cis-1,3-Dichloropropene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
4-Methyl-2-Pentanone	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Toluene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
trans-1,3-Dichloropropene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,1,2-Trichloroethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Tetrachloroethene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
2-Hexanone	ND		ppbv	0.50	02/09/23 12:25	02/09/23 12:25
Dibromochloromethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,2-Dibromoethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Chlorobenzene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Ethylbenzene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
m,p-Xylenes	ND		ppbv	0.40	02/09/23 12:25	02/09/23 12:25
o-Xylene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25

Batch QC

QC1044303 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Styrene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Bromoform	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
4-Ethyltoluene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,3,5-Trimethylbenzene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,2,4-Trimethylbenzene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,3-Dichlorobenzene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,4-Dichlorobenzene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Benzyl chloride	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,2-Dichlorobenzene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
1,2,4-Trichlorobenzene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Hexachlorobutadiene	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Xylene (total)	ND		ppbv	0.20	02/09/23 12:25	02/09/23 12:25
Surrogates				**Limits**		
Bromofluorobenzene	110%		%REC	60-140	02/09/23 12:25	02/09/23 12:25

* Value is outside QC limits
ND Not Detected
b See narrative

ENTHALPY ANALYTICAL

Batch QC

Type:	**Lab Control Sample**	**Lab ID:**	**QC1035588**	**Batch:**	**304316**
Matrix:	**Soil**	**Method:**	**EPA 8270C-SIM**	**Prep Method:**	**EPA 3546**

QC1035588 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1-Methylnaphthalene	134.8	200.4	ug/Kg	67%		28-130
2-Methylnaphthalene	149.0	200.4	ug/Kg	74%		33-130
Naphthalene	144.1	200.4	ug/Kg	72%		25-130
Acenaphthylene	145.0	200.4	ug/Kg	72%		28-130
Acenaphthene	139.3	200.4	ug/Kg	70%		32-130
Fluorene	142.7	200.4	ug/Kg	71%		35-130
Phenanthrene	156.4	200.4	ug/Kg	78%		35-132
Anthracene	153.9	200.4	ug/Kg	77%		34-136
Fluoranthene	151.0	200.4	ug/Kg	75%		34-139
Pyrene	146.4	200.4	ug/Kg	73%		35-134
Benzo(a)anthracene	158.0	200.4	ug/Kg	79%		30-132
Chrysene	148.1	200.4	ug/Kg	74%		29-130
Benzo(b)fluoranthene	165.9	200.4	ug/Kg	83%		32-137
Benzo(k)fluoranthene	150.9	200.4	ug/Kg	75%		32-130
Benzo(a)pyrene	148.2	200.4	ug/Kg	74%		10-138
Indeno(1,2,3-cd)pyrene	152.5	200.4	ug/Kg	76%		34-132
Dibenz(a,h)anthracene	148.1	200.4	ug/Kg	74%		32-130
Benzo(g,h,i)perylene	140.7	200.4	ug/Kg	70%		27-130
Surrogates						
Nitrobenzene-d5	146.5	200.4	ug/Kg	73%		27-125
2-Fluorobiphenyl	147.2	200.4	ug/Kg	73%		30-120
Terphenyl-d14	188.2	200.4	ug/Kg	94%		33-155

Batch QC

Type:	Matrix Spike	Lab ID:	QC1035589	Batch:	304316
Matrix (Source ID):	Soil (476040-001)	Method:	EPA 8270C-SIM	Prep Method:	EPA 3546

QC1035589 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
1-Methylnaphthalene	130.9	ND	200.2	ug/Kg	65%		25-130	20
2-Methylnaphthalene	119.9	ND	200.2	ug/Kg	60%		32-133	20
Naphthalene	115.7	ND	200.2	ug/Kg	58%		33-130	20
Acenaphthylene	123.1	ND	200.2	ug/Kg	61%		14-157	20
Acenaphthene	123.4	ND	200.2	ug/Kg	62%		28-134	20
Fluorene	124.6	ND	200.2	ug/Kg	62%		27-140	20
Phenanthrene	125.7	ND	200.2	ug/Kg	63%		29-147	20
Anthracene	134.1	ND	200.2	ug/Kg	67%		24-156	20
Fluoranthene	144.0	ND	200.2	ug/Kg	72%		28-160	20
Pyrene	150.1	ND	200.2	ug/Kg	75%		26-153	20
Benzo(a)anthracene	133.3	ND	200.2	ug/Kg	67%		26-174	20
Chrysene	148.4	ND	200.2	ug/Kg	74%		40-139	20
Benzo(b)fluoranthene	141.8	ND	200.2	ug/Kg	71%		36-164	20
Benzo(k)fluoranthene	137.2	ND	200.2	ug/Kg	69%		36-161	20
Benzo(a)pyrene	125.5	ND	200.2	ug/Kg	63%		18-173	20
Indeno(1,2,3-cd)pyrene	126.5	ND	200.2	ug/Kg	63%		26-154	20
Dibenz(a,h)anthracene	118.1	ND	200.2	ug/Kg	59%		38-132	20
Benzo(g,h,i)perylene	127.4	ND	200.2	ug/Kg	64%		36-130	20
Surrogates								
Nitrobenzene-d5	108.6		200.2	ug/Kg	54%		27-125	20
2-Fluorobiphenyl	125.0		200.2	ug/Kg	62%		30-120	20
Terphenyl-d14	157.4		200.2	ug/Kg	79%		33-155	20

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1035590**	**Batch:**	**304316**
Matrix (Source ID):	**Soil (476040-001)**	**Method:**	**EPA 8270C-SIM**	**Prep Method:**	**EPA 3546**

QC1035590 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
1-Methylnaphthalene	160.6	ND	200.2	ug/Kg	80%		25-130	20	35	20
2-Methylnaphthalene	151.0	ND	200.2	ug/Kg	75%		32-133	23	35	20
Naphthalene	144.1	ND	200.2	ug/Kg	72%		33-130	22	35	20
Acenaphthylene	157.4	ND	200.2	ug/Kg	79%		14-157	24	35	20
Acenaphthene	144.9	ND	200.2	ug/Kg	72%		28-134	16	35	20
Fluorene	139.5	ND	200.2	ug/Kg	70%		27-140	11	35	20
Phenanthrene	157.8	ND	200.2	ug/Kg	79%		29-147	23	35	20
Anthracene	161.6	ND	200.2	ug/Kg	81%		24-156	19	35	20
Fluoranthene	163.2	ND	200.2	ug/Kg	82%		28-160	13	35	20
Pyrene	165.4	ND	200.2	ug/Kg	83%		26-153	10	35	20
Benzo(a)anthracene	154.0	ND	200.2	ug/Kg	77%		26-174	14	35	20
Chrysene	159.2	ND	200.2	ug/Kg	80%		40-139	7	35	20
Benzo(b)fluoranthene	166.0	ND	200.2	ug/Kg	83%		36-164	16	35	20
Benzo(k)fluoranthene	151.3	ND	200.2	ug/Kg	76%		36-161	10	35	20
Benzo(a)pyrene	147.5	ND	200.2	ug/Kg	74%		18-173	16	35	20
Indeno(1,2,3-cd)pyrene	156.2	ND	200.2	ug/Kg	78%		26-154	21	35	20
Dibenz(a,h)anthracene	143.0	ND	200.2	ug/Kg	71%		38-132	19	35	20
Benzo(g,h,i)perylene	151.6	ND	200.2	ug/Kg	76%		36-130	17	35	20
Surrogates										
Nitrobenzene-d5	114.7		200.2	ug/Kg	57%		27-125			20
2-Fluorobiphenyl	162.6		200.2	ug/Kg	81%		30-120			20
Terphenyl-d14	190.2		200.2	ug/Kg	95%		33-155			20

* Value is outside QC limits
ND Not Detected

Appendix C

Design and Engineering Plans

DRAFT (FOR CONSTRUCTION PURPOSES)

Geotechnical Engineering Investigation
Proposed No. 1 Collision Center
Automobile Repair Facility
2750 and 2770 Bristol Street
Costa Mesa, California

Kunzik and Sara Construction
1699 La Costa Meadows Drive, Suite 102
San Marcos, California 92078

Attn: Mr. Pete Sara

Project Number 21887-20
August 4, 2020

NorCal Engineering

NorCal Engineering
Soils and Geotechnical Consultants
10641 Humbolt Street Los Alamitos, CA 90720
(562) 799-9469 Fax (562) 799-9459

August 4, 2020

Project Number 21887-20

Kunzik and Sara Construction
1699 La Costa Meadows Drive, Suite 102
San Marcos, California 92078

Attn: Mr. Pete Sara

RE: **Geotechnical Engineering Investigation** - Proposed No. 1 Collision Center Automobile Repair Facility - Located at 2750 and 2770 Bristol Street, in the City of Costa Mesa, California

Dear Mr. Sara:

Pursuant to your request, this firm has performed a Geotechnical Engineering Investigation for the above referenced project in accordance with your approval of our proposal dated June 19, 2020. The purpose of this investigation is to evaluate the geotechnical conditions of the subject site and to provide recommendations for the proposed Collision Center No. 1 automobile repair facility.

The scope of work included the following: 1) site reconnaissance; 2) review of previous geotechnical studies; 3) subsurface geotechnical exploration and sampling; 4) laboratory testing; 5) soil infiltration testing; 6) engineering analysis of field and laboratory data; 7) preparation of a geotechnical engineering report. It is the opinion of this firm that the proposed development is feasible from a geotechnical standpoint provided that the recommendations presented in this report are followed in the design and construction of the project.

1.0 Project Description

It is proposed to construct a Collision No. 1 Center automobile repair facility consisting of 25,500 square feet building as shown on the attached Site Plan by Christopher Bozyk Architects dated August 23, 2019. The proposed two-story structure with roof top parking will be supported by a conventional slab-on-grade foundation system with perimeter-spread footings and isolated interior footings. Other improvements will include asphalt and concrete pavement areas, hardscape and landscaping.

It is assumed that the proposed grading for the development will consist of minor cuts and fills on the order of 5 to 10 feet to achieve finished grade elevations. Final building plans shall be reviewed by this firm prior to submittal for city approval to determine the need for any additional study and revised recommendations pertinent to the proposed development, if necessary.

2.0 Site Description

The approximately 275' x 275' subject property is located within the 2700 block and east side of Bristol Street, bordered by the Corona Del Mar Freeway along the east property line, in the City of Costa Mesa. The generally square-shaped parcel is a relatively level property with topography descending slightly from back to front on the order of a few feet. The site is currently occupied by an abandoned car wash building with surrounding concrete pavement.

3.0 Site Exploration

The investigation consisted of the placement of three (3) electronic cone penetrometers (CPT) and five (5) subsurface exploratory borings by a truck mounted drill rig with eight-inch outside diameter hollow-stem, continuous flight augers and to depths ranging between 5 and 50 feet below current ground elevations. The explorations were visually classified and logged by a field engineer with locations of the subsurface explorations shown on the attached Site Plan. The CPT consists of advancing a cone-tipped cylindrical probe into the ground while simultaneously measuring the resulting resistance to penetration. An on-field computer generated CPT log measures the penetration resistance values and inferred soil description.

The exploratory borings revealed the existing earth materials to consist of fill and natural soil. Detailed descriptions of the subsurface conditions are listed on the boring logs in Appendix A. The soils encountered are described as follows:

Fill: A fill soil classifying as a brown to dark brown, silty CLAY to a silty SAND with intermingled lenses of sandy silt and silty sand was encountered to depths ranging from 10 to 25 feet below ground surface. These soils were noted to be stiff/ dense to very dense and moist.

Natural: A natural undisturbed soil classifying as a brown, silty to sandy CLAY to a yellow brown to grey brown medium to coarse grained, SAND to a silty SAND was encountered beneath the fill soils. The native soils were observed to be stiff to medium dense to dense and moist to wet.

The overall engineering characteristics of the earth material were relatively uniform with each excavation. Groundwater was encountered at a depth of 24 and 25 feet below ground surface and slight caving occurred in the deeper cohesionless soils.

4.0 Laboratory Tests

Relatively undisturbed samples of the subsurface soils were obtained to perform laboratory testing and analysis for direct shear, consolidation tests, and to determine in-place moisture/densities. These relatively undisturbed ring samples were obtained by driving a thin-walled steel sampler lined with one-inch long brass rings with an inside diameter of 2.42 inches into the undisturbed soils. Bulk bag samples were obtained in the upper soils for expansion index tests and maximum density tests. All test results are included in Appendix B, unless otherwise noted.

Standard penetration tests were obtained by driving a steel sampler unlined with an inside diameter of 1.5 inches into the soils. This standard penetrometer sampler was driven a total of eighteen inches with blow counts tallied every six inches. Blow count data is given on the Boring Logs in Appendix A. Bulk bag samples were obtained in the upper soils for expansion index tests and maximum density tests. All test results are included in Appendix B, unless otherwise noted.

4.1 **Field Moisture Content** (ASTM: D 2216) and the dry density of the ring samples were determined in the laboratory. This data is listed on the logs of explorations.

4.2 **Sieve analyses** (ASTM: D 422-63) and the percent by weight of soil finer than the No. 200 sieve (ASTM: 1140) were performed on selected soil samples. These results are shown later within the body of this report.

4.3 **Maximum Density tests** (ASTM: D 1557) were performed on typical samples of the upper soils. Results of these tests are shown on Table I.

4.4 **Expansion Index tests** (ASTM: D 4829) were performed on remolded samples of the upper soils to determine expansive characteristics. Results of these tests are provided on Table II.

4.5 **Atterberg Limits** (ASTM: D 4318) consisting of liquid limit, plastic limit and plasticity index were performed on representative soil samples. Results are shown on Table III.

4.6 **Corrosion tests** consisting of sulfate, pH, resistivity and chloride analysis to determine potential corrosive effects of soils on concrete and underground utilities. Test results are provided on Table IV.

4.7 **R-Value test** per California Test Method 301 was performed on a representative sample, which may be anticipated to be near subgrade to determine pavement design. Results are provided within the pavement design section of the report.

4.8 **Direct Shear tests** (ASTM: D 3080) were performed on undisturbed and/or remolded samples of the subsurface soils. The test is performed under saturated conditions at loads of 1,000 lbs./sq.ft., 2,000 lbs./sq.ft., and 3,000 lbs./sq.ft. with results shown on Plates A and B.

4.9 **Consolidation tests** (ASTM: D 2435) were performed on undisturbed samples to determine the differential and total settlement which may be anticipated based upon the proposed loads. Water was added to the samples at a surcharge of one KSF and the settlement curves are plotted on Plates C to E.

5.0 Seismicity Evaluation

The proposed development lies outside of any Alquist Priolo Special Studies Zone and the potential for damage due to direct fault rupture is considered unlikely. The nearest fault is the Newport-Inglewood fault located 2.5 kilometers from the site and is capable of producing a Magnitude 7.0 earthquake. Ground shaking originating from earthquakes along other active faults in the region is expected to induce lower horizontal accelerations due to smaller anticipated earthquakes and/or greater distances to other faults. The following seismic design acceleration parameters are provided below and are based upon the 2019 California Building Code (CBC) for the referenced project. The data was obtained from the American Society of Civil Engineers (ASCE) website, https://asce7hazardtool.online/.

Seismic Design Acceleration Parameters

Latitude	33.674
Longitude	-117.889
Site Class	D
Risk Category	III
Mapped Spectral Response Acceleration	S_S = 1.395 S_1 = 0.467
Adjusted Maximum Acceleration	S_{MS} = 1.305
Design Spectral Response Acceleration Parameters	S_{DS} = 0.870
Peak Ground Acceleration	PGA_M = 0.617

Use of these values is dependent on requirements of ASCE 7-16, 11-4.8, Exception 2 that requires the value of the seismic response coefficient C_s be determined by Equation 12.8.2 for values of $T \leq 1.5T_s$ and taken as equal to 1.5 times the value computed in accordance with either 12.8-3 for $T_L \geq T \geq 1.5T_s$ or Equation 12.8-4 for $T > T_L$. Computations and verification of these conditions is referred to the structural engineer.

6.0 Liquefaction Evaluation

The site is expected to experience ground shaking and earthquake activity that is typical of Southern California area. It is during severe ground shaking that loose, granular soils below the groundwater table can liquefy. A review of the exploratory boring log and the laboratory test results on selected soil samples obtained indicate the following soil classifications, field blowcounts and amounts of fines passing through the No. 200 sieve.

Field Blowcount and Gradation Data

Boring No.	Classification	Blowcounts (blows/ft)	Relative Density	% Passing No. 200 Sieve
B-5 @ 5'	CL	24	Very Stiff	74
B-5 @ 10'	CL	23	Very Stiff	71
B-5 @ 15'	SM	55	Very Dense	25
B-5 @ 20'	SM	35	Very Dense	24
B-5 @ 25'	SW	24	Dense	5
B-5 @ 30'	SW	26	Dense	4
B-5 @ 35'	SW	24	Dense	9
B-5 @ 40'	CL	24	Medium Stiff	72
B-5 @ 45'	SM	19	Medium Dense	37
B-5 @ 50'	SM	20	Medium Dense	15

Based upon information in the California Division of Mines and Geology "Seismic Hazard Zone Map – Newport Beach Quadrangle", dated April 7, 1997, the subject site is situated in an area of historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions to indicate a potential for permanent ground displacement.

Our liquefaction evaluation utilized the nearest mode of predominate Magnitude 7.0 Mw earthquake in our earthquake in our calculations. The analysis indicates the potential for liquefaction at this site to be moderate based upon a historic groundwater depth of 20 feet deep and a Peak Ground Acceleration (PGA_M) of 0.617. Based on our calculations, the associated seismic-induced settlements would be on the order of 2 inches and would occur rather uniformly across the site. Differential settlements would be on the order of one inch over a 50-foot (horizontal) distance.

It is recommended that a stiffened foundation system be utilized for the proposed structure to mitigate the seismic-induced settlements. The stiffened system shall consist of a post-tensioned slab design, mat foundation or a system of grade beams connecting the foundations in two directions throughout the new structure. Our seismic settlement calculations are included in Appendix C.

7.0 Infiltration Characteristics

Infiltration tests within the site were performed to provide preliminary infiltration rates for the purpose of planning and design of an on-site water disposal system. A truck mounted Simco 2800 Drill Rig equipped with a hollow stem auger was used to excavate the exploratory borings to depths of 5 and 10 below existing ground surface. The borings consisted of six-inch diameter test holes. A three-inch diameter perforated PVC casing with solid end cap was installed in the borings and then surrounded with gravel materials to prevent caving.

The infiltration holes were carefully filled with clean water and refilled after two initial readings. Based upon the initial rates of infiltration at each location, test measurements were measured at selected maximum intervals thereafter. Measurements were obtained by using an electronic tape measure with 1/16-inch divisions and timed with a stopwatch. The field infiltration rate was computed using a reduction factor – R_f based on the field measurements with our calculations given in Appendix D. Based upon the results of our testing, the soils encountered in the planned on-site drainage disposal system area exhibit the following infiltration rates.

Boring/Test No.	Depth	Soil Classification	Field Infiltration Rate	Design Rate
B-1/TH-1	5'	Silty CLAY	0.34 in/hr	0.17 in/hr
B-2/TH-2	10'	Silty CLAY	0.00 in/hr	0.00 in/hr

The correction factors CF_t, CF_v and CF_s are given below based on soils at 5 and 10 feet from our field tests.

a) CF_t = Rf =5.8 and 6.0 for our two infiltration test holes.

b) CF_v = 1.0 based on uniform soils encountered in two borings for infiltration tests.

c) CF_s = 2.0 for long-term siltation, plugging and maintenance. The subsurface soils are likely to have some plugging and regular maintenance of storm water discharge devices is required.

Based on the results of our field testing, the subsurface soils encountered in the proposed on-site drainage disposal system have a very low infiltration rate, less than 0.3 inch per hour. All systems must meet the latest city and/or county specifications and the California Regional Water Quality Control Board (CRWQCB) requirements. Based on the California Division of Mines and Geology Seismic Hazard Zone Report for the Newport Beach 7.5 Minute Quadrangle, the site is mapped with a historic groundwater depth of 20 to 30 feet deep.

8.0 Conclusions and Recommendations

The project site is underlain by 10 to 25 feet of stiff and dense undocumented fill placed several years ago during the development of Costa Mesa by the filling of wetlands and grading of terraces. Based upon our evaluations, the proposed development is acceptable from a geotechnical engineering standpoint. By following the recommendations and guidelines set forth in our report, the structures will be safe from excessive settlements under the anticipated design loadings and conditions. The proposed development shall meet all requirements of the City Building Ordinance and will not impose any adverse effect on existing adjacent structures.

The following recommendations are based upon soil conditions encountered in our field investigation; these near-surface soil conditions could vary across the site. Variations in the soil conditions may not become evident until the commencement of grading operations for the proposed development and revised recommendations from the soils engineer may be necessary based upon the conditions encountered. It is recommended that site inspections be performed by a representative of this firm during all grading and construction of the development to verify the findings and recommendations documented in this report. Any unusual conditions which may be encountered in the course of the project development may require the need for additional study and revised recommendations.

8.1 Site Grading Recommendations

Any vegetation and/or demolition debris shall be removed and hauled from proposed grading areas prior to the start of grading operations. Existing vegetation shall not be mixed or disced into the soils. Any removed soils may be reutilized as compacted fill once any deleterious material or oversized materials (in excess of eight inches) is removed. Grading operations shall be performed in accordance with the attached *Specifications for Placement of Compacted Fill*.

The existing undocumented fill may be left in-place provided that the upper 5 feet below proposed building pad and 5 feet below proposed bottom of foundations shall be removed to competent material, the exposed surface scarified to a depth of 12 inches, brought to within 2% of optimum moisture content and compacted to a minimum of 90% of the laboratory standard (ASTM: D-1557) prior to placement of any additional compacted fill soils, foundations, slabs-on-grade and pavement. The overexcavation within the proposed pavement areas me be excavated to a depth of xx feet below proposed grade into competent material. Grading shall extend a minimum of five horizontal feet outside the edges of foundations or equidistant to the depth of fill placed, whichever is greater.

It is possible that isolated areas of undiscovered fill not described in this report are present on site; if found, these areas should be treated as discussed earlier. A diligent search shall also be conducted during grading operations in an effort to uncover any underground structures, irrigation or utility lines. If encountered, these structures and lines shall be either removed or properly abandoned prior to the proposed construction.

Any imported fill material should be preferably soil similar to the upper soils encountered at the subject site. All soils shall be approved by this firm prior to importing at the site and will be subjected to additional laboratory testing to assure concurrence with the recommendations stated in this report.

If placement of slabs-on-grade and pavement is not completed immediately upon completion of grading operations, additional testing and grading of the areas may be necessary prior to continuation of construction operations. Likewise, if adverse weather conditions occur which may damage the subgrade soils, additional assessment by the soils engineer as to the suitability of the supporting soils may be needed.

Care should be taken to provide or maintain adequate lateral support for all adjacent improvements and structures at all times during the grading operations and construction phase. Adequate drainage away from the structures, pavement and slopes should be provided at all times.

8.2 Shrinkage and Subsidence

Results of our in-place density tests reveal that the soil shrinkage will be less than 3% due to excavation and recompaction, based upon the assumption that the fill is compacted to 92% of the maximum dry density per ASTM standards. Subsidence should be 0.2 feet die to earthwork operations. The volume change does not include any allowance for vegetation or organic stripping, removal of subsurface improvements, or topographic approximations. Although these values are only approximate, they represent our best estimate of lost yardage, which will likely occur during grading. If more accurate shrinkage and subsidence factors are needed, it is recommended that field testing the actual equipment and grading techniques should be conducted.

8.3 Temporary Excavations

Temporary unsurcharged excavations in the existing site materials may be made at vertical inclinations up to 4 feet in height unless cohesionless soils are encountered. In areas where soils with little or no binder are encountered, where adverse geological conditions are exposed, or where excavations are adjacent to existing structures, shoring or flatter excavations may be required. The temporary cut slope gradients given above do not preclude local raveling and sloughing. All excavations shall be made in accordance with the requirements of the soils engineer, CAL-OSHA and other public agencies having jurisdiction. Care should be taken to provide or maintain adequate lateral support for all adjacent improvements and structures at all times during the grading operations and construction phase.

8.4 **Foundation Design**

All foundations may be designed utilizing the following allowable bearing capacities for an embedded depth of 24 inches into approved engineered fill with the corresponding widths:

Allowable Bearing Capacity (psf)		
Width (feet)	Continuous Foundation	Isolated Foundation
1.5	2000	2500
2.0	2075	2575
4.0	2375	2875
6.0	2500	3000

The bearing value may be increased by 500 psf for each additional foot of depth in excess of the 24-inch minimum depth, up to a maximum of 4,000 psf. A one-third increase may be used when considering short-term loading and seismic forces. Any foundations located along property line or where lateral overexcavation is not possible may utilize an allowable bearing capacity of 1,500 psf.

It is recommended that a stiffened foundation system be utilized for the proposed structure to mitigate the seismic-induced settlements. The stiffened system shall consist of a post-tensioned slab design, mat foundation or a system of grade beams connecting the foundations in two directions throughout the new structure.

A modulus of subgrade reaction (k) of 100 pci may be used for design of slabs placed on engineered fill soils supporting sustained concentrated loads. A representative of this firm shall inspect all foundation excavations prior to pouring concrete.

8.5 **Settlement Analysis**

Resultant pressure curves for the consolidation tests are shown on Plates C to E. Computations utilizing these curves and the recommended allowable soil bearing capacities reveal that the foundations will experience settlements on the order of ¾ inch and differential settlements of less than ¼ inch.

8.6 **Lateral Resistance**

The following values may be utilized in resisting lateral loads imposed on the structure. Requirements of the California Building Code should be adhered to when the coefficient of friction and passive pressures are combined.

Coefficient of Friction - 0.35

Equivalent Passive Fluid Pressure = 200 lbs./cu.ft.

Maximum Passive Pressure = 2,000 lbs./cu.ft.

The passive pressure recommendations are valid only for approved compacted fill soils or competent native materials.

8.7 **Retaining Wall Design Parameters**

Active earth pressures against retaining walls will be equal to the pressures developed by the following fluid densities. These values are for **granular backfill material** placed behind the walls at various ground slopes above the walls.

Surface Slope of Retained Materials (Horizontal to Vertical	Equivalent Fluid Density (lb./cu.ft.)
Level	30
5 to 1	35
4 to 1	38
3 to 1	40
2 to 1	45

Any applicable short-term construction surcharges and seismic forces should be added to the above lateral pressure values. An equivalent fluid pressure of 45 pcf may be utilized for the restrained wall condition with a level grade behind the wall.

The seismic-induced lateral soil pressure for walls greater than 6 feet may be computed using a triangular pressure distribution with the maximum value at the top of the wall. The maximum lateral pressure of (20 pcf) H where H is the height of the retained soils above the wall footing should be used in final design of retaining walls. Sliding resistance values and passive fluid pressure values may be increased by 1/3 during short-term wind and seismic loading conditions.

All walls shall be waterproofed as needed and protected from hydrostatic pressure by a reliable permanent subdrain system. The subsurface drainage system shall consist of a four-inch diameter perforated PVC pipe encased with gravel and wrapped with filter fabric. The granular backfill to be utilized immediately adjacent to retaining walls shall consist of an approved select granular soil with a sand equivalency greater than 30. This backfill zone of free draining material shall consist of a wedge beginning a minimum of one horizontal foot from the base of the wall extending upward at an inclination of no less than ¾ to 1 (horizontal to vertical).

8.8 Slab Design

All concrete slabs shall be a minimum of six inches in thickness in the proposed service areas and four inches in office and hardscape reinforced a minimum of No. 4 bars, sixteen inches in each direction positioned in the center of the slab and placed on approved subgrade soils. Additional reinforcement requirements and an increase in thickness of the slabs-on-grade may be necessary based upon proposed loading conditions in the structures and should be evaluated further by the project engineers and/or architect. All subgrade soils shall be moisture conditioned to near optimum moisture content prior to pouring concrete.

A vapor retarder (10-mil minimum thickness) should be utilized in areas which would be sensitive to the infiltration of moisture. This retarder shall meet requirements of ASTM E 96, *Water Vapor Transmission of Materials* and ASTM E 1745, *Standard Specification for Water Vapor Retarders used in Contact with Soil or Granular Fill Under Concrete Slabs.* The vapor retarder shall be installed in accordance with procedures stated in ASTM E 1643, *Standard practice for Installation of Water Vapor Retarders used in Contact with Earth or Granular Fill Under Concrete Slabs.*

The moisture retarder may be placed directly upon compacted subgrade soils conditioned to near optimum moisture levels, although one to two inches of sand beneath the membrane is desirable. The subgrade upon which the retarder is placed shall be smooth and free of rocks, gravel or other protrusions which may damage the retarder. Use of sand above the retarder is under the purview of the structural engineer; if sand is used over the retarder, it should be placed in a dry condition.

8.9 Pavement Section Design

The table on the following page provides a preliminary pavement design based upon an R-Value of 20 for the subgrade soils for the proposed pavement areas. Final pavement design may need to be based on R-Value testing of the subgrade soils near the conclusion of site grading to assure that these soils are consistent with those assumed in this preliminary design.

Type of Traffic	Traffic Index	Asphalt (in.)	Base Material (in.)
Automobile Parking Stalls	4.0	3.5	5.5
Light Vehicle Circulation Areas	5.5	4.0	8.0

Any concrete slab-on-grade in pavement areas shall be a minimum of six inches in thickness and placed on approved subgrade soils. All pavement areas shall have positive drainage toward an approved outlet from the site. Drain lines behind curbs and/or adjacent to landscape areas should be considered by client and the appropriate design engineers to prevent water from infiltrating beneath pavement. If such infiltration occurs, damage to pavement, curbs and flow lines, especially on sites with expansive soils, may occur during the life of the project.

Any approved base material shall consist of a Class II aggregate or equivalent and should be compacted to a minimum of 95% relative compaction. All pavement materials shall conform to the requirements set forth by the City of Costa Mesa. The base material; and asphaltic concrete should be tested prior to delivery to the site and during placement to determine conformance with the project specifications. A pavement engineer shall designate the specific asphalt mix design to meet the required project specifications.

8.10 Utility Trench and Excavation Backfill

Trenches from installation of utility lines and other excavations may be backfilled with on-site soils or approved imported soils compacted to a minimum of 90% relative compaction. All utility lines shall be properly bedded with clean sand having a sand equivalency rating of 30 or more. This bedding material shall be thoroughly water jetted around the pipe structure prior to placement of compacted backfill soils.

8.11 Corrosion Design Criteria

Representative samples of the surficial soils, typical of the subgrade soils expected to be encountered within foundation excavations and underground utilities were tested for corrosion potential. The minimum resistivity value obtained for the samples tested is representative of an environment that may be severely corrosive to metals. The soil pH value was considered mildly acidic and may not have a significant effect on soil corrosivity.

Consideration should be given to corrosion protection systems for buried metal such as protective coatings, wrappings or the use of PVC where permitted by local building codes. According to Table 4.3.1 of ACI 318 Building Code and Commentary, these contents revealed negligible sulfate concentrations. Therefore, a Type II cement according to latest CBC specifications may be utilized for building foundations at this time. It is recommended that additional sulfate tests be performed at the completion of site grading to assure that the as graded conditions are consistent with the recommendations stated in this design. Corrosion test results may be found on the attached Table IV.

8.12 Expansive Soil

Since expansive soils are encountered, special attention should be given to the project design and maintenance. The attached *Expansive Soil Guidelines* should be reviewed by the engineers, architects, owner, maintenance personnel and other interested parties and considered during the design of the project and future property maintenance.

9.0 Closure

The recommendations and conclusions contained in this report are based upon the soil conditions uncovered in our test excavations. No warranty of the soil condition between our excavations is implied. NorCal Engineering should be notified for possible further recommendations if unexpected to unfavorable conditions are encountered during construction phase. It is the responsibility of the owner to ensure that all information within this report is submitted to the Architect and appropriate Engineers for the project.

A preconstruction conference should be held between the developer, general contractor, grading contractor, city inspector, architect, and soil engineer to clarify any questions relating to the grading operations and subsequent construction. Our representative should be present during the grading operations and construction phase to certify that such recommendations are complied within the field.

This geotechnical investigation has been conducted in a manner consistent with the level of care and skill exercised by members of our profession currently practicing under similar conditions in the Southern California area. No other warranty, expressed or implied is made.

We appreciate this opportunity to be of service to you. If you have any further questions, please do not hesitate to contact the undersigned.

Respectfully submitted,
NORCAL ENGINEERING

REGISTERED PROFESSIONAL ENGINEER
KEITH D. TUCKER
Exp. 12/31/2020
GEOTECHNICAL
STATE OF CALIFORNIA

Keith D. Tucker
Project Engineer
R.G.E. 841

Scott D. Spensiero
Project Manager

SPECIFICATIONS FOR PLACEMENT OF COMPACTED FILL

Excavation

Any existing low-density soils and/or saturated soils shall be removed to competent natural soil under the inspection of the Geotechnical Engineering Firm. After the exposed surface has been cleansed of debris and/or vegetation, it shall be scarified until it is uniform in consistency, brought to the proper moisture content and compacted to a minimum of 90% relative compaction (in accordance with ASTM: D 1557).

In any area where a transition between fill and native soil or between bedrock and soil are encountered, additional excavation beneath foundations and slabs will be necessary in order to provide uniform support and avoid differential settlement of the structure.

Material for Fill

The on-site soils or approved import soils may be utilized for the compacted fill provided they are free of any deleterious materials and shall not contain any rocks, brick, asphaltic concrete, concrete or other hard materials greater than eight inches in maximum dimensions. Any import soil must be approved by the Geotechnical Engineering firm a minimum of 72 hours prior to importation of site.

Placement of Compacted Fill Soils

The approved fill soils shall be placed in layers not excess of six inches in thickness. Each lift shall be uniform in thickness and thoroughly blended. The fill soils shall be brought to within 2% of the optimum moisture content, unless otherwise specified by the Soils Engineering firm. Each lift shall be compacted to a minimum of 90% relative compaction (in accordance with ASTM: D 1557) and approved prior to the placement of the next layer of soil. Compaction tests shall be obtained at the discretion of the Geotechnical Engineering firm but to a minimum of one test for every 500 cubic yards placed and/or for every 2 feet of compacted fill placed.

The minimum relative compaction shall be obtained in accordance with accepted methods in the construction industry. The final grade of the structural areas shall be in a dense and smooth condition prior to placement of slabs-on-grade or pavement areas. No fill soils shall be placed, spread or compacted during unfavorable weather conditions. When the grading is interrupted by heavy rains, compaction operations shall not be resumed until approved by the Geotechnical Engineering firm.

Grading Observations

The controlling governmental agencies should be notified prior to commencement of any grading operations. This firm recommends that the grading operations be conducted under the observation of a Geotechnical Engineering firm as deemed necessary. A 24-hour notice must be provided to this firm prior to the time of our initial inspection.

Observation shall include the clearing and grubbing operations to assure that all unsuitable materials have been properly removed; approve the exposed subgrade in areas to receive fill and in areas where excavation has resulted in the desired finished grade and designate areas of overexcavation; and perform field compaction tests to determine relative compaction achieved during fill placement. In addition, all foundation excavations shall be observed by the Geotechnical Engineering firm to confirm that appropriate bearing materials are present at the design grades and recommend any modifications to construct footings.

EXPANSIVE SOIL GUIDELINES

The following expansive soil guidelines are provided for your project. The intent of these guidelines is to inform you, the client, of the importance of proper design and maintenance of projects supported on expansive soils. ***You, as the owner or other interested party, should be warned that you have a duty to provide the information contained in the soil report including these guidelines to your design engineers, architects, landscapers and other design parties in order to enable them to provide a design that takes into consideration expansive soils.***

In addition, you should provide the soil report with these guidelines to any property manager, lessee, property purchaser or other interested party that will have or assume the responsibility of maintaining the development in the future.

Expansive soils are fine-grained silts and clays which are subject to swelling and contracting. The amount of this swelling and contracting is subject to the amount of fine-grained clay materials present in the soils and the amount of moisture either introduced or extracted from the soils. Expansive soils are divided into five categories ranging from "very low" to "very high". Expansion indices are assigned to each classification and are included in the laboratory testing section of this report. *If the expansion index of the soils on your site, as stated in this report, is 21 or higher, you have expansive soils.* The classifications of expansive soils are as follows:

Classification of Expansive Soil*

Expansion Index	Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
Above 130	Very High

*From Table 18A-I-B of California Building Code (1988)

When expansive soils are compacted during site grading operations, care is taken to place the materials at or slightly above optimum moisture levels and perform proper compaction operations. Any subsequent excessive wetting and/or drying of expansive soils will cause the soil materials to expand and/or contract. These actions are likely to cause distress of foundations, structures, slabs-on-grade, sidewalks and pavement over the life of the structure. ***It is therefore imperative that even after construction of improvements, the moisture contents are maintained at relatively constant levels, allowing neither excessive wetting or drying of soils.***

Evidence of excessive wetting of expansive soils may be seen in concrete slabs, both interior and exterior. Slabs may lift at construction joints producing a trip hazard or may crack from the pressure of soil expansion. Wet clays in foundation areas may result in lifting of the structure causing difficulty in the opening and closing of doors and windows, as well as cracking in exterior and interior wall surfaces. In extreme wetting of soils to depth, settlement of the structure may eventually result. Excessive wetting of soils in landscape areas adjacent to concrete or asphaltic pavement areas may also result in expansion of soils beneath pavement and resultant distress to the pavement surface.

Excessive drying of expansive soils is initially evidenced by cracking in the surface of the soils due to contraction. Settlement of structures and on-grade slabs may also eventually result along with problems in the operation of doors and windows.

Projects located in areas of expansive clay soils will be subject to more movement and "hairline" cracking of walls and slabs than similar projects situated on non-expansive sandy soils. There are, however, measures that developers and property owners may take to reduce the amount of movement over the life the development. The following guidelines are provided to assist you in both design and maintenance of projects on expansive soils:

- Drainage away from structures and pavement is essential to prevent excessive wetting of expansive soils. Grades should be designed to the latest building code and maintained to allow flow of irrigation and rain water to approved drainage devices or to the street. Any "ponding" of water adjacent to buildings, slabs and pavement after rains is evidence of poor drainage; the installation of drainage devices or regrading of the area may be required to assure proper drainage. Installation of rain gutters is also recommended to control the introduction of moisture next to buildings. Gutters should discharge into a drainage device or onto pavement which drains to roadways.

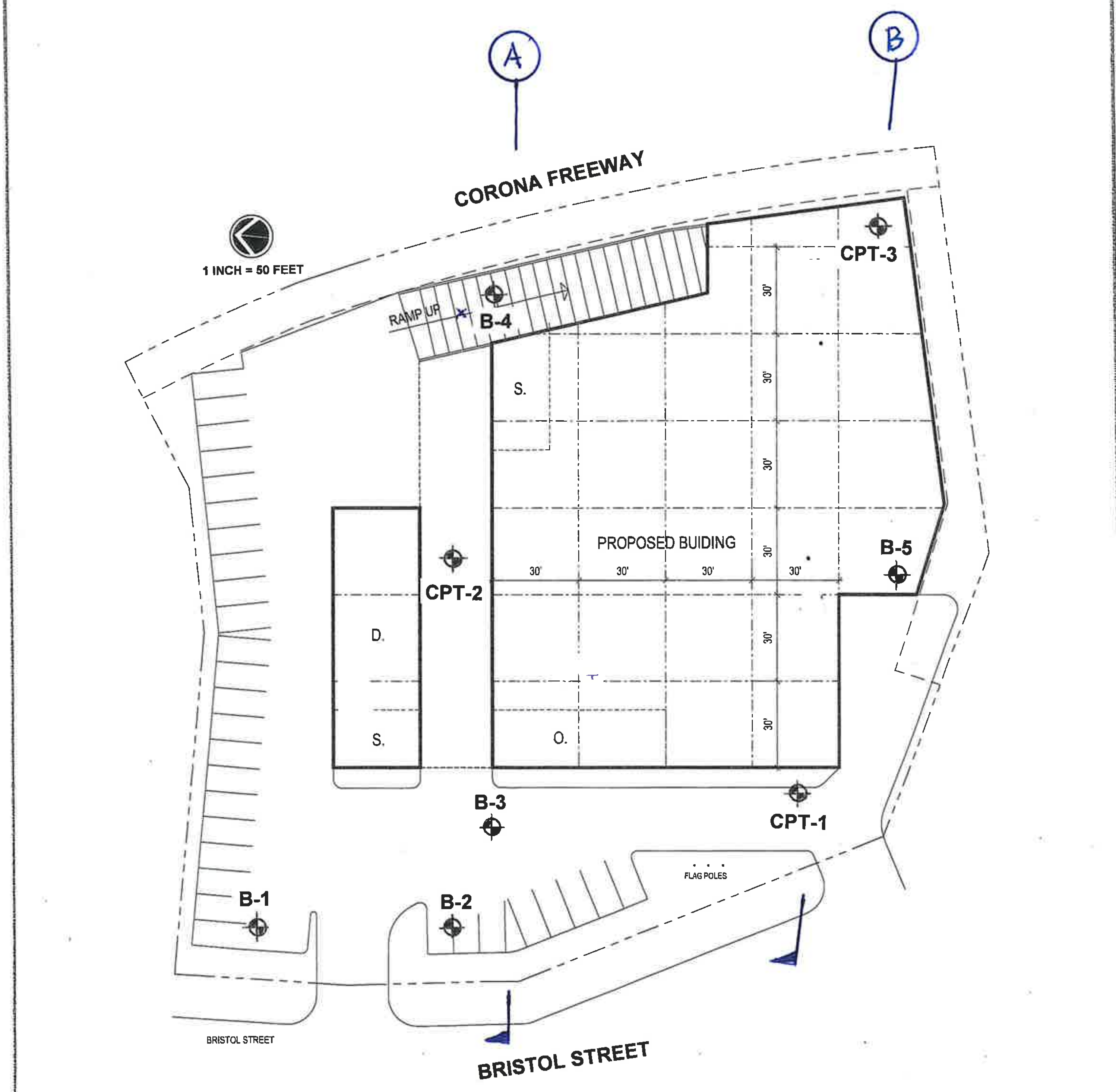
- Irrigation should be strictly controlled around building foundations, slabs and pavement and may need to be adjusted depending upon season. This control is essential to maintain a relatively uniform moisture content in the expansive soils and to prevent swelling and contracting. Over-watering adjacent to improvements may result in damage to those improvements. NorCal Engineering makes no specific recommendations regarding landscape irrigation schedules.

- Planting schemes for landscaping around structures and pavement should be analyzed carefully. Plants (including sod) requiring high amounts of water may result in excessive wetting of soils. Trees and large shrubs may actually extract moisture from the expansive soils, thus causing contraction of the fine-grained soils.

- Thickened edges on exterior slabs will assist in keeping excessive moisture from entering directly beneath the concrete. A six-inch thick or greater deepened edge on slabs may be considered. Underlying interior and exterior slabs with 6 to 12 inches or more of non-expansive soils and providing presaturation of the underlying clayey soils as recommended in the soil report will improve the overall performance of on-grade slabs.

- Increase the amount of steel reinforcing in concrete slabs, foundations and other structures to resist the forces of expansive soils. The precise amount of reinforcing should be determined by the appropriate design engineers and/or architects.

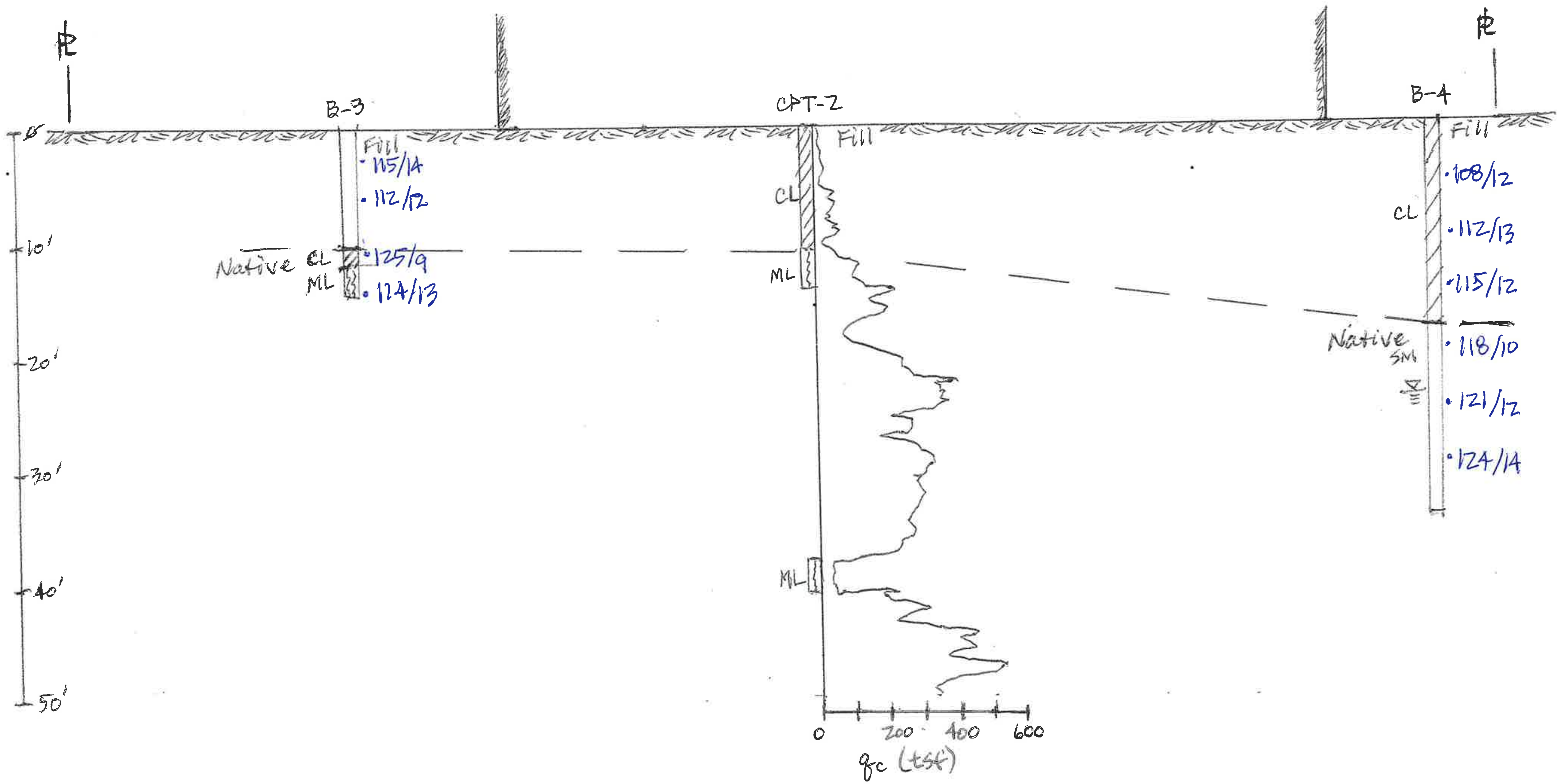
- Recommendations of the soil report should always be followed in the development of the project. Any recommendations regarding presaturation of the upper subgrade soils in slab areas should be performed in the field and verified by the Soil Engineer.



NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

SITE PLAN

PROJECT	21887-20	DATE	AUGUST 2020

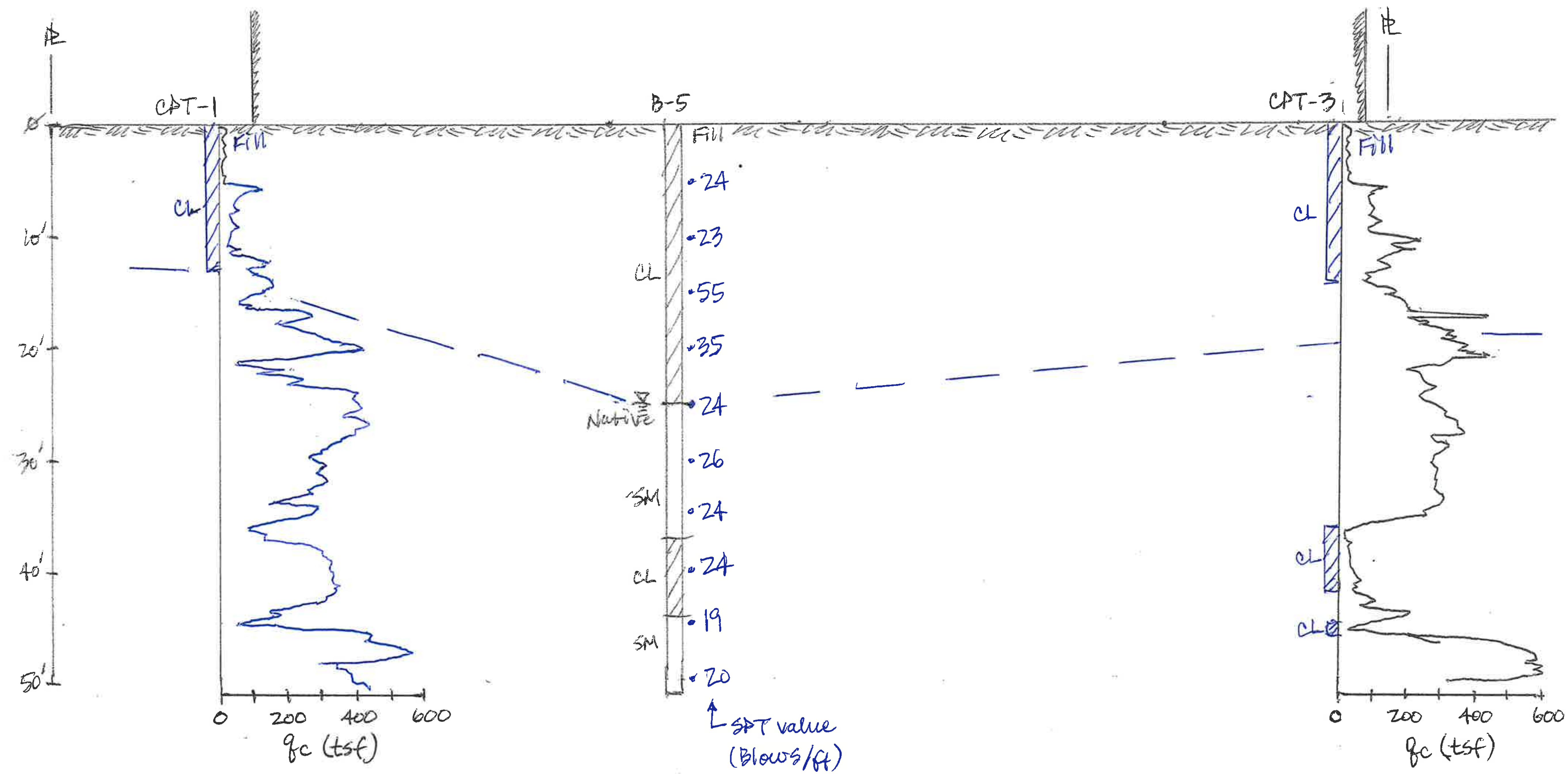


NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT

DATE AUGUST 2020

SECTION A-A



NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

SECTION B-B

PROJECT	21887-20	DATE	AUGUST 2020

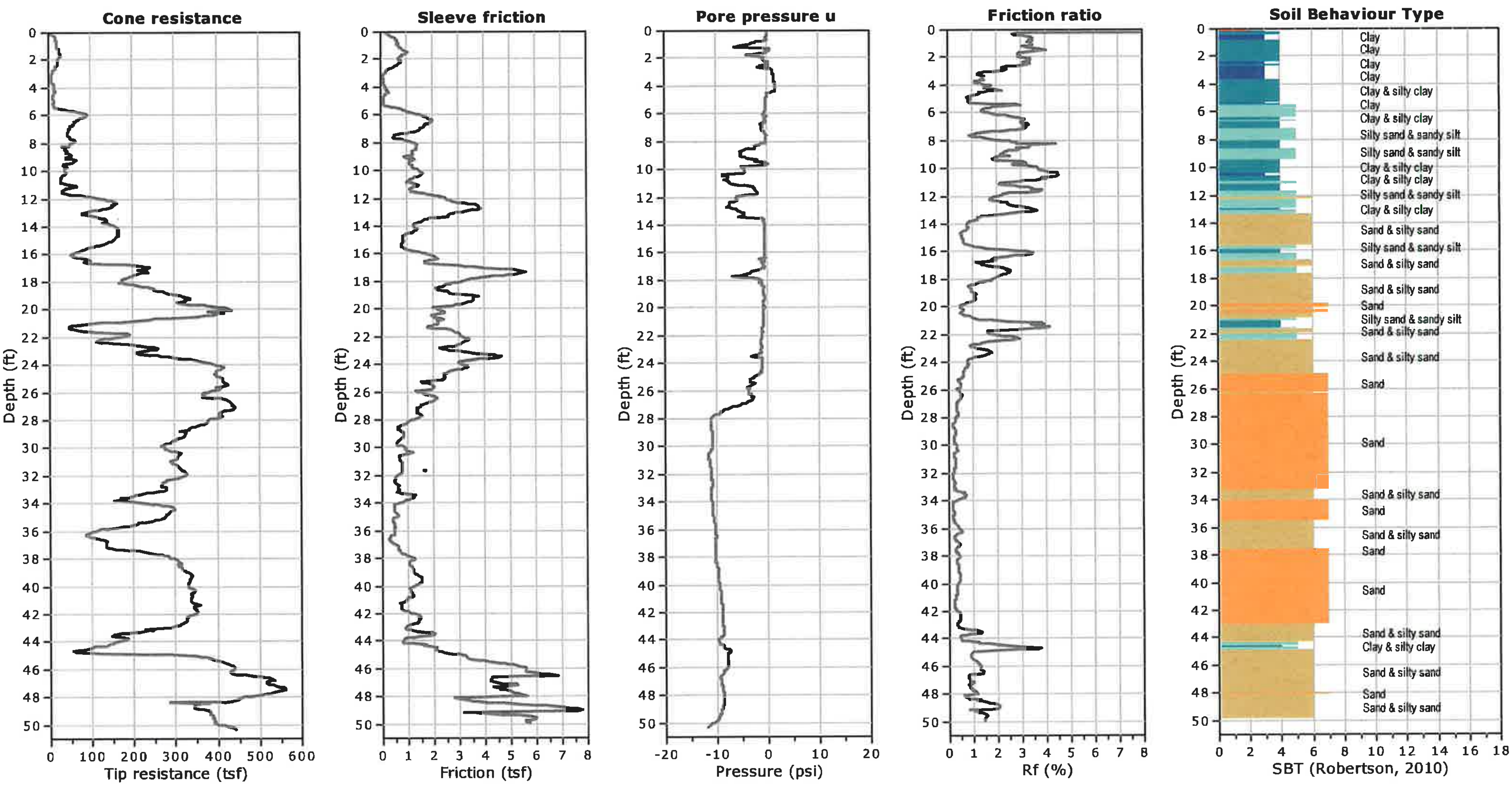
List of Appendices
(in order of appearance)

Appendix A

Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: NorCal Engineering / No. 1 Collision Center
Location: Costa Mesa, CA

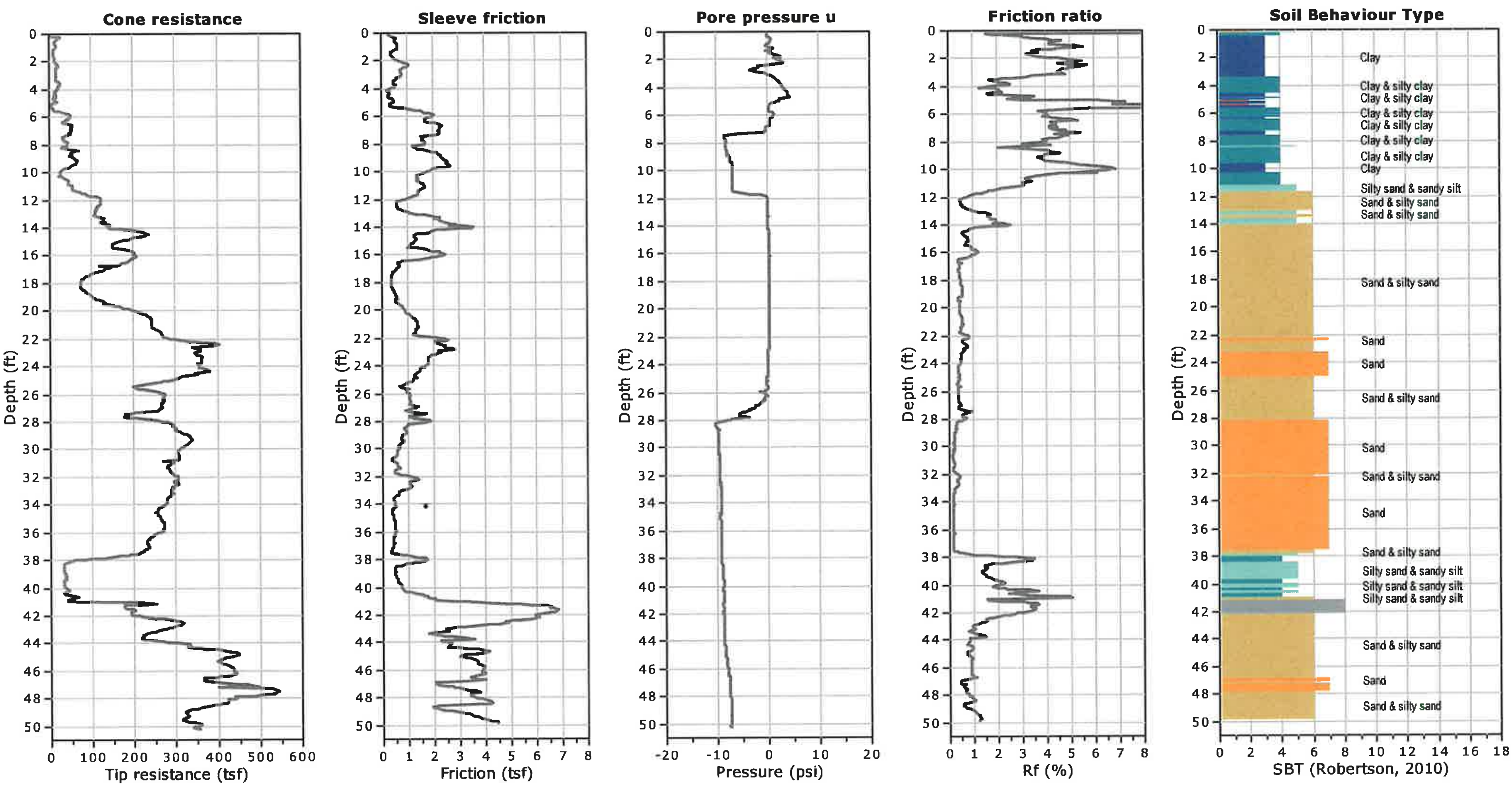
CPT-1
Total depth: 50.28 ft, Date: 7/13/2020



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: NorCal Engineering / No. 1 Collision Center
Location: Costa Mesa, CA

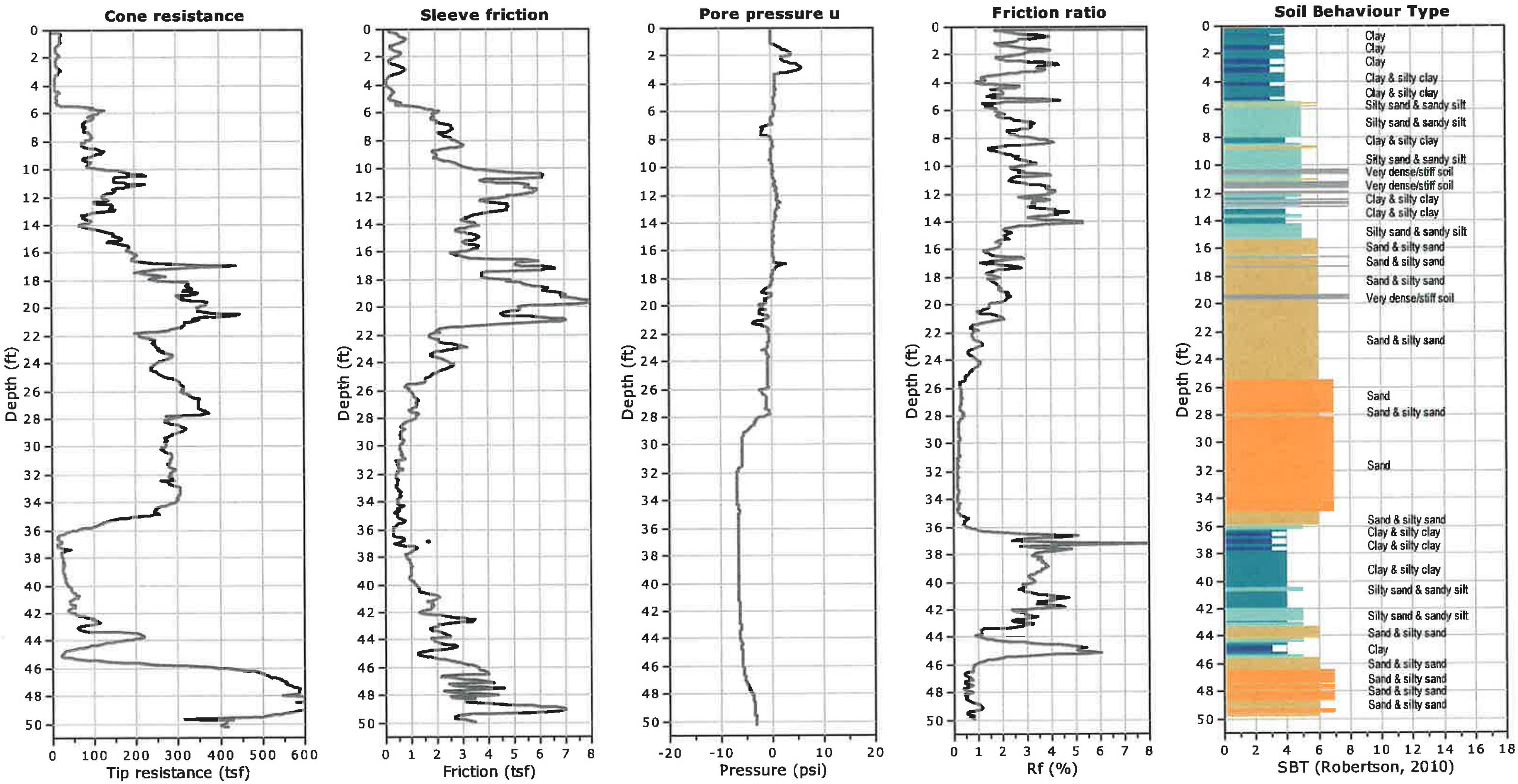
CPT-2
Total depth: 50.22 ft, Date: 7/13/2020



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: NorCal Engineering / No. 1 Collision Center
Location: Costa Mesa, CA

CPT-3
Total depth: 50.26 ft, Date: 7/13/2020



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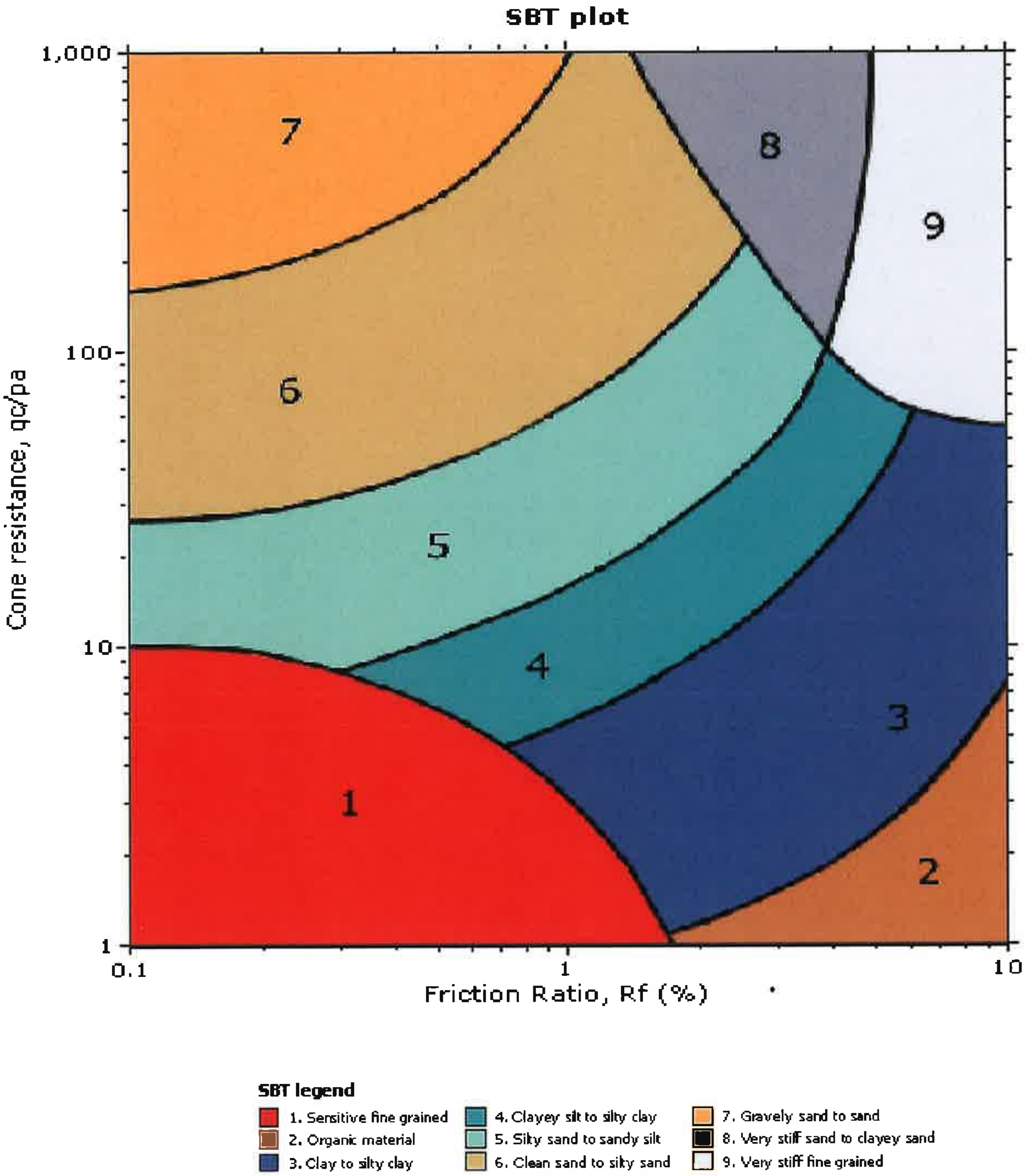

MAJOR DIVISION			GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL. SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION <u>RETAINED</u> ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
MORE THAN 50% OF MATERIAL IS <u>LARGER</u> THAN NO. 200 SIEVE SIZE				SP	POORLY-GRADED SANDS, GRAVEL-LY SANDS, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION <u>PASSING</u> ON NO. 4 SIEVE	SANDS WITH FINE (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% OF MATERIAL IS <u>SMALLER</u> THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT <u>GREATER</u> THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

UNIFIED SOIL CLASSIFICATION SYSTEM

KEY:

■ Indicates 2.5-inch Inside Diameter. Ring Sample.

☒ Indicates 2-inch OD Split Spoon Sample (SPT).

Indicates Shelby Tube Sample.

Indicates No Recovery.

Indicates SPT with 140# Hammer 30 in. Drop.

Indicates Bulk Sample.

Indicates Small Bag Sample.

Indicates Non-Standard

Indicates Core Run.

COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
Trace	1 - 5%
Few	5 - 10%
Little	10 - 20%
Some	20 - 35%
And	35 - 50%

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5mm) to No. 200 (0.074mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074 mm)

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
DAMP	Some perceptible moisture; below optimum
MOIST	No visible water; near optimum moisture content
WET	Visible free water, usually soil is below water table.

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N -VALUE

COHESIONLESS SOILS		COHESIVE SOILS		
Density	N (blows/ft)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	Very Soft	0 to 2	< 250
Loose	4 to 10	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	Very Stiff	15 to 30	2000 - 4000
		Hard	over 30	> 4000

Kunzik and Sara Construction 21887-20	Log of Boring B-1

Boring Location: 2750 & 2770 Bristol St, Costa Mesa	
Date of Drilling: 7/14/2020	Groundwater Depth: None Encountered
Drilling Method: Simco 2800HS	
Hammer Weight: 140 lbs	Drop: 30"
Surface Elevation: Not Measured	

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0–5	GWT not encountered	FILL Silty CLAY Brown to dark brown, stiff, moist Intermingled lenses of sandy silt with gravel and fragments of asphalt and concrete fragments					
5		Boring completed at depth of 5'					

Depth scale: 0, 5, 10, 15, 20, 25, 30, 35

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

NorCal Engineering

Kunzik and Sara Construction 21887-20	Log of Boring B-2

Boring Location: 2750 & 2770 Bristol St, Costa Mesa	
Date of Drilling: 7/14/2020	Groundwater Depth: None Encountered
Drilling Method: Simco 2800HS	
Hammer Weight: 140 lbs	Drop: 30"
Surface Elevation: Not Measured	

Depth (feet)	Lith-ology		Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		GWT not encountered	FILL Silty CLAY Brown to dark brown, stiff, moist Intermingled lenses of sandy silt with gravel and fragments of asphalt and concrete fragments					
5								
10			NATURAL Silty CLAY Brown, stiff, moist					
			Boring completed at depth of 10'					
15								
20								
25								
30								
35								

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

Kunzik and Sara Construction
21887-20

Log of Boring B-3

Boring Location: 2750 & 2770 Bristol St, Costa Mesa

Date of Drilling: 7/14/2020 | **Groundwater Depth:** None Encountered

Drilling Method: Simco 2800HS

Hammer Weight: 140 lbs | **Drop:** 30"

Surface Elevation: Not Measured

GWT not encountered

Depth (feet)	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0	Concrete Slab					
0–10	FILL Silty CLAY to Silty SAND Brown to dark brown, stiff/dense, moist Intermingled lenses of sandy silt with gravel and fragments of asphalt and concrete fragments	■	12/15	13.5	114.8	
		■	14/21	11.5	111.5	
10–12	NATURAL Silty CLAY Brown, stiff, moist	■	9/14	9.2	124.5	
12–16	Sandy CLAY Brown, stiff, moist	■	10/12	12.7	114.3	

Boring completed at depth of 16'

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

Kunzik and Sara Construction
21887-20

Log of Boring B-4

Boring Location: 2750 & 2770 Bristol St, Costa Mesa	
Date of Drilling: 7/14/2020	Groundwater Depth: 24'
Drilling Method: Simco 2800HS	
Hammer Weight: 140 lbs	Drop: 30"
Surface Elevation: Not Measured	

Depth (feet)	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0	Concrete Slab					
	FILL Silty CLAY Brown to dark brown, stiff/dense, moist Intermingled lenses of sandy silt with gravel and fragments of asphalt and concrete fragments					
5			10/15	11.6	107.9	
10			18/22	13.1	112.1	
15			18/27	11.9	114.5	
	NATURAL SAND (medium to coarse grained) Yellow-brown, dense, moist to wet; slightly silty with occasional gravel and some cobble					
20			15/17	9.7	118.2	
25			20/20	11.8	121.6	
30			9/11	13.7	123.7	
35						

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

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Kunzik and Sara Construction
21887-20

Log of Boring B-5

Boring Location: 2750 & 2770 Bristol St, Costa Mesa

Date of Drilling: 7/14/2020 | Groundwater Depth: 25'

Drilling Method: Simco 2800HS

Hammer Weight: 140 lbs | Drop: 30"

Surface Elevation: Not Measured

Depth (feet)	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0	Concrete Slab					
0–25	FILL Silty CLAY Brown to dark brown, stiff/dense, moist Intermingled sandy silt to silty sand with gravel and fragments of asphalt and concrete below 5'					
5		☒	10/11/13	11.7		74
10		☒	9/11/12	10.4		71
15		☒	20/29/26	10.6		25
20		☒	14/17/18	8.7		24
25	NATURAL SAND (medium to coarse grained) Grey-brown, dense, wet; slightly silty with some gravel and occasional cobbles	☒	8/9/15	12.0		5
30		☒	7/10/16	11.7		4
35						

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

NorCal Engineering

Kunzik and Sara Construction
21887-20

Log of Boring B-5

Boring Location: 2750 & 2770 Bristol St, Costa Mesa	
Date of Drilling: 7/14/2020	Groundwater Depth: 25'
Drilling Method: Simco 2800HS	
Hammer Weight: 140 lbs	Drop: 30"
Surface Elevation: Not Measured	

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
35		NATURAL SAND (medium to coarse grained) Grey-brown, dense, wet; slightly silty with some gravel and occasional cobbles		8/10/14	11.1		9
		Silty CLAY Grey, stiff, wet					
40				8/10/14	27.1		72
		Silty (fine to medium grained) SAND Brown, dense, wet; silty to slightly silty					
45				4/7/12	25.3		37
50				7/9/11	19.5		15
		Boring completed at depth of 51.5'					
55							
60							
65							
70							

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

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Appendix B

TABLE I
MAXIMUM DENSITY TESTS

Sample	Classification	Optimum Moisture (%)	Maximum Dry Density (lbs/cu.ft)
B-3 @ 2’	Silty CLAY	13.5	121.0
B-4 @ 2’	Silty CLAY	15.0	117.0

TABLE II
EXPANSION TESTS

Sample	Classification	Expansion Index
B-3 @ 2’	Silty CLAY	70
B-4 @ 2’	Silty CLAY	83

TABLE III
ATTERBERG LIMITS

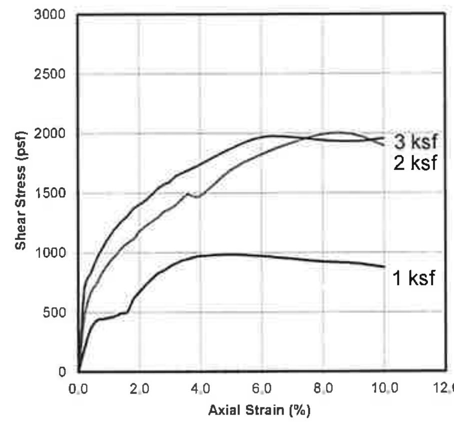
Sample	Liquid Limit	Plastic Limit	Plasticity Index
B-5 @ 5’	34	22	12
B-5 @ 10’	41	25	16

TABLE IV
CORROSION TESTS

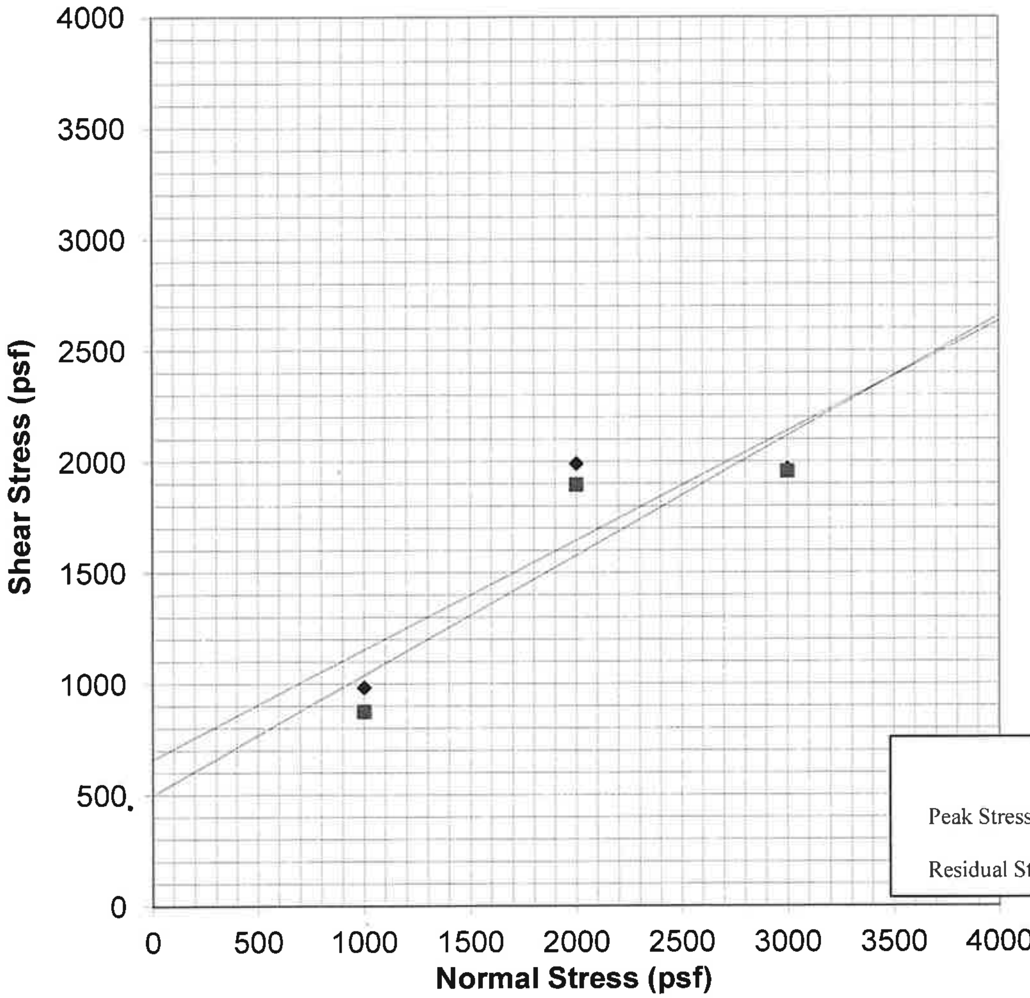
Sample	pH	Electrical Resistivity	Sulfate (%)	Chloride (ppm)
B-3 @ 2’	7.1	1,770	0.004	195

% by weight
ppm – mg/kg

Sample No.	B3@2'			
Sample Type:	Undisturbed/Saturated			
Soil Description:	Silty Clay & Sand w/ Some Gravel			



		1	2	3
Normal Stress	(psf)	1000	2000	3000
Peak Stress	(psf)	984	1992	1968
Displacement	(in)	0.125	0.200	0.150
Residual Stress	(psf)	876	1896	1956
Displacement	(in.)	0.250	0.250	0.250
In Situ Dry Density	(pcf)	114.8	114.8	114.8
In Situ Water Content	(%)	13.5	13.5	13.5
Saturated Water Content	(%)	17.2	17.2	17.2
Strain Rate	(in/min)	0.020	0.020	0.020



	Ø (Degree)	C (psf)
Peak Stress	26	660
Residual Stress	28	500

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Kunzik & Sara Construction, Inc.

PROJECT NUMBER: 21887-20 DATE: 8/5/2020

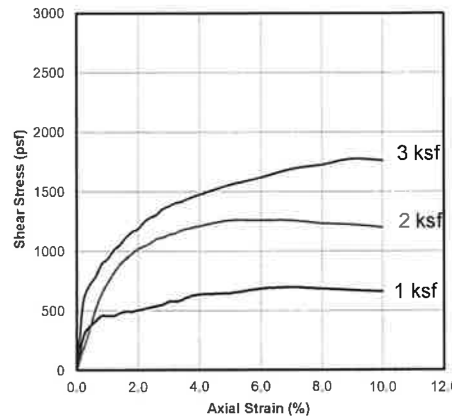
DIRECT SHEAR TEST

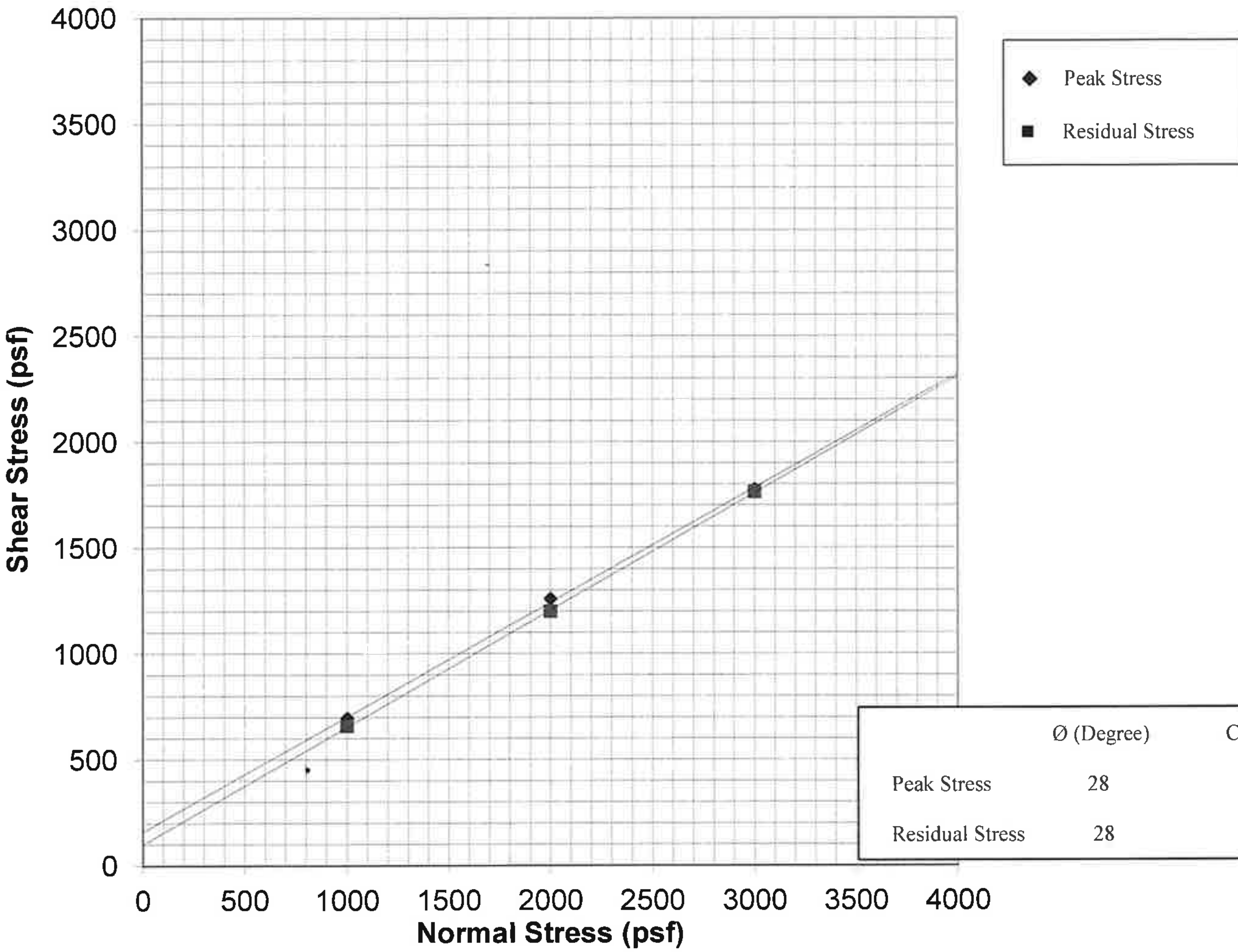
ASTM D3080

Plate A

Sample No.	B4@2'			
Sample Type:	Undisturbed/Saturated			
Soil Description:	Clayey Silt			

		1	2	3
Normal Stress	(psf)	1000	2000	3000
Peak Stress	(psf)	696	1260	1776
Displacement	(in.)	0.175	0.125	0.225
Residual Stress	(psf)	660	1200	1764
Displacement	(in.)	0.250	0.250	0.250
In Situ Dry Density	(pcf)	107.9	107.9	107.9
In Situ Water Content	(%)	11.6	11.6	11.6
Saturated Water Content	(%)	20.8	20.8	20.8
Strain Rate	(in/min)	0.020	0.020	0.020





	Ø (Degree)	C (psf)
Peak Stress	28	160
Residual Stress	28	100

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Kunzik & Sara Construction, Inc.

PROJECT NUMBER: 21887-20 DATE: 8/5/2020

DIRECT SHEAR TEST

ASTM D3080

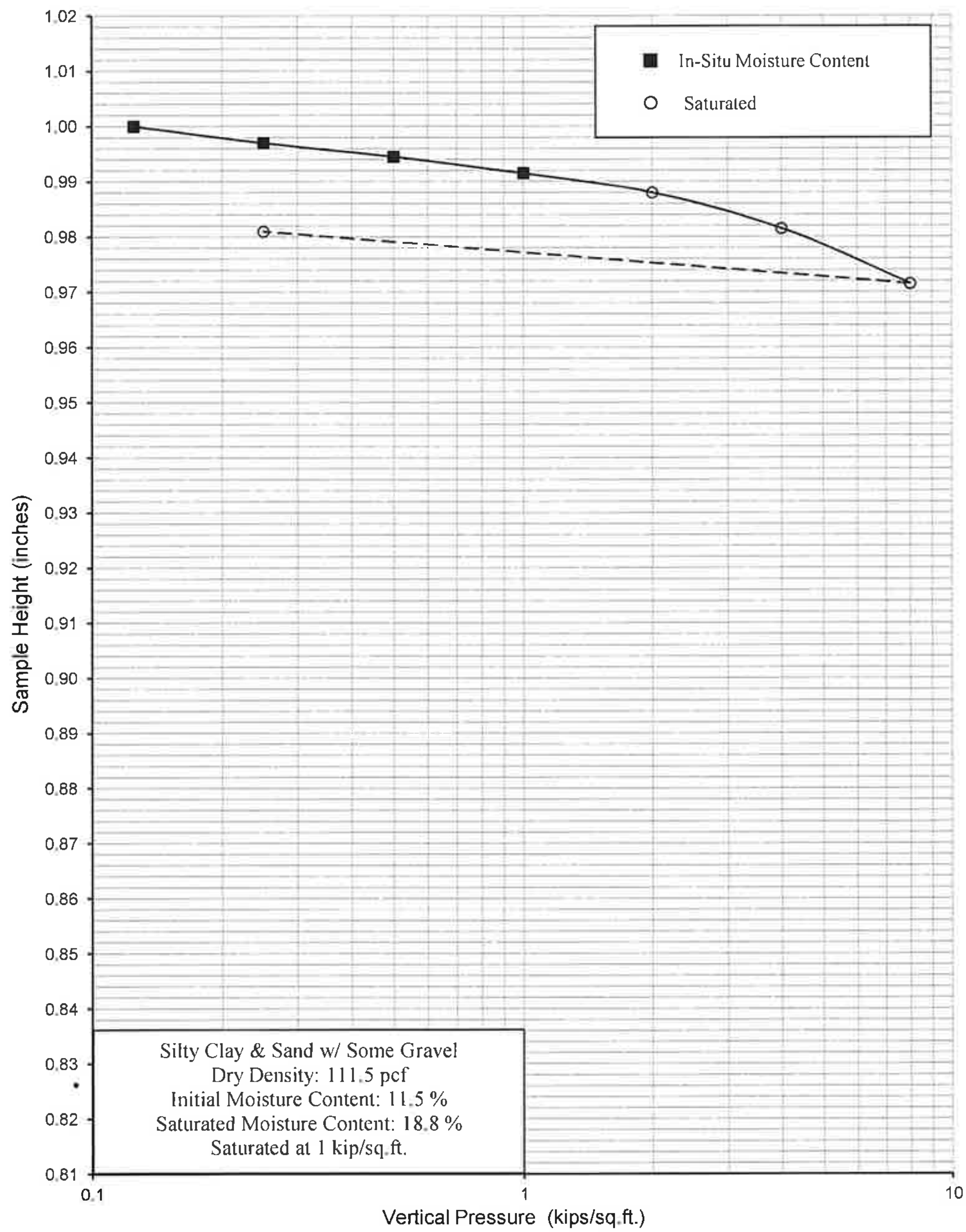
Plate B

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)	Sample No.	B3	Depth 7'	Date 8/5/2020

0.125	1.0000	0.0
0.25	0.9970	0.3
0.5	0.9945	0.6
1	0.9915	0.8
1	0.9915	0.8
2	0.9880	1.2
4	0.9815	1.9
8	0.9715	2.9
0.25	0.9810	1.9

Saturated

Date Tested: 8/3/2020
Sample: B3
Depth: 7'



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SOILS AND GEOTECHNICAL CONSULTANTS

Kunzik & Sara Construction, Inc.

PROJECT NUMBER: 21887-20 DATE: 8/5/2020

CONSOLIDATION TEST

ASTM D2435

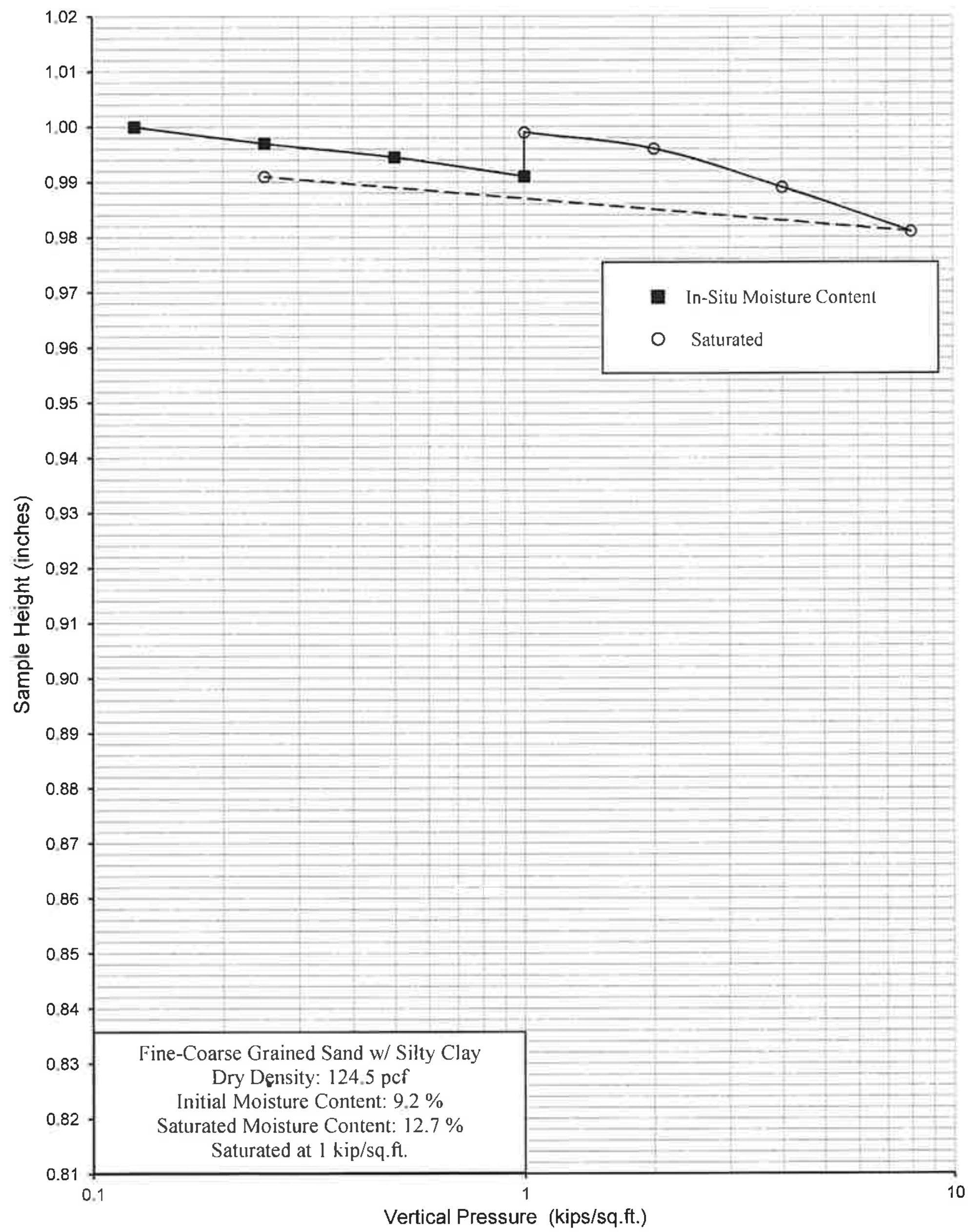
Plate C

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)	Sample No.	B3	Depth	10'	Date	8/5/2020

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)
0.125	1.0000	0.0
0.25	0.9970	0.3
0.5	0.9945	0.6
1	0.9910	0.9
1	0.9990	0.1
2	0.9960	0.4
4	0.9890	1.1
8	0.9810	1.9
0.25	0.9910	0.9

Saturated

Date Tested: 8/3/2020
Sample: B3
Depth: 10'



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SOILS AND GEOTECHNICAL CONSULTANTS

Kunzik & Sara Construction, Inc.

PROJECT NUMBER: 21887-20   DATE: 8/5/2020

CONSOLIDATION TEST

ASTM D2435

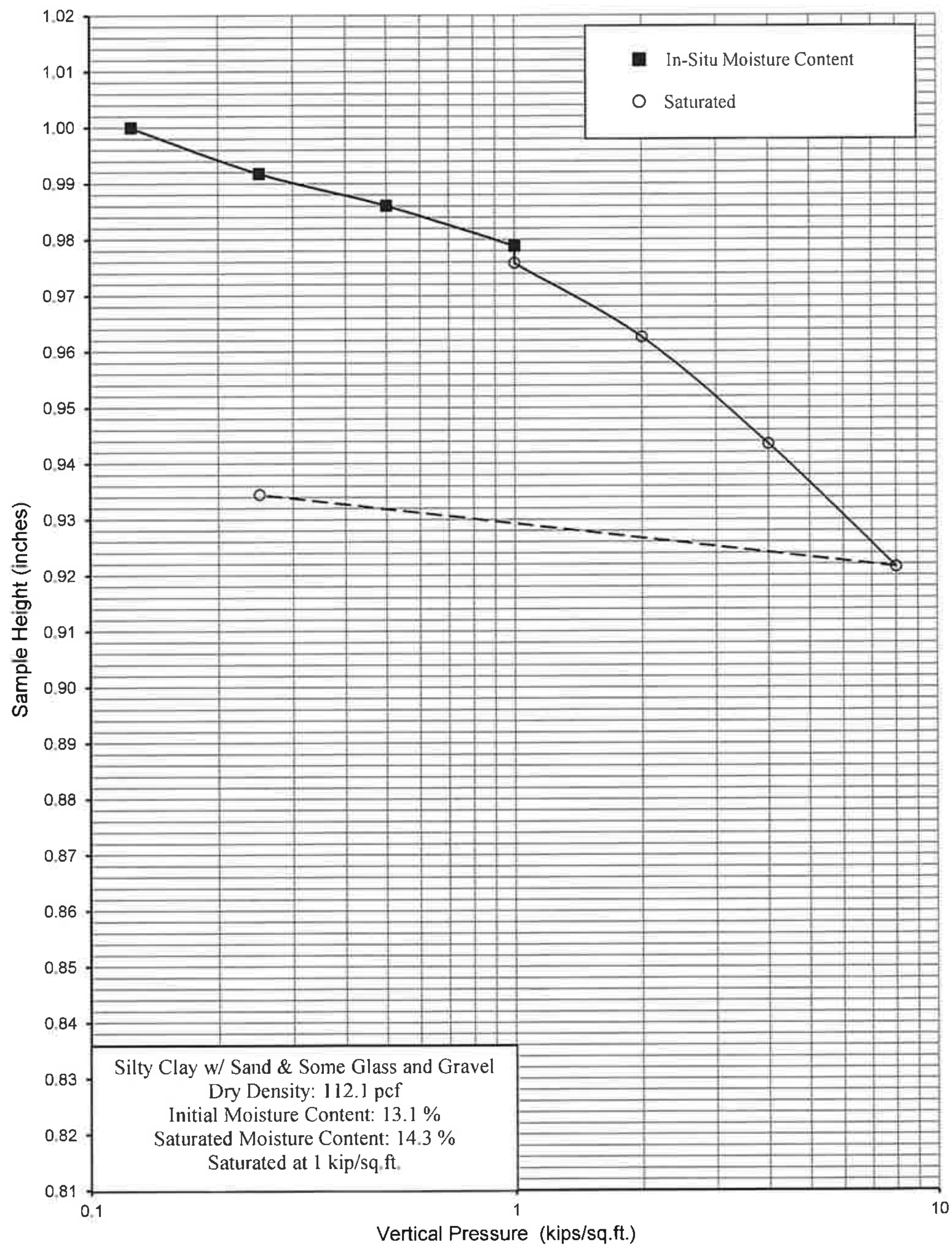
Plate D

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)	Sample No.	B4	Depth 10'	Date 8/5/2020

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)
0.125	**1.0000**	**0.0**
0.25	**0.9918**	**0.8**
0.5	**0.9861**	**1.4**
1	**0.9789**	**2.1**
1	**0.9758**	**2.4**
2	**0.9626**	**3.7**
4	**0.9435**	**5.7**
8	**0.9215**	**7.9**
0.25	**0.9345**	**6.6**

Saturated

Date Tested: **8/3/2020**
Sample: **B4**
Depth: **10'**



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SOILS AND GEOTECHNICAL CONSULTANTS

Kunzik & Sara Construction, Inc.

PROJECT NUMBER: 21887-20 DATE: 8/5/2020

CONSOLIDATION TEST

ASTM D2435

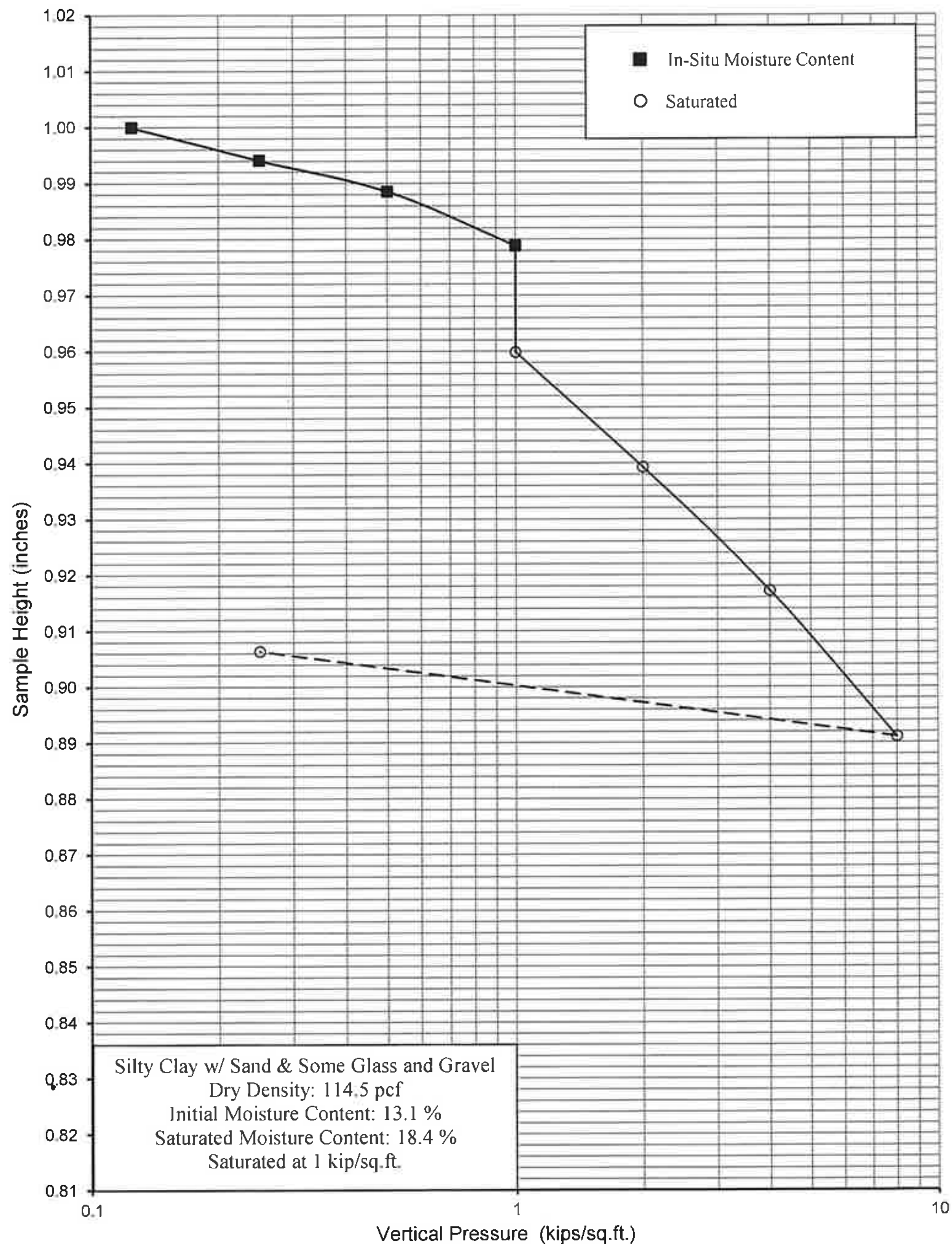
Plate E

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)
0.125	1.0000	0.0
0.25	0.9941	0.6
0.5	0.9886	1.1
1	0.9789	2.1
1	0.9599	4.0
2	0.9393	6.1
4	0.9172	8.3
8	0.8911	10.9
0.25	0.9064	9.4

Saturated

Sample No. B4 | Depth 15' | Date 8/5/2020

Date Tested: 8/4/2020
Sample: B4
Depth: 15'



Silty Clay w/ Sand & Some Glass and Gravel
Dry Density: 114.5 pcf
Initial Moisture Content: 13.1 %
Saturated Moisture Content: 18.4 %
Saturated at 1 kip/sq.ft.

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SOILS AND GEOTECHNICAL CONSULTANTS

Kunzik & Sara Construction, Inc.

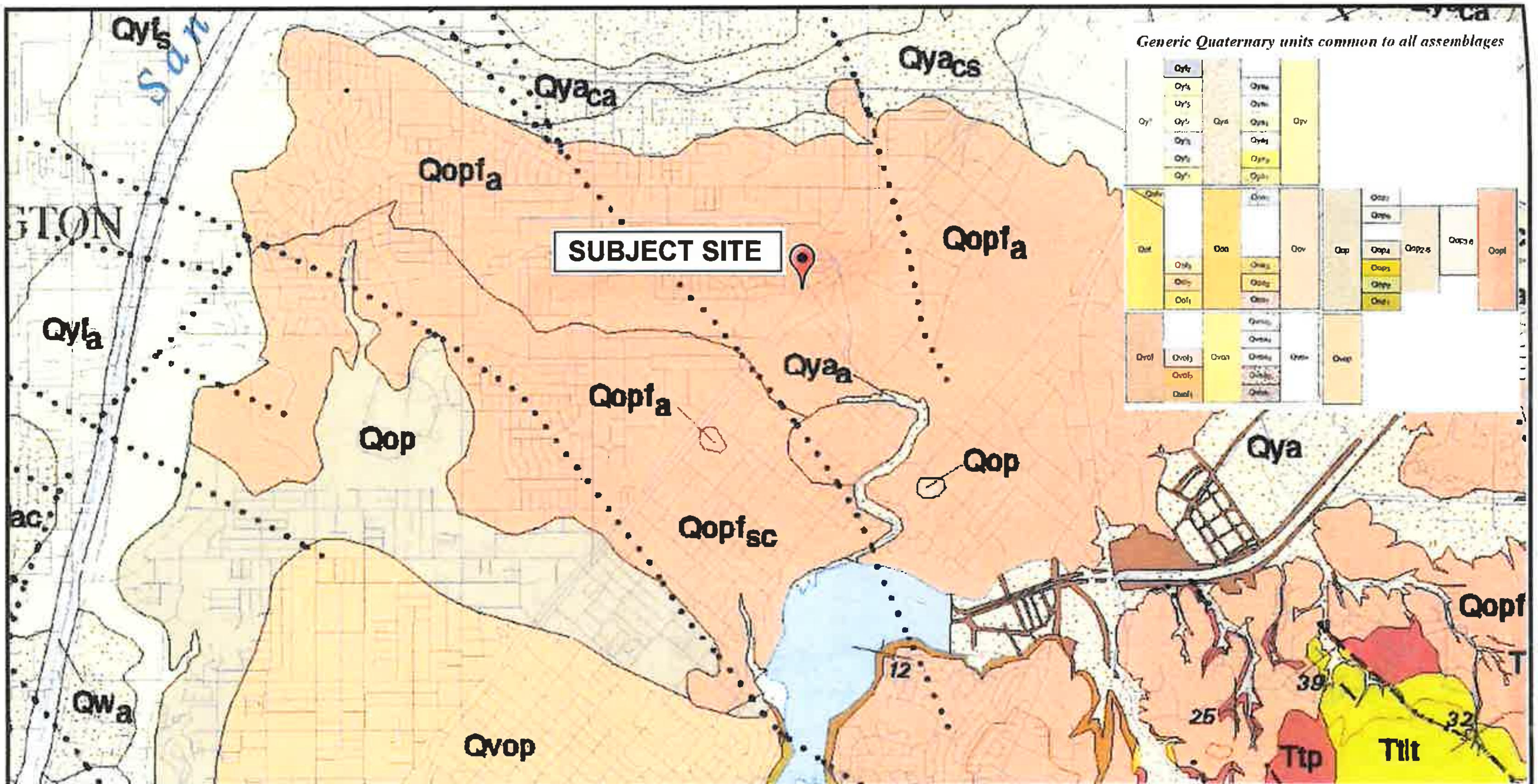
PROJECT NUMBER: 21887-20 DATE: 8/5/2020

CONSOLIDATION TEST

ASTM D2435

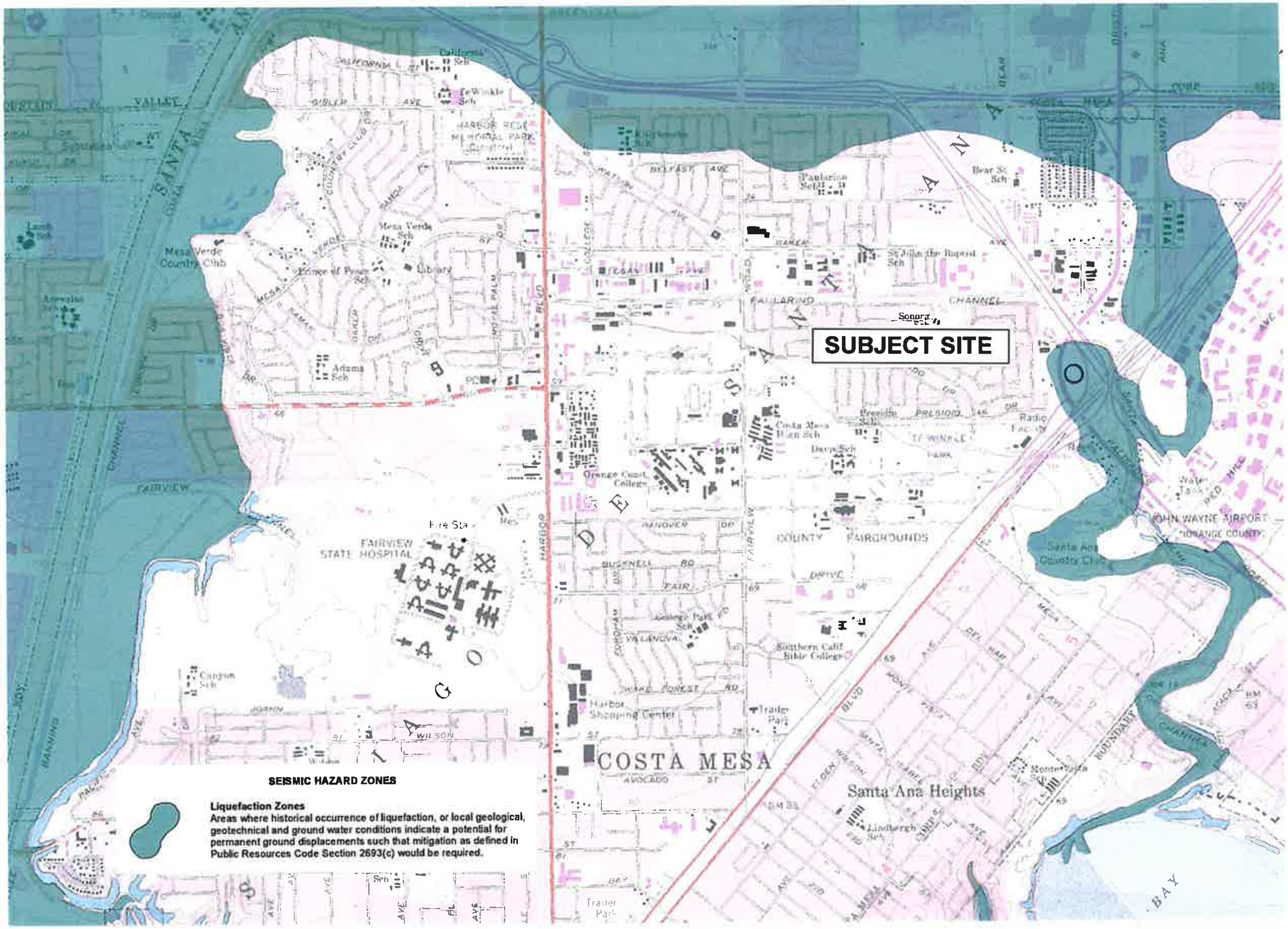
Plate F

Appendix C



Source: Geologic map of the San Bernardino and Santa Ana 30' x 60' quadrangles, California, scale: 1:100,000. Compiled by Morton and Miller, 2006.

NorCal Engineering SOILS AND GEOTECHNICAL CONSULTANTS	GEOLOGY MAP
PROJECT 21887-20 — DATE AUGUST 2020	



California Geological Survey
Geologic Information and Publications
801 K Street, MS 14-34
Sacramento, CA 95814-3532

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SOILS AND GEOTECHNICAL CONSULTANTS

PROJECT 21887-20 | **DATE** AUGUST 2020

Earthquake Zones of Required Investigation
Newport Beach Quadrangle

California Geological Survey

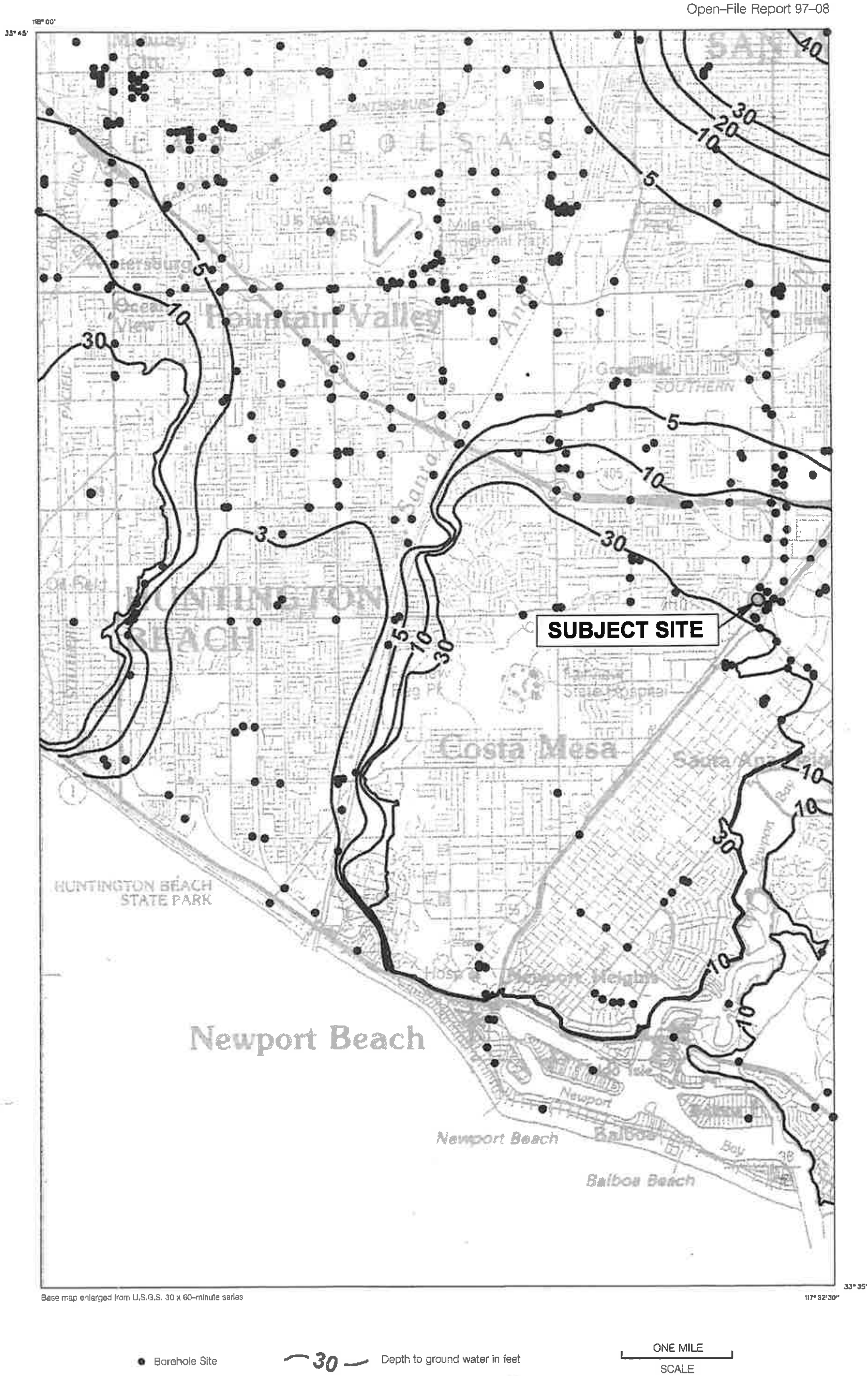


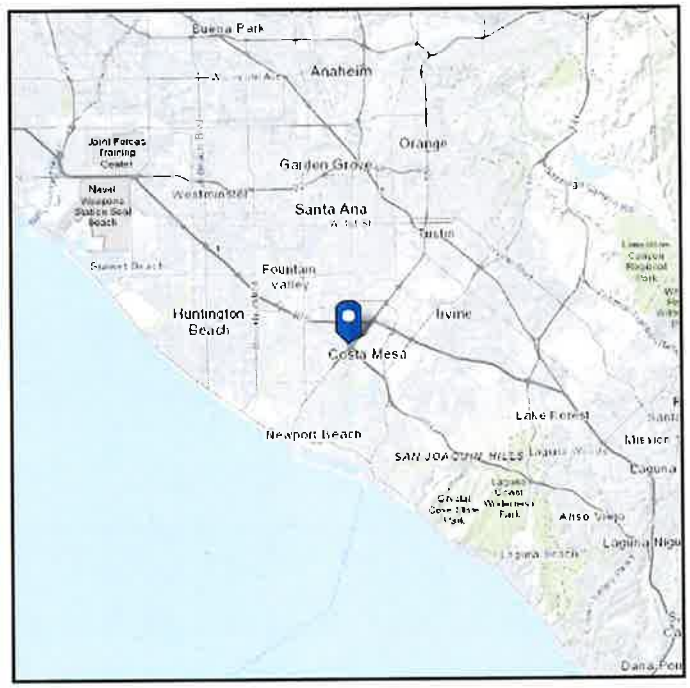
Plate 1.2 Historically Highest Ground Water Contours and Borehole Log Data Locations, Newport Beach Quadrangle.

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 37.78 ft (NAVD 88)
Latitude: 33.674338
Longitude: -117.888686



ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Seismic

Site Soil Class: D - Stiff Soil

Results:

S_S :	1.305	S_{D1} :	N/A
S_1 :	0.467	T_L :	8
F_a :	1	PGA :	0.561
F_v :	N/A	PGA_M :	0.617
S_{MS} :	1.305	F_{PGA} :	1.1
S_{M1} :	N/A	I_e :	1
S_{DS} :	0.87	C_v :	1.361

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Fri Jul 17 2020

Date Source: USGS Seismic Design Maps

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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SITE LOCATION:

GEOTECHNICAL REPORT:

GEOLOGY REPORT:

DEPTH TO WATER TABLE = 20'

EARTHQUAKE MAGNITUDE = 7.0

PEAK GROUND ACCELERATION = 0.62g

DEPTH BELOW FINAL GRADE (FEET)	MOIST DENSITY (PCF)	σ_0 TOTAL STRESS (PSF)	$\bar{\sigma}_0$ EFFECTIVE STRESS (PSF)	$\sigma_0/\bar{\sigma}_0$ (-)	r_d (-)	① $\tau_h/\bar{\sigma}_0$ (-)	N VALUE (BLOWS/FT)	RELATIVE DENSITY (%)	C_N (-)	C_E (-)	C_B (-)	C_R (-)	C_S (-)	$(N_1)_{60}$ (Blows/ft)	FINES (%)	CRR M=7.5	MSF (-)	CRR M=7.0	LIQ. F.S.
5	125	625	Same	1.00	0.99	0.40	24	>90	>1.6	1.00	1.05	0.70	1.20	>34	74	>0.50	1.2	>0.60	>1.5
10		1250			0.96	0.38	23	90	1.2			0.75		26	71				>1.6
15		1875			0.92	0.37	25	85	1.02			0.85		27	25				>1.6
20		2500			0.87	0.35	35	90	0.90			0.90		36	24				≥1.7
25	130	3150	2838	1.11	0.80	0.36	24	75	0.86			0.95		25	5	0.29		0.35	1.0
30		3800	3176	1.20	0.74	0.35	26	75	0.82			1.00		27	4	0.33		0.40	1.1
35		4450	3514	1.27	0.68	0.34	24	70	0.79					24	9	0.30		0.36	1.0
40		5100	3852	1.32	0.64	0.34	24	65	0.76					23	72	>0.50		>0.60	>1.8
45		5750	4190	1.37	0.61	0.33	19	60	0.74					18	37	>0.31		>0.37	>1.1
50		6400	4528	1.41	0.58	0.33	20	60	0.70					18	15	0.26		0.31	0.9

① INDUCED CYCLIC STRESS RATIO = $\tau_{ave}/\bar{\sigma}_0 = 0.65 \cdot \frac{a_{max}}{g} \cdot \frac{\sigma_0}{\bar{\sigma}_0} \cdot r_d$

- C_E = Corr. - Energy Ratio = Energy Ratio/60%
- C_B = Corr. - Borehole Dia. = 1.15 for 8" dia. borehole
- C_R = Corr. - Rod Length
- C_S = Corr. - Sampling Method

Actual Energy Ratio = 0.67-1.17 (Safety Hammer)
= 0.50-1.00 (Donut Hammer)

Sampling Method = 1.0 Standard sampler
= 1.2 Sampler W/o liners

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SOILS AND GEOTECHNICAL CONSULTANTS

EVALUATION OF LIQUEFACTION POTENTIAL

PROJECT | DATE

SEISMIC SETTLEMENT EVALUATION ⇒ GWT @

EQ Magnitude = Hor. Ground Acceleration =

Depth (ft)	$N_{1,60}$ (Blows/ft)	Fines (%)	EQ CSR	M_{design} / $M_{7.5}$	Design CSR	Vert. Strain	Seismic Settle	Liquefaction F.S.
20-25'	25	5	0.36	1.2	0.30	1.0%	0.6"	1.0
25-30'	27	4	0.35		0.29	0.2%	0.1"	1.1
30-35'	24 (25)	9 (5)	0.34		0.29	0.6%	0.4"	1.0
40-45'	18 (27)	37 (5)	0.33		0.28	0.2%	0.1"	>1.1
45-50'	18 (20)	15 (5)	0.33		0.28	1.4%	0.8"	0.9

$\Sigma S = 2.0''$

Say $\Delta_{EQ} \leq 2''$ ←

NL - Non liquefiable soil layers with LL > 39%
PL > 18%

Appendix D

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS

PERCOLATION
PERCOLATION TEST DATA

Client: Kunzik and Sara	**Date:** 7/13/2020
Project No.: 21887-20	**Tested By:** J.S. Jr.
Test Hole: 1	**USCS Soil Classification:**
Depth of Test Hole: 5′	**Sides (if rectangular):**
Diameter of Test Hole: 6″	**Length:**
Sandy Soil Criteria Test*:	**Width:**

TRIAL NO.	START TIME	STOP TIME	TIME INTERVAL (MIN)	INITIAL DEPTH TO WATER (IN)	FINAL DEPTH TO WATER (IN)	CHANGE IN WATER LEVEL (IN)	GREATER THAN OR EQUAL TO 6″
1	8:00	8:25	25	45.0	46.0	1.0	
2	8:25	8:50	25	43.0	44.0	1.0	

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30-minute intervals) with a precision of at least 0.25″.

TRIAL NO	START TIME	STOP TIME	ΔT TIME INTERVAL (MIN)	Do INITIAL DEPTH TO WATER (IN)	Df FINAL DEPTH TO WATER (IN)	ΔD CHANGE IN WATER LEVEL (IN)	PERCOLATION RATE (MIN/IN)
1	7:00	7:30	30	45.0	46.0	1.0	
2	7:30	8:00	30	45.0	46.0	1.0	
3	8:00	8:30	30	45.0	46.0	1.0	
4	8:30	9:00	30	45.0	46.0	1.0	
5	9:00	9:30	30	45.0	46.0	1.0	
6	9:30	10:00	30	45.0	46.0	1.0	
7	10:00	10:30	30	45.0	46.0	1.0	
8	10:30	11:00	30	45.0	46.0	1.0	
9	11:00	11:30	30	45.0	46.0	1.0	
10	11:30	12:00	30	45.0	46.0	1.0	
11	12:00	12:30	30	45.0	46.0	1.0	
12	12:30	1:00	30	45.0	46.0	1.0	
13							
14							
15							

COMMENTS:

NORCAL ENGINEERING

SOILS AND GEOTECHNICAL CONSULTANTS

PERCOLATION

PERCOLATION TEST DATA

Client: Kunzik and Sara	**Date:** 7/13/2020
Project No.: 21887-20	**Tested By:** J.S. Jr.
Test Hole: 2	**USCS Soil Classification:**
Depth of Test Hole: 10’	**Sides (if rectangular):**
Diameter of Test Hole: 6”	**Length:**
Sandy Soil Criteria Test*:	**Width:**

TRIAL NO.	START TIME	STOP TIME	TIME INTERVAL (MIN)	INITIAL DEPTH TO WATER (IN)	FINAL DEPTH TO WATER (IN)	CHANGE IN WATER LEVEL (IN)	GREATER THAN OR EQUAL TO 6”
1	9:30	9:55	25	104.0	104.5	0.5	
2	9:55	10:20	25	105.0	105.0	0.0	

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30-minute intervals) with a precision of at least 0.25”.

TRIAL NO	START TIME	STOP TIME	ΔT TIME INTERVAL (MIN)	Do INITIAL DEPTH TO WATER (IN)	Df FINAL DEPTH TO WATER (IN)	ΔD CHANGE IN WATER LEVEL (IN)	PERCOLATION RATE (MIN/IN)
1	7:02	7:32	30	105.0	105.0	0.0	
2	7:32	8:02	30	105.0	105.0	0.0	
3	8:02	8:32	30	105.0	105.0	0.0	
4	8:32	9:02	30	105.0	105.0	0.0	
5	9:02	9:32	30	105.0	105.0	0.0	
6	9:32	10:02	30	105.0	105.0	0.0	
7	10:02	10:32	30	105.0	105.0	0.0	
8	10:32	11:02	30	105.0	105.0	0.0	
9	11:02	11:32	30	105.0	105.0	0.0	
10	11:32	12:02	30	105.0	105.0	0.0	
11	12:02	12:32	30	105.0	105.0	0.0	
12	12:32	1:02	30	105.0	105.0	0.0	
13							
14							
15							
COMMENTS:							

SOIL INFILTRATION RATE CALCS ⇒ Auger Boring

Location:	TH-1	TH-2
• Depth =	5.0'	10.0'
• Hole Dia. =	6"	6"
• Drop = Δd	1"	Ø"
• Time = Δt Interval	30 min	30 min
• Preadjusted Perc. Rate	2 in/hr	Ø in/hr
• Initial Water Depth = d_1	15"	15"
• Reduction Factor = R_f	5.8	6.0
• INFILTRATION RATE	0.34 in/hr	Ø in/hr

$$\text{Infiltration Rate} = \frac{\text{Pre adjusted Perc. Rate}}{\text{Reduction Factor}}$$

$$\text{Reduction Factor} = R_f = \left[\frac{2 \cdot d_1 - \Delta d}{\text{Dia.}}\right] + 1$$

NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

JOB NO. 21887-20 | DATE JULY, 2020

NorCal Engineering

Soils and Geotechnical Consultants
Los Alamitos, California 90720
(562) 799-9469 Fax (562) 799-9459

May 25, 2023

Project Number 21887-20

Kunzik and Sara Construction
1699 La Costa Meadows Drive, Suite 102
San Marcos, California 92078

Attn: Ms. Jessica Shaughnessy

RE: **Site Reconnaissance** - Proposed No. 1 Collision Center Automobile Repair Development - Located at 2750 Bristol Street, in the City of Costa Mesa, California

Dear Ms. Shaughnessy:
Pursuant to your request, this firm provided a recent site reconnaissance to observe the current geotechnical conditions of the graded building pad at the above referenced project. All site grading was performed in accordance with our recommendations and stated in our grading report titled "Report of Geotechnical Observation and Testing of Rough Grading Operations" dated August 18, 2022.

Recently, all construction operations have been terminated since September 2022 and the surface of the graded building pad has been exposed to severe weathering and erosion over this time and will require remedial grading to restart construction operations. It is recommended that the upper 1 to 2 feet will require to be removed and/or scarified to competent approved soils, moisture conditioned and recompacted to a minimum of 90% of the laboratory standard prior to pouring foundations, pavement or placement of additional fill soils.

It is recommended that site inspections be performed by a representative of this firm during all grading and construction of the development to verify the findings and recommendations are followed. Any unusual conditions which may be encountered in the course of the project development may require the need for additional study and revised recommendations.

We appreciate this opportunity to be of service to you. If you have any further questions, please do not hesitate to contact the undersigned.

Respectfully submitted,
NORCAL ENGINEERING

REGISTERED PROFESSIONAL ENGINEER
KEITH D. TUCKER
No. 841
Exp. 12/31/2024
GEOTECHNICAL
STATE OF CALIFORNIA

Keith D. Tucker
Project Engineer
R.G.E. 841

Scott D. Spensiero
Project Manager

2750 BRISTOL AVE.
COSTA MESA

GRADING NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE GRADING–CODE OF THE COUNTY OF ORANGE AND ANY AMENDMENTS BY THE CITY OF COSTA MESA OR SPECIAL REQUIREMENTS OF THE PERMIT. A COPY OF THE GRADING CODE AND MANUAL SHALL BE RETAINED ON THE JOB SITE WHILE WORK IS IN PROGRESS.
2. GRADING SHALL NOT BE STARTED WITHOUT FIRST NOTIFYING THE CITY INSPECTOR. A PRE–GRADING MEETING ON THE SITE IS REQUIRED BEFORE START OF GRADING WITH THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOIL ENGINEER, ENGINEERING GEOLOGIST, DISTRICT GRADING INSPECTOR AND WHEN REQUIRED THE ARCHAEOLOGIST AND PALEONTOLOGIST. THE REQUIRED INSPECTIONS FOR GRADING WILL BE EXPLAINED AT THIS MEETING.
3. ISSUANCE OF A GRADING PERMIT DOES NOT ELIMINATE THE NEED FOR PERMITS FROM OTHER AGENCIES WITH REGULATORY RESPONSIBILITIES FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE WORK AUTHORIZED ON THIS PLAN.
4. THE GRADING PERMIT AND AN APPROVED COPY OF THE GRADING PLAN SHALL BE ON THE PERMITTED SITE WHILE WORK IS IN PROGRESS.
5. PRELIMINARY SOIL AND GEOLOGY REPORTS AND ALL SUBSEQUENT REPORTS AS APPROVED BY THE BUILDING DIVISION ARE CONSIDERED A PART OF THE APPROVED GRADING PLAN.
6. THE SOIL ENGINEER AND ENGINEERING GEOLOGIST SHALL PERFORM SUFFICIENT INSPECTIONS AND BE AVAILABLE DURING GRADING AND CONSTRUCTION TO VERIFY COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND THE CODE WITHIN THEIR PURVIEW.
7. THE CIVIL ENGINEER SHALL BE AVAILABLE DURING GRADING TO VERIFY COMPLIANCE WITH THE PLANS, SPECIFICATIONS, CODE AND ANY SPECIAL CONDITIONS OF THE PERMIT WITHIN THEIR PURVIEW.
8. THE SOIL ENGINEER AND ENGINEERING GEOLOGIST SHALL, AFTER CLEARING AND PRIOR TO THE PLACEMENT OF FILL IN CANYONS, INSPECT EACH, CANYON FOR AREAS OF ADVERSE STABILITY AND TO DETERMINE THE PRESENCE OR ABSENCE OF SUBSURFACE WATER OR SPRING FLOW. IF NEEDED, SUB DRAINS WILL BE DESIGNED AND CONSTRUCTED PRIOR TO THE PLACEMENT OF FILL IN EACH RESPECTIVE CANYON .
9. SUB DRAIN OUTLETS SHALL BE COMPLETED AT THE BEGINNING OF THE SUB DRAIN CONSTRUCTION.
10. THE EXACT LOCATION OF THE SUB DRAINS SHALL BE SURVEYED IN THE FIELD FOR LINE/GRADE AND SHOWN ON AS–GRADED PLANS.
11. AREAS TO RECEIVE FILL SHALL BE PROPERLY PREPARED AND APPROVED IN WRITING BY THE SOIL ENGINEER AND THE BUILDING OFFICIAL PRIOR TO PLACING FILL.
12. FILLS SHALL BE BENCHED INTO COMPETENT MATERIAL PER PFRD STANDARD PLAN NO. 1322.
13. ALL EXISTING FILLS SHALL BE APPROVED BY THE BUILDING OFFICIAL OR REMOVED PRIOR TO PLACING ADDITIONAL FILLS.
14. FILLS SHALL BE COMPACTED THROUGHOUT TO A MINIMUM OF 90% RELATIVE COMPACTION. AGGREGATE BASE FOR ASPHALTIC AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION.
15. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN 2–FOOT HORIZONTAL TO 1–FOOT VERTICAL (2:1) EXCEPT WHERE SPECIFICALLY APPROVED OTHERWISE.
16. ALL CUT SLOPES SHALL BE INVESTIGATED BOTH DURING AND AFTER GRADING BY THE ENGINEERING GEOLOGIST TO DETERMINE IF ANY SLOPE STABILITY PROBLEM EXISTS. SHOULD EXCAVATION DISCLOSE ANY GEOLOGICAL HAZARDS OR POTENTIAL GEOLOGICAL HAZARDS, THE ENGINEERING GEOLOGIST SHALL SUBMIT RECOMMENDED TREATMENT TO THE BUILDING OFFICIAL FOR APPROVAL.
17. WHERE SUPPORT OR BUTTRESSING OF CUT AND NATURAL SLOPES IS DETERMINED TO BE NECESSARY BY THE ENGINEERING GEOLOGIST AND SOIL ENGINEER, THE SOIL ENGINEER SHALL SUBMIT DESIGN, LOCATIONS AND CALCULATIONS TO THE BUILDING OFFICIAL PRIOR TO CONSTRUCTION. THE ENGINEERING GEOLOGIST AND SOIL ENGINEER SHALL INSPECT AND CONTROL THE CONSTRUCTION OF THE BUTTRESSING AND CERTIFY TO THE STABILITY OF THE SLOPE AND ADJACENT STRUCTURES UPON COMPLETION
18. WHEN CUT PADS ARE BROUGHT TO NEAR GRADE, THE ENGINEERING GEOLOGIST SHALL DETERMINE IF THE BEDROCK IS EXTENSIVELY FRACTURED OR FAULTED AND WILL READILY TRANSMIT WATER. IF CONSIDERED NECESSARY BY THE ENGINEERING GEOLOGIST AND SOIL ENGINEER, A COMPACTED FILL BLANKET WILL BE PLACED.
19. ALL TRENCH BACKFILL SHALL BE TESTED AND APPROVED BY THE SOIL ENGINEER.
20. ANY EXISTING IRRIGATION LINES AND CISTERNS SHALL BE REMOVED OR CRUSHED IN PLACE AND APPROVED BY THE BUILDING OFFICIAL AND SOIL ENGINEER.
21. ANY EXISTING WATER WELLS SHALL BE ABANDONED IN COMPLIANCE WITH THE SPECIFICATIONS APPROVED BY ORANGE COUNTY, HEALTH CARE AGENCY, AND DIVISION OF ENVIRONMENTAL HEALTH.
22. ANY EXISTING CESSPOOLS AND SEPTIC TANKS SHALL BE ABANDONED IN COMPLIANCE WITH THE CALIFORNIA PLUMBING CODE .
23. STOCKPILING OF EXCESS MATERIAL SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO EXCAVATION
24. EXPORT SOIL MUST BE TRANSPORTED TO A LEGAL DUMP OR TO A PERMITTED SITE APPROVED BY THE BUILDING DIVISION.
25. THE PERMITTEE IS RESPONSIBLE FOR DUST CONTROL MEASURES.
26. THE PERMITTEE SHALL GIVE REASONABLE NOTICE TO THE OWNER OF ADJOINING LANDS AND BUILDINGS PRIOR TO BEGINNING EXCAVATIONS WHICH MAY AFFECT THE LATERAL AND SUBJACENT SUPPORT OF THE ADJOINING PROPERTY. THE NOTICE SHALL STATE THE INTENDED DEPTH OF EXCAVATION AND WHEN THE EXCAVATION WILL COMMENCE. THE ADJOINING OWNER SHALL BE ALLOWED AT LEAST 3 DAYS AND REASONABLE ACCESS. ON THE PERMITTED PROPERTY TO PROTECT HIS STRUCTURE, IF HE SO DESIRES, UNLESS OTHERWISE PROTECTED BY LAW.
27. ALL CONCRETE STRUCTURES THAT COME IN CONTACT WITH THE ON–SITE SOILS SHALL BE CONSTRUCTED WITH TYPE V CEMENT, UNLESS DEEMED UNNECESSARY BY SOLUBLE SULFATE–CONTENT TESTS CONDUCTED BY THE SOIL ENGINEER.
28. SLOPES EXCEEDING 5 FEET IN HEIGHT SHALL BE PLANTED WITH AN APPROVED PLANT MATERIAL. IN ADDITION, SLOPES EXCEEDING 15 FEET IN HEIGHT SHALL BE PROVIDED WITH, AN APPROVED IRRIGATION SYSTEM, UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL.
29. ALL EXISTING DRAINAGE COURSES THROUGH THIS–SITE SHALL REMAIN OPEN UNTIL FACILITIES TO HANDLE STORM WATER ARE APPROVED AND FUNCTIONAL; HOWEVER, IN. ANY CASE, THE PERMITTEE SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.
30. SANITARY FACILITIES SHALL MAINTAIN ON THE SITE.
31. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITTEE.
32. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJOINING PROPERTIES DURING GRADING.
33. GRADING OPERATIONS INCLUDING MAINTENANCE OF EQUIPMENT HUMAN OCCUPANCY SHALL BE CONDUCTED BETWEEN THE HOURS OF 7:00A.M. AND 7 P.M. MONDAY THRU FRIDAY. SATURDAYS 9:00 A.M. THRU 6:00 P.M. PROHIBITED ALL HOURS SUNDAYS AND THE FOLLOWING FEDERAL HOLIDAYS:
CHRISTMAS DAY, NEW YEARS DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY AND THANKSGIVING DAY. CMMC SEC 13–279
    - (A) ALL CONSTRUCTION VEHICLES OR EQUIPMENT, FIXED OR MOBILE, OPERATED WITHIN 1,000' OF A DWELLING SHALL BE EQUIPPED WITH PROPERLY OPERATING AND MAINTAINED MUFFLERS.
    - (B) ALL OPERATIONS SHALL COMPLY WITH ORANGE COUNTY CODIFIED ORDINANCE DIVISION 6 (NOISE CONTROL)
    - (C) STOCKPILING AND/OR VEHICLE STAGING AREAS SHALL BE LOCATED AS FAR AS PRACTICABLE FROM DWELLINGS AND WITHIN THE LIMITS OF GRADING PERMIT

DIGALERT

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE
811
TWO WORKING DAYS BEFORE YOU DIG

GRADING NOTES (CONTINUED)

34. GRADING AND EXCAVATION SHALL BE HALTED DURING PERIODS OF HIGH WINDS. ACCORDING TO AQMD MEASURE F–4, HIGH WINDS ARE DEFINED AS 30 MPH OR GREATER. HIS LEVEL OCCURS ONLY UNDER UNUSUALLY EXTREME CONDITIONS, SUCH AS SANTA ANA WIND CONDITIONS.
35. ASPHALT SECTIONS MUST BE: PARKING STALLS = 3" A/C OVER 6" A/B, DRIVES 3" A/C OVER 10" (COMM.) 12" (INDUSTRIAL). OR: PRIOR TO ROUGH GRADE RELEASE FOR BUILDING PERMITS BY THE CITY INSPECTOR, THE SOIL ENGINEER SHALL SUBMIT FOR APPROVAL, PAVEMENT SECTION RECOMMENDATIONS BASED ON 'R' VALUE ANALYSIS OF THE SUB–GRADE SOILS, AND EXPECTED TRAFFIC INDICES.
36. ROOF GUTTERS SHALL BE INSTALLED TO PREVENT ROOF DRAINAGE FROM FALLING ON MANUFACTURED SLOPES.
37. THE CIVIL ENGINEER, AS A CONDITION OF ROUGH GRADE APPROVAL, SHALL PROVIDE A BLUE TOP WITH ACCOMPANYING WITNESS STAKE, SET AT THE CENTER OF EACH PAD REFLECTING THE PAD ELEVATION FOR PRECISE PERMITS AND A BLUE TOP WITH WITNESS STAKE SET AT THE DRAINAGE SWALE HIGH–POINT REFLECTING THE HIGH POINT ELEVATION FOR PRELIMINARY PERMITS.
38. PRIOR TO FINAL APPROVAL, THE CIVIL ENGINEER SHALL CERTIFY TO, THE BUILDING OFFICIAL THE AMOUNT OF EARTH MOVED DURING THE GRADING OPERATION
39. THE ENGINEERING GEOLOGIST SHALL PERFORM PERIODIC INSPECTIONS AND SUBMIT A COMPLETE REPORT AND MAP UPON COMPLETION OF THE ROUGH GRADING.
40. THE GRADING CONTRACTOR SHALL SUBMIT A STATEMENT OF COMPLIANCE TO THE APPROVED GRADING PLAN PRIOR TO FINAL APPROVAL.
41. THE COMPACTION REPORT AND APPROVAL FROM THE SOIL ENGINEER SHALL INDICATE THE TYPE OF FIELD TESTING PERFORMED. THE METHOD OF OBTAINING THE IN–PLACE DENSITY SHALL BE IDENTIFIED WHETHER SAND CONE, DRIVE RING, OR NUCLEAR, AND SHALL BE NOTED FOR EACH TEST. SUFFICIENT MAXIMUM DENSITY DETERMINATIONS SHALL BE PERFORMED TO VERIFY THE ACCURACY OF THE MAXIMUM DENSITY CURVES USED BY THE FIELD TECHNICIAN.
42. IN THE EVENT THAT SOIL CONTAMINATION IS DISCOVERED DURING EXCAVATION AND REMOVAL OF AN EXISTING TANK, WORK SHALL BE STOPPED UNTIL A SITE ASSESSMENT AND MITIGATION PLAN HAS BEEN PREPARED, SUBMITTED AND APPROVED BY HCA/ENVIRONMENTAL HEALTH AND PDSD/GRADING.

EROSION CONTROL

43. IN THE CASE OF EMERGENCY, CALL PETE SARA AT PHONE # (760) 535–6365
44. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
45. EROSION CONTROL DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL.
46. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5–DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
47. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM STREETS, CHECK BERMS AND BASINS.
48. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
49. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A, HAZARDOUS CONDITION.
50. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.

ENVIRONMENTAL NOTES

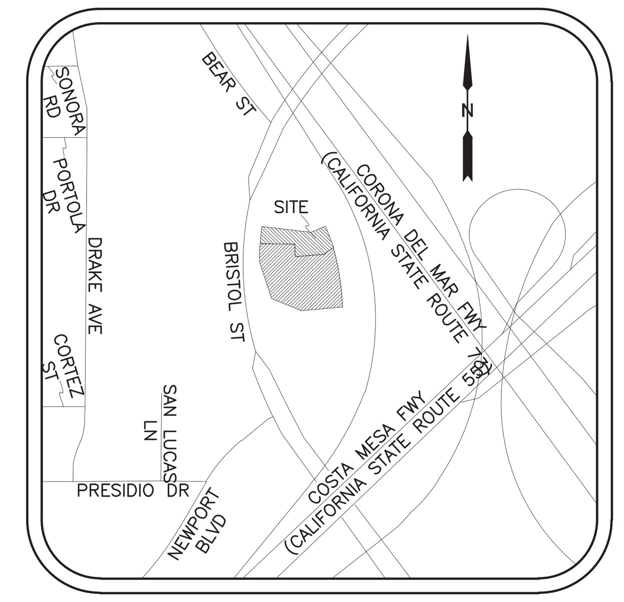
51. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS: THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATER SHED IS PROHIBITED.
52. PERMITTEE SHALL MAINTAIN CONSTRUCTION SITE IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPER CHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON–SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
53. PERMITTEE MAY DISCHARGE MATERIAL OTHER THAN STORM WATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
54. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON–CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.

55. SPECIAL NOTE:

"SURVEY MONUMENTS SHALL BE PRESERVED AND REFERENCED BEFORE CONSTRUCTION AND REPLACED AFTER CONSTRUCTION PURSUANT TO SECTION 8771 OF THE BUSINESS AND PROFESSIONS CODE."

GREEN CODE REQUIREMENTS (RESIDENTIAL):

32. STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. PROJECTS WHICH DISTURB LESS THAN ONE ACRE OF SOIL AND ARE NOT PART OF A LARGER COMMON PLAN OF DEVELOPMENT WHICH IN TOTAL DISTURBS ONE ACRE OR MORE, SHALL MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION. IN ORDER TO MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION, ONE OR MORE OF THE FOLLOWING MEASURES SHALL BE IMPLEMENTED TO PREVENT FLOODING OF ADJACENT PROPERTY, PREVENT EROSION AND RETAIN SOIL RUNOFF ON THE SITE. (4.106.2)
    - A. RETENTION BASINS OF SUFFICIENT SIZE SHALL BE UTILIZED TO RETAIN STORM WATER ON THE SITE.
    - B. WHERE STORM WATER IS CONVEYED TO A PUBLIC DRAINAGE SYSTEM, COLLECTION POINT, GUTTER OR SIMILAR DISPOSAL METHOD, WATER SHALL BE FILTERED BY USE OF A BARRIER SYSTEM, WATTLE OR OTHER METHOD APPROVED BY THE ENFORCING AGENCY.
    - C. COMPLIANCE WITH A LAWFULLY ENACTED STORM WATER MANAGEMENT ORDINANCE.
33. OUTDOOR WATER USE (4.304)
    - A. IRRIGATION CONTROLLERS. AUTOMATIC IRRIGATION SYSTEM CONTROLLERS FOR LANDSCAPING PROVIDED BY THE BUILDER AND INSTALLED AT THE TIME OF FINAL INSPECTION SHALL COMPLY WITH THE FOLLOWING:
        - a. CONTROLLERS SHALL BE WEATHER–OR SOIL MOISTURE–BASED CONTROLLERS THAT AUTOMATICALLY ADJUST IRRIGATION IN RESPONSE TO CHANGES IN PLANTS' NEEDS AS WEATHER CONDITIONS CHANGE.
        - b. WEATHER–BASED CONTROLLERS WITHOUT INTEGRAL RAIN SENSORS OR COMMUNICATION SYSTEMS THAT ACCOUNT FOR LOCAL RAINFALL SHALL HAVE A SEPARATE WIRED OR WIRELESS RAIN SENSOR WHICH CONNECTS OR COMMUNICATES WITH THE CONTROLLER(S). SOIL MOISTURE BASED CONTROLLERS ARE NOT REQUIRED TO HAVE RAIN SENSOR INPUT.
    - B. INFORMATION FROM LOCAL UTILITY, WATER AND WASTE RECOVERY PROVIDERS ON METHODS TO FURTHER REDUCE RESOURCE CONSUMPTION, INCLUDING RECYCLE PROGRAMS AND LOCATIONS.



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LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF COSTA MESA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCELS 1 AND 2 OF PARCEL MAP NO. 91–116, IN THE CITY OF COSTA MESA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP ON FILE IN BOOK 291, PAGE(S) 38 TO 40 OF PARCEL MAPS, RECORDS OF SAID COUNTY.

EXCEPTING THEREFROM ALL OIL, GAS, MINERALS AND OTHER HYDROCARBON SUBSTANCES BELOW A DEPTH OF 500 FEET, BUT WITHOUT THE SURFACE OF ENTRY, AS RESERVED IN DEED RECORDED NOVEMBER 8, 1956 IN BOOK 3704, PAGE 305 OF OFFICIAL RECORDS.

BENCHMARK:

DESCRIBED BY OCS 2001 – FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "1E–99–72", SET IN THE NORTHWEST CORNER OF A 3 FT. BY 22 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED AT THE INTERSECTION OF PRESIDIO DRIVE AND SAN LUCAS LANE, 21 FT. SOUTHERLY OF THE CENTERLINE OF PRESIDIO AND 33 FT. EASTERLY OF THE CENTERLINE OF SAN LUCAS LANE. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

ELEVATION: 43.323 FEET , (NAVD 88), LEVELED 2005

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING S88°49'31"W BEING THE NORTH LINE OF PARCEL 1 AS SHOWN ON PARCEL MAP 91–116 RECORDED IN MAP BOOK 291, PAGES 38–40, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY

FLOOD ZONE :

ZONE: X	AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN
FLOODPLAIN MAP NO.:	06059C0267J
DATE:	DECEMBER 3, 2009
DATUM:	NAVD 1988

ZONING AREA:

ZONE: C1 LOCAL BUSINESS

USE:

GENERAL COMMERCIAL

OWNER/DEVELOPER:

WALKER GROUP
11100 CAMBIE RD., SUITE 100
RICHMOND, BRITISH COLUMBIA V6X 1K9

ARCHITECT :

AHT ARCHITECTS INC.
2120 WILSHIRE BOULEVARD, SUITE 200
SANTA MONICA, CA 90403
PH. (310) 453–4431

SOILS ENGINEER :

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS
10641 HUMBOLT STREET
LOS ALAMITOS, CA 90720

PHONE: (562) 799–9469
FAX: (562) 799–9459

PROJECT NUMBER 21887–20
DATED: AUGUST 4, 2020

PRIVATE ENGINEER'S GENERAL NOTES AND NOTICE TO CONTRACTOR

1. *THE CONTRACTOR SHALL CHECK ALL DRAWINGS AND SPECIFICATIONS FURNISHED HIM IMMEDIATELY UPON THEIR RECEIPT, AND SHALL PROMPTLY NOTIFY THE OWNERS OF ANY DISCREPANCIES BE FOUND ON THE DRAWINGS OR IN THE SPECIFICATIONS TO WHICH THE CONTRACTOR FAILED TO CALL ATTENTION BEFORE SUBMITTING HIS BID, THEN THE OWNERS REPRESENTATIVE WILL INTERPRET THE INTENT OF THE DRAWINGS OR SPECIFICATIONS AND THE CONTRACTOR WILL PERFORM THE WORK IN ACCORDANCE WITH SUCH INTERPRETATION.*
2. *ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR, AND WITH THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS' "CONSTRUCTION SAFETY ORDERS".*
3. *THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTORS' AND SUBCONTRACTORS' COMPLIANCE WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR OR WITH THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS' "CONSTRUCTION SAFETY ORDERS".*
4. *CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.*
5. *THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL HAVE A VALID CONTRACTORS LICENSE AND MAINTAIN ADEQUATE WORKMAN'S COMPENSATION AS REQUIRED BY THE STATE OF CALIFORNIA AND ALSO PUBLIC LIABILITY INSURANCE NAMING THE OWNER AS ADDITIONAL INSURED. THE CONTRACTOR SHALL SUPPLY THE OWNER WITH THESE INSURANCE CERTIFICATES.*
6. *THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THIS PLAN ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THIS PLAN. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES AND STRUCTURES SHOWN AND ANY OTHER LINES OR STRUCTURES NOT OF RECORD, OR NOT SHOWN ON THIS PLAN.*
7. *IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE, AND CROSS–CHECK DETAILS AND DIMENSIONS SHOWN ON THE DRAWING. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES FOUND.*
8. *IN ALL CASES WHERE CONFLICT MAY OCCUR BETWEEN GENERAL NOTES AND SPECIFIC DETAILS, THEN THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED AND HE WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS.*
9. *IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, DETAILS OR SECTIONS ON DRAWINGS.*
10. *ALL CONSTRUCTION SHALL CONFORM TO THE ORANGE COUNTY BUILDING CODE OF THE LATEST EDITIONS, AS AMENDED TO DATE, UNLESS OTHERWISE NOTED.*
11. *FORTY–EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR SHALL NOTIFY "UNDERGROUND SERVICE ALERT" AT 1–800–422–4133.*
12. *CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING STRUCTURES EXCEPT THOSE THAT ARE SPECIFICALLY IDENTIFIED TO BE REMOVED.*
13. *THE CONTRACTOR SHALL NOT POUR ANY CONCRETE UNTIL THE ELEVATION AND LOCATION OF ALL WORK IS VERIFIED BY THE ENGINEER OF RECORD.*
14. *THE CONTRACTOR SHALL SCHEDULE A PRE–JOB MEETING WITH THE OWNER AND ENGINEER PRIOR TO STARTING WORK.*

ESTIMATE OF EARTHWORK QUANTITIES

RAW CUT: 245 C.Y. **RAW FILL:** 838 C.Y.

THESE QUANTITIES DO NOT INCLUDE ANY LOSSES DUE TO DEMOLITION, SHRINKAGE, OVEREXCAVATION, OR ANY SPECIAL CONDITIONS OR REQUIREMENTS THAT MAY BE SPECIFIED IN THE PRELIMINARY SOILS REPORT. THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. ALL CONTRACTORS BIDDING ON THIS PROJECT SHOULD MAKE THEIR OWN DETERMINATION OF EARTHWORK QUANTITIES PRIOR TO SUBMITTING A BID.

UNDER SEPARATE PERMIT:

1. PARKING LIGHTS POLES. PARKING LIGHT POLES EXCEEDING 6FT IN HEIGHT SHALL REQUIRE ENGINEERED CALCULATIONS TO BE SUBMITTED AND APPROVED PRIOR TO THE ISSUANCE OF THE PERMIT.
2. TRASH ENCLOSURES
3. SEWER CONNECTIONS
4. RETAINING WALLS
5. BLOCK WALLS
6. PARKING LIGHT POLES

GENERAL NOTES FOR OFFSITE/STREET IMPROVEMENT PLAN

1. ALL WORK AND MATERIALS WITHIN THE PUBLIC RIGHT–OF–WAY SHALL CONFORM TO THE CITY OF COSTA MESA STANDARD DRAWINGS. THE CONDITIONS OF APPROVAL AS APPROVED ON _______________ 200__, AND SHALL MEET THE APPROVAL OF THE CITY ENGINEER.
2. ALL WORK SHALL BE PERFORMED AND ALL MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF COSTA MESA STANDARD DRAWINGS AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, (GREEN BOOK) CURRENT EDITION.
3. CONTRACTOR SHALL FURNISH AND INSTALL ALL SIGNS, LIGHTS, BARRICADES, FLASHING ARROW BOARD AND ANY OTHER TRAFFIC CONTROL OR WARNING DEVICES, INCLUDING FLAGMEN, AS MAY BE REQUIRED BY THE CITY ENGINEER. ALL ITEMS MENTIONED SHALL BE IN CONFORMANCE WITH THE CURRENT REQUIREMENTS AS SPECIFIED IN THE LATEST EDITION OF THE •CONSTRUCTION SAFETY ORDERS,•• AND W.A.T.C.H. FAILURE TO SO WILL BE CITED UNDER APPLICABLE SECTION OF THE C.V.C. AND CORRECTIVE COSTS TO THE CITY WILL BE CHARGED.
4. LANE CLOSURES:
ARTERIALS – NO LANE CLOSURES ALLOWED DURING HOLIDAY PERIOD STARTING THE WEEK OF THANKSGIVING THROUGH THE WEEK OF NEW YEARS UNLESS BY SPECIAL PERMISSION FROM THE PUBLIC SERVICES DIRECTOR.
LOCALS – NO LANE CLOSURES ALLOWED DURING WEEKS OF THANKSGIVING, CHRISTMAS, OR NEW YEARS UNLESS BY SPECIAL PERMISSION FROM THE PUBLIC SERVICES DIRECTOR.
5. CONTRACTOR SHALL OBTAIN A PUBLIC SERVICES DEPARTMENT CONSTRUCTION ACCESS AND ENCROACHMENT PERMITS PRIOR TO THE START OF ANY ON–SITE CONSTRUCTION OR WITHIN PUBLIC RIGHT–OF–WAY AND REQUEST INSPECTION 24 HOURS IN ADVANCE OF PERFORMING ANY WORK. TELEPHONE (714) 754–5025. THE CONTRACTOR SHALL MAINTAIN A COPY OF PERMITS AND SIGNED PLANS ON THE JOB SITE.
6. PERMITS WILL BE REQUIRED FROM MESA CONSOLIDATED WATER DISTRICT, IRVINE RANCH WATER DISTRICT, ORANGE COUNTY WATER DISTRICT, ORANGE COUNTY SANITATION DISTRICT, OR COSTA MESA SANITARY DISTRICT FOR CONSTRUCTION OR MODIFICATION OF WATER AND SEWER IMPROVEMENTS TO THEIR FACILITIES. THE CONTRACTOR SHALL NOTIFY EACH 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. CONSTRUCTION WITHIN CAL–TRANS RIGHT–OF–WAY, WILL REQUIRE PERMITS AND PLAN APPROVAL FROM CAL–TRANS AS WELL AS THE CITY OF COSTA MESA. LOCATE AND PROTECT ALL EXISTING UTILITIES IN PLACE.
7. PLANS APPROVED BY SOUTHERN CALIFORNIA EDISON, PACIFIC BELL, OR SOUTHERN CALIFORNIA GAS COMPANY IS REQUIRED PRIOR TO ISSUANCE OF ENCROACHMENT PERMITS RELATED TO THEIR FACILITIES.
8. THE CONTRACTOR SHALL PAY FOR ALL SOIL AND MATERIALS TESTS DEEMED NECESSARY AS DETERMINED BY THE CITY ENGINEER.
9. PAVEMENT AND BASE THICKNESS AS SHOWN ARE BASED ON A PRELIMINARY •R•• VALUE. DURING CONSTRUCTION A SOILS TEST MAY BE REQUESTED BY THE CITY TO DETERMINE THE ACTUAL •R•• VALUE AND THE THICKNESS WILL BE ADJUSTED ACCORDINGLY. TESTS SHALL BE MADE BY A LICENSED SOILS ENGINEER AND APPROVED BY THE CITY ENGINEER.
10. ALL EXISTING DRAINAGE COURSES ON THE PROJECT MUST CONTINUE TO FUNCTION, ESPECIALLY DURING STORM CONDITIONS, AND APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING THE GRADING PROJECT. IN ALL CASES, THE CONTRACTOR AND/OR DEVELOPER SHALL BE HELD LIABLE FOR ANY DAMAGES DUE TO OBSTRUCTION OF NATURAL DRAINAGE PATTERNS. IF THE FOREGOING CANNOT BE COMPLIED WITH, A FULLY EXECUTED, NOTARIZED, AND RECORDED AGREEMENT BETWEEN THE AFFECTED PARTIES WILL BE REQUIRED. ALL HAUL ROUTES MUST BE APPROVED BY THE MANAGER OF TRANSPORTATION SERVICES.
11. THE PROJECT SITE SHALL BE MAINTAINED IN A •WET–DOWN•• CONDITION TO PREVENT EXCESSIVE DUST. SPILLAGE AND DUST SHALL BE REMOVED FROM THE PUBLIC RIGHT–OF–WAY BY SWEEPING OR SPRINKLING; HOWEVER, WATERING, THAT RESULTS IN MUD ON PUBLIC STREETS IS NOT PERMITTED AS A SUBSTITUTE FOR OTHER CLEANING METHODS.
12. ALL UTILITY TRENCH BACKFILL, MATERIAL, AND COMPACTION SHALL CONFORM TO CITY OF COSTA MESA STANDARD DRAWING NO. 813. BORE UNDER EXISTING IMPROVEMENTS––TUNNELING IS NOT ALLOWED. NO OPEN EXCAVATIONS WILL BE ALLOWED OVERNIGHT––BACKFILL OR PLATE.
13. ALL PCC AND AC TO BE JOINED SHALL BE SAWCUT IN A CLEAN, STRAIGHT LINE AS APPROVED BY THE CITY ENGINEER.
14. ALL OBSTRUCTIONS, WITHIN THE PUBLIC SIDEWALK SUCH AS POWER HOLES, STREET LIGHTS, FIRE HYDRANTS UTILITY PEDESTALS, MAILBOXES, AND STREET SIGNS SHALL HAVE MINIMUM OF 4' OF CLEAR SIDEWALK PLACED BEHIND THEM.
15. IF REQUESTED, •AS BUILT•• DRAWINGS SHALL BE SUBMITTED TO THE CITY ENGINEERING DIVISION UPON COMPLETION OF IMPROVEMENTS AS SHOWN ON THE APPROVED PLANS.
16. NO REMOVAL OF TREES FROM THE PUBLIC RIGHT–OF–WAY WILL BE PERMITTED WITHOUT SPECIFIC APPROVAL FROM THE PARKS AND RECREATION COMMISSION AND COMPLIANCE WITH MITIGATION MEASURES AS DETERMINED BY THE COMMISSION TO RELOCATE THE TREES AND/OR TO COMPENSATE THE CITY FOR THE LOSS OF TREES FROM THE PUBLIC RIGHT–OF–WAY. CONDITIONS OF THE PARKS AND RECREATION COMMISSION MUST BE INCORPORATED ONTO THESE PLANS PRIOR TO PLAN APPROVAL.
17. PLANTING OF PARKWAY TREES AND INSTALLATION OF IRRIGATION LINES INSTALLED, INCLUDING RISERS, HEADS, VALVES, AND METERS AS DIRECTED AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC SERVICES DEPARTMENT.
18. ALL CONSTRUCTION STAKING SHALL BE DONE BY A LICENSED LAND SURVEYOR OR ENGINEER, CERTIFIED IN WRITING AS TO LINE AND GRADE PER APPROVED PLANS, AND SUBMITTED TO THE CITY ENGINEER.
19. NO WORK SHALL BE DONE ON ADJACENT PROPERTIES OR ADJACENT OWNERS IMPROVEMENTS WITHOUT OBTAINING WRITTEN PERMISSION FROM THE OWNERS OF THE ADJACENT PROPERTIES, AND SUBMITTING A COPY THEREOF TO CITY ENGINEERING DIVISION.
20. WORK, ONCE BEGAN, SHALL BE PROCEED TO COMPLETION IMMEDIATELY TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND THE TRAVELING PUBLIC.
21. ALL STREET STATIONING REFERS TO THE CENTER LINE OF THE STREET AND CURB DATA REFERS TO THE FACE OF CURB.
22. FOR ALL ASPHALT CONCRETE MATERIAL TO BE PLACED WITHIN THE PUBLIC RIGHT–OF WAY, PRIOR TO THE START OF THE PAVING OPERATION, PERMITTEE SHALL SUBMIT A MIX DESIGN TO THE CITY FOR APPROVAL. THE PAVING OPERATION SHALL NOT START UNTIL THE MIX DESIGN HAD BEEN APPROVED BY THE CITY ENGINEER.
23. ALL UNDERGROUND WORK SHALL BE COMPLETE PRIOR TO ANY SURFACE WORK IN THE PUBLIC RIGHT–OF–WAY.
24. WHERE DRIVEWAY DEPRESSIONS ARE CONSTRUCTED, THE DRIVEWAY APPROACHES SHALL BE CONSTRUCTED TO PROPERTY LINE PER CITY OF COSTA MESA STANDARD PLANS. LOCATION, TYPE AND WIDTH ARE TO BE APPROVED BY THE CITY TRANSPORTATION SERVICE MANAGER.
25. CRUSH MISCELLANEOUS BASE MAY BE USED UNDER WALKS, CURBS, AND GUTTERS IN LIEU OF CRUSHED AGGREGATE BASE.
26. ANY LOT CORNER OR COUNTY OF ORANGE BENCH MARK, MONUMENT, OR TIE DESTROYED OR DISPLACED SHALL BE RESTORED TO ITS ORIGINAL POSITION BY A LICENSED ENGINEER OR SURVEYOR. ANY CHANGE IN LOCATION OR ELEVATION SHALL BE REPORTED TO THE CITY ENGINEER AND COUNTY OF ORANGE. COMPLY WITH ALL CITY AND COUNTY REQUIREMENTS FOR REPLACEMENT.
27. GEOLOGIC AND/OR SOILS REPORTS PREPARED BY NORCAL ENGINEERING AND DATED AUAGUST 4, 2020 , HAVE BEEN REVIEWED AND APPROVED BY THE BUILDING OFFICIAL INCLUDING ALL SUPPLEMENTS, ADDENDA, AND AMENDMENTS THERETO ARE INCLUDED BY REFERENCE. COPIES OF THESE REPORTS ARE ON FILE AT THE__________________________________ DIVISION. ALL RECOMMENDATIONS CONTAINED THEREIN MUST BE FOLLOWED.
28. ALL STORM DRAIN WORK AND MATERIALS SHALL CONFORM TO THE CITY OF COSTA MESA, PUBLIC SERVICES DEPARTMENT, ENGINEERING DIVISION'S STORM DRAIN DESIGN GUIDELINES (LATEST REVISION), AND THE CITY COSTA MESA STANDARD PLANS AND MEET THE APPROVAL OF THE CITY ENGINEER.
29. ALL CATCH BASINS SHALL HAVE HORIZONTAL PROTECTION BARS PER LACFCD STANDARD DRAWING 2D 175, WITH LOCAL DEPRESSION NO. 4 PER STANDARD DRAWING 415.
30. ALL EXISTING STORM DRAIN MANHOLES SHALL BE LEFT BELOW SUBGRADE. THE CONTRACTOR SHALL RAISE THE MANHOLE FRAMES AND COVERS TO FINISHED GRADE AND MAKE NECESSARY REPAIRS TO THE PAVEMENT PER CITY REQUIREMENTS AND STANDARDS.
31. A PERMIT WILL BE REQUIRED FROM THE COUNTY OF ORANGE FOR CONNECTION INTO THE EXISTING FLOOD CONTROL CHANNEL AND FOR ALL OTHER WORK WITHIN THEIR JURISDICTION.
32. ALL INSTALLATION AND WORK AFFECTING FLOOD CONTROL DISTRICT PROPERTIES OR FACILITIES SHALL CONFORM WITH STANDARD SPECIFICATIONS AND WITH THE PROVISIONS OF THE CONSTRUCTION PERMIT GRANTED BY THE DISTRICT, CONTRACTOR SHALL MAINTAIN A COPY OF SAID PERMIT AND STAMPED PLANS ON THE JOB SITE. USE OF DISTRICT PROPERTY AND CONFORMANCE WITH THE ABOVE SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE DISTRICT'S DULY ASSIGNED INSPECTOR. DISTRICT INSPECTOR SHALL BE NOTIFIED 24 HOURS PRIOR TO COMMENCEMENT OF ANY WORK IN ACCORDANCE WITH PERMIT PROVISIONS.

REV. NO.	DATE	BY	REVISION	APPROVED BY

REGISTERED PROFESSIONAL ENGINEER
DANIEL RUBIO
NO. 60934
CIVIL
STATE OF CALIFORNIA

JONES, CAHL & ASSOCIATES
CONSULTING ENGINEERS
18090 Beach Boulevard - Huntington Beach
California 92648 - (714) 848-0566
e-mail: jca@jonescahl.com

DESIGNED:	D.R.	SCALE:	N/A
DRAWN:	C.H.	DATE:	3/18/2022
CHECKED:	D.R.	JOB NO.	20–2412

PREPARED UNDER THE DIRECTION OF:
DANIEL RUBIO R.C.E. 60934 DATE

WALKER GROUP VENTURES

TITLE SHEET
2750 BRISTOL AVE.

COSTA MESA CALIFORNIA

DWG. NO.	SHEET NO.	REV.
20-2412-TS	1 OF 10	0

CITY OF COSTA MESA

P.O. BOX 1200 • 77 FAIR DRIVE • CALIFORNIA 92628-1200

DEVELOPMENT SERVICES DEPARTMENT

October 22, 2020

Coralee S. Newman
1048 Irvine Avenue, #618
Newport Beach, CA 92660

RE: ZONING APPLICATION 20-13, DEVELOPMENT REVIEW 20-04, AND LOT LINE ADJUSTMENT 20-05, FOR A NEW TWO-STORY, 37,485-SQUARE-FOOT AUTO BODY REPAIR FACILITY (NO. 1 COLLISION) 2750 AND 2770 BRISTOL STREET, COSTA MESA

Dear Ms. Newman:

City staff's review of your zoning application for the above-referenced project has been completed. The application, as described in the attached project description, has been approved, based on the findings attached and subject to the conditions listed. The decision will become final at 5:00 p.m. on October 29, 2020, unless appealed by an affected party, including filing of the necessary application and payment of the appropriate fee, or called up for review by a member of the Planning Commission or City Council.

If you have any questions regarding this letter, please feel free to contact the project planner, Mel Lee, at (714) 754-5611, or at mel.lee@costamesaca.gov .

Sincerely,

WILLA BOUWENS-KILLEEN, AICP
Zoning Administrator

Attachments: Project Description, Findings, Conditions of Approval, Code Requirements, and Special District Requirements, Planning Application Summary, Class 32 Categorical Exemption Memorandum, Applicant's Project Description and Conceptual Plans

cc: Public Services/Engineering
Fire Marshal
Transportation Services Division

Walker Group Ventures
1110 Cambie Road, Suite 100
Richmond, BC V6X 1K9, Canada

PROJECT DESCRIPTION

Project Site/Environs

The subject property is located on the east side of Bristol Street, adjacent to the intersection of the 55 and 73 Freeways. The subject property is zoned C1 (Local Business) with a General Plan land use designation of General Commercial. The site is approximately 65,514 square feet in area (1.5 acres). The site currently contains an approximately 9,494 square foot automatic car wash building and a 2,628 square foot oil change building with approximately 53 existing on-site parking spaces. The surrounding properties are commercially zoned, with the exception of the 73 Freeway abutting the property to the east.

History of Entitlements

On June 27, 1988, the Planning Commission approved, on 3-1 vote, Planning Application 88-82 for a Conditional Use Permit for South Pacific Car Wash, which is now closed. The oil change facility, approved under Planning Application 92-52, is also closed. There is also a 45-foot tall non-camouflaged monopole, located at the northerly portion of the site (adjacent to the 73 Freeway), that was approved under Zoning Application 99-58 that is not a part of this proposed development.

The property was acquired by the current owner with the intention of demolishing the car wash and adjacent oil change building located at 2770 Bristol Street, in order to construct a new two-story, 37,485-square-foot auto body repair facility (No. 1 Collision). The applicant has submitted separate entitlements (Development Review, Lot Line Adjustment, and Minor Conditional Use Permit) for review by the Planning Division/Zoning Administrator per CMMC Section 13-29(c).

Requests

The following requests are proposed:

- Zoning Application 20-13 is a Minor Conditional Use Permit to deviate from parking requirements due to unique operating characteristics (130 spaces required; 38 provided) to accommodate the proposed development as described in Development Review 20-04 below.
- Development Review 20-04 is a request to demolish the existing 9,494 square foot automatic car wash building and a 2,628 square foot oil change building and construct a new two-story, 37,485 square foot motor vehicle repair facility (No. 1 Collision).
- Lot Line Adjustment 20-05 is a request to remove an existing lot line between Parcels 1 and 2 of Parcel Map 91-116 to accommodate the proposed development as described in Development Review 20-04 above.

ANALYSIS

Proposed Project

The proposed use is a new motor vehicle repair facility for No.1 Collision, the largest luxury-exclusive collision repair group in Canada. No.1 Collision has been serving the greater Vancouver, BC area for over 50 years. Factory-certified repairs include, but not limited to, BMW, Mercedes-Benz, Audi, Porsche, Tesla, Jaguar, Land Rover, Maserati, and Rolls Royce. No. 1 Collision owns and operates 5 collision centers throughout the greater Vancouver area. Proposed hours of operation are 8 AM to 5 PM, Monday through Friday. The business will employ a maximum of 23 persons.

Site/Building Design and Layout

The proposed building would be two stories in height with a roof-top parking deck. The building would have a 31,498-square-foot first floor and 5,987-square-foot second floor. The first floor would consist of the customer waiting/reception area, as well as the offices for the service advisors, and a parts shipping and receiving area in the front portion of the building closest to Bristol Street. The rear portion of the building would contain the auto service repair bays, detailing and wash bays, and paint spray booths. The second floor would contain employee training and break rooms, and storage. The roof deck for additional vehicle storage and employee parking is also on this floor.

The proposed architecture is a contemporary design. Exterior materials for the building consist of aluminum composite panels with glazing and ground face concrete masonry. The metallic finish and glazing would be the most visually prominent part of the building facing Bristol Street and would provide an attractive appearance from the street. The overall height of the main building is 29 feet as measured from grade.

Site landscaping along the frontage of the site and throughout the surface parking areas for the project is proposed; all storage of vehicles for repair will be screened from Bristol Street.

On-Site Parking and Vehicle Circulation

Code requires 130 parking spaces for the use; the project would provide a total of 38 on-site parking spaces including a one space credit for the bicycle racks, broken down as follows:

Number of Customer Spaces*	15
Number of Employee Spaces on the Roof Deck	23
Total	**38 Spaces**

*Includes a one space credit for bike racks

The above total does not include the 48 parking spaces available for the storage of vehicles being repaired. According to the applicant, operational experience with other

No. 1 Collision locations indicates the luxury brand collision centers generate very low traffic volumes with 8 to 12 customers per day, with a maximum of 23 employees. As a result, the supply of on-site parking spaces will not be exceeded at any one time.

Vehicle access to the project site is provided via a single driveway along Bristol Street providing right-in and right-out access to the project site. Based on the project site plan, the driveways would provide sufficient drive aisle clearance within the project site to allow queuing of vehicles to occur on-site and not onto Bristol Street. The parking lot layout would provide a 20-foot fire lane with 25-foot drive aisles throughout the parking lot area for adequate access to parking spaces. Pedestrian access would be provided along the public sidewalk along Bristol Street and private walkways throughout the project site.

Lot Line Adjustment

Because the proposed building would cross an existing lot line between 2750 and 2770 Bristol Street, the applicant has prepared a Lot Line Adjustment (LL-20-13) at the request of the Public Services Department. The lot line adjustment is a separate application that is reviewed at staff level. The lot line adjustment has been reviewed by the Public Services Department and returned to the applicant for corrections and recordation. Proof of recordation of the lot line adjustment will be required prior to the release of the building permits.

Justifications for Approval

Staff supports the requests based on the following:

There are sufficient on-site parking spaces to support the use. Per current Code, 130 parking spaces would be required for the building; however, the on-site parking spaces provided for customers and employees will be sufficient for the proposed use. All parking spaces are full size; no compact parking spaces are proposed. According to the applicant, operational experience with other No. 1 Collision locations indicates the luxury brand collision centers generate very low traffic volumes with 8 to 12 customers per day, with a maximum of 23 employees resulting in a demand of 31 to 35 spaces; 38 spaces are proposed. The average time needed to complete body repair work for European luxury vehicles is a minimum of one week and, in some cases, takes several months. Given these unique attributes to luxury collision repair, minimal customer and employee parking is required as compared to more traditional commercial uses and, thereby, justifies the granting of the request for a parking reduction. All other Zoning Code requirements are complied with.

General Plan Consistency

The project site has a General Plan land use designation of General Commercial. The General Commercial General Plan land use designation is intended to permit a wide

range of commercial uses that serve both local and regional needs. The use is consistent with the General Plan designation and will not adversely impact surrounding uses.

Floor Area Ratio (FAR)

The City's Transportation Services Division has reviewed the proposed project and determined that the project satisfies the Very Low Traffic Use designation since the use is anticipated to generate less than three average daily trips per 1,000 square feet of gross floor area. The estimated number of daily trips for the proposed project is 94 average daily trips. Therefore, the proposed 0.57 FAR is well within the maximum allowable FAR of 0.75 as permitted under the Very Low Traffic Use designation.

For the purposes of Vehicle Miles Traveled (VMT) for California Environmental Quality Act (CEQA) impact analysis, the proposed project would have a less than significant impact since the estimated daily trips for the project is less than 110 daily vehicle trips. In addition, the proposed project site is located in a Low VMT zone.

Environmental Determination

The project is exempt from the provisions of the California Environmental Quality Act (CEQA) under CEQA Guidelines Section 15332 for Infill Development. Per CEQA Guidelines Section 15332, the Class 32 Categorical Exemption (CE) may be utilized when:

- The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designations and regulations;
- The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses;
- The project site has no value as habitat for endangered, rare or threatened species;
- Approval of the project would not result in any significant effects relating to traffic, air quality, or water quality; and
- The site can be adequately served by all required utilities and public services.

As part of the proposed project, the City retained an environmental consultant to determine if the project would be eligible for a Class 32 Categorical Exemption under California Environmental Quality Act (CEQA) Guidelines Section 15332. Based on the Memo prepared by the City's consultant, Michael Baker International, the proposed project meets all criteria for the Class 32 exemption, as summarized below:

- The project would be consistent with the General Commercial Land Use Designation, applicable General Plan land use policies, and C1 zone development standards.
- The project site is in an urbanized area of Costa Mesa. The surrounding properties are commercially zoned, with the exception of the 73 Freeway abutting the property to the east.

- The site is approximately 65,514 square feet in area (1.5 acres). The site currently contains an approximately 9,494 square foot automatic car wash building and a 2,628 square foot oil change building with approximately 53 existing on-site parking spaces. Construction and operations of the project would result in less than significant impacts related to traffic, noise, air quality, and water quality:
  - Related to traffic, the project would not significantly impact the surrounding transportation system and impacts related to site access, safety and congestion would be less than significant, as well. The project satisfies the Very Low Traffic Use designation since the use is anticipated to generate less than three average daily trips per 1,000 square feet of gross floor area. The estimated number of daily trips for the proposed project is 94 average daily trips.
  - In terms of impacts related to noise, construction noise impacts, project operational mobile noise impacts, and potential impacts from parking lot noise during operations would be less than significant. In addition, project construction and operational activities would result in less than significant impacts related to vibration.
  - Related to air quality, the proposed project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new air quality violations, or delay timely attainment of air quality standards or the interim emissions reductions specified in the 2016 AQMP. In addition, project construction and operations would not require mitigation related to air quality emissions and would be consistent with SCAQMD and SCAG's goals and policies and is considered consistent with the 2016 AQMP. Total construction related air emissions, long-term operational air quality impacts, localized significance impacts from construction and operational LST impacts would be less than significant. Furthermore, the proposed project does not include any uses identified by the SCAQMD as being associated with odors. The project would not emit emissions, including odors, adversely affecting a substantial number of people and impacts would be less than significant.
  - Related to water quality, the project would not generate any additional stormwater runoff and would not degrade the quality of runoff from the site and project development would not substantially change the permeability or hydrology of the site as the proposed impervious surfaces and drainage path would be similar to existing conditions.
- The development will be served by existing utilities and public services. In addition, the project would not substantially increase demand for public services and utilities, and would be adequately served by existing providers.

FINDINGS

A. The proposed project complies with Title 13, Section 13-29(g)(2), Minor Conditional Use Permit, of the Municipal Code due to the following:

REV. NO.	DATE	BY	REVISION	APPROVED BY

REGISTERED PROFESSIONAL ENGINEER
DANIEL RUBIO
NO. 60934
CIVIL
STATE OF CALIFORNIA

JCA
JONES, CAHL & ASSOCIATES
CONSULTING ENGINEERS
18090 Beach Boulevard - Huntington Beach
California 92648 - (714) 848-0566
e-mail: jca@jonescahl.com

DESIGNED:	D.R.	SCALE:	N/A
DRAWN:	C.H.	DATE:	3/18/2022
CHECKED:	D.R.	JOB NO.	20-2412

PREPARED UNDER THE DIRECTION OF:
DANIEL RUBIO R.C.E. 60934 DATE

WALKER GROUP VENTURES

CONDITIONS OF APPROVAL
2750 BRISTOL AVE.

COSTA MESA CALIFORNIA

DWG. NO. 20-2412-COA

SHEET NO. 2 OF 10

REV. 0

Finding: The proposed use, as conditioned, is substantially compatible with developments in the same general area and would not be materially detrimental to other properties within the area.

Facts in Support of Findings: The proposed parking for the motor vehicle repair facility is consistent with the C1 zoning of the property and is of a similar scale and intensity to other commercially-zoned properties in the vicinity Sufficient parking would be provided for customers and employees and all vehicle service areas are contained indoors; therefore, the proposed use would not be materially detrimental to other properties in the area. According to the applicant, operational experience with other No. 1 Collision locations indicates the luxury brand collision centers generate very low traffic volumes with 8 to 12 customers per day, with a maximum of 23 employees. As a result, the supply of 38 on-site parking spaces will not be exceeded at any one time.

Finding: The proposed use and improvements will not be materially detrimental to the health, safety and general welfare of the public or otherwise injurious to property or improvements within the immediate neighborhood.

Facts in Support of Findings: The proposed vehicle repair would not generate adverse noise or traffic impacts that are unusual for commercially-zoned properties. Compliance with the applicable Building and Fire Safety Codes will ensure that the project is not materially detrimental to the health, safety and general welfare of the public or otherwise injurious to property or improvements within the immediate neighborhood. Furthermore, although the project is not located in proximity to any residentially-zoned properties, conditions of approval require the operation to be conducted in a manner that would allow for the quiet enjoyment of the surrounding neighborhood.

Finding: The proposed use, as conditioned, is consistent with the intent of the zoning code and General Plan land use designation for the property.

Facts in Support of Findings: The proposed use as a motor vehicle repair facility is consistent with the General Commercial General Plan land use designation and C1 zoning and is also consistent with the applicable General Plan goals and policies.

The following analysis evaluates the proposed project's consistency with specific policies and objectives of the 2015-2035 General Plan.

Policy LU-1.1: *Provide for the development of a mix and balance of housing opportunities, commercial goods and services, and employment opportunities in consideration of the needs of the business and residential segments of the community.*

Consistency: The infill nature of the proposed commercial project

(automobile repair) protects the balance of land uses satisfying the needs of the community as it pertains to commercial goods and services, and employment opportunities in consideration of the needs of the business and residential segments of the community. The proposed project is consistent with this General Plan goal.

Objective LU-6A: *Ensure the long-term productivity and viability of the community's economic base.*

Consistency: The proposed project would revitalize a currently underused parcel of land, thus encouraging the long-term productivity and viability of the community's economic base.

Policy LU-6.1: *Encourage a mix of land uses that maintain and improve the City's long-term fiscal health.*

Consistency: The proposed use would provide a land use which contributes to a broader tax base in the City and encourages long term fiscal health. The proposed project would also be located on a site containing existing buildings that would be removed to incorporate new construction.

B. The proposed project complies with Title 13, Section 13-29(g)(4), Lot Line Adjustment, of the Municipal Code due to the following:

Finding: The lot line adjustment and improvements are consistent with the General plan and this Zoning Code.

Facts in Support of Findings: The proposed use as a motor vehicle repair facility is consistent with the General Commercial General Plan land use designation and C1 zoning and is also consistent with the applicable General Plan goals and policies. The site complies with minimum lot size/area requirements of the zone.

C. The project is exempt from the provisions of the California Environmental Quality Act (CEQA) under CEQA Guidelines Section 15332 for Infill Development. In urbanized areas, the exemption applies to projects that are consistent with the applicable general plan and zoning designations; is located on a project site of less than five acres; has no value as a habitat for endangered, rare, or threatened species; will not result in any significant effects relating to traffic, noise, air quality or water quality; and can be adequately served by all required utilities and public services. The use, as conditioned, is consistent with the applicable General Plan land use designation and all applicable General Plan policies, as well as with applicable zoning designation and regulations.

D. The project, as conditioned, is consistent with Chapter XII, Article 3, Transportation System Management, of Title 13 of the Costa Mesa Municipal Code in that the

development project's traffic impacts will be mitigated by the payment of traffic impact fees.

E. Portions of the proposed building(s) are an excessive distance from the street necessitating fire apparatus access and provisions of on-site fire hydrants.

CONDITIONS OF APPROVAL

Plng. 1. The use(s) shall be limited to the type of operation(s) as described in the staff report. Any change in the operational characteristics shall require review by the Planning Division and may require an amendment subject to either Zoning Administrator or Planning Commission approval, depending on the nature of the proposed change. The applicant is reminded that Code allows the Planning Commission to modify or revoke any planning application based on findings related to public nuisance and/or noncompliance with conditions of approval [Title 13, Section 13-29(o)].

2. Hours of operation shall be limited to 8 AM to 5 PM, Monday through Friday.
3. Public address system with outdoor speakers shall be prohibited.
4. Customer and employee parking areas shall be clearly delineated on the site plan and at the project site. In the event complaints are received related to parking problems, the operator shall institute whatever operational measures are necessary to minimize or eliminate the problem including, but not limited to, reducing the number of vehicle inventory or providing off-site parking subject to applicable Zoning Code requirements, at the discretion of the Development Services Director. Employees shall not park vehicles on any nearby residential streets. The operator shall also ensure that adequate parking for customers exists on-site.
5. Demolition permits for existing structure(s) shall be obtained and all work and inspections completed prior to final building inspections. Applicant is notified that written notice to the Air Quality Management District may be required ten (10) days prior to demolition.
6. No modification(s) of the approved building elevations including, but not limited to, changes that increase the building height, removal of building articulation, or a change of the finish material(s), shall be made during construction without prior Planning Division written approval. Failure to obtain prior Planning Division approval of the modification could result in the requirement of the applicant to (re)process the modification through a discretionary review process such as a minor design review or a variance, or in the requirement to modify the construction to reflect the approved plans
7. No exterior roof access ladders, roof drain scuppers, or roof drain

downspouts are permitted. This condition relates to visually prominent features of scuppers or downspouts that not only detract from the architecture but may be spilling water from overhead without an integrated gutter system which would typically channel the rainwater from the scupper/downspout to the ground. An integrated downspout/gutter system which is painted to match the building would comply with the condition. This condition shall be completed under the direction of the Planning Division.

8. Prior to the issuance of building permits, the Applicant shall submit a Lighting Plan and Photometric Study for the approval of the City's Development Services Department. The Lighting Plan shall demonstrate compliance with the following:
   - The intensity and location of lights on buildings shall be limited to minimize nighttime light and glare to surrounding properties and shall be subject to the Development Services Director's approval.
   - All site lighting fixtures shall be provided with a flat glass lens. Photometric calculations shall indicate the effect of the flat glass lens fixture efficiency.
   - Lighting design and layout shall limit light spillage to no more than 0.5 foot-candles at the property line of residential properties, consistent with the level of lighting that is determined necessary for safety and security purposes on site. Light standards shall be located and oriented in such a way as to minimize light spillage onto surrounding properties. Light shall be shielded and pointed downward.
   - The intensity of parking deck lighting shall be reduced from 9:00 pm until dawn each day to minimize lighting impacts to nearby properties.
9. It is recommended that the project incorporate green building design and construction techniques where feasible. The applicant may contact the Building Safety Division at (714) 754-5273 for additional information. CAL Green Code or higher as determined by applicant.
10. Prior to issuance of grading permits, developer shall submit for review and approval a Construction Management Plan. This plan features methods to minimize disruption to the neighboring residential uses to the fullest extent that is reasonable and practicable. The plan shall include construction parking and vehicle access and specifying staging areas and delivery and hauling truck routes. The plan should mitigate disruption to residents during construction. The truck route plan shall preclude truck routes through residential areas and major truck traffic during peak hours. The total truck trips to the site shall not exceed 200 trucks per day (i.e., 100 truck trips to the site plus 100 truck trips from the site) unless approved by the Development Services Director or Transportation Services Manager.
11. The subject property's ultimate finished grade level may not be filled/raised in excess of 36 inches above the finished grade of any abutting property. If additional fill dirt is needed to provide acceptable

on-site storm water flow to a public street, an alternative means of accommodating that drainage shall be approved by the City's Building Official prior to issuance of any grading or building permits. Such alternatives may include subsurface tie-in to public storm water facilities, subsurface drainage collection systems and/or sumps with mechanical pump discharge in-lieu of gravity flow. If mechanical pump method is determined appropriate, said mechanical pump(s) shall continuously be maintained in working order. In any case, development of subject property shall preserve or improve the existing pattern of drainage on abutting properties.

12. The applicant shall contact the Planning Division to arrange a Planning inspection of the site prior to the release of occupancy/utilities. This inspection is to confirm that the conditions of approval and code requirements have been satisfied.
13. The applicant shall defend, indemnify, and hold harmless the City, its elected and appointed officials, agents, officers and employees from any claim, action, or proceeding (collectively referred to as "proceeding") brought against the City, its elected and appointed officials, agents, officers or employees arising out of, or which are in any way related to, the applicant's project, or any approvals granted by City related to the applicant's project. The indemnification shall include, but not be limited to, damages, fees and/or costs awarded against the City, if any, and cost of suit, attorney's fees, and other costs, liabilities and expenses incurred in connection with such proceeding whether incurred by the applicant, the City and/or the parties initiating or bringing such proceeding. This indemnity provision shall include the applicant's obligation to indemnify the City for all the City's costs, fees, and damages that the City incurs in enforcing the indemnification provisions set forth in this section. City shall have the right to choose its own legal counsel to represent the City's interests, and applicant shall indemnify City for all such costs incurred by City.
14. Prior to issuance of Certificate of Occupancy (C of O), the applicant shall provide a scaled and dimensioned digital site plan(s) for the project site, on either a CD or thumb drive, to the Planning Division. All site plans shall include an accurate and precise drawing of all building footprints and property line locations for the entire project site. All buildings shall be annotated with its corresponding address and suites if applicable.

CODE REQUIREMENTS

The following list of federal, state and local laws applicable to the project has been compiled by staff for the applicant's reference. Any reference to "City" pertains to the City of Costa Mesa.

1. All contractors and subcontractors must have valid business licenses to do business in the City of Costa Mesa. Final inspections, final

occupancy and utility releases will not be granted until all such licenses have been obtained.

2. Approval of the planning/zoning application is valid for two years from the effective date of this approval and will expire at the end of that period unless applicant has established the use by one of the following actions: 1) a building permit has been issued and construction has commenced, and has continued to maintain a valid building permit by making satisfactory progress as determined by the Building Official, 2) a certificate of occupancy has been issued, or 3) the use is established and a business license has been issued. A time extension can be requested no less than 30 days or more than 60 days before the expiration date of the permit and submitted with the appropriate fee for review to the Planning Division. Only one request for an extension of 180 days may be approved by the Director.
3. Address assignment shall be requested from the Planning Division prior to submittal of working drawings for plan check. The approved address of individual units, suites, buildings, etc., shall be blueprinted on the site plan and on all floor plans in the working drawings.
4. Prior to issuance of building permits, applicant shall contact the US Postal Service with regard to location and design of mail delivery facilities. Such facilities shall be shown on the site plan, landscape plan, and/or floor plan.
5. Development shall comply with all requirements of Articles 3 and 9, Chapter V, Title 13 of the Costa Mesa Municipal Code relating to commercial development standards.
6. Development shall comply with all requirements of Article 5, Chapter V, Title 13 of the Costa Mesa Municipal Code relating to service and repair of motor vehicles.
7. All noise-generating construction activities shall be limited to 7 a.m. to 7 p.m. Monday through Friday and 9 a.m. to 6 p.m. Saturday. Noise-generating construction activities shall be prohibited on Sunday and the following Federal holidays: New Years Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.
8. Permits shall be obtained for all signs according to the provisions of the Costa Mesa Sign Ordinance.
9. Parking stalls shall be double-striped in accordance with City standards.
10. Two sets of detailed landscape and irrigation plans, which meet the requirements set forth in Costa Mesa Municipal Code Sections 13-101 through 13-108 and the City's Water Efficient Landscape Guidelines, shall be required as part of the project plan check review and approval process. Plans shall be in substantial conformance with the landscape plans approved by the Planning Commission and forwarded to the Planning Division for final approval prior to issuance of building permits.
11. Two sets of landscape and irrigation plans, approved by the Planning Division, shall be attached to two of the final building plan sets.
12. All on-site utility services shall be installed underground.

REV. NO.	DATE	BY	REVISION	APPROVED BY

REGISTERED PROFESSIONAL ENGINEER
DANIEL RUBIO
NO. 60934
CIVIL
STATE OF CALIFORNIA

JONES, CAHL & ASSOCIATES
CONSULTING ENGINEERS
18090 Beach Boulevard - Huntington Beach
California 92648 - (714) 848-0566
e-mail: jca@jonescahl.com

DESIGNED:	D.R.	SCALE:	N/A
DRAWN:	C.H.	DATE:	3/18/2022
CHECKED:	D.R.	JOB NO.	20-2412

PREPARED UNDER THE DIRECTION OF:

DANIEL RUBIO R.C.E. 60934 DATE

WALKER GROUP VENTURES

CONDITIONS OF APPROVAL
2750 BRISTOL AVE.

COSTA MESA CALIFORNIA

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REV. 0

13. Installation of all utility meters shall be performed in a manner so as to obscure the installation from view from any place on or off the property. The installation shall be in a manner acceptable to the public utility and shall be in the form of a vault, wall cabinet, or wall box under the direction of the Planning Division.
14. Any mechanical equipment such as air-conditioning equipment and duct work shall be screened from view in a manner approved by the Planning Division.
15. Transformers, backflow preventers, and any other approved above-ground utility improvement shall be located outside of the approved landscape setback area and shall be screened from view, subject to review and approval by the Development Services Director or designee.
16. Sign plans shall be submitted for all on-site signs (i.e., monument, directional, wall mounted) for review and approval of the Development Services Director or designee prior to issuance of sign permits.
17. Trash enclosure(s) or other acceptable means of trash disposal shall be provided. Design of trash enclosure(s) shall conform with City standards.
18. Trash facilities shall be screened from view and designed and located appropriately to minimize potential noise and odor impacts to adjacent uses.

Bldg.

19. Comply with the requirements of the following adopted codes: 2019 California Building Code, 2019 California Electrical Code, 2019 California Mechanical Code, 2019 California Plumbing Code, 2019 California Green Building Standards Code, and 2019 California Energy Code (or the applicable adopted California Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Green Building Standards, and California Energy Code at the time of plan submittal or permit issuance, and California Code of Regulations, also known as the California Building Standards Code, as amended by the City of Costa Mesa. Requirements for accessibility to sites, facilities, buildings and elements by individuals with disability shall comply with Chapter 11B of the 2019 California Building Code.
20. Prior to issuing the building permit the conditions of approval shall be blueprinted on the approved architectural plans.
21. Prior to the Building Division issuing a demolition permit contact South Coast Air Quality Management District (AQMD) located at:

    21865 Copley Dr.
    Diamond Bar, CA 91765-4178
    Tel: 909- 396-2000
    Or
    Visit their web site
    http://www.costamesaca.gov/modules/showdocument.aspx?documentid=23381

22. All applicable SCAQMD Rules shall be adhered to, including, but not limited to, the following: Rules 201 and 203 (Permit to Construct and Permit to Operate); Rule 402 (Nuisance); Rule 403 (Fugitive Dust); Rule 1113 (Architectural Coatings); Rule 1401 (New Source Review of Toxic Air Contaminants); and Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities).
23. The Building Division will not issue a demolition permit until an Identification Number is provided by AQMD.
24. Provide a plan to the County of Orange Health Department for review and approval.
25. Submit precise grading plans, an erosion control plan and a hydrology study. If it is determined that a grading plan is not required, a drainage plan shall be provided. Prior to issuing the Building permit, the rough grading certificate shall be submitted to the Building Division.
26. Submit a soils report for this project. Soils report recommendations shall be blueprinted on both the architectural and the precise grading plans.
27. The ground adjacent immediately to the foundation shall be slopes away from the building at a slope of not less than 5% for a minimum distance of 10 feet measured perpendicular to the face of the wall (California Building Code Section 1804.3). See also exception.
28. On graded sites the top of exterior foundation shall extend above the elevation of the street gutter at point of discharge or the inlet of an approved discharge devise a minimum of 12 inches plus 2 percent (California Building Code Section 1808.7.4).
29. If soil contamination exists, then remediation plans shall be submitted to both the Building Division and the County of Orange for review, approval and issuing a permit. Building permit(s) shall not be issued until the soil is certified as clean and usable by a Soils Engineer.
30. For other Departments or Divisions, one set of building plans may be submitted.

Trans.

31. Reconstruct commercial drive approach at location submitted on site plan. This will require the relocation of the existing fire hydrant adjacent to the existing drive approach. Comply with minimum clearance requirements from property lines and any vertical obstructions.
32. All external parking spaces shall meet the parking design guidelines for commercial parking spaces. 9 feet wide x 18 feet long.
33. Close unused drive approaches, or portion of, with full height curb and gutter that comply with City Standards.

Eng.

34. At the time of development submit for approval an offsite plan to the Engineering Division and grading plan to the building division that shows sewer, water, existing parkway improvements and the limits of work on the site, and hydrology calculations, both prepared by a registered civil engineer or architect. Cross lot drainage shall not occur. Construction access approval must be obtained prior to building or engineering

permits being issued by the City of Costa Mesa. Pay offsite plan check fee per Section 13-231 of the C.C.M.M.C. and an approved offsite plan shall be required prior to engineering permits being issued by the City Of Costa Mesa.

35. Submit required cash deposit or surety bond to guarantee construction of off-site street improvements per Section 15-32, C.C.M.M.C. and as approved by City Engineer. Cash deposit or surety bond amount to be determined by City Engineer.
36. Maintain the public right-of-way in a "wet-down" condition to prevent excessive dust and promptly remove any spillage from the public right-of-way by sweeping or sprinkling.
37. Haul routes must be approved by the City of Costa Mesa, Transportation & Engineering Division.
38. Obtain a permit from the City of Costa Mesa, Engineering Division, at the time of development and then reconstruct existing driveway approaches per City of Costa Mesa Standards as shown on the Offsite Plan. Location and dimensions are subject to the approval of the Transportation Services Manager. ADA compliance required for all new driveway approaches.
39. Submit required cash deposit or surety bond to guarantee construction of off-site street improvements per Section 15-32, C.C.M.M.C. and as approved by City Engineer. Cash deposit or surety bond amount to be determined by City Engineer.
40. Fulfill City of Costa Mesa Drainage Ordinance No. 06-19 requirements prior to approval of plans.
41. In order to comply with the 2003 Drainage Area Management Plan (DAMP), the proposed Project shall prepare a Water Quality Management Plan conforming to the Current National Pollution Discharge Elimination System (NPDES) and the Model WQMP, prepared by a Licensed Civil Engineer or Environmental Engineer, which shall be submitted to the Department of Public Works for review and approval.
42. A WQMP (Priority or Non-Priority) shall be maintained and updated as needed to satisfy the requirements of the adopted NPDES program. The plan shall ensure that the existing water quality measures for all improved phases of the project are adhered to.
43. Location of BMPs shall not be within the public right-of-way.
44. Submit for approval to the City of Costa Mesa, Engineering Division, Street Improvement Plans that show Sewer and Water Improvements, prepared by a Civil Engineer
45. Lot Line Adjustment LL-20-05 to remove the lot line between Parcels 1 and 2 of Parcel Map 91-116 shall be recorded prior to issuance of building permits.

Fire

46. Comply with the 2019 California Fire Code requirements and referenced standards as amended by the City of Costa Mesa.
47. Wet standpipe connections shall be provided on the rooftop parking

area at locations near each of the stairs as approved by the Costa Mesa Fire Department.

48. Private fire hydrants shall be added at 300-foot spacing along the Fire Lane.

SPECIAL DISTRICT REQUIREMENTS

The requirements of the following special districts are hereby forwarded to the applicant:

Sani.

1. Applicant will be required to construct sewers to serve this project, at his own expense, meeting the approval of the Costa Mesa Sanitary District.
2. County Sanitation District fees, fixture fees, inspection fees, and sewer permit are required prior to installation of sewer.
3. County Sanitation District fees, fixtures fees, inspection fees, and sewer permit are required prior to installation of sewer.
4. Applicant shall submit a plan showing sewer improvements that meets the District Engineer's approval to the Building Division as part of the plans submitted for plan check.
5. Applicant will be required to coordinate with the Costa Mesa Sanitary District to comply with any recommended studies and improvements, prior to issuance of a building permit.
6. Unless an offsite trash hauler is being used, the applicant shall contact the Costa Mesa Sanitary District to pay trash collection program fees and arrange for service for all new residences. Residences using bin or dumpster services are exempt from the requirement.
7. Plans shall be submitted to Costa Mesa Sanitary District for private on-site sewer improvements and for connection to the existing public sewer system. Additional information may be required after initial review of the plans and prior to approval by the District. Contact the District's Permit Office for plan requirements.
8. The applicant is required to contact the Costa Mesa Sanitary District at (949) 654-8400 to arrange final sign-off prior to certificate of occupancy being released.
9. Applicant shall contact Costa Mesa Sanitary District at (949) 654-8400 for any additional district requirements.

AQMD

10. Applicant shall contact the Air Quality Management District (AQMD) at (800) 288-7664 for potential additional conditions of development or for additional permits required by AQMD.

Water

11. Customer shall contact the Mesa Water District – Engineering Desk and submit an application and plans for project review. Customer must obtain a letter of approval and a letter of project completion from Mesa Water District.

State

12. Comply with the requirements of the California Department of Food and Agriculture (CDFA) to determine if red imported fire ants (RIFA) exist on

the property prior to any soil movement or excavation. Call CDFA at 1-888-4FIREANT for information.

PLANNING APPLICATION SUMMARY

Location: 2750-2770 Bristol Street Application: ZA-20-13, DR-20-04, LL-20-05

Request: Demolish the existing car wash and oil change facility and construct a new body repair shop

SUBJECT PROPERTY:

Zone: C1
General Plan: General Commercial
Lot Dimensions: Irregular
Lot Area: (After Combination) 65,514 SF (1.5 AC)

SURROUNDING PROPERTY:

North: C1, Vacant
South: C1, Commercial Kennel (BoneAdventure)
East: 73 FWY
West: (Across Bristol St.) CL, Commercial Uses

Existing Development: Car wash and oil change facility (to be demolished)

DEVELOPMENT STANDARD COMPARISON:

Development Standard	Required/Allowed	Proposed/Provided
Lot Size:		
Lot Width	120 FT	560 FT
Lot Area	12,000 SF	65,514 SF (1.5 AC)
Floor Area Ratio:		
Very Low Traffic FAR	.75 (49,135 SF)	.57 (37,485 SF)
Building Height:	2 Stories/30 FT	2 Stories/29 FT
Interior landscaping	375 SF	2,189 SF
Setbacks (Buildings):		
Front (Bristol St.)	20 FT	25 FT
Side (left/right)	15 FT/0 FT	30 FT/26.6 FT
Rear	0 FT	20 FT
Setbacks (Landscaping):		
Front (Bristol St.)	20 FT	20 FT
Parking		
Standard	125	33
Handicap	4	4
Credit for Bike Rack	1	1
TOTAL	130 Spaces	38 Spaces (1)

CEQA Status	Exempt Class 32 w/Special Studies
Final Action	Staff (DR, LLA); ZA (MCUP)
	(1) Minor Cup Proposed For Parking Reduction Per CMMC Section 13-85.5

REV. NO.	DATE	BY	REVISION	APPROVED BY

REGISTERED PROFESSIONAL ENGINEER
DANIEL RUBIO
NO. 60934
CIVIL
STATE OF CALIFORNIA

JONES, CAHL & ASSOCIATES
CONSULTING ENGINEERS
18090 Beach Boulevard - Huntington Beach
California 92648 - (714) 848-0566
e-mail: jca@jonescahl.com

DESIGNED:	D.R.	SCALE:	N/A
DRAWN:	C.H.	DATE:	3/18/2022
CHECKED:	D.R.	JOB NO.	20-2412

PREPARED UNDER THE DIRECTION OF:
DANIEL RUBIO R.C.E. 60934 DATE

WALKER GROUP VENTURES

CONDITIONS OF APPROVAL
2750 BRISTOL AVE.

COSTA MESA CALIFORNIA

DWG. NO.	SHEET NO.	REV.
20-2412-COA	4 OF 10	0

SOILS RECOMMENDATIONS

1.0 PROJECT DESCRIPTION

IT IS PROPOSED TO CONSTRUCT A COLLISION NO. 1 CENTER AUTOMOBILE REPAIR FACILITY CONSISTING OF 25,500 SQUARE FEET BUILDING AS SHOWN ON THE ATTACHED SITE PLAN BY CHRISTOPHER BOZYK ARCHITECTS DATED AUGUST 23, 2019. THE PROPOSE TWO-STORY STRUCTURE WITH ROOF TOP PARKING WILL BE SUPPORTED BY A CONVENTIONAL SLAB-ON-GRADE FOUNDATION SYSTEM WITH PERIMETER-SPREAD FOOTINGS AND ISOLATED INTERIOR FOOTINGS. OTHER IMPROVEMENTS WILL INCLUDE ASPHALT AND CONCRETE PAVEMENT AREAS, HARDSCAPE AND LANDSCAPING.

IT IS ASSUMED THAT THE PROPOSED GRADING FOR THE DEVELOPMENT WILL CONSIST OF MINOR CUTS AND FILLS ON THE ORDER OF 5 TO 1 0 FEET TO ACHIEVE FINISHED GRADE ELEVATIONS. FINAL BUILDING PLANS SHALL BE REVIEWED BY THIS FIRM PRIOR TO SUBMITTAL FOR CITY APPROVAL TO DETERMINE THE NEED FOR ANY ADDITIONAL STUDY AND REVISED RECOMMENDATIONS PERTINENT TO THE PROPOSED DEVELOPMENT, IF NECESSARY.

2.0 SITE DESCRIPTION

THE APPROXIMATELY 275' X 275' SUBJECT PROPERTY IS LOCATED WITHIN THE 2700 BLOCK AND EAST SIDE OF BRISTOL STREET, BORDERED BY THE CORONA DEL MAR FREEWAY ALONG THE EAST PROPERTY LINE, IN THE CITY OF COSTA MESA. THE GENERALLY SQUARE-SHAPED PARCEL IS A RELATIVELY LEVEL PROPERTY WITH TOPOGRAPHY DESCENDING SLIGHTLY FROM BACK TO FRONT ON THE ORDER OF A FEW FEET. THE SITE IS CURRENTLY OCCUPIED BY AN ABANDONED CAR WASH BUILDING WITH SURROUNDING CONCRETE PAVEMENT.

3.0 SITE EXPLORATION

THE INVESTIGATION CONSISTED OF THE PLACEMENT OF THREE (3) ELECTRONIC CONE PENETROMETERS (CPT) AND FIVE (5) SUBSURFACE EXPLORATORY BORINGS BY A TRUCK MOUNTED DRILL RIG WITH EIGHT-INCH OUTSIDE DIAMETER HOLLOW-STEM, CONTINUOUS FLIGHT AUGERS AND TO DEPTHS RANGING BETWEEN 5 AND 50 FEET BELOW CURRENT GROUND ELEVATIONS. THE EXPLORATIONS WERE VISUALLY CLASSIFIED AND LOGGED BY A FIELD ENGINEER WITH LOCATIONS OF THE SUBSURFACE EXPLORATIONS SHOWN ON THE ATTACHED SITE PLAN. THE CPT CONSISTS OF ADVANCING A CONE-TIPPED CYLINDRICAL PROBE INTO THE GROUND WHILE SIMULTANEOUSLY MEASURING THE RESULTING RESISTANCE TO PENETRATION. AN ON-FIELD COMPUTER GENERATED CPT LOG MEASURES THE PENETRATION RESISTANCE VALUES AND INFERRED SOIL DESCRIPTION.

THE EXPLORATORY BORINGS REVEALED THE EXISTING EARTH MATERIALS TO CONSIST OF FILL AND NATURAL SOIL. DETAILED DESCRIPTIONS OF THE SUBSURFACE CONDITIONS ARE LISTED ON THE BORING LOGS IN APPENDIX A. THE SOILS ENCOUNTERED ARE DESCRIBED AS FOLLOWS:

FILL: A FILL SOIL CLASSIFYING AS A BROWN TO DARK BROWN, SILTY CLAY TO A SILTY SAND WITH INTERMINGLED LENSES OF SANDY SILT AND SILTY SAND WAS ENCOUNTERED TO DEPTHS RANGING FROM 10 TO 25 FEET BELOW GROUND SURFACE. THESE SOILS WERE NOTED TO BE STIFF/ DENSE TO VERY DENSE AND MOIST.

NATURAL: A NATURAL UNDISTURBED SOIL CLASSIFYING AS A BROWN, SILTY TO SANDY CLAY TO A YELLOW BROWN TO GREY BROWN MEDIUM TO COARSE GRAINED, SAND TO A SILTY SAND WAS ENCOUNTERED BENEATH THE FILL SOILS. THE NATIVE SOILS WERE OBSERVED TO BE STIFF TO MEDIUM DENSE TO DENSE AND MOIST TO WET.

THE OVERALL ENGINEERING CHARACTERISTICS OF THE EARTH MATERIAL WERE RELATIVELY UNIFORM WITH EACH EXCAVATION. GROUNDWATER WAS ENCOUNTERED AT A DEPTH OF 24 AND 25 FEET BELOW GROUND SURFACE AND SLIGHT CAVING OCCURRED IN THE DEEPER COHESIONLESS SOILS.

4.0 LABORATORY TESTS

RELATIVELY UNDISTURBED SAMPLES OF THE SUBSURFACE SOILS WERE OBTAINED TO PERFORM LABORATORY TESTING AND ANALYSIS FOR DIRECT SHEAR, CONSOLIDATION TESTS, AND TO DETERMINE IN-PLACE MOISTURE/DENSITIES. THESE RELATIVELY UNDISTURBED RING SAMPLES WERE OBTAINED BY DRIVING A THIN-WALLED STEEL SAMPLER LINED WITH ONE-INCH LONG BRASS RINGS WITH AN INSIDE DIAMETER OF 2.42 INCHES INTO THE UNDISTURBED SOILS. BULK BAG SAMPLES WERE OBTAINED IN THE UPPER SOILS FOR EXPANSION INDEX TESTS AND MAXIMUM DENSITY TESTS. ALL TEST RESULTS ARE INCLUDED IN APPENDIX B, UNLESS OTHERWISE NOTED.

STANDARD PENETRATION TESTS WERE OBTAINED BY DRIVING A STEEL SAMPLER UNLINED WITH AN INSIDE DIAMETER OF 1.5 INCHES INTO THE SOILS. THIS STANDARD PENETROMETER SAMPLER WAS DRIVEN A TOTAL OF EIGHTEEN INCHES WITH BLOW COUNTS TALLIED EVERY SIX INCHES. BLOW COUNT DATA IS GIVEN ON THE BORING LOGS IN APPENDIX A. BULK BAG SAMPLES WERE OBTAINED IN THE UPPER SOILS FOR EXPANSION INDEX TESTS AND MAXIMUM

4.1 **FIELD MOISTURE CONTENT** (ASTM: D 2216) AND THE DRY DENSITY OF THE RING SAMPLES WERE DETERMINED IN THE LABORATORY. THIS DATA IS LISTED ON THE LOGS OF EXPLORATIONS.

4.2 **SIEVE ANALYSES** (ASTM: D 422-63) AND THE PERCENT BY WEIGHT OF SOIL FINER THAN THE NO. 200 SIEVE (ASTM: 1140) WERE PERFORMED ON SELECTED SOIL SAMPLES. THESE RESULTS ARE SHOWN LATER WITHIN THE BODY OF THIS REPORT.

4.3 **MAXIMUM DENSITY TESTS** (ASTM: D 1557) WERE PERFORMED ON TYPICAL SAMPLES OF THE UPPER SOILS. RESULTS OF THESE TESTS ARE SHOWN ON TABLE I.

4.4 **EXPANSION INDEX TESTS** (ASTM: D 4829) WERE PERFORMED ON REMOLDED SAMPLES OF THE UPPER SOILS TO DETERMINE EXPANSIVE CHARACTERISTICS. RESULTS OF THESE TESTS ARE PROVIDED ON TABLE II.

4.5 **ATTERBERG LIMITS** (ASTM: D 4318) CONSISTING OF LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX WERE PERFORMED ON REPRESENTATIVE SOIL SAMPLES. RESULTS ARE SHOWN ON TABLE ILL.

4.6 **CORROSION TESTS** CONSISTING OF SULFATE, PH, RESISTIVITY AND CHLORIDE ANALYSIS TO DETERMINE POTENTIAL CORROSIVE EFFECTS OF SOILS ON CONCRETE AND UNDERGROUND UTILITIES. TEST RESULTS ARE PROVIDED ON TABLE IV.

4.7 **R-VALUE TEST** PER CALIFORNIA TEST METHOD 301 WAS PERFORMED ON A REPRESENTATIVE SAMPLE, WHICH MAY BE ANTICIPATED TO BE NEAR SUBGRADE TO DETERMINE PAVEMENT DESIGN RESULTS ARE PROVIDED WITHIN THE PAVEMENT DESIGN SECTION OF THE REPORT.

4.8 **DIRECT SHEAR TESTS** (ASTM: D 3080) WERE PERFORMED ON UNDISTURBED AND/OR REMOLDED SAMPLES OF THE SUBSURFACE SOILS. THE TEST IS PERFORMED UNDER SATURATED CONDITIONS AT LOADS OF 1,000 LBS./SQ.FT., 2,000 LBS./SQ.FT., AND 3,000 LBS./SQ.FT. WITH RESULTS SHOWN ON PLATES A AND B.

4.9 **CONSOLIDATION TESTS** (ASTM: D 2435) WERE PERFORMED ON UNDISTURBED SAMPLES TO DETERMINE THE DIFFERENTIAL AND TOTAL SETTLEMENT WHICH MAY BE ANTICIPATED BASED UPON THE PROPOSED LOADS. WATER WAS ADDED TO THE SAMPLES AT A SURCHARGE OF ONE KSF AND THE SETTLEMENT CURVES ARE PLOTTED ON PLATES C TO E.

5.0 SEISMICITY EVALUATION

THE PROPOSED DEVELOPMENT LIES OUTSIDE OF ANY ALQUIST PRIOLO SPECIAL STUDIES ZONE AND THE POTENTIAL FOR DAMAGE DUE TO DIRECT FAULT RUPTURE IS CONSIDERED UNLIKELY. THE NEAREST FAULT IS THE NEWPORT-INGLEWOOD FAULT LOCATED 2.5 KILOMETERS FROM THE SITE AND IS CAPABLE OF PRODUCING A MAGNITUDE 7.0 EARTHQUAKE. GROUND SHAKING ORIGINATING FROM EARTHQUAKES ALONG OTHER ACTIVE FAULTS IN THE REGION IS EXPECTED TO INDUCE LOWER HORIZONTAL ACCELERATIONS DUE TO SMALLER ANTICIPATED EARTHQUAKES AND/OR GREATER DISTANCES TO OTHER FAULTS. THE FOLLOWING SEISMIC DESIGN ACCELERATION PARAMETERS ARE PROVIDED BELOW AND ARE BASED UPON THE 2019 CALIFORNIA BUILDING CODE (CBC) FOR THE REFERENCED PROJECT. THE DATA WAS OBTAINED FROM THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) WEBSITE, HTTPS://ASCE7HAZARDTOOL. ONLINE/.

SEISMIC DESIGN ACCELERATION PARAMETERS	
LATITUDE	33.674
LONGITUDE	-117.889
SITE CLASS	D
RISK CATEGORY	III
MAPPED SPECTRAL RESPONSE ACCELERATION	SS = 1.395 S1 = 0.467
ADJUSTED MAXIMUM ACCELERATION	SMS = 1.305
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS	SDS = 0.870
PEAK GROUND ACCELERATION	PGAM = 0.617

USE OF THESE VALUES IS DEPENDENT ON REQUIREMENTS OF ASCE 7-16, 11-4.8, EXCEPTION 2 THAT REQUIRES THE VALUE OF THE SEISMIC RESPONSE COEFFICIENT CS BE DETERMINED BY EQUATION 12.8.2 FOR VALUES OF $T \leq 1.5T_s$ AND TAKEN AS EQUAL TO 1.5 TIMES THE VALUE COMPUTED IN ACCORDANCE WITH EITHER 12.8-3 FOR $T_L \geq T \geq 1.5T_s$ OR EQUATION 12.8-4 FOR $T > T_L$ COMPUTATIONS AND VERIFICATION OF THESE CONDITIONS IS REFERRED TO THE STRUCTURAL ENGINEER.

6.0 LIQUEFACTION EVALUATION

THE SITE IS EXPECTED TO EXPERIENCE GROUND SHAKING AND EARTHQUAKE ACTIVITY THAT IS TYPICAL OF SOUTHERN CALIFORNIA AREA. IT IS DURING SEVERE GROUND SHAKING THAT LOOSE, GRANULAR SOILS BELOW THE GROUNDWATER TABLE CAN LIQUEFY. A REVIEW OF THE EXPLORATORY BORING LOG AND THE LABORATORY TEST RESULTS ON SELECTED SOIL SAMPLES OBTAINED INDICATE THE FOLLOWING SOIL CLASSIFICATIONS, FIELD BLOWCOUNTS AND AMOUNTS OF FINES PASSING THROUGH THE NO. 200 SIEVE.

FIELD BLOWCOUNT AND GRADATION DATA

BORING NO.	CLASSIFICATION	BLOWCOUNTS (BLOWS/FT)	RELATIVE DENSITY	%PASSING NO. 200 SIEVE
B-5@ 5'	CL	24	VERY STIFF	74
B-5@ 10'	CL	23	VERY STIFF	71
B-5@ 15'	SM	55	VERY DENSE	25
B-5@ 20'	SM	35	VERY DENSE	24
B-5@ 25'	SW	24	DENSE	5
B-5@ 30'	SW	26	DENSE	4
B-5@ 35'	SW	24	DENSE	9
B-5@ 40'	CL	24	MEDIUM STIFF	72
B-5@ 45'	SM	19	MEDIUM DENSE	37
B-5@ 50'	SM	20	MEDIUM DENSE	15

BASED UPON INFORMATION IN THE CALIFORNIA DIVISION OF MINES AND GEOLOGY "SEISMIC HAZARD ZONE MAP - NEWPORT BEACH QUADRANGLE", DATED APRIL 7, 1997, THE SUBJECT SITE IS SITUATED IN AN AREA OF HISTORIC OCCURRENCE OF LIQUEFACTION, OR LOCAL GEOLOGICAL, GEOTECHNICAL AND GROUNDWATER CONDITIONS TO INDICATE A POTENTIAL FOR PERMANENT GROUND DISPLACEMENT.

OUR LIQUEFACTION EVALUATION UTILIZED THE NEAREST MODE OF PREDOMINATE MAGNITUDE 7.0 MW EARTHQUAKE IN OUR EARTHQUAKE .IN OUR CALCULATIONS. THE ANALYSIS INDICATES THE POTENTIAL FOR LIQUEFACTION AT THIS SITE TO BE MODERATE BASED UPON A HISTORIC GROUNDWATER DEPTH OF 20 FEET DEEP AND A PEAK GROUND ACCELERATION (PGAM) OF 0.617. BASED ON OUR CALCULATIONS, THE ASSOCIATED SEISMIC-INDUCED SETTLEMENTS WOULD BE ON THE ORDER OF 2 INCHES AND WOULD OCCUR RATHER UNIFORMLY ACROSS THE SITE. DIFFERENTIAL SETTLEMENTS WOULD BE ON THE ORDER OF ONE INCH OVER A 50-FOOT (HORIZONTAL) DISTANCE.

IT IS RECOMMENDED THAT A STIFFENED FOUNDATION SYSTEM BE UTILIZED FOR THE PROPOSED STRUCTURE TO MITIGATE THE SEISMIC-INDUCED SETTLEMENTS. THE STIFFENED SYSTEM SHALL CONSIST OF A POST-TENSIONED SLAB DESIGN, MAT FOUNDATION OR A SYSTEM OF GRADE BEAMS CONNECTING THE FOUNDATIONS IN TWO DIRECTIONS THROUGHOUT THE NEW STRUCTURE. OUR SEISMIC SETTLEMENT CALCULATIONS ARE INCLUDED IN APPENDIX C.

7.0 INFILTRATION CHARACTERISTICS

INFILTRATION TESTS WITHIN THE SITE WERE PERFORMED TO PROVIDE PRELIMINARY INFILTRATION RATES FOR THE PURPOSE OF PLANNING AND DESIGN OF AN ON-SITE WATER DISPOSAL SYSTEM. A TRUCK MOUNTED SIMCO 2800 DRILL RIG EQUIPPED WITH A HOLLOW STEM AUGER WAS USED TO EXCAVATE THE EXPLORATORY BORINGS TO DEPTHS OF 5 AND 10 BELOW EXISTING GROUND SURFACE. THE BORINGS CONSISTED OF SIX-INCH DIAMETER TEST HOLES. A THREE-INCH DIAMETER PERFORATED PVC CASING WITH SOLID END CAP WAS INSTALLED IN THE BORINGS AND THEN SURROUNDED WITH GRAVEL MATERIALS TO PREVENT CAVING.

THE INFILTRATION HOLES WERE CAREFULLY FILLED WITH CLEAN WATER AND REFILLED AFTER TWO INITIAL READINGS. BASED UPON THE INITIAL RATES OF INFILTRATION AT EACH LOCATION, TEST MEASUREMENTS WERE MEASURED AT SELECTED MAXIMUM INTERVALS THEREAFTER. MEASUREMENTS WERE OBTAINED BY USING AN ELECTRONIC TAPE MEASURE WITH 1/16-INCH DIVISIONS AND TIMED WITH A STOPWATCH. THE FIELD INFILTRATION RATE WAS COMPUTED USING A REDUCTION FACTOR - R_F BASED ON THE FIELD MEASUREMENTS WITH OUR CALCULATIONS GIVEN IN APPENDIX D. BASED UPON THE RESULTS OF OUR TESTING, THE SOILS ENCOUNTERED IN THE PLANNED ON-SITE DRAINAGE DISPOSAL SYSTEM AREA EXHIBIT THE FOLLOWING INFILTRATION RATES.

BORING/TEST NO.	DEPTH	SOIL CLASSIFICATION	FIELD INFILTRATION RATE	DESIGN RATE
B-1/TH-1	5'	SILTY CLAY••	0.34 IN/HR	0.17 IN/HR
B-2/TH-2	10'	SILTY CLAY	0.00 IN/HR	0.00 IN/HR

THE CORRECTION FACTORS CFT, CFV AND CFS ARE GIVEN BELOW BASED ON SOILS AT 5 AND 10 FEET FROM OUR FIELD TESTS.

a) CF_T = R_f =5.8 AND 6.0 FOR OUR TWO INFILTRATION TEST HOLES.

b) CF_V = 1.0 BASED ON UNIFORM SOILS ENCOUNTERED IN TWO BORINGS FOR INFILTRATION TESTS.

c) CF_S = 2.0 FOR LONG-TERM SILTATION, PLUGGING AND MAINTENANCE. THE SUBSURFACE SOILS ARE LIKELY TO HAVE SOME PLUGGING AND REGULAR MAINTENANCE OF STORM WATER DISCHARGE DEVICES IS REQUIRED.

BASED ON THE RESULTS OF OUR FIELD TESTING, THE SUBSURFACE SOILS ENCOUNTERED IN THE PROPOSED ONSITE DRAINAGE DISPOSAL SYSTEM HAVE A VERY LOW INFILTRATION RATE, LESS THAN 0.3 INCH PER HOUR. ALL SYSTEMS MUST MEET THE LATEST CITY AND/OR COUNTY SPECIFICATIONS AND THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (CRWQCB) REQUIREMENTS. BASED ON THE CALIFORNIA DIVISION OF MINES AND GEOLOGY SEISMIC HAZARD ZONE REPORT FOR THE NEWPORT BEACH 7.5 MINUTE QUADRANGLE, THE SITE IS MAPPED WITH A HISTORIC GROUNDWATER DEPTH OF 20 TO 30 FEET DEEP.

8.0 CONCLUSIONS AND RECOMMENDATIONS

THE PROJECT SITE IS UNDERLAIN BY 1 0 TO 25 FEET OF STIFF AND DENSE UNDOCUMENTED FILL PLACED SEVERAL YEARS AGO DURING THE DEVELOPMENT OF COSTA MESA BY THE FILLING OF WETLANDS AND GRADING OF TERRACES. BASED UPON OUR EVALUATIONS, THE PROPOSED DEVELOPMENT IS ACCEPTABLE FROM A GEOTECHNICAL ENGINEERING STANDPOINT. BY FOLLOWING THE RECOMMENDATIONS AND GUIDELINES SET FORTH IN OUR REPORT, THE STRUCTURES WILL BE SAFE FROM EXCESSIVE SETTLEMENTS UNDER THE ANTICIPATED DESIGN LOADINGS AND CONDITIONS. THE PROPOSED DEVELOPMENT SHALL MEET ALL REQUIREMENTS OF THE CITY BUILDING ORDINANCE AND WILL NOT IMPOSE ANY ADVERSE EFFECT ON EXISTING ADJACENT STRUCTURES.

THE FOLLOWING RECOMMENDATIONS ARE BASED UPON SOIL CONDITIONS ENCOUNTERED IN OUR FIELD INVESTIGATION; THESE NEAR-SURFACE SOIL CONDITIONS COULD VARY ACROSS THE SITE. VARIATIONS IN THE SOIL CONDITIONS MAY NOT BECOME EVIDENT UNTIL THE COMMENCEMENT OF GRADING OPERATIONS FOR THE PROPOSED DEVELOPMENT AND REVISED RECOMMENDATIONS FROM THE SOILS ENGINEER MAY BE NECESSARY BASED UPON THE CONDITIONS ENCOUNTERED. IT IS RECOMMENDED THAT SITE INSPECTIONS BE PERFORMED BY A REPRESENTATIVE OF THIS FIRM DURING ALL GRADING AND CONSTRUCTION OF THE DEVELOPMENT TO VERIFY THE FINDINGS AND RECOMMENDATIONS DOCUMENTED IN THIS REPORT. ANY UNUSUAL CONDITIONS WHICH MAY BE ENCOUNTERED IN THE COURSE OF THE PROJECT DEVELOPMENT MAY REQUIRE THE NEED FOR ADDITIONAL STUDY AND REVISED RECOMMENDATIONS.

8.1 SITE GRADING RECOMMENDATIONS

ANY VEGETATION AND/OR DEMOLITION DEBRIS SHALL BE REMOVED AND HAULED FROM PROPOSED GRADING AREAS PRIOR TO THE START OF GRADING OPERATIONS. EXISTING VEGETATION SHALL NOT BE MIXED OR DISCED INTO THE SOILS. ANY REMOVED SOILS MAY BE REUTILIZED AS COMPACTED FILL ONCE ANY DELETERIOUS MATERIAL OR OVERSIZED MATERIALS (IN EXCESS OF EIGHT INCHES) IS REMOVED. GRADING OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE ATTACHED *SPECIFICATIONS FOR PLACEMENT OF COMPACTED FILL*.

THE EXISTING UNDOCUMENTED FILL MAY BE LEFT IN-PLACE PROVIDED THAT THE UPPER 5 FEET BELOW PROPOSED BUILDING PAD AND 5 FEET BELOW PROPOSED BOTTOM OF FOUNDATIONS SHALL BE REMOVED TO COMPETENT MATERIAL, THE EXPOSED SURFACE SCARIFIED TO A DEPTH OF 12 INCHES, BROUGHT TO WITHIN 2% OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO A MINIMUM OF 90% OF THE LABORATORY STANDARD (ASTM: D-1557) PRIOR TO PLACEMENT OF ANY ADDITIONAL COMPACTED FILL SOILS, FOUNDATIONS, SLABS-ONGRADE AND PAVEMENT. THE OVEREXCAVATION WITHIN THE PROPOSED PAVEMENT AREAS ME BE EXCAVATED TO A DEPTH OF XX FEET BELOW PROPOSED GRADE INTO COMPETENT MATERIAL. GRADING SHALL EXTEND A MINIMUM OF FIVE HORIZONTAL FEET OUTSIDE THE EDGES OF FOUNDATIONS OR EQUIDISTANT TO THE DEPTH OF FILL PLACED, WHICHEVER IS GREATER.

IT IS POSSIBLE THAT ISOLATED AREAS OF UNDISCOVERED FILL NOT DESCRIBED IN THIS REPORT ARE PRESENT ON SITE; IF FOUND, THESE AREAS SHOULD BE TREATED AS DISCUSSED EARLIER. A DILIGENT SEARCH SHALL ALSO BE CONDUCTED DURING GRADING OPERATIONS IN AN EFFORT TO UNCOVER ANY UNDERGROUND STRUCTURES, IRRIGATION OR UTILITY LINES. IF ENCOUNTERED, THESE STRUCTURES AND LINES SHALL BE EITHER REMOVED OR PROPERLY ABANDONED PRIOR TO THE PROPOSED CONSTRUCTION.

ANY IMPORTED FILL MATERIAL SHOULD BE PREFERABLY SOIL SIMILAR TO THE UPPER SOILS ENCOUNTERED AT THE SUBJECT SITE. ALL SOILS SHALL BE APPROVED BY THIS FIRM PRIOR TO IMPORTING AT THE SITE AND WILL BE SUBJECTED TO ADDITIONAL LABORATORY TESTING TO ASSURE CONCURRENCE WITH THE RECOMMENDATIONS STATED IN THIS REPORT. IF PLACEMENT OF SLABS-ON-GRADE AND PAVEMENT IS NOT COMPLETED IMMEDIATELY UPON COMPLETION OF GRADING OPERATIONS, ADDITIONAL TESTING AND GRADING OF THE AREAS MAY BE NECESSARY PRIOR TO CONTINUATION OF CONSTRUCTION OPERATIONS. LIKEWISE, IF ADVERSE WEATHER CONDITIONS OCCUR WHICH MAY DAMAGE THE SUBGRADE SOILS, ADDITIONAL ASSESSMENT BY THE SOILS ENGINEER AS TO THE SUITABILITY OF THE SUPPORTING SOILS MAY BE NEEDED.

CARE SHOULD BE TAKEN TO PROVIDE OR MAINTAIN ADEQUATE LATERAL SUPPORT FOR ALL ADJACENT IMPROVEMENTS AND STRUCTURES AT ALL TIMES DURING THE GRADING OPERATIONS AND CONSTRUCTION PHASE. ADEQUATE DRAINAGE AWAY FROM THE STRUCTURES, PAVEMENT AND SLOPES SHOULD BE PROVIDED AT ALL TIMES.

8.2 SHRINKAGE AND SUBSIDENCE

RESULTS OF OUR IN-PLACE DENSITY TESTS REVEAL THAT THE SOIL SHRINKAGE WILL BE LESS THAN 3% DUE TO EXCAVATION AND RECOMPACTION, BASED UPON THE ASSUMPTION THAT THE FILL IS COMPACTED TO 92% OF THE MAXIMUM DRY DENSITY PER ASTM STANDARDS. SUBSIDENCE SHOULD BE 0.2 FEET DIE TO EARTHWORK OPERATIONS. THE VOLUME CHANGE DOES NOT INCLUDE ANY ALLOWANCE FOR VEGETATION OR ORGANIC STRIPPING, REMOVAL OF SUBSURFACE IMPROVEMENTS, OR TOPOGRAPHIC APPROXIMATIONS. ALTHOUGH THESE VALUES ARE ONLY APPROXIMATE, THEY REPRESENT OUR BEST ESTIMATE OF LOST YARDAGE, WHICH WILL LIKELY OCCUR DURING GRADING. IF MORE ACCURATE SHRINKAGE AND SUBSIDENCE FACTORS ARE NEEDED, IT IS RECOMMENDED THAT FIELD TESTING THE ACTUAL EQUIPMENT AND GRADING TECHNIQUES SHOULD BE CONDUCTED.

8.3 TEMPORARY EXCAVATIONS

TEMPORARY UNSURCHARGED EXCAVATIONS IN THE EXISTING SITE MATERIALS MAY BE MADE AT VERTICAL INCLINATIONS UP TO 4 FEET IN HEIGHT UNLESS COHESIONLESS SOILS ARE ENCOUNTERED. IN AREAS WHERE SOILS WITH LITTLE OR NO BINDER ARE ENCOUNTERED, WHERE ADVERSE GEOLOGICAL CONDITIONS ARE EXPOSED, OR WHERE EXCAVATIONS ARE ADJACENT TO EXISTING STRUCTURES, SHORING OR FLATTER EXCAVATIONS MAY BE REQUIRED. THE TEMPORARY CUT SLOPE GRADIENTS GIVEN ABOVE DO NOT PRECLUDE LOCAL RAVELING AND SLOUGHING. ALL EXCAVATIONS SHALL BE MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER, CAL-OSHA AND OTHER PUBLIC AGENCIES HAVING JURISDICTION. CARE SHOULD BE TAKEN TO PROVIDE OR MAINTAIN ADEQUATE LATERAL SUPPORT FOR ALL ADJACENT IMPROVEMENTS AND STRUCTURES AT ALL TIMES DURING THE GRADING OPERATIONS AND CONSTRUCTION PHASE.

8.4 FOUNDATION DESIGN

ALL FOUNDATIONS MAY BE DESIGNED UTILIZING THE FOLLOWING ALLOWABLE BEARING CAPACITIES FOR AN EMBEDDED DEPTH OF 24 INCHES INTO APPROVED ENGINEERED FILL WITH THE CORRESPONDING WIDTHS:

ALLOWABLE BEARING CAPACITY (PSF)		
WIDTH (FEET)	CONTINUOUS FOUNDATION	ISOLATED FOUNDATION
1.5	2000	2500
2.0	2075	2575
4.0	2375	2875
6.0	2500	3000

THE BEARING VALUE MAY BE INCREASED BY 500 PSF FOR EACH ADDITIONAL FOOT OF DEPTH IN EXCESS OF THE 24-INCH MINIMUM DEPTH, UP TO A MAXIMUM OF 4,000 PSF. A ONE-THIRD INCREASE MAY BE USED WHEN CONSIDERING SHORT-TERM LOADING AND SEISMIC FORCES. ANY FOUNDATIONS LOCATED ALONG PROPERTY LINE OR WHERE LATERAL OVEREXCAVATION IS NOT POSSIBLE MAY UTILIZE AN ALLOWABLE BEARING CAPACITY OF 1,500 PSF.

IT IS RECOMMENDED THAT A STIFFENED FOUNDATION SYSTEM BE UTILIZED FOR THE PROPOSED STRUCTURE TO MITIGATE THE SEISMIC-INDUCED SETTLEMENTS. THE STIFFENED SYSTEM SHALL CONSIST OF A POST-TENSIONED SLAB DESIGN, MAT FOUNDATION OR A SYSTEM OF GRADE BEAMS CONNECTING THE FOUNDATIONS IN TWO DIRECTIONS THROUGHOUT THE NEW STRUCTURE.

A MODULUS OF SUBGRADE REACTION (k) OF 100 PCI MAY BE USED FOR DESIGN OF SLABS PLACED ON ENGINEERED FILL SOILS SUPPORTING SUSTAINED CONCENTRATED LOADS. A REPRESENTATIVE OF THIS FIRM SHALL INSPECT ALL FOUNDATION EXCAVATIONS PRIOR TO POURING CONCRETE.

8.5 SETTLEMENT ANALYSIS

RESULTANT PRESSURE CURVES FOR THE CONSOLIDATION TESTS ARE SHOWN ON PLATES C TO E. COMPUTATIONS UTILIZING THESE CURVES AND THE RECOMMENDED ALLOWABLE SOIL BEARING CAPACITIES REVEAL THAT THE FOUNDATIONS WILL EXPERIENCE SETTLEMENTS ON THE ORDER OF 3/4 INCH AND DIFFERENTIAL SETTLEMENTS OF LESS THAN 1/4 INCH.

8.6 LATERAL RESISTANCE

THE FOLLOWING VALUES MAY BE UTILIZED IN RESISTING LATERAL LOADS IMPOSED ON THE STRUCTURE. REQUIREMENTS OF THE CALIFORNIA BUILDING CODE SHOULD BE ADHERED TO WHEN THE COEFFICIENT OF FRICTION AND PASSIVE PRESSURES ARE COMBINED.

COEFFICIENT OF FRICTION - 0.35
EQUIVALENT PASSIVE FLUID PRESSURE = 200 LBS./CU.FT.
MAXIMUM PASSIVE PRESSURE= 2,000 LBS./CU.FT.

THE PASSIVE PRESSURE RECOMMENDATIONS ARE VALID ONLY FOR APPROVED COMPACTED FILL SOILS OR COMPETENT NATIVE MATERIALS.

8.7 RETAINING WALL DESIGN PARAMETERS

ACTIVE EARTH PRESSURES AGAINST RETAINING WALLS WILL BE EQUAL TO THE PRESSURES DEVELOPED BY THE FOLLOWING FLUID DENSITIES. THESE VALUES ARE FOR GRANULAR BACKFILL MATERIAL PLACED BEHIND THE WALLS AT VARIOUS GROUND SLOPES ABOVE THE WALLS.

SURFACE SLOPE OF RETAINED (HORIZONTAL TO VERTICAL)	MATERIALS EQUIVALENT FLUID DENSITY (LB./CU. FT.)
LEVEL	30
5 TO 1	35
4 TO 1	38
3 TO 1	40
2 TO 1	45

ANY APPLICABLE SHORT-TERM CONSTRUCTION SURCHARGES AND SEISMIC FORCES SHOULD BE ADDED TO THE ABOVE LATERAL PRESSURE VALUES. AN EQUIVALENT FLUID PRESSURE OF 45 PCF MAY BE UTILIZED FOR THE RESTRAINED WALL CONDITION WITH A LEVEL GRADE BEHIND THE WALL.

THE SEISMIC-INDUCED LATERAL SOIL PRESSURE FOR WALLS GREATER THAN 6 FEET MAY BE COMPUTED USING A TRIANGULAR PRESSURE DISTRIBUTION WITH THE MAXIMUM VALUE AT THE TOP OF THE WALL. THE MAXIMUM LATERAL PRESSURE OF (20 PCF) H WHERE H IS THE HEIGHT OF THE RETAINED SOILS ABOVE THE WALL FOOTING SHOULD BE USED IN FINAL DESIGN OF RETAINING WALLS. SLIDING RESISTANCE VALUES AND PASSIVE FLUID PRESSURE VALUES MAY BE INCREASED BY 1/3 DURING SHORT-TERM WIND AND SEISMIC LOADING CONDITIONS.

ALL WALLS SHALL BE WATERPROOFED AS NEEDED AND PROTECTED FROM HYDROSTATIC PRESSURE BY A RELIABLE PERMANENT SUBDRAIN SYSTEM. THE SUBSURFACE DRAINAGE SYSTEM SHALL CONSIST OF A FOUR-INCH DIAMETER PERFORATED PVC PIPE ENCASED WITH GRAVEL AND WRAPPED WITH FILTER FABRIC. THE GRANULAR BACKFILL TO BE UTILIZED IMMEDIATELY ADJACENT TO RETAINING WALLS SHALL CONSIST OF AN APPROVED SELECT GRANULAR SOIL WITH A SAND EQUIVALENCY GREATER THAN 30. THIS BACKFILL ZONE OF FREE DRAINING MATERIAL SHALL CONSIST OF A WEDGE BEGINNING A MINIMUM OF ONE HORIZONTAL FOOT FROM THE BASE OF THE WALL EXTENDING UPWARD AT AN INCLINATION OF NO LESS THAN 3/4 TO 1 (HORIZONTAL TO VERTICAL).

8.8 SLAB DESIGN

ALL CONCRETE SLABS SHALL BE A MINIMUM OF SIX INCHES IN THICKNESS IN THE PROPOSED SERVICE AREAS AND FOUR INCHES IN OFFICE AND HARDSCAPE REINFORCED A MINIMUM OF NO. 4 BARS, SIXTEEN INCHES IN EACH DIRECTION POSITIONED IN THE CENTER OF THE SLAB AND PLACED ON APPROVED SUBGRADE SOILS. ADDITIONAL REINFORCEMENT REQUIREMENTS AND AN INCREASE IN THICKNESS OF THE SLABS-ON-GRADE MAY BE NECESSARY BASED UPON PROPOSED LOADING CONDITIONS IN THE STRUCTURES AND SHOULD BE EVALUATED FURTHER BY THE PROJECT ENGINEERS AND/OR ARCHITECT. ALL SUBGRADE SOILS SHALL BE MOISTURE CONDITIONED TO NEAR OPTIMUM MOISTURE CONTENT PRIOR TO POURING CONCRETE.

A VAPOR RETARDER (10-MIL MINIMUM THICKNESS) SHOULD BE UTILIZED IN AREAS WHICH WOULD BE SENSITIVE TO THE INFILTRATION OF MOISTURE. THIS RETARDER SHALL MEET REQUIREMENTS OF ASTM E 96, *WATER VAPOR TRANSMISSION OF MATERIALS* AND ASTM E 1745, *STANDARD SPECIFICATION FOR WATER VAPOR RETARDERS USED IN CONTACT WITH SOIL OR GRANULAR FILL UNDER CONCRETE SLABS*. THE VAPOR RETARDER SHALL BE INSTALLED IN ACCORDANCE WITH PROCEDURES STATED IN ASTM E 1643, *STANDARD PRACTICE FOR INSTALLATION OF WATER VAPOR RETARDERS USED IN CONTACT WITH EARTH OR GRANULAR FILL UNDER CONCRETE SLABS*.

THE MOISTURE RETARDER MAY BE PLACED DIRECTLY UPON COMPACTED SUBGRADE SOILS CONDITIONED TO NEAR OPTIMUM MOISTURE LEVELS, ALTHOUGH ONE TO TWO INCHES OF SAND BENEATH THE MEMBRANE IS DESIRABLE. THE SUBGRADE UPON WHICH THE RETARDER IS PLACED SHALL BE SMOOTH AND FREE OF ROCKS, GRAVEL OR OTHER PROTRUSIONS WHICH MAY DAMAGE THE RETARDER. USE OF SAND ABOVE THE RETARDER IS UNDER THE PURVIEW OF THE STRUCTURAL ENGINEER; IF SAND IS USED OVER THE RETARDER, IT SHOULD BE PLACED IN A DRY CONDITION.

8.9 PAVEMENT SECTION DESIGN

THE TABLE ON THE FOLLOWING PAGE PROVIDES A PRELIMINARY PAVEMENT DESIGN BASED UPON AN R-VALUE OF 20 FOR THE SUBGRADE SOILS FOR THE PROPOSED PAVEMENT AREAS. FINAL PAVEMENT DESIGN MAY NEED TO BE BASED ON R-VALUE TESTING OF THE SUBGRADE SOILS NEAR THE CONCLUSION OF SITE GRADING TO ASSURE THAT THESE SOILS ARE CONSISTENT WITH THOSE ASSUMED IN THIS PRELIMINARY DESIGN.

TYPE OF TRAFFIC	TRAFFIC INDEX	ASPHALT (IN.)	BASE MATERIAL (IN.)
AUTOMOBILE PARKING STALLS	4.0	3.5	5.5
LIGHT VEHICLE CIRCULATION AREAS	5.5	4.0	8.0

ANY CONCRETE SLAB-ON-GRADE IN PAVEMENT AREAS SHALL BE A MINIMUM OF SIX INCHES IN THICKNESS AND PLACED ON APPROVED SUBGRADE SOILS. ALL PAVEMENT AREAS SHALL HAVE POSITIVE DRAINAGE TOWARD AN APPROVED OUTLET FROM THE SITE. DRAIN LINES BEHIND CURBS AND/OR ADJACENT TO LANDSCAPE AREAS SHOULD BE CONSIDERED BY CLIENT AND THE APPROPRIATE DESIGN ENGINEERS TO PREVENT WATER FROM INFILTRATING BENEATH PAVEMENT. IF SUCH INFILTRATION OCCURS, DAMAGE TO PAVEMENT, CURBS AND FLOW LINES, ESPECIALLY ON SITES WITH EXPANSIVE SOILS, MAY OCCUR DURING THE LIFE OF THE PROJECT.

ANY APPROVED BASE MATERIAL SHALL CONSIST OF A CLASS II AGGREGATE OR EQUIVALENT AND SHOULD BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION. ALL PAVEMENT MATERIALS SHALL CONFORM TO THE REQUIREMENTS SET FORTH BY THE CITY OF COSTA MESA. THE BASE MATERIAL; AND ASPHALTIC CONCRETE SHOULD BE TESTED PRIOR TO DELIVERY TO THE SITE AND DURING PLACEMENT TO DETERMINE CONFORMANCE WITH THE PROJECT SPECIFICATIONS. A PAVEMENT ENGINEER SHALL DESIGNATE THE SPECIFIC ASPHALT MIX DESIGN TO MEET THE REQUIRED PROJECT SPECIFICATIONS.

8.10 UTILITY TRENCH AND EXCAVATION BACKFILL

TRENCHES FROM INSTALLATION OF UTILITY LINES AND OTHER EXCAVATIONS MAY BE BACKFILLED WITH ON-SITE SOILS OR APPROVED IMPORTED SOILS COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION. ALL UTILITY LINES SHALL BE PROPERLY BEDDED WITH CLEAN SAND HAVING A SAND EQUIVALENCY RATING OF 30 OR MORE. THIS BEDDING MATERIAL SHALL BE THOROUGHLY WATER JETTED AROUND THE PIPE STRUCTURE PRIOR TO PLACEMENT OF COMPACTED BACKFILL SOILS.

8.11 CORROSION DESIGN CRITERIA

REPRESENTATIVE SAMPLES OF THE SURFICIAL SOILS, TYPICAL OF THE SUBGRADE SOILS EXPECTED TO BE ENCOUNTERED WITHIN FOUNDATION EXCAVATIONS AND UNDERGROUND UTILITIES WERE TESTED FOR CORROSION POTENTIAL. THE MINIMUM RESISTIVITY VALUE OBTAINED FOR THE SAMPLES TESTED IS REPRESENTATIVE OF AN ENVIRONMENT THAT MAY BE SEVERELY CORROSIVE TO METALS. THE SOIL PH VALUE WAS CONSIDERED MILDLY ACIDIC AND MAY NOT HAVE A SIGNIFICANT EFFECT ON SOIL CORROSIVITY.

CONSIDERATION SHOULD BE GIVEN TO CORROSION PROTECTION SYSTEMS FOR BURIED METAL SUCH AS PROTECTIVE COATINGS, WRAPPINGS OR THE USE OF PVC WHERE PERMITTED BY LOCAL BUILDING CODES. ACCORDING TO TABLE 4.3.1 OF ACI 318 BUILDING CODE AND COMMENTARY, THESE CONTENTS REVEALED NEGLIGIBLE SULFATE CONCENTRATIONS. THEREFORE, A TYPE II CEMENT ACCORDING TO LATEST CBC SPECIFICATIONS MAY BE UTILIZED FOR BUILDING FOUNDATIONS AT THIS TIME. IT IS RECOMMENDED THAT ADDITIONAL SULFATE TESTS BE PERFORMED AT THE COMPLETION OF SITE GRADING TO ASSURE THAT THE AS GRADED CONDITIONS ARE CONSISTENT WITH THE RECOMMENDATIONS STATED IN THIS DESIGN. CORROSION TEST RESULTS MAY BE FOUND ON THE ATTACHED TABLE IV.

8.12 EXPANSIVE SOIL

SINCE EXPANSIVE SOILS ARE ENCOUNTERED, SPECIAL ATTENTION SHOULD BE GIVEN TO THE PROJECT DESIGN AND MAINTENANCE. THE ATTACHED EXPANSIVE SOIL GUIDELINES SHOULD BE REVIEWED BY THE ENGINEERS, ARCHITECTS, OWNER, MAINTENANCE PERSONNEL AND OTHER INTERESTED PARTIES AND CONSIDERED DURING THE DESIGN OF THE PROJECT AND FUTURE PROPERTY MAINTENANCE.

SOILS ENGINEER :

NORCAL ENGINEERING
SOILS AND GEOTECHNICAL CONSULTANTS
10641 HUMBOLT STREET
LOS ALAMITOS, CA 90720

PHONE: (562) 799-9469
FAX: (562) 799-9459

PROJECT NUMBER 21887-20
DATED: AUGUST 4, 2020

REV. NO.	DATE	BY	REVISION	APPROVED BY

REGISTERED PROFESSIONAL ENGINEER
DANIEL RUBIO
NO. 60934
CIVIL
STATE OF CALIFORNIA

JONES, CAHL & ASSOCIATES
CONSULTING ENGINEERS
18090 Beach Boulevard - Huntington Beach
California 92648 - (714) 848-0566
e-mail: jca@jonescahl.com

DESIGNED:	D.R.	SCALE:	N/A
DRAWN:	C.H.	DATE:	3/18/2022
CHECKED:	D.R.	JOB NO.	20-2412

PREPARED UNDER THE DIRECTION OF:

DANIEL RUBIO R.C.E. 60934 DATE

WALKER GROUP VENTURES

SOILS RECOMMENDATIONS
2750 BRISTOL AVE.

COSTA MESA CALIFORNIA

DWG. NO.	SHEET NO.	REV.
20-2412-SOIL	5 OF 10	0

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING S88°49'31"W BEING THE NORTH LINE OF PARCEL 1 AS SHOWN ON PARCEL MAP 91-116 RECORDED IN MAP BOOK 291, PAGES 38-40, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY

LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF COSTA MESA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCELS 1 AND 2 OF PARCEL MAP NO. 91-116, IN THE CITY OF COSTA MESA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP ON FILE IN BOOK 291, PAGE(S) 38 TO 40 OF PARCEL MAPS, RECORDS OF SAID COUNTY.

EXCEPTING THEREFROM ALL OIL, GAS, MINERALS AND OTHER HYDROCARBON SUBSTANCES BELOW A DEPTH OF 500 FEET, BUT WITHOUT THE SURFACE OF ENTRY, AS RESERVED IN DEED RECORDED NOVEMBER 8, 1956 IN BOOK 3704, PAGE 305 OF OFFICIAL RECORDS.

BENCHMARK:

DESCRIBED BY OCS 2001 – FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "1E-99-72", SET IN THE NORTHWEST CORNER OF A 3 FT. BY 22 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED AT THE INTERSECTION OF PRESIDIO DRIVE AND SAN LUCAS LANE, 21 FT. SOUTHERLY OF THE CENTERLINE OF PRESIDIO AND 33 FT. EASTERLY OF THE CENTERLINE OF SAN LUCAS LANE. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

ELEVATION: 43.323 FEET, (NAVD 88), LEVELED 2005

1	3/18/22	D.R.	REVISION PER AHT	
REV. NO.	DATE	BY	REVISION	APPROVED BY

REGISTERED PROFESSIONAL ENGINEER
DANIEL RUBIO
NO. 60934
CIVIL
STATE OF CALIFORNIA

JONES, CAHL & ASSOCIATES
CONSULTING ENGINEERS
18090 Beach Boulevard - Huntington Beach
California 92648 - (714) 848-0566
e-mail: jca@jonescahl.com

DESIGNED:	D.R.	SCALE:	1" = 20'
DRAWN:	C.H.	DATE:	3/18/2022
CHECKED:	D.R.	JOB NO.	20-2412

PREPARED UNDER THE DIRECTION OF:

DANIEL RUBIO R.C.E. 60934 DATE

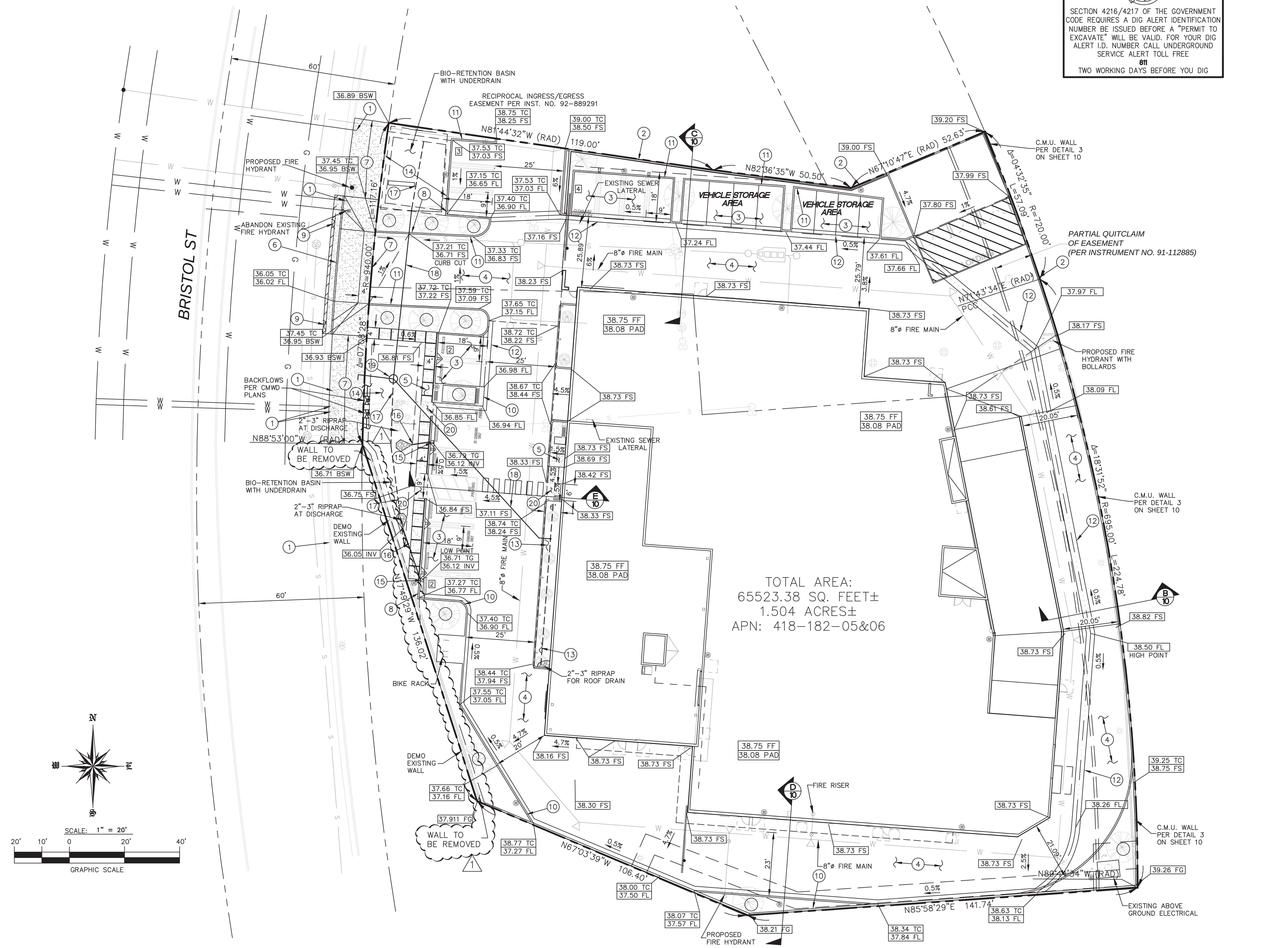
WALKER GROUP VENTURES

EXISTING TOPOGRAPHY AND BOUNDARY 2750 BRISTOL AVE.

COSTA MESA CALIFORNIA

DWG. NO. 20-2412-EX | SHEET NO. 6 OF 10 | REV. 1

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE
811
TWO WORKING DAYS BEFORE YOU DIG



CONSTRUCTION NOTES & *ESTIMATED QUANTITIES

(1) PROTECT IN PLACE EXISTING UTILITIES, CURB, GUTTER AND WALLS	LUMP SUM
(2) CONSTRUCT 6' HIGH BLOCK WALL PER SEPARATE PERMIT	218 LF
(3) CONSTRUCT 3.5" A.C. PAVEMENT OVER 5.5" CMB PARKING AREAS	3,322 SF
(4) CONSTRUCT 4" A.C. PAVEMENT OVER 8" CMB DRIVE LANES	23,760 SF
(5) CONSTRUCT 4" (MIN.) P.C.C. WALKWAYS OVER 4" CMB	491 SF
(6) CONSTRUCT COMMERCIAL DRIVE APPROACH (W=26', Y=7', X=5') PER CITY STD. 514	484 SF
(7) CONSTRUCT COMMERCIAL SIDEWALK, 13' WIDTH, PER CITY STD. 412	104 SF
(8) CONSTRUCT CURB OPENING PER DETAIL 1 ON SHEET 7.	3 EACH
(9) REMOVE EXISTING AND CONSTRUCT TYPE (C-6) CURB AND GUTTER PER CITY OF COSTA MESA STANDARD DRAWING NO. 312 OVER 6" CMB. PROTECT EXISTING STREET BY SAWCUTTING THE JOINT BETWEEN EDGE OF GUTTER AND AC STREET PAVEMENT. EXTEND CURB AND GUTTER REMOVAL TO NEXT JOINT IF LESS THAN 8' AWAY. IF THE AC IS CUT OR DAMAGED, CONTRACTOR SHALL RECONSTRUCT A MINIMUM OF 3' OF AC ADJACENT TO NEW GUTTER, THE SLOT PAVE STRUCTURAL SECTION SHALL MATCH THE EXISTING AND RESURFACE THE STREET PER THE MILL AND OVERLAY REQUIREMENTS.	41 SF
(10) CONSTRUCT TYPE C-6 CURB AND GUTTER (ON-SITE) PER CITY STD. 312	454 LF
(11) CONSTRUCT TYPE A-6 CONCRETE CURB (ON-SITE) PER CITY STD. 311	458 LF
(12) CONSTRUCT 3' CONCRETE VEE GUTTER PER DETAIL 2 ON SHEET 7.	438 LF
(13) CONSTRUCT RETENTION PLANTER PER "BIO-1 WITH UNDERDRAIN" DETAIL ON SHEET 7.	1 EACH
(14) CONSTRUCT BIO-RETENTION BASIN PER DETAIL 3 AND "BIO-RETENTION DETAIL" ON SHEET 7.	2 EACH
(15) INSTALL NDS 12" SQUARE CATCH BASIN PART NO. 1200 W/ TRAFFIC RATED GRATE AND 3" ADAPTER IN THE MIDDLE POSITION. PUNCH OUT 1/2" DRAIN HOLES ON BOTTOM	1 EACH
(16) 3" PVC UNDERDRAIN	7 LF
(17) 6" PERFORATED PVC UNDERDRAIN	164 LF
(18) 6" PVC UNDERDRAIN	145 LF
(19) CONSTRUCT MANHOLE WITH (2) ZOELLER SUMP PUMPS	1 EACH
(20) INSTALL YELLOW DETECTABLE WARNING SURFACE PER CBC 11B-247.1.2.5 AND ARCHITECTURAL SPECIFICATIONS	3 EACH

THE ITEMS LISTED BELOW REQUIRE A SEPARATE PERMIT ISSUED BY PUBLIC WORKS OR BUILDING
(2)(6)(7)(9)

* ALL QUANTITIES ARE ESTIMATED, THE CONTRACTOR SHALL VERIFY ALL QUANTITIES PRIOR TO SUBMITTING A BID.

NOTE: ALL WORK WITHIN THE RIGHT-OF-WAY REQUIRES AN ENCROACHMENT PERMIT FROM THE CITY OF COSTA MESA.

– CUSTOMER PARKING AT GROUND FLOOR

11 STANDARD PARKING SPACES
4 ACCESSIBLE SPACES

NOTE: 20 EMPLOYEE PARKING LOCATED ON ROOF DECK.

LEGEND

(XXX.XX)	EXISTING ELEVATIONS
(XXX)	EXISTING CONTOUR
	PROPERTY LINE
	ORIGINAL LOT LINE
— X —	CHAIN LINK FENCE
— S —	SEWER LINE
— W —	WATER LINE
	BLOCK WALL
	BUILDING
	CONCRETE
AC	ASPHALTIC CONCRETE
BSW	BACK OF SIDEWALK
CB	CATCH BASIN
CL	CENTERLINE
CLF	CHAIN LINK FENCE
CP	SURVEY CONTROL POINT
+ ED	EXTRA DEPTH FOOTING
ED VLT	EDISON VAULT
ELEC BOX	ELECTRIC BOX
EP	EDGE OF PAVEMENT
FF	FINISHED FLOOR
FOW	FACE OF WALL
FL	FLOW LINE
FS	FINISHED SURFACE
GH SPK	GEARHEAD SPIKE
GTE VLT	GTE VAULT
H.P.	HIGH POINT
IRR VLV	IRRIGATION VALVE
INV	INVERT
LF	LINEAR FEET
LS	LANDSCAPE AREA
L.S.	LUMP SUM
MH	MANHOLE
NG	NATURAL GRADE
PP	POWER POLE
SF	SQUARE FEET
SMH	SEWER MANHOLE
STRP DRAIN	STRIP DRAIN
SW	SIDEWALK
TC	TOP OF CURB
TG	TOP OF GRATE
TS	TOP OF STEP
TOW	TOP OF WALL
WM	WATER METER
WV	WATER VALVE
WTR	WATER SERVICE

OVERLAY MORATORIUM RESURFACING REQUIREMENTS

ASPHALT RUBBER HOT MIX (ARHM)

THESE CONDITIONS APPLY TO STREETS THAT HAVE BEEN RESURFACED WITH ASPHALT RUBBER HOT MIX WITHIN THE LAST FIVE (5) YEARS. IF THE AC IS CUT OR DAMAGED, CONTRACTOR SHALL RESURFACE STREET PER THE FOLLOWING MILL AND OVERLAY RESURFACING REQUIREMENTS.

1. THE CONTRACTOR SHALL RESTORE THE ROADWAY SURFACE WITHIN THE WORK LIMITS BY MILLING AND OVERLAYING, MINIMUM OF 2 INCHES, THE ENTIRE LANE(S) WHERE THE TRENCH IS LOCATED.
   A. FOR TRENCHES PERPENDICULAR TO TRAFFIC LANES: MILL AND OVERLAY SHALL EXTEND 50 FEET ON BOTH SIDES OF THE TRENCH AND WILL INCLUDE THE ENTIRE TRAVEL LANES.
   B. FOR TRENCHES PARALLEL TO TRAFFIC LANES AND FOR SMALL EXCAVATIONS: MILL AND OVERLAY THE ENTIRE WIDTH OF THE TRAFFIC LANE FOR THE FULL LENGTH OF THE TRENCH, BUT NOT LESS THAN 100'"
2. RESTORATION OF THE ROADWAY SHALL BE CONTINUOUS AND NO JOINTS WILL BE ALLOWED. ALL ROADWAYS WITHIN THE WORK LIMITS WILL BE RESTORED IN ONE OPERATION. NO PIECE-MEAL MILLING AND OVERLAYING WORK WILL BE PERMITTED. THE CONTRACTOR SHALL NOT PROCEED WITH THE MILLING AND OVERLAYING OPERATIONS UNTIL DIRECTION IS GIVEN BY THE CITY ENGINEER.
3. ANY EXISTING IMPROVEMENTS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AS DIRECTED BY THE CITY ENGINEER.
4. ASPHALT RUBBER HOT MIX (ARHM) WET PROCESS SHALL CONFORM TO SUBSECTION 203-11 I ASPHALT RUBBER HOT MIX GAP
5. GRADED" (ARHM-GG) OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. THE GRADED AGGREGATE SHALL CONFORM TO SUBSECTION 203-11 CLASS ARHM-GG-C.
6. ARHM SURFACE COURSE SHALL BE TYPE C AND SHALL BE PROVIDED FOR THE SURFACE WEARING COURSE ONLY.
7. ALL WORK SHALL BE COMPLETED WITHIN 90 CALENDAR DAYS FROM ISSUANCE OF PERMIT.
8. CONTRACTOR SHALL SUBMIT THE ASPHALT MIX DESIGN TO THE CITY ENGINEER FOR APPROVAL PRIOR TO START OF WORK.

UPDATED 03/28/06

EXISTING UTILITY NOTE:

EXISTING UTILITIES (DOMESTIC WATER, IRRIGATION AND SEWER) WILL BE PROTECTED IN PLACE AND USED TO SERVICE THE PROPOSED DEVELOPMENT IF DETERMINED ADEQUATE AND IN WORKING CONDITION.

AREA TABLE:	TOTAL AREA	% OF SITE
TOTAL SITE AREA:	65,523 SF	
OPEN SPACE:	4,017 SF	6.1%
DRIVEWAY/PARKING:	31,530 SF	48.1%
BUILDING:	29,976 SF	45.8%

LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF COSTA MESA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCELS 1 AND 2 OF PARCEL MAP NO. 91-116, IN THE CITY OF COSTA MESA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP ON FILE IN BOOK 291, PAGE(S) 38 TO 40 OF PARCEL MAPS, RECORDS OF SAID COUNTY.

EXCEPTING THEREFROM ALL OIL, GAS, MINERALS AND OTHER HYDROCARBON SUBSTANCES BELOW A DEPTH OF 500 FEET, BUT WITHOUT THE SURFACE OF ENTRY, AS RESERVED IN DEED RECORDED NOVEMBER 8, 1956 IN BOOK 3704, PAGE 305 OF OFFICIAL RECORDS.

NOTES:

–THE SURVEYOR SHALL MONUMENT THE PROPERTY CORNERS BEFORE GRADING COMMENCES, EITHER WITH PERMANENT MONUMENTS OR TEMPORARY 1 FT LONG ½" DIAMETER METAL RODS DRIVEN INTO THE GROUND TO NEAR FLUSH AND MARKED WITH PAINT.

–NO DRAINAGE SHALL BE ALLOWED ONTO ADJACENT PROPERTY UNLESS A WRITTEN APPROVAL IS OBTAINED FROM THE ADJACENT PROPERTY OWNER.

REV. NO.	DATE	BY	REVISION	APPROVED BY
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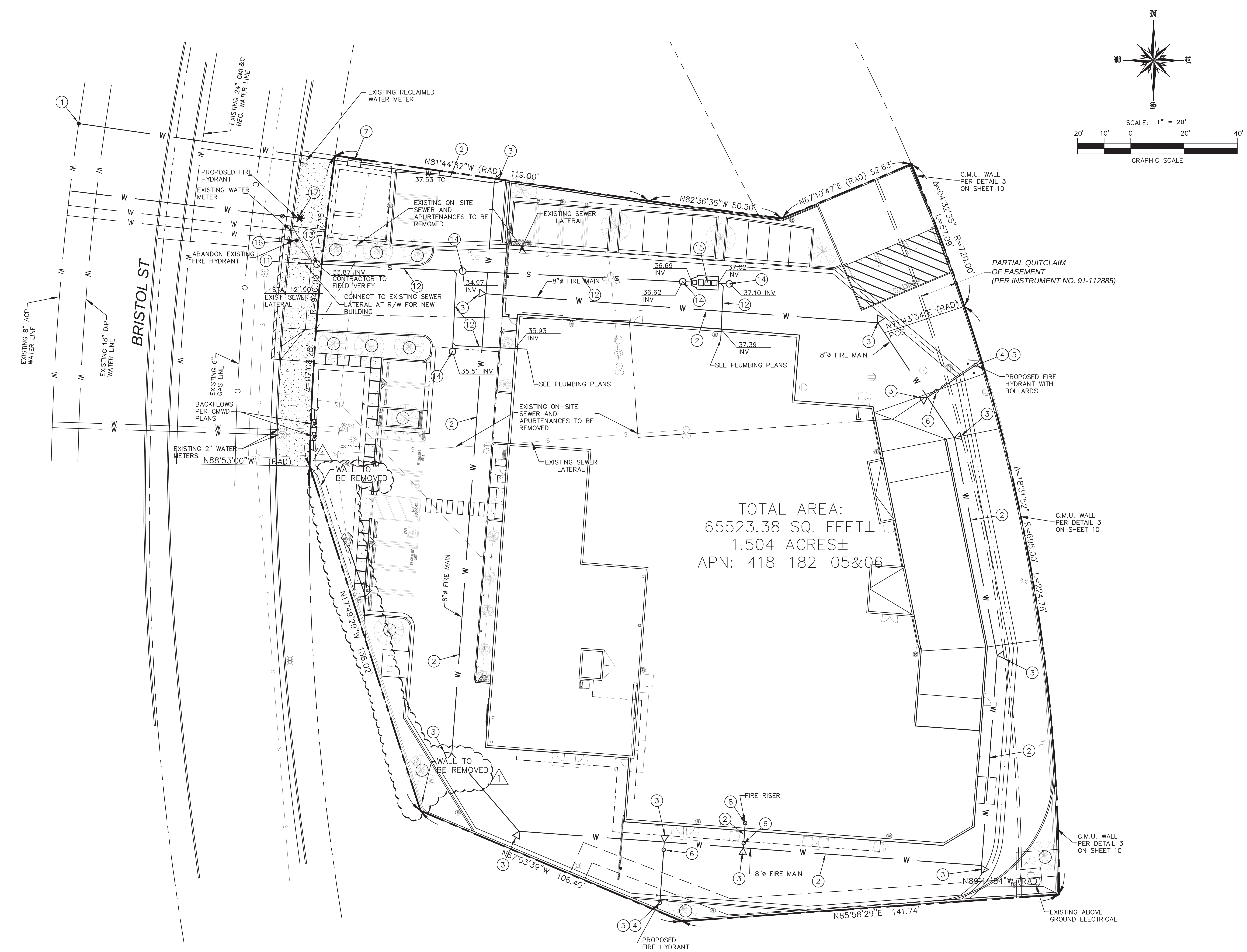
PREPARED UNDER THE DIRECTION OF:
DANIEL RUBIO R.C.E. 60934 DATE

WALKER GROUP VENTURES

PRECISE GRADING PLAN
2750 BRISTOL AVE.

COSTA MESA CALIFORNIA

DWG. NO. 20-2412-GP | SHEET NO. 7 OF 10 | REV. 1



CONSTRUCTION NOTES & *ESTIMATED QUANTITIES	
(1) CONNECTION TO MAIN	1 EACH
(2) 8"ø AWWA C900 PVC, DR-14 FIRE LINE	843 L.F.
(3) THRUST BLOCK MESA WATER DISTRICT STD. DRAWING #12	11 EACH
(4) FIRE HYDRANT PER MESA WATER DISTRICT STD. DRAWING #4	2 EACH
(5) FIRE HYDRANT POST PER MESA WATER DISTRICT STD. DRAWING #4B	4 EACH
(6) GATE VALVE PER MESA WATER DISTRICT STD. DRAWING #14A	3 EACH
(7) DOUBLE CHECK DETECTOR ASSEMBLY PER MESA WATER DISTRICT STD. DRAWING #17	1 EACH
(8) FIRE RISER IN BUILDING	1 EACH
(11) CONTRACTOR TO C.C.T.V. EXISTING 6"ø D.I.P. SEWER LATERAL BEING REUSED AND PROVIDE VIDEO TO C.M.S.D. DEFECIENCIES, IF ANY, SHALL BE REPAIRED.	LUMP SUM
(12) CONSTRUCT 4"ø P.V.C. SDR 35 SEWER LATERAL PER PLUMBING CODE (LATEST VERSION).	232 LF
(13) CONSTRUCT 6"ø SEWER CLEAN-OUT PER C.M.S.D. STD. S-107-A	1 EACH
(14) CONSTRUCT 4"ø SEWER CLEAN-OUT PER MODIFIED C.M.S.D. STD. S-107-A	4 EACH
(15) INSTALL CLARIFIER PER PLUMBING PLAN AND PLUMBING CODE (LATEST VERSIONN).	1 EACH
(16) ABANDON EXISTING FIRE HYDRANT PER MESA WATER DISTRICT STD. DRAWING #34	1 EACH
(17) PROPOSED FIRE HYDRANT PER MESA WATER DISTRICT STD. DRAWING #4 & #18	1 EACH

THE ITEMS LISTED BELOW REQUIRE A SEPARATE PERMIT ISSUED BY PUBLIC WORKS OR BUILDING
(1)

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LEGEND

(XXX.XX)	EXISTING ELEVATIONS
(XXX)	EXISTING CONTOUR
	PROPERTY LINE
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— X —	CHAIN LINK FENCE
— S —	SEWER LINE
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	BLOCK WALL
	BUILDING
	CONCRETE
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BSW	BACK OF SIDEWALK
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EP	EDGE OF PAVEMENT
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TS	TOP OF STEP
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WM	WATER METER
WV	WATER VALVE
WTR	WATER SERVICE

MESA WATER DISTRICT STANDARD WATER CONSTRUCTION NOTES

1. ENGINEERING PLAN CHECK/INSPECTION FEE AND PERFORMANCE GUARANTEE BOND SHALL BE PAID AND APPLICATION/PERMIT (A.P.) COMPLETED BY THE APPLICANT PRIOR TO THE APPROVAL OF THE PLANS AND ISSUANCE OF THE A.P. FEES SHALL BE IN ACCORDANCE WITH MESA WATER RATES AND DEPOSIT SCHEDULE.
2. CAPACITY CHARGES SHALL BE COLLECTED BY MESA WATER AT THE TIME OTHER FEES ARE COLLECTED PRIOR TO APPROVAL OF PLANS AND SERVICE AGREEMENT. THIS FEE SHALL BE IN ACCORDANCE WITH MESA WATER RATES AND DEPOSIT SCHEDULE.
3. WATER MAINS WILL BE INSTALLED ACCORDING TO THE LATEST STANDARDS AND SPECIFICATIONS OF MESA WATER.
4. CONTRACTOR TO HAVE, ON THE JOB SITE, A COPY OF THE LATEST STANDARD SPECIFICATIONS AT ALL TIMES.
5. CONTRACTOR SHALL SCHEDULE INSPECTIONS A MINIMUM OF 24 HOURS IN ADVANCE AND IN ACCORDANCE WITH THE INSPECTION CHECKLIST REQUIREMENTS. TO SCHEDULE AND INSPECTION, CALL (949) 207-5518.
6. A CASH PERFORMANCE GUARANTEE BOND SHALL BE HELD ONE YEAR AFTER MESA WATER'S NOTICE OF COMPLETION TO GUARANTEE WORK PERFORMED BY THE CONTRACTOR.
7. SEPARATION BETWEEN SANITARY SEWER AND WATER MAINS SHALL BE A MINIMUM OF 10' HORIZONTAL, 1' VERTICAL (ABOVE SEWER)
8. A 15' WATER MAIN EASEMENT WILL BE GRANTED TO MESA WATER••FOR MAINTENANCE PURPOSES, 5' FOR WATER SERVICES (7.5' EACH SIDE OF MAIN; 2.5' EACH SIDE OF SERVICE). EASEMENT DOCUMENTS ARE TO BE SUBMITTED TO MESA WATER FOR APPROVAL PRIOR TO A PERMIT BEING ISSUED.
9. SERVICE LATERALS WILL BE SET TO GRADE BY CONTRACTOR PRIOR TO THE INSTALLATION OF WATER METERS AND BOXES (PER MESA WATER'S STANDARD DRAWINGS #1, #2 AND #3).
10. WATER METER WILL NOT BE INSTALLED NOR WATER TURNED ON UNTIL THE BACKFLOW DEVICES REQUIRED FOR THE BUILDING AND IRRIGATION SYSTEMS HAVE BEEN INSTALLED, TESTED, APPROVED, AND CERTIFIED. CONTACT CROSS CONNECTION CONTROL AT 949-631-1291.
11. PROTECT EXISTING UTILITIES IN PLACE.
12. WATER MAINS SHALL HAVE 42" MINIMUM COVER TO FINISH GRADE.
13. RAISE EXISTING WATER VALVE COVERS TO GRADE (PER MESA WATER STANDARD DRAWING #14).
14. INSTALL FIRE HYDRANT PER MESA WATER STANDARD DRAWING #4 OR #4B.
15. INSTALL BLOW-OFF PER MESA WATER STANDARD DRAWING #9.
16. WATER MAINS WILL BE TESTED AT 225 P.S.I. FOR FOUR HOURS.
17. BACKFILL MATERIAL IN PIPE ZONE WILL HAVE A SAND EQUIVALENT OF 30 OR GREATER.
18. THE BACKFILL ABOVE THE PIPE ZONE WILL BE COMPACTED PER MESA WATER STANDARD DRAWING #18, AND BE IN COMPLIANCE WITH CITY OF COSTA MESA STANDARD DRAWING 813.
19. CHIP 2" 'W" IN CURB FACE TO IDENTIFY WATER SERVICE LOCATION.
20. INSTALL THRUST OR GRAVITY BLOCKS PER MESA WATER STANDARD DRAWING #11 OR #12.
21. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES PRIOR TO TRENCHING.
22. CONTRACTOR TO INSTALL TEMPORARY TAPS FOR TESTING AND CHLORINATION PRIOR TO CONNECTING TO EXISTING MAINS.
23. CONTRACTOR TO RETURN ALL EQUIPMENT REMOVED TO MESA WATER YARD, AND DISPOSE OF OTHER MATERIAL (I.E., A.C.P. BROKEN CONCRETE AND NATIVE SOIL, ETC.) AT CONTRACTOR'S EXPENSE.
24. WATER METERS AND BOXES TO BE INSTALLED BY MESA WATER BUT PAID FOR BY APPLICANT/OWNER.
25. A REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE REQUIRED ON ALL WATER METERED SERVICES TO ANY CONDOMINIUM UNIT OVER TWO STORIES OR FIVE OR MORE UNITS ON ONE METERED SERVICE. CONTACT CROSS CONNECTION CONTROL AT 949-631-1291.
26. IRRIGATION METERS SHALL REQUIRE A REDUCED PRESSURE PRINCIPLE ASSEMBLY.
27. IN LANDSCAPED AREAS, NO TREES SHALL BE LOCATED IN MESA WATER EASEMENT OR WITHIN 7.5' OF ANY MESA WATER FACILITY.
28. A REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE REQUIRED ON METERED WATER SERVICES TO ALL INDUSTRIAL BUILDINGS.
29. A DOUBLE CHECK DETECTOR ASSEMBLY WITH COMBINATION FLOW METER WILL BE REQUIRED ON FIRE LINE SERVICES, PER STANDARD 22A.
30. FIRELINE SERVICES SHALL NOT BE TURNED ON UNTIL THE MESA WATER ENGINEERING DEPARTMENT HAS RECEIVED A LETTER FROM THE OWNER, OR OWNER'S AUTHORIZED AGENT, REQUESTING IT AND STATING THAT THE PLUMBING IS READY FOR THE FIRELINE TO BE TURNED ON. THE LETTER MUST ALSO CONTAIN MESA WATER'S FILE NUMBER, SIZE AND SERIAL NUMBER OF THE DEVICE, AND JOB ADDRESS.
31. IF A 13D SPRINKLER SYSTEM IS NOT A FLOW THROUGH SYSTEM, THEN A TESTABLE BACKFLOW DEVICE NEXT TO BUILDING SHALL BE INSTALLED. MESA WATER••INSPECTOR TO VERIFY FLOW THROUGH SYSTEMS. MESA WATER••INSPECTOR SHALL VERIFY FLOW THROUGH 13D FIRE SPRINKLER SYSTEMS BY:
 - TURNING OFF HOUSE VALVE
 - CHECKING FOR FLOW ON FLOW THOUGH CONNECTION (I.E., TOILET OR SINK)

EXISTING UTILITY NOTE:

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DIGALERT

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE
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TWO WORKING DAYS BEFORE YOU DIG

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DANIEL RUBIO R.C.E. 60934 DATE

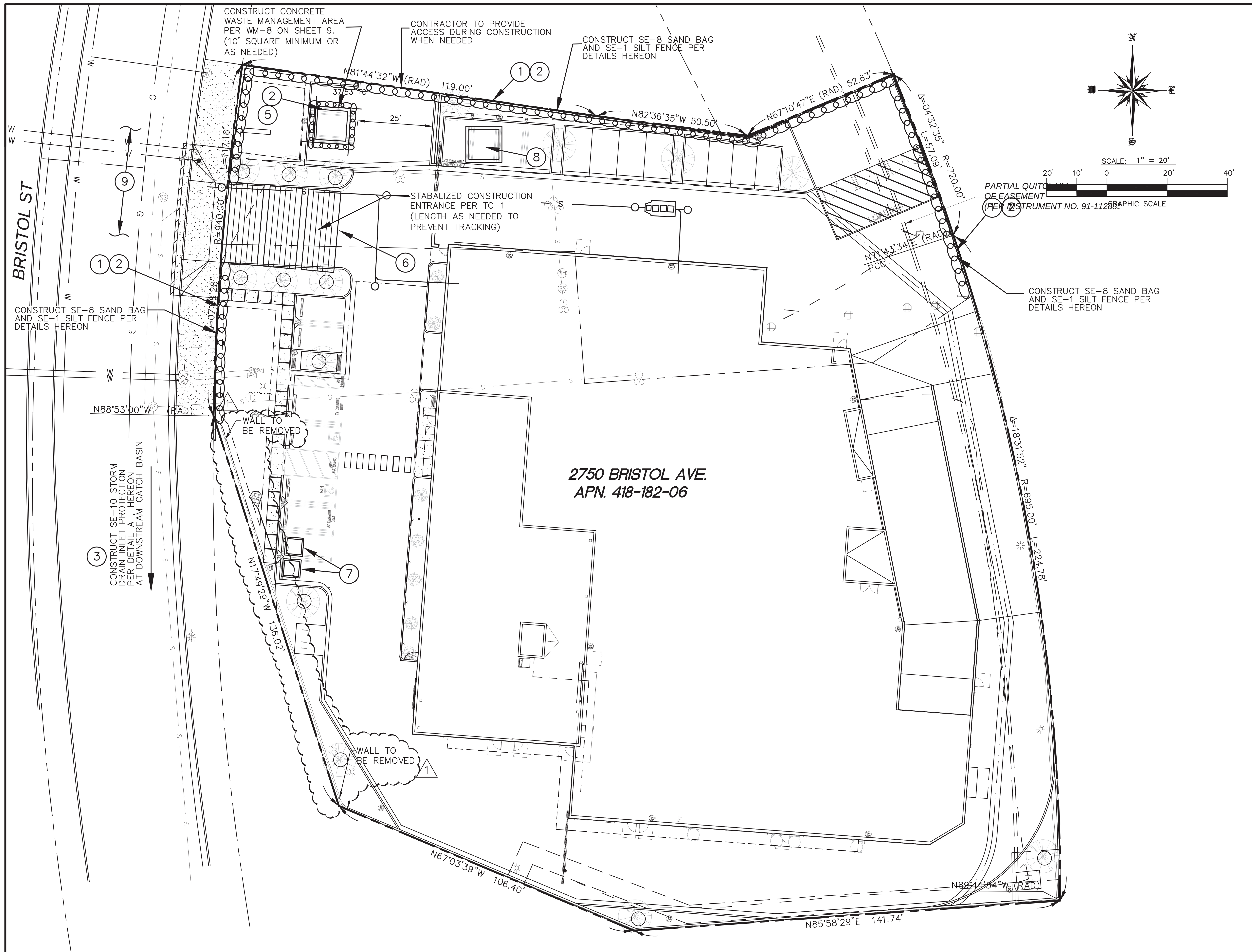
WALKER GROUP VENTURES

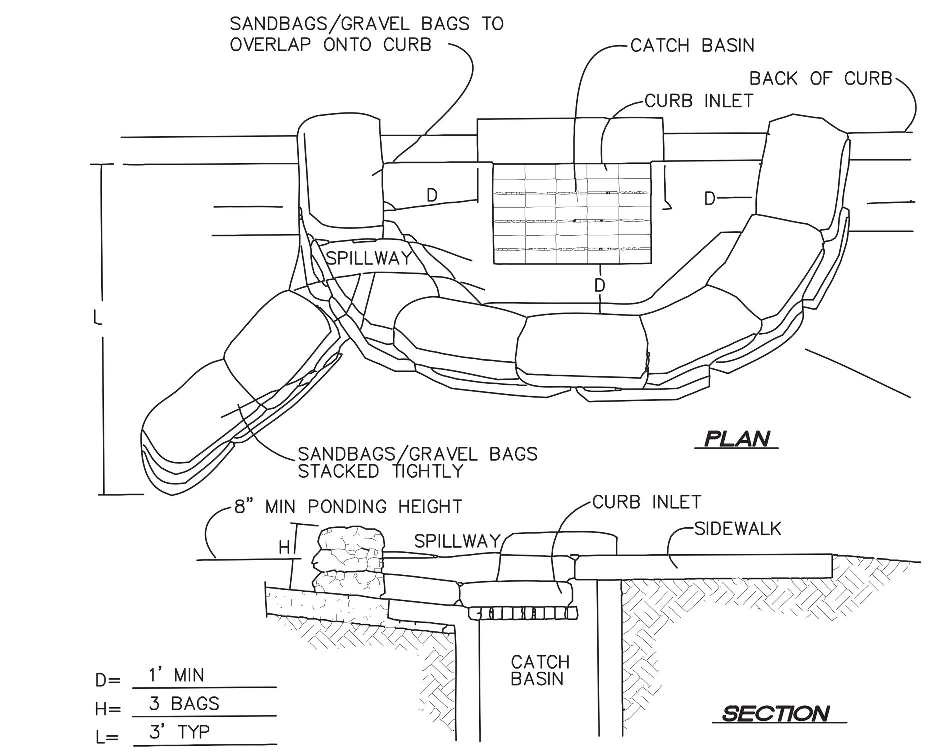
ON-SITE UTILITY PLAN
2750 BRISTOL AVE.

COSTA MESA CALIFORNIA

DWG. NO. 20-2412-UTIL

REV. 1



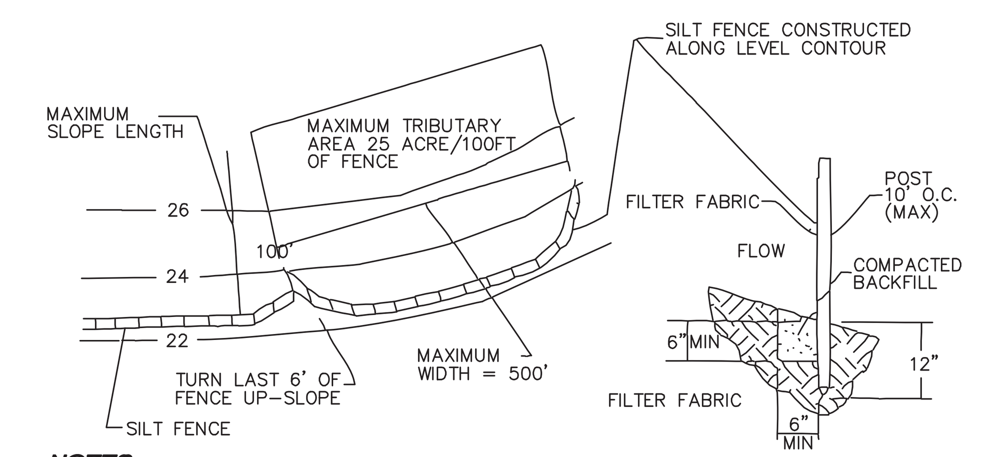


NOTES:

1. CATCH BASIN/INLET PROTECTION SHALL BE INSTALLED WHEREVER THERE IS A POTENTIAL OF STORMWATER OR NON-STORMWATER BEING DISCHARGED INTO IT.
2. INLET PROTECTION IS REQUIRED ALONG WITH OTHER POLLUTION PREVENTION MEASURES SUCH AS; EROSION CONTROL, SOIL STABLLIZATLON, AND MEASURES TO PREVENT TRACKING ONTO PAVED SURFACES.
3. MODIFY INLET PROTECTION AS NEEDED TO AVOID CREATING TRAFFIC HAZARDS.
4. INCLUDE INLET PROTECTION MEASURES AT HILLSIDE V-DITCHES AND MISC. DRAINAGE SWALES.
5. INLET PROTECTION SHALL BE INSPECTED AND ACCUMULATED SEDIMENTS REMOVED. SEDIMENT SHALL BE DISPOSED OF PROPERLY AND IN A MANNER THAT ASSURES THAT THE SEDIMENT DOES NOT ENTER THE STORM DRAIN SYSTEM
6. DAMAGED BAGS SHALL BE REPLACED IMMEDIATELY.
7. ADDITIONAL SANDBAG SEDIMENT TRAPS SHALL BE PLACED AT INTERVALS AS INDICATED ON SITE PLAN.

CATCH BASIN/INLET PROTECTION (A)

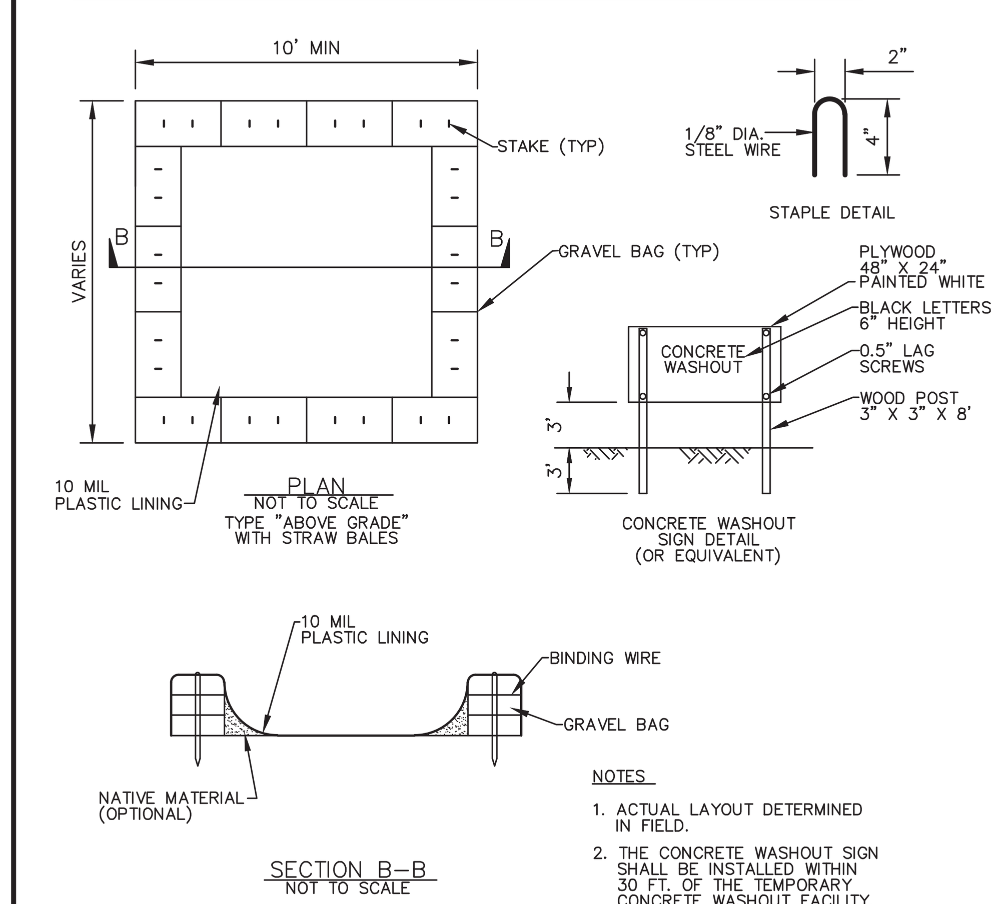
SE-1 SILT FENCE



NOTES:

1. CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED 1/3 THE HEIGHT OF THE LINEAR BARRIER, IN NO CASE SHALL THE REACH LENGTH EXCEED 500'.
2. THE LAST 8'-0" OF FENCE SHALL BE TURNED UP SLOPE.
3. STAKE DIMENSIONS ARE NOMINAL.
4. DIMENSION MAY VARY TO FIT FIELD CONDITION.
5. STAKES SHALL BE SPACED AT 8'-0" MAXIMUM AND SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
6. STAKES TO OVERLAP AND FENCE FABRIC TO FOLD AROUND EACH STAKE ONE FULL TURN. SECURE FABRIC TO STAKE WITH 4 STAPLES.
7. STAKES SHALL BE DRIVEN TIGHTLY TOGETHER TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT. THE TOPS OF THE STAKES SHALL BE SECURED WITH WIRE.
8. FOR END STAKE, FENCE FABRIC SHALL BE FOLDED AROUND TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES.
9. MINIMUM 4 STAPLES PER STAKE. DIMENSIONS SHOWN ARE TYPICAL.
10. CROSS BARRIERS SHALL BE A MINIMUM OF 1/3 AND A MAXIMUM OF 1/2 THE HEIGHT OF THE LINEAR BARRIER.
11. MAINTENANCE OPENINGS SHALL BE CONSTRUCTED IN A MANNER TO ENSURE SEDIMENT REMAINS BEHIND SILT FENCE.
12. JOINING SECTIONS SHALL NOT BE PLACED AT SUMP LOCATIONS.
13. SANDBAG ROWS AND LAYERS SHALL BE OFFSET TO ELIMINATE GAPS.

WM-8 CONCRETE WASTE MANAGEMENT



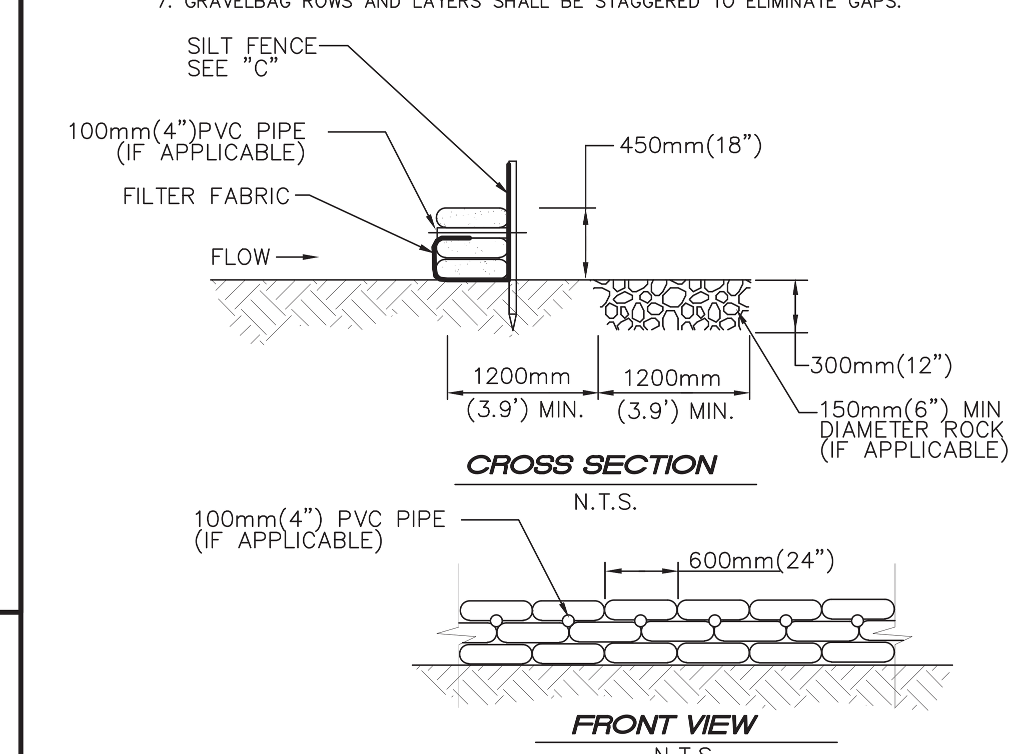
NOTES

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

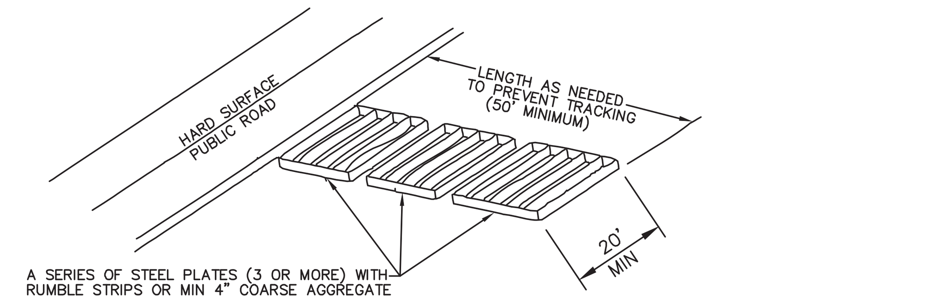
SE-6 GRAVEL BAG BARRIER

NOTES:

1. CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED 1/2 THE HEIGHT OF THE LINEAR BARRIER. IN NO CASE SHALL THE REACH LENGTH EXCEED 500'.
2. PLACE GRAVELBAGS TIGHTLY.
3. DIMENSION MAY VARY TO FIT FIELD CONDITION.
4. GRAVELBAG BARRIER SHALL BE A MINIMUM OF 3 BAGS HIGH.
5. THE END OF THE BARRIER SHALL BE TURNED UP SLOPE.
6. CROSS BARRIERS SHALL BE A MIN OF 1/2 AND A MAX OF 2/3 THE HEIGHT OF THE LINEAR BARRIER.
7. GRAVELBAG ROWS AND LAYERS SHALL BE STAGGERED TO ELIMINATE GAPS.



TC-1 STABILIZED CONSTRUCTION ENTRANCE



STREET MAINTENANCE

1. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS IMMEDIATELY.
2. SWEEP PAVED AREAS THAT RECEIVE CONSTRUCTION TRAFFIC WHENEVER SEDIMENT BECOMES VISIBLE.
3. PAVEMENT WASHING WITH WATER IS PROHIBITED IF IT RESULTS IN A DISCHARGE TO THE STORM DRAIN SYSTEM.

NOTES:

1. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS SHALL BE STABILIZED SO AS TO PREVENT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC ROADS. DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS INTO THE STORM DRAIN SYSTEM.
2. STABILIZED CONSTRUCTION ENTRANCE SHALL BE:
   A. LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT OF WAY, STREET, ALLEY, AND SIDEWALK OR PARKING AREA.
   B. A SERIES OF STEEL PLATES WITH "RUMBLE STRIPS", AND /OR MIN 4" COARSE AGGREGATE WITH LENGTH, WIDTH & THICKNESS AS NEEDED TO ADEQUATLY PREVENT ANY TRACKING ONTO PAVED SURFACES.
3. ADDING A WASH RACK WITH A SEDIMENT TRAP LARGE ENOUGH TO COLLECT ALL WASH WATER CAN GREATLY IMPROVE EFFICIENCY.
4. ALL VEHICLES ACCESSING THE CONSTRUCTION SITE SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE SITES.

WM-8 CONCRETE WASTE MANAGEMENT

PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORMWATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT, OFFSITE, PERFORMING ONSITE WASHOUT IN A DESIGNATED AREA, AND TRAINING EMPLOYEE AND SUBCONTRACTORS.

WE-1 WIND EROSION CONTROL

WIND EROSION OR DUST CONTROL CONSISTS OF APPLYING WATER OR OTHER DUST PALLIATIVES AS NECESSARY TO PREVENT OR ALLEVIATE DUST NUISANCE GENERATED BY CONSTRUCTION ACTIVITIES. COVERING SMALL STOCKPILES OR ARES IS AN ALTERNATIVE TO APPLYING WATER OR OTHER DUST PALLIATIVES.

DIGALERT

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE 811 TWO WORKING DAYS BEFORE YOU DIG

EROSION & SEDIMENT CONTROL BMP'S

1. SE-1 SILT FENCE PER CALIFORNIA STORMWATER BMP HANDBOOK
2. SE-6 GRAVEL BAG BARRIER PER CALIFORNIA STORMWATER BMP HANDBOOK
3. SE-10 STORM DRAIN INLET PROTECTION PER CALIFORNIA STORMWATER BMP HANDBOOK
4. WE-1 WIND EROSION CONTROL PER CALIFORNIA STORMWATER BMP HANDBOOK
5. WM-8 CONCRETE WASTE MANAGEMENT PER CALIFORNIA STORMWATER BMP HANDBOOK
6. TC-1 STABILIZED CONSTRUCTION ENTRANCE PER CALIFORNIA STORMWATER BMP HANDBOOK
7. WM-9 SANITARY AND SEPTIC WASTE MANAGEMENT PER CALIFORNIA STORMWATER BMP HANDBOOK
8. SD-34 OUTDOOR MATERIAL STORAGE AREAS PER CALIFORNIA STORMWATER BMP HANDBOOK
9. SE-7 STREET SWEEPING AND VACUUMING PER CALIFORNIA STORMWATER BMP HANDBOOK

REV. NO.	DATE	BY	REVISION	APPROVED BY
1	3/18/22	D.R.	REVISION PER AHT	

REGISTERED PROFESSIONAL ENGINEER DANIEL RUBIO NO. 60934 CIVIL STATE OF CALIFORNIA

JONES, CAHL & ASSOCIATES
CONSULTING ENGINEERS
18090 Beach Boulevard - Huntington Beach
California 92648 - (714) 848-0566
e-mail: jca@jonescahl.com

DESIGNED: C.H.	SCALE: 1"=10'		
DRAWN: C.H.	DATE: 3/18/2022		
CHECKED: D.R.	JOB NO. 20-2412		

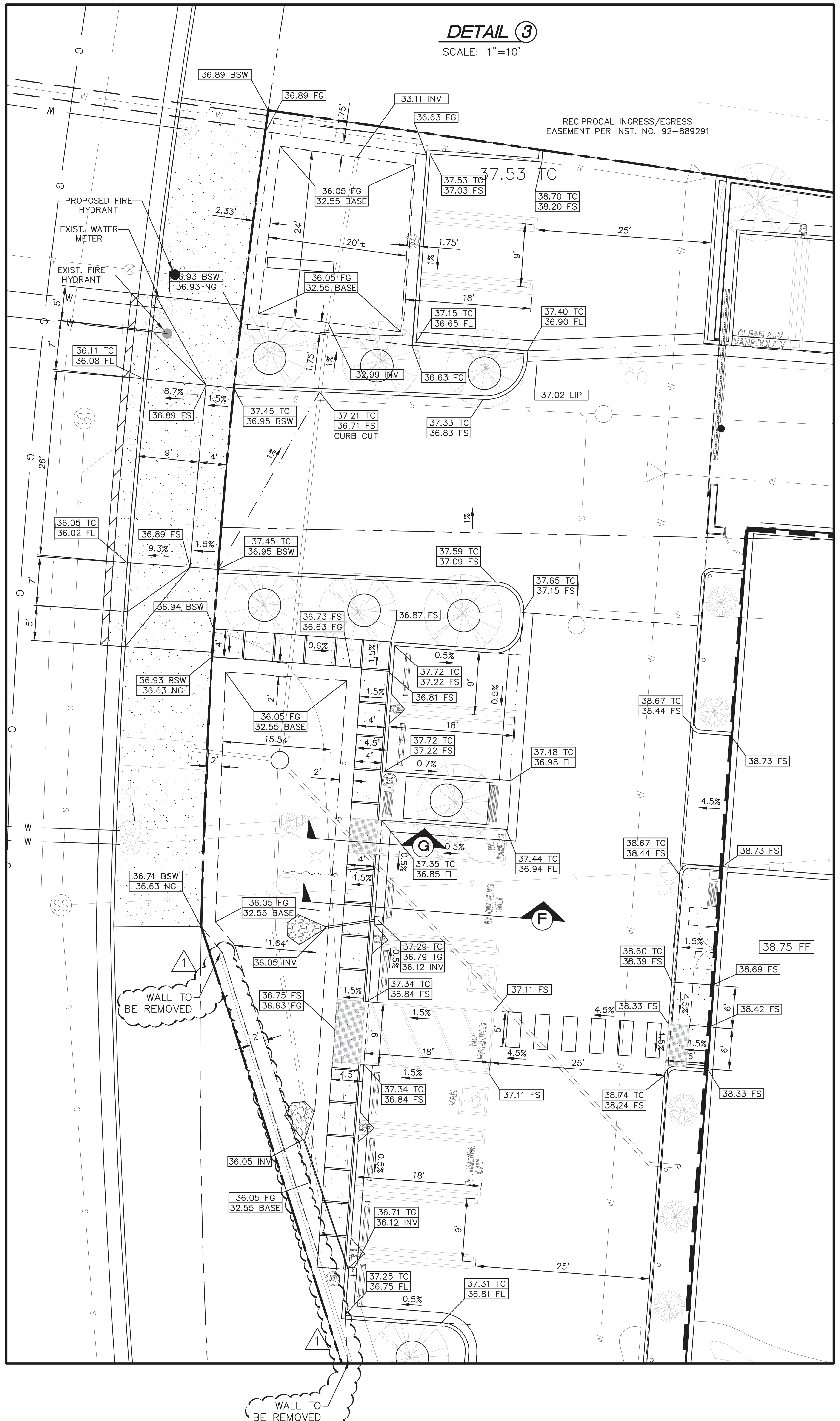
PREPARED UNDER THE DIRECTION OF:
DANIEL RUBIO R.C.E. 60934 DATE

WALKER GROUP VENTURES

EROSION CONTROL PLAN 2750 BRISTOL AVE.

COSTA MESA CALIFORNIA

DWG. NO.	SHEET NO.	REV.
20-2412-EC	9 OF 10	1



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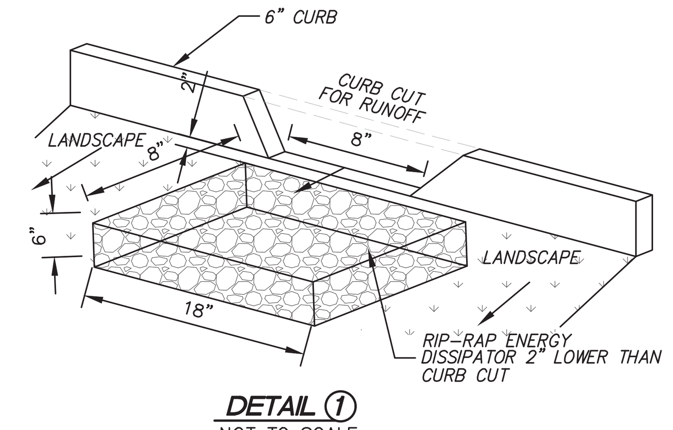

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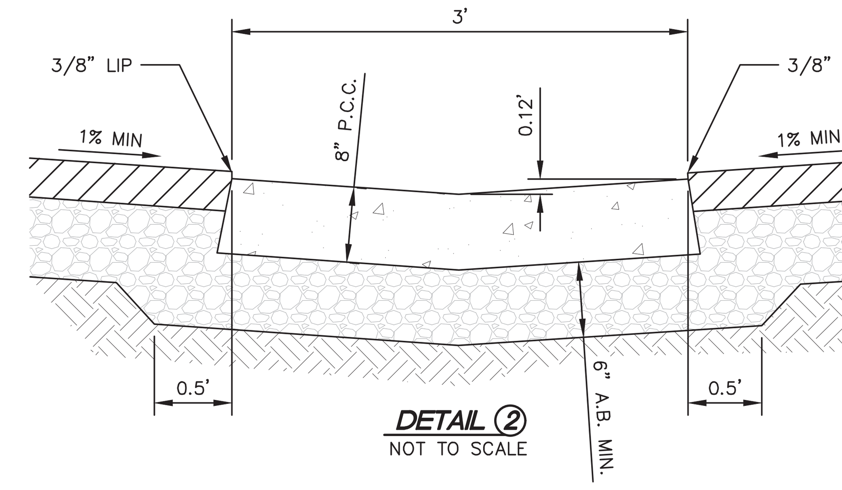

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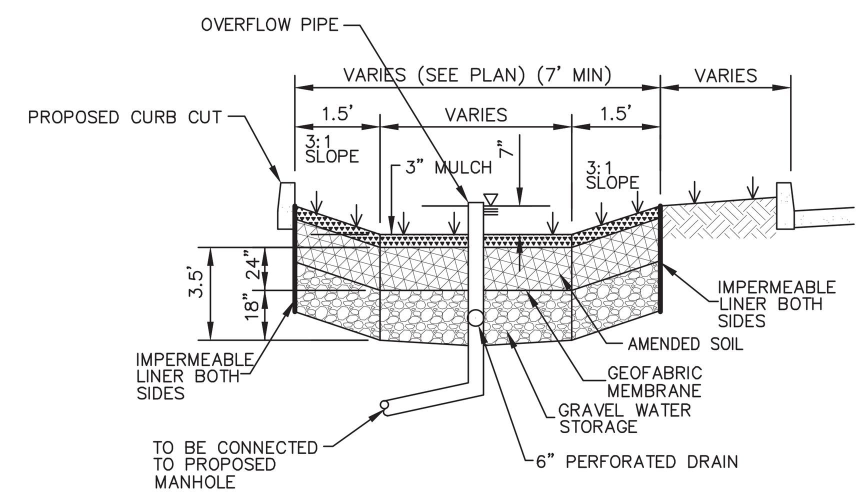
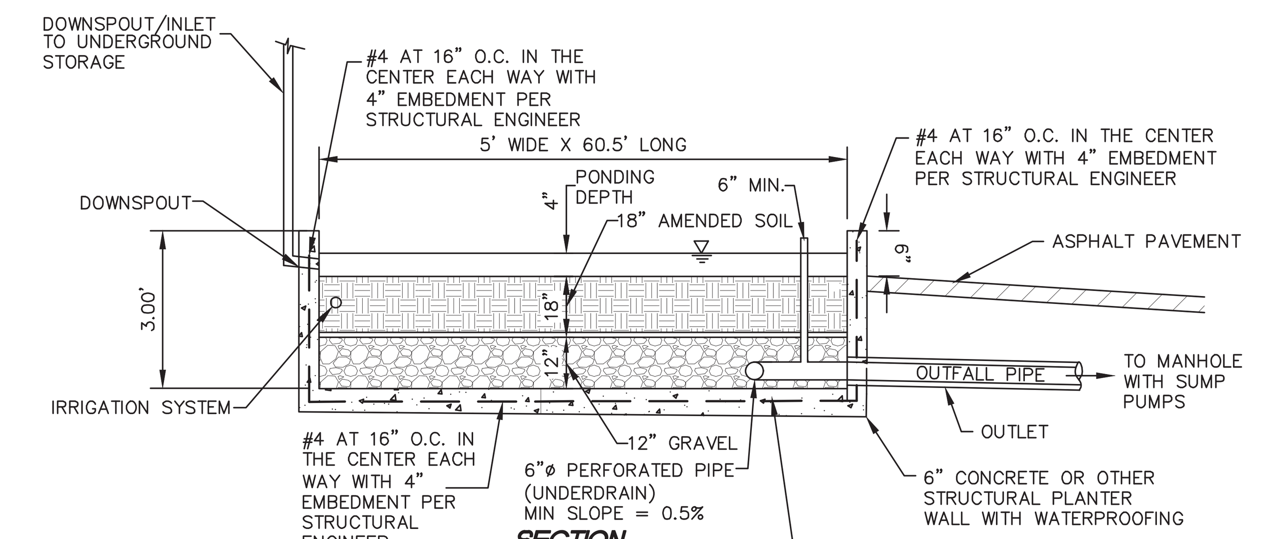


BIO-RETENTION DETAIL
N.T.S.



SECTION
NOT TO SCALE

NOTES:

1. WASHED NO. 57 GRAVEL STONE (CLASS 2 PERMEABLE MATERIAL)
2. DOWNSPOUTS/INLET PIPES REQUIRE ENERGY DISSIPATION.
3. PLANTINGS: PER LANDSCAPE ARCHITECT AND RECOMMENDED PLANT LIST AND GUIDELINES.
4. PLANTER DESIGN MAY REQUIRE STRUCTURAL ENGINEERING DESIGN.

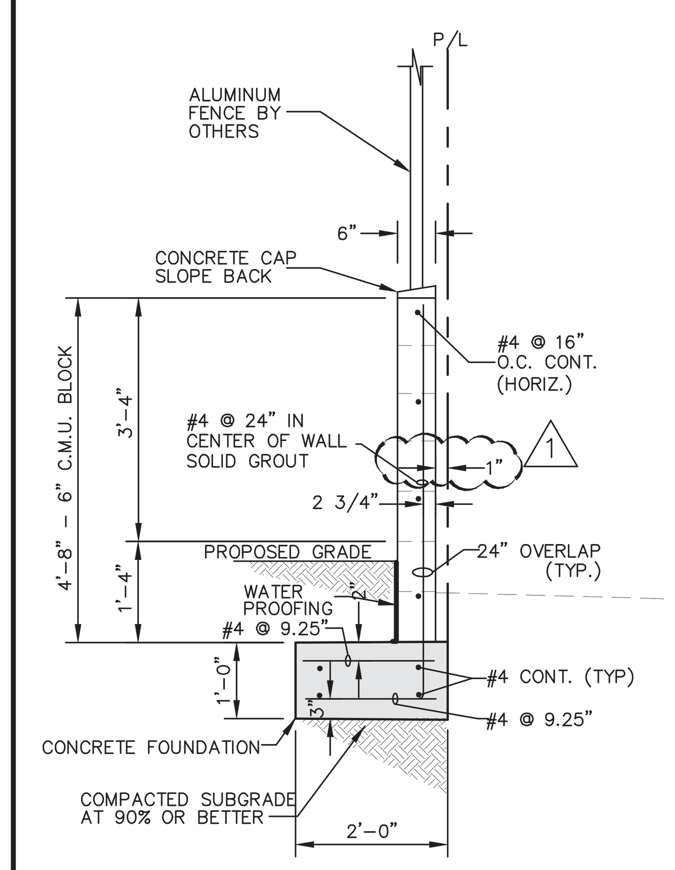
AMENDED SOIL:

SAND............................ 50%
TOPSOIL........................ 30%
ORGANIC MATERIAL...... 20%
WITH A MINIMUM INFILTRATION RATE OF 5 IN/HR

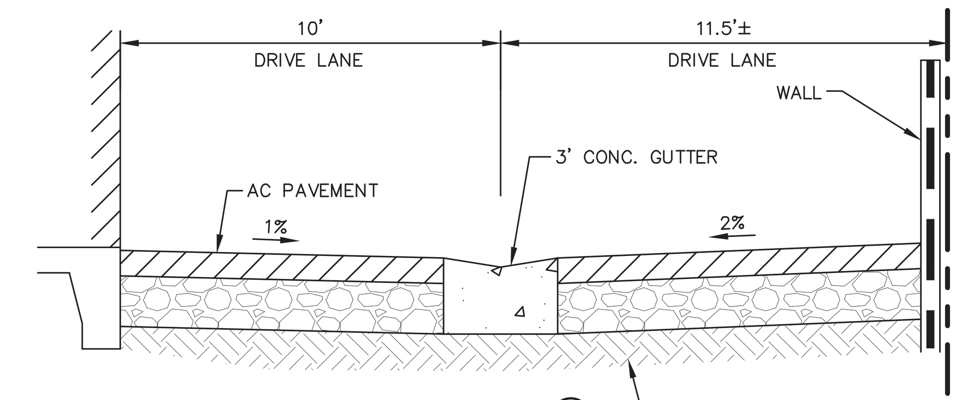
BIO-1 WITH UNDERDRAIN
SECTION (A)

SPECIFICATIONS:

1) CMU BLOCK COLOR/STYLE: NATURAL GRAY SPLIT FACE
2) CONCRETE: f'c = 2,500 psi @ 28 DAYS
3) REBAR: ASTM A615-40
4) CMU: MASONRY BLOCK ASTM GRADE N
   f'm = 2,000 psi
   Fs = 24,000 psi
5) MORTOR: ASTM C270, TYPE S
6) GROUT: MIN. COMP. STRENGTH @ 28 DAYS = 2,500 psi
7) BACKFILL: ON-SITE SOILS MAY BE USED OR APPROVED IMPORTED SOILS COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION



4'-8" C.M.U. WALL
DETAIL (3)
NO SCALE



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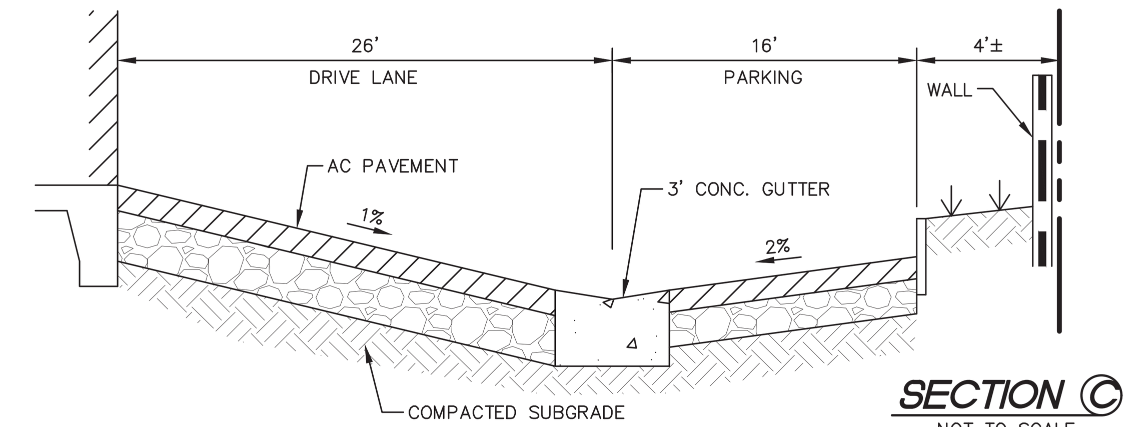

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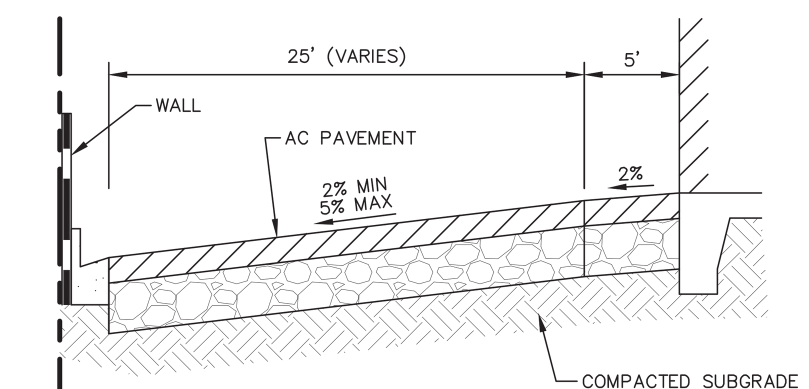

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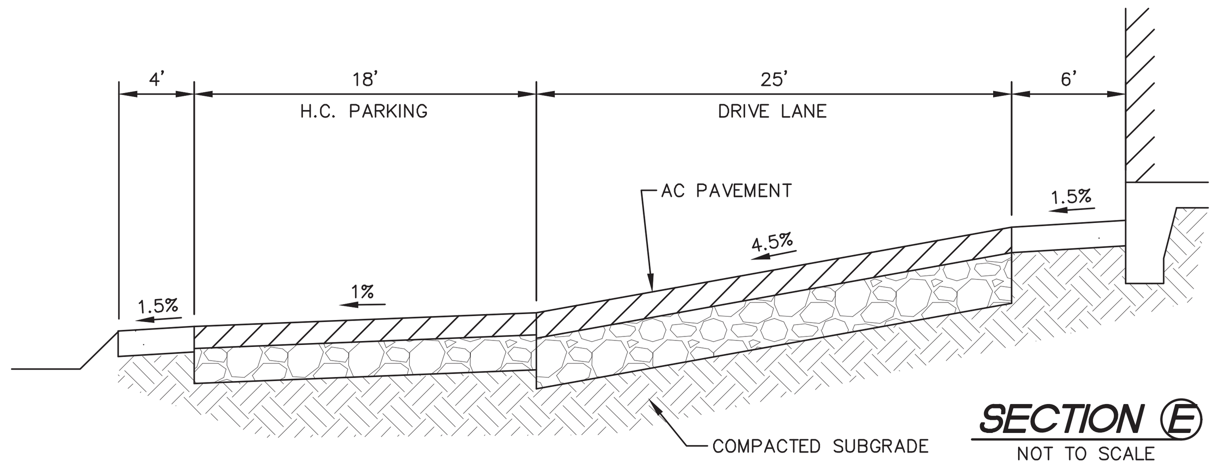

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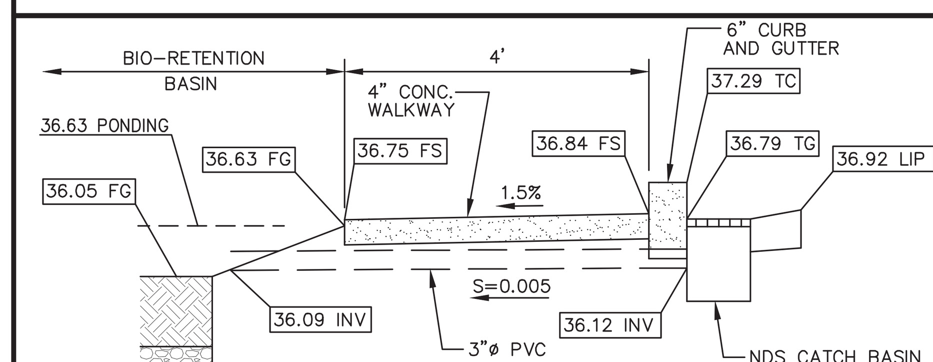

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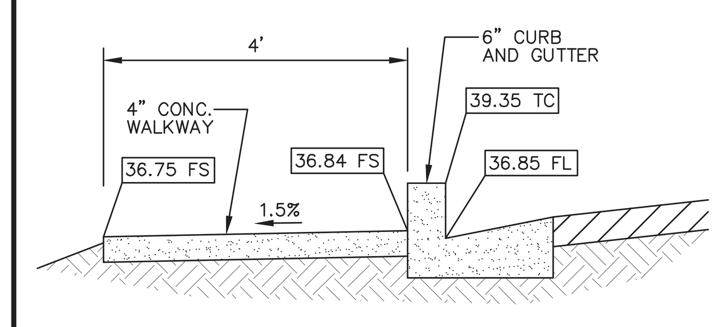

SECTION (G)
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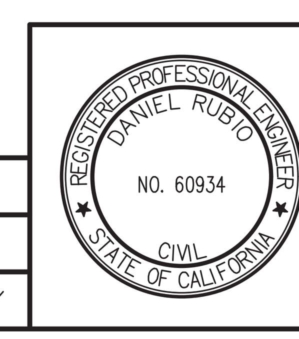
REV. NO.	DATE	BY	REVISION	APPROVED BY
1	3/18/22	D.R.	REVISION PER AHT	



JONES, CAHL & ASSOCIATES
CONSULTING ENGINEERS
18090 Beach Boulevard - Huntington Beach
California 92648 - (714) 848-0566
e-mail: jca@jonescahl.com

DESIGNED:	D.R.	SCALE:	1" = 20'
DRAWN:	C.H.	DATE:	3/18/2022
CHECKED:	D.R.	JOB NO.	20-2412

PREPARED UNDER THE DIRECTION OF:
DANIEL RUBIO R.C.E. 60934 DATE

WALKER GROUP VENTURES

DETAILS AND SECTIONS 2750 BRISTOL AVE.

COSTA MESA CALIFORNIA

DWG. NO.	SHEET NO.	REV.
20-2412-SEC	10 OF 10	1

REINFORCING STEEL

1. REINFORCING STEEL:
PROVIDE REINFORCING STEEL COMPLYING WITH THE APPROPRIATE STANDARD AS FOLLOWS:

ALL REINFORCING UNLESS NOTED OTHERWISE .....ASTM A615 GRADE 60
WELDED REINFORCING ....ASTM A706 GRADE 60

2. REINFORCING (EXCLUDING TIES) IN CONCRETE MOMENT FRAMES, COUPLING BEAMS, AND SHEARWALL BOUNDARY ELEMENTS:
PROVIDE REINFORCING STEEL COMPLYING WITH ASTM A706 GRADE 60. ASTM A615 GRADE 60 REINFORCING STEEL COMPLYING WITH ACI 318 SECTION 20.2.2.5 SHALL ALSO BE PERMITTED.

3. WELDED WIRE FABRIC:
PROVIDE WELDED WIRE FABRIC COMPLYING WITH THE APPROPRIATE STANDARD AS FOLLOWS:

SMOOTH WELDED WIRE FABRIC ....ASTM A185
DEFORMED WELDED WIRE FABRIC ....ASTM A497

4. SHOP DRAWINGS:
PREPARE REINFORCING STEEL SHOP DRAWINGS COMPLYING WITH ACI 315. SUBMIT REINFORCING STEEL SHOP DRAWINGS INDICATING REINFORCING STEEL PLACEMENT, INCLUDING SPLICE LOCATIONS AND LENGTHS, TO ARCHITECT (STRUCTURAL ENGINEER) FOR APPROVAL. PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) BEFORE DEVELOPING REINFORCING STEEL SHOP DRAWINGS IF INSUFFICIENT CLEAR DISTANCE BETWEEN REINFORCING STEEL OR OTHER CONGESTION IS ENCOUNTERED.

5. REINFORCING STEEL CONDITION DURING CONCRETE PLACEMENT:
REINFORCING STEEL SHALL BE FREE OF MUD, OIL AND OTHER MATERIALS THAT MAY AFFECT CONCRETE BOND AT TIME OF CONCRETE PLACEMENT.

6. SPLICE LOCATION:
SPLICE REINFORCING STEEL WHERE INDICATED IN THE DRAWINGS. IF SPLICE LOCATIONS CANNOT BE DETERMINED, VERIFY WITH STRUCTURAL ENGINEER PRIOR TO DEVELOPING SHOP DRAWINGS.

7. SPLICE LENGTH – CONCRETE CONSTRUCTION:
LAP REINFORCING STEEL AT SPLICES TO LENGTHS INDICATED IN STRUCTURAL DRAWINGS. LAP WIRE FABRIC 1.5 SPACES (12 INCHES MINIMUM).

8. SPLICE LENGTH – MASONRY CONSTRUCTION:
LAP REINFORCING STEEL AT SPLICES A MINIMUM OF 72 BAR DIAMETERS AND NOT LESS THAN 30 INCHES UNLESS NOTED OTHERWISE.

9. MINIMUM CLEAR DISTANCE BETWEEN PARALLEL REINFORCING:
MINIMUM CLEAR DISTANCE BETWEEN PARALLEL REINFORCING STEEL SHALL BE THE GREATER OF 1 INCH OR 1 BAR DIAMETER. MINIMUM CLEAR DISTANCE BETWEEN PARALLEL REINFORCING STEEL AT COLUMNS SHALL BE THE GREATER OF 1-1/2 INCHES OR 1-1/2 BAR DIAMETERS. MINIMUM CLEAR DISTANCE BETWEEN GROUPS OF BUNDLED BARS SHALL BE THE SAME AS FOR SINGLE BARS EXCEPT BAR DIAMETER IS DERIVED FROM EQUIVALENT TOTAL AREA OF BUNDLE.

10. MINIMUM CONCRETE COVER:
MAINTAIN THE FOLLOWING MINIMUM CLEAR DISTANCE BETWEEN REINFORCING STEEL AND FACE OF CONCRETE, UNLESS NOTED OTHERWISE:

SLABS ON GRADE ....CENTER OF SLAB
CONCRETE BELOW GRADE – FORMED ....2 INCHES
CONCRETE BELOW GRADE – UNFORMED ....3 INCHES
WALLS ABOVE GRADE – EXPOSED TO WEATHER........2 INCHES
WALLS ABOVE GRADE – NOT EXPOSED TO WEATHER....1 INCHES
COLUMNS – CLEAR TO FACE OF TIES...............1-1/2 INCHES
BEAMS – CLEAR TO FACE OF TIES.................1-1/2 INCHES
STRUCTURAL SLABS – TOP AND BOTTOM.............1 INCHES

11. CONCRETE COVER AT REVEALS:
SPECIFIED CONCRETE COVER SHALL BE MAINTAINED TO ALL REINFORCING STEEL AT REVEALS AND INSETS. SUBMIT SHOP DRAWINGS SHOWING CONCRETE REVEALS AND INSETS TO ARCHITECT (STRUCTURAL ENGINEER) FOR REVIEW.

12. CHAIRS AND SPACERS:
CHAIRS AND SPACERS FOR REINFORCING STEEL THAT REST ON EXPOSED SURFACES SHALL BE PLASTIC OR PLASTIC COATED.

13. WALL AND COLUMN DOWELS:
PROVIDE DOWELS FOR WALLS AND COLUMNS TO MATCH SIZE AND SPACING OF VERTICAL REINFORCING STEEL UNLESS NOTED OTHERWISE.

14. WELDED REINFORCING:
WELD REINFORCING STEEL PER REQUIREMENTS OF AWS D1.4 AND APPLICABLE BUILDING CODE. SUBMIT PROPOSED WELDING PROCEDURE TO STRUCTURAL ENGINEER AND TO GOVERNING CODE AUTHORITY FOR APPROVAL PRIOR TO WELDING. WELDERS SHALL BE CERTIFIED AS REQUIRED BY GOVERNING CODE AUTHORITY.

15. REBAR BENDING:
BEND REINFORCING STEEL COLD UNLESS OTHERWISE APPROVED BY STRUCTURAL ENGINEER. DO NOT FIELD BEND REINFORCING STEEL IN CONCRETE UNLESS OTHERWISE SHOWN IN CONTRACT DOCUMENTS OR APPROVED BY STRUCTURAL ENGINEER.

STRUCTURAL OBSERVATION

1. STRUCTURAL OBSERVATION:
STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR TESTING AGENCY.

2. STRUCTURAL OBSERVER:
THE OWNER SHALL EMPLOY A CIVIL OR STRUCTURAL ENGINEER OR ARCHITECT TO PERFORM STRUCTURAL OBSERVATIONS. THE ENGINEER OR ARCHITECT SHALL BE REGISTERED IN THE STATE WHERE THE PROJECT SITE OCCURS.

3. PRECONSTRUCTION MEETING:
THE OWNER OR OWNER'S REPRESENTATIVE SHALL ARRANGE FOR A PRECONSTRUCTION MEETING TO BE ATTENDED BY THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS, DEPUTY INSPECTORS, AND THE BUILDING INSPECTORS. THE MEETING SHALL IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS AFFECTING THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT.

4. SITE VISITS:
STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THE STEPS IN THE PROGRESS OF THE WORK ALLOWING FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF WORK INVOLVED. AT A MINIMUM, THE FOLLOWING SIGNIFICANT CONSTRUCTION STAGES REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER:

CONSTRUCTION STAGES	ELEMENTS TO BE OBSERVED
A. FOUNDATION	REINFORCING, SHEARWALL DOWELS, ANCHOR BOLTS, GRADE BEAM REINFORCING, CMU WALL DOWELS
B. SHEARWALL AND COLUMNS	CONCRETE AND MASONRY SHEARWALL REINFORCING, SLAB DOWELS, COLUMN REINFORCING
C. POST-TENSIONED	SLAB POST-TENSIONING AND REINFORCING, EMBED PLATES
D. STRUCTURAL STEEL	METAL DECK AND STEEL BEAM CONNECTIONS, MOMENT FRAME CONNECTIONS

5. OBSERVATION REPORTS:
STRUCTURAL OBSERVER SHALL PREPARE AND SUBMIT AN OBSERVATION REPORT TO THE BUILDING OFFICIAL FOR EACH SIGNIFICANT STAGE OF CONSTRUCTION OBSERVED. OBSERVATION REPORTS SHALL BE STAMPED AND SIGNED BY THE STRUCTURAL OBSERVER.

6. FINAL OBSERVATION REPORT:
STRUCTURAL OBSERVER SHALL PREPARE AND SUBMIT A FINAL OBSERVATION REPORT TO THE BUILDING OFFICIAL STATING THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND THE STRUCTURAL SYSTEM IS IN GENERAL CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.

POST-TENSIONED CONCRETE

1. POST-TENSIONING TENDONS:
PROVIDE POST-TENSIONING TENDONS OF LOW RELAXATION, SEVEN WIRE STRAND COMPLYING WITH ASTM A416 AND THE FOLLOWING:

1/2-INCH DIAMETER TENDON AREA	0.153 SQUARE INCHES
ULTIMATE STRESS (Fpu)	270 KSI
JACKING STRESS TO OVERCOME FRICTION	216 KSI (MAX)
ANCHORING STRESS	189 KSI
EFFECTIVE DESIGN STRESS	174 KSI

FINAL EFFECTIVE FORCES INDICATED ON DRAWINGS ARE BASED ON A TENDON FORCE OF 26.6 KIPS PER TENDON.

2. POST-TENSIONING ANCHORS, WEDGES, COUPLERS, ETC:
MANUFACTURER SHALL PROVIDE POST-TENSIONING ANCHORS, WEDGES, COUPLERS AND OTHER MISCELLANEOUS HARDWARE POSSESSING CURRENT ICC EVALUATION REPORT. ANCHORAGE ASSEMBLY SHALL BE ENCAPSULATED. PLACE COUPLERS AT LOCATIONS ACCEPTABLE TO ARCHITECT (STRUCTURAL ENGINEER) AND APPROVED BY GOVERNING CODE AUTHORITY.

3. UNBONDED TENDON SHEATHING:
ENCASE UNBONDED TENDONS IN SLIPPAGE SHEATHING CONSISTING OF DURABLE, WATERPROOF POLYETHYLENE PLASTIC TUBING CAPABLE OF PREVENTING PENETRATION OF CEMENT PASTE AND CONTAINING A RUST-INHIBITING GREASE COATING. REPAIR ALL TEARS IN SHEATHING.

4. SHOP DRAWINGS:
SUBMIT SHOP DRAWINGS TO ARCHITECT (STRUCTURAL ENGINEER) AND TO GOVERNING CODE AUTHORITY FOR APPROVAL. INDICATE OPENINGS AND OTHER PENETRATIONS, TENDON LAYOUT, ANCHORAGE DETAILS, DEAD-END AND STRESSING-END LOCATIONS, TENDON SUPPORT LAYOUT WITH DETAILS NECESSARY FOR INSTALLATION AND MEMBER IDENTIFICATION MARKS. SHOP DRAWINGS WILL NOT BE ACCEPTED WITHOUT LOCATIONS OF OPENINGS AND OTHER PENETRATIONS.

5. CALCULATIONS:
PREPARE CALCULATIONS FOR ANCHORAGE DESIGN AND FOR LOSSES FOR SPECIFIC STRESSING LENGTHS TO ENSURE THAT MINIMUM FINAL EFFECTIVE FORCES ARE MAINTAINED. ELONGATION CALCULATIONS SHALL BE BASED UPON AN AVERAGE MODULUS OF ELASTICITY INDICATED ON MILL CERTIFICATES FOR TENDONS BEING FURNISHED. CONSIDER THE EFFECTS OF CREEP, PLASTIC FLOW, ELASTIC FLOW, SHRINKAGE OF CONCRETE, RELAXATION OF STEEL, SLIP AT ANCHORAGES AND SEQUENCE WHEN DETERMINING EFFECTIVE DESIGN STRESSES. SUBMIT CALCULATIONS BEARING THE SEAL AND SIGNATURE OF A REGISTERED CIVIL ENGINEER IN THE STATE WHERE THE PROJECT SITE OCCURS TO ARCHITECT (STRUCTURAL ENGINEER) AND TO GOVERNING CODE AUTHORITY FOR APPROVAL.

6. OPENINGS AND PENETRATIONS:
DETERMINE LOCATIONS OF NECESSARY OPENINGS AND PENETRATIONS THROUGH POST-TENSIONED MEMBERS PRIOR TO SHOP DRAWING DEVELOPMENT. DO NOT CONSTRUCT OPENINGS OR OTHER PENETRATIONS UNLESS SPECIFICALLY SHOWN ON SUBMITTED AND APPROVED SHOP DRAWINGS. CUTTING OR CORING OF POST-TENSIONED CONCRETE IS NOT PERMITTED.

7. TENDON PLACEMENT:
PLACE TENDONS COMPLYING WITH CONTROLLING POINTS SHOWN ON DRAWINGS AND IN AN APPROXIMATE PARABOLIC DRAPE BETWEEN SUPPORTS UNLESS NOTED OTHERWISE. DIMENSIONS LOCATE CENTER OF GRAVITY OF TENDON (SINGLE TENDON OR GROUP OF TENDONS). LOW POINTS ARE AT MID SPAN UNLESS NOTED OTHERWISE. SECURE TENDONS AT 4 FOOT MAXIMUM SPACING TO ENSURE CORRECT LOCATION DURING AND AFTER CONCRETE PLACEMENT.

8. TENDON SPACING DEVIATIONS:
SLIGHT DEVIATIONS IN SPACING OF SLAB TENDONS WILL BE PERMITTED WHEN REQUIRED TO AVOID OPENINGS, INSERTS AND DOWELS WHICH ARE SPECIFICALLY LOCATED. WHERE TENDONS INTERFERE WITH EACH OTHER, ONE TENDON MAY BE MOVED HORIZONTALLY TO AVOID INTERFERENCE.

9. TWISTING OR ENTWINING TENDONS:
TWISTING OR ENTWINING INDIVIDUAL TENDONS WITHIN A BUNDLE OR BEAM IS NOT PERMITTED.

10. MINIMUM CONCRETE COVER AT TENDONS:
MAINTAIN THE FOLLOWING MINIMUM CLEAR DISTANCES BETWEEN TENDONS AND FACE OF CONCRETE UNLESS NOTED OTHERWISE:

SLAB END SPANS – BOTTOM ....1-1/2 INCHES
SLAB INTERIOR SPANS – TOP ....1 INCH
SLAB INTERIOR SPANS – BOTTOM ....3/4 INCH
BEAMS ....2 INCHES

11. CHAIRS AND SPACERS:
CHAIRS AND SPACERS FOR TENDONS SHALL BE PLASTIC OR PLASTIC COATED WHEN RESTING ON EXPOSED SURFACES.

12. CONCRETE PUMPING HOSE SUPPORT:
PROVIDE NECESSARY SUPPORTS SO HOSES DO NOT BEAR ON TENDONS.

13. STRESSING POCKETS:
FILL STRESSING POCKETS WITH NON-METALLIC NON-SHRINK GROUT WITHIN 1 DAY AFTER TENDON TAIL CUTTING. STRESSING POCKETS SHALL BE WATERPROOF.

14. TENDON STRESSING COMMENCEMENT:
BEGIN STRESSING TENDONS WHEN CONCRETE ATTAINS A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AND HAS CURED AT LEAST 72 HOURS. STRESSING SHALL OCCUR NO LATER THAN 84 HOURS AFTER CONCRETE PLACEMENT. IF CONCRETE STRENGTH IS LOWER THAN 3000 PSI AFTER 84 HOURS, STRESS TENDONS TO 20 PERCENT ELONGATION UNTIL CONCRETE STRENGTH REACHES 3000 PSI.

15. TENDON STRESSING ORDER:
TENDON STRESSING ORDER SHALL BE AS FOLLOWS:

TWO-WAY SLAB SYSTEMS: 1. UNIFORM TENDONS
2. BANDED TENDONS

BEAM AND ONE-WAY SLAB SYSTEMS: 1. UNIFORM TENDONS
2. BEAM AND TEMPERATURE TENDONS

16. TENDONS STRESSED FROM BOTH ENDS:
TENDONS STRESSED FROM BOTH ENDS NEED NOT BE STRESSED FROM BOTH ENDS SIMULTANEOUSLY.

17. SHORING:
COORDINATE SHORING DESIGN TO BE COMPATIBLE WITH PRESTRESSING SEQUENCE. PERFORM SHORING AND RESHORING IN ACCORDANCE WITH ACI 347.

18. POST-INSTALLED ANCHORS AND SHOTPINS:
POST-INSTALLED ANCHORS OR SHOTPINS WITH EMBEDMENT GREATER THAN 3/4 INCH ARE NOT PERMITTED IN POST-TENSIONED CONCRETE UNLESS APPROVED BY STRUCTURAL ENGINEER.

19. MARKING TENDONS:
WHERE SLAB SOFFIT WILL NOT BE EXPOSED TO VIEW, MARK TENDON LOCATIONS ON THE FORMS WITH A MATERIAL THAT WILL LEAVE AN IMPRESSION ON THE SLAB SOFFIT. POST-TENSIONED ANCHORS ARE PERMITTED TO BE INSTALLED AT LEAST 6 INCHES AWAY FROM SUCCESSFULLY MARKED TENDONS.

20. ADDITIONAL NOTES:
SEE CAST-IN-PLACE CONCRETE AND REINFORCING STEEL SECTIONS FOR REMAINDER OF REQUIREMENTS.

CAST-IN-PLACE CONCRETE

1. APPLICABLE STANDARD:
PERFORM CONCRETE WORK COMPLYING WITH ACI 301 AND ACI 304.

2. AGGREGATE:
AGGREGATE FOR NORMAL-WEIGHT CONCRETE SHALL BE NATURAL SAND AND ROCK COMPLYING WITH ASTM C33. AGGREGATE FOR LIGHTWEIGHT CONCRETE SHALL BE LIGHTWEIGHT AGGREGATE COMPLYING WITH ASTM C330.

3. PORTLAND CEMENT:
PROVIDE PORTLAND CEMENT COMPLYING WITH ASTM C150, TYPE II OR TYPE V. PROVIDE TYPE V CEMENT AT CONCRETE IN CONTACT WITH EARTH.

4. FLY ASH:
CLASS F FLY ASH COMPLYING WITH ASTM C618 IS PERMITTED TO BE USED IN FOUNDATION CONCRETE. WHEN FLY ASH IS USED, QUANTITY SHALL NOT BE LESS THAN 15 PERCENT NOR MORE THAN 25 PERCENT BY WEIGHT OF TOTAL CEMENTITIOUS METRIAL. WATER-CEMENT RATIO SHALL BE BASED ON TOTAL CEMENTITIOUS MATERIAL, INCLUDING FLY ASH AND OTHER POZZOLANS.

5. MINIMUM COMPRESSIVE STRENGTH:
PROVIDE CONCRETE WITH THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH (f'c) AT 28 DAYS UNLESS NOTED OTHERWISE:

LOCATION	f'c	MAX. W/C RATIO	MAX. AGGREGATE SIZE
SLABS ON GRADE	3000 PSI	0.50	1" (NORMAL-WEIGHT)
FOOTINGS	3000 PSI	0.50	1" (NORMAL-WEIGHT)
ELEVATED SLABS AND BEAMS	5000 PSI	0.50	1" (NORMAL-WEIGHT)
COLUMNS	5000 PSI	0.50	1" (NORMAL-WEIGHT)
SHEARWALLS	4000 PSI	0.50	1" (NORMAL-WEIGHT)
SHEARWALL FOOTINGS	4000 PSI	0.50	1" (NORMAL-WEIGHT)
GRADE BEAMS	4000 PSI	0.50	1" (NORMAL-WEIGHT)
OTHER CONCRETE	3000 PSI	0.50	1" (NORMAL-WEIGHT)

6. CONCRETE MIX DESIGN:
SUBMIT CONCRETE MIX DESIGN FOR EACH TYPE AND COMPRESSIVE STRENGTH OF CONCRETE REQUIRED BEARING THE SEAL AND SIGNATURE OF A REGISTERED CIVIL ENGINEER IN THE STATE WHERE THE PROJECT SITE OCCURS TO ARCHITECT (STRUCTURAL ENGINEER) FOR APPROVAL.

7. CONCRETE SHRINKAGE:
CONCRETE SHRINKAGE CHARACTERISTICS SHALL COMPLY WITH ASTM C157 AND SHALL NOT EXCEED 0.05%.

8. CONCRETE SLUMP:
CONCRETE SLUMP SHALL NOT EXCEED 4 INCHES.

9. CHLORIDES:
CONCRETE OR GROUT SHALL NOT CONTAIN CHLORIDES.

10. CONCRETE CURING:
CURE CONCRETE IN ACCORDANCE WITH ACI 301 SECTION 5.3.6 FOR A MINIMUM OF 7 DAYS FOLLOWING PLACEMENT.

11. EMBEDDED ITEMS:
SECURELY TIE ANCHOR BOLTS, REINFORCING STEEL, INSERTS, AND OTHER EMBEDDED ITEMS IN PLACE PRIOR TO POURING CONCRETE.

12. CONDUITS, PIPES AND SLEEVES EMBEDDED IN CONCRETE:
DO NOT EMBED CONDUITS, PIPES, OR SLEEVES IN STRUCTURAL CONCRETE, INCLUDING CONCRETE ON METAL DECK, EXCEPT WHERE SPECIFICALLY DETAILED OR APPROVED BY STRUCTURAL ENGINEER.

13. CONSTRUCTION JOINTS:
LOCATION OF CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ARCHITECT (STRUCTURAL ENGINEER) PRIOR TO PLACING REINFORCING STEEL. PROVIDE KEYS IN CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE. ROUGHEN CONCRETE SURFACE TO 1/4 INCH AMPLITUDE. THOROUGHLY CLEAN, REMOVE LAITANCE, AND THOROUGHLY WET AND REMOVE STANDING WATER PRIOR TO PLACING NEW CONCRETE.

14. CONCRETE ABUTTING EXISTING CONCRETE:
ROUGHEN EXISTING CONCRETE SURFACE TO 1/4 INCH AMPLITUDE WHERE NEW CONCRETE ABUTS EXISTING CONCRETE.

15. EXPOSED CORNERS:
FORM EXPOSED CORNERS WITH 3/4 INCH CHAMFER UNLESS NOTED OTHERWISE.

POST-INSTALLED ANCHORS AND DOWELS

1. EPOXY ANCHORS AND DOWELS:
ANCHORS SHALL BE ASTM A36 THREADED ROD, UNLESS NOTED OTHERWISE. DOWELS SHALL BE ASTM A615 OR A706 GRADE 60 REINFORCING, UNLESS NOTED OTHERWISE. PROVIDE EPOXY FROM THE FOLLOWING LISTS OF APPROVED ADHESIVES:

CONCRETE ....HILTI HIT-RE 500 V3 (ICC ESR-3814)
SIMPSON SET-XP (ICC ESR-2508)

MASONRY ....HILTI HIT-HY 270 (ICC ESR-4143)
SIMPSON SET-XP (IAPMO ER-265)

2. EXPANSION ANCHORS:
PROVIDE EXPANSION ANCHORS FROM THE FOLLOWING LIST OF APPROVED ANCHORS:

CONCRETE ....HILTI KWIK BOLT TZ (ICC ESR-1917)
SIMPSON STRONG-BOLT 2 (ICC ESR-3037)

MASONRY ....HILTI KWIK BOLT 3 (ICC ESR-1385)
SIMPSON STRONG-BOLT 2 (IAPMO ER-240)

3. SCREW ANCHORS:
PROVIDE SCREW ANCHORS FROM THE FOLLOWING LIST OF APPROVED ANCHORS:

CONCRETE ....HILTI KWIK HUS-EZ (ICC ESR-3027)
SIMPSON TITEN HD (ICC ESR-2713)

MASONRY ....HILTI KWIK HUS-EZ (ICC ESR-3056)
SIMPSON TITEN HD (ICC ESR-1056)

4. DRILLING HOLES IN CONCRETE AND MASONRY:
NON-REBAR-CUTTING DRILL BITS SHALL BE USED TO DRILL HOLES IN CONCRETE OR MASONRY. DO NOT CUT OR DAMAGE EXISTING REINFORCING. LOCATE EXISTING REINFORCING BY NON-DESTRUCTIVE MEANS PRIOR TO DRILLING HOLES.

5. DRILLED HOLE CLEANING:
DRILLED HOLES SHALL BE CLEANED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPROVED CODE REPORT.

6. ABANDONED HOLES:
ABANDONED HOLES SHALL BE FILLED WITH NON-SHRINK GROUT THAT MATCHES OR EXCEEDS STRENGTH OF SURROUNDING CONCRETE.

7. ANCHORS EXPOSED TO WEATHER:
ANCHORS EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL.

8. PERMITTED LOCATIONS:
POST-INSTALLED ANCHORS SHALL BE USED ONLY WHERE SPECIFICALLY INDICATED IN THE DRAWINGS.

STRUCTURAL DESIGN CRITERIA

1. LIVE LOADS:
ROOF = 20 PSF (REDUCIBLE)
OFFICE = 100 PSF (REDUCIBLE)
STORAGE = 125 PSF (UNREDUCIBLE)
PARKING = 40 PSF (UNREDUCIBLE)
STAIRS = 100 PSF (UNREDUCIBLE)

2. ROOF RAIN LOADS:
RAIN INTENSITY (60-MIN. DURATION) = 1.39 IN/HR

3. WIND LOADS:
BASIC DESIGN WIND SPEED = 95 MPH
RISK CATEGORY = II
EXPOSURE CATEGORY = C
INTERNAL PRESSURE COEFFICIENT, GCpi = ±0.18
COMPONENT AND CLADDING WIND PRESSURES (ULTIMATE, A = 10 SF)
ROOF ZONE 1' = 21 PSF
ROOF ZONE 1 = 36 PSF
ROOF ZONE 2 = 47 PSF
ROOF ZONE 3 = 64 PSF
WALL ZONE 4 = 22 PSF
WALL ZONE 5 = 27 PSF

4. SEISMIC LOADS:
RISK CATEGORY = II
SEISMIC IMPORTANCE FACTOR, I_e = 1.0
SPECTRAL RESPONSE ACCELELATIONS
S_s = 1.305
S_1 = 0.467
S_{DS} = 0.870
S_{D1} = 0.571
SITE CLASS = D
SEISMIC DESIGN CATEGORY = D
SEISMIC FORCE RESISTING SYSTEM = SPECIAL REINF. CMU WALL/ STEEL SPECIAL MOMENT FRAME
RESPONSE MODIFICATION FACTOR, R = 5.0
SEISMIC RESPONSE COEFFICIENT, C_s = 0.174
DESIGN BASE SHEAR, V = 960 KIPS
ANALYSIS PROCEDURE USED = MODAL RESPONSE SPECTRUM ANALYSIS

5. STORY DRIFT:
DESIGN STORY DRIFT
HIGH ROOF = 3.36 INCHES
ROOF PARKING = 2.16 INCHES
2ND FLOOR OFFICE = 1.44 INCHES

FOUNDATIONS

1. GEOTECHNICAL REPORT:
FOUNDATION DESIGN IS BASED ON RECOMMENDATIONS PROVIDED IN GEOTECHNICAL REPORT AND SUBSEQUENT ADDENDUM LETTERS. PERFORM FOUNDATION WORK COMPLYING WITH GEOTECHNICAL REPORT AND ADDENDA. GEOTECHNICAL REPORT AND ADDENDA ARE PART OF THE CONTRACT DOCUMENTS AND SHALL BE KEPT AT THE JOB SITE. GEOTECHNICAL ENGINEER AND REPORT ARE AS FOLLOWS:

GEOTECHNICAL ENGINEER ......NORCAL ENGINEERING
REPORT NUMBER 21887-20
REPORT DATE ....AUGUST 4, 2020

2. FOUNDATION DESIGN VALUES:
FOUNDATION DESIGN IS BASED ON THE FOLLOWING VALUES:

BEARING CAPACITY
SPREAD FOOTING ....2500+500(D-2), 4000 PSF MAX. 1,4
CONTINUOUS FOOTING ....2000+500(D-2), 4000 PSF MAX. 1,4

LATERAL BEARING PRESSURE ...200 PSF/FT 1,2
COEFFICIENT OF FRICTION 0.35

1. INDICATES VALUE MAY BE INCREASED 33% FOR SEISMIC OR WIND LOADING.
2. INDICATES VALUE MAY BE INCREASED 100% FOR POLE FOOTINGS.
3. INDICATES CANNOT BE INCREASED WHEN COMBINED WITH COEFFICIENT OF FRICTION.
4. W=FOOTING WIDTH (FT). D=FOOTING DEPTH BELOW ADJACENT GRADE (FT).

3. MINIMUM FOOTING DEPTH:
FOUND FOOTINGS A MINIMUM OF 24 INCHES BELOW LOWEST ADJACENT GRADE OR FINISH FLOOR, WHICHEVER IS LOWER.

4. FOUNDATION EXCAVATIONS:
FOUNDATION EXCAVATIONS SHALL BE OBSERVED AND ACCEPTED BY GEOTECHNICAL ENGINEER PRIOR TO PLACING FILL, REINFORCING STEEL, OR CONCRETE.

5. BACKFILLING AND COMPACTION:
FOOTINGS AND BUILDING SLABS ON GRADE SHALL BEAR ON COMPACTED FILL OR UNDISTURBED NATURAL GRADE COMPLYING WITH REQUIREMENTS OF GEOTECHNICAL REPORT. BACKFILLING AND COMPACTION PROCEDURES SHALL COMPLY WITH GEOTECHNICAL REPORT AND SHALL BE PERFORMED UNDER SUPERVISION OF GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.

6. RETAINING WALL BACKFILL:
PLACE BACKFILL BEHIND RETAINING WALLS FOLLOWING COMPLETION AND INSPECTION OF WATERPROOFING. ADEQUATELY SHORE RETAINING WALLS DURING BACKFILL OPERATION. UNLESS ADEQUATELY SHORED, DO NOT PLACE BACKFILL BEHIND BUILDING STRUCTURE RETAINING WALLS UNTIL CONCRETE AT ELEVATED FLOOR LEVELS ADJACENT TO WALLS HAVE BEEN COMPLETELY POURED (IN AREA) AND HAVE CURED FOR AT LEAST 7 DAYS.

7. RETAINING WALL DRAINAGE:
RETAINING WALL BACKFILL SHALL BE FULLY DRAINED OF WATER AND OTHER FLUIDS BY MEANS OF SUB-DRAIN, WEEP HOLES, AND/OR OTHER MEANS APPROVED BY THE GEOTECHICAL ENGINEER AND GOVERNING CODE AUTHORITY.

8. PRIOR TO CONTRACTOR REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE GEOTECHNICAL ENGINEER SHALL ADVISE THE BUILDING OFFICIAL THAT:
A. THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED.
C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE GEOTECHNICAL REPORT.

GENERAL

1. APPLICABLE BUILDING CODE:
PERFORM CONSTRUCTION AND WORKMANSHIP COMPLYING WITH CONTRACT DOCUMENTS AND 2019 CALIFORNIA BUILDING CODE (CBC).

2. APPLICABLE STANDARDS:
SPECIFICATIONS, CODES, AND STANDARDS REFERENCED IN THE CONTRACT DOCUMENTS SHALL BE OF THE LATEST APPROVED ISSUE, INCLUDING SUPPLEMENTS, UNLESS NOTED OTHERWISE. MATERIAL SPECIFICATIONS SHALL COMPLY WITH THE LATEST EDITION OF ASTM REFERENCED STANDARDS.

3. GOVERNING CODE AUTHORITY:
CITY OF COSTA MESA DEPARTMENT OF BUILDING AND SAFETY.

4. CONTRACT DOCUMENTS:
PERFORM STRUCTURAL RELATED WORK, INCLUDING THE DEVELOPMENT OF SHOP DRAWINGS, WITH THE CONSIDERATION OF ALL CONTRACT DOCUMENTS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ROOF AND FLOOR ELEVATIONS, EDGE OF SLABS, OPENINGS, DEPRESSIONS, SLOPES, CURBS, DRAINS, AND TRENCHES NOT SHOWN IN STRUCTURAL DRAWINGS. ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE RESOLVED WITH THE ARCHITECT (STRUCTURAL ENGINEER) PRIOR TO PROCEEDING WITH WORK.

5. DESIGN INTENT:
STRUCTURAL DRAWINGS, AS PART OF THE CONTRACT DOCUMENTS, INDICATE INFORMATION SUFFICIENT TO CONVEY DESIGN INTENT. CONTRACTOR SHALL REVIEW CONTRACT DOCUMENTS AND PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) OF ANY DISCREPANCIES OR QUESTIONS PRIOR TO PROCEEDING WITH WORK.

6. TYPICAL DETAILS AND SCHEDULES:
DETAILS AND SCHEDULES INDICATED AS "TYPICAL" ARE APPLICABLE THROUGHOUT THE PROJECT AND MAY NOT BE SPECIFICALLY REFERENCED IN THE STRUCTURAL DRAWINGS. CONTRACTOR SHALL DETERMINE WHERE TYPICAL DETAILS AND SCHEDULES APPLY PRIOR TO PROCEEDING WITH WORK. SHOULD CONDITIONS EXIST THAT ARE NOT SPECIFICALLY DETAILED AND NO TYPICAL DETAIL APPLIES, PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER).

7. CONFLICTS IN STRUCTURAL DRAWINGS:
NOTES AND DETAILS SPECIFICALLY REFERENCED IN DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE STRUCTURAL DRAWINGS CONFLICT WITH PROJECT SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY. CONDITIONS NOT SPECIFICALLY REFERENCED SHALL BE CONSTRUCTED AS SHOWN FOR SIMILAR CONDITIONS.

8. SITE CONDITIONS:
CONTRACTOR SHALL VERIFY SITE CONDITIONS INCLUDING DIMENSIONS AND ELEVATIONS. PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) OF ANY DISCREPANCIES OR CONFLICT WITH CONTRACT DOCUMENTS PRIOR TO PROCEEDING WITH WORK.

9. MEANS AND METHODS OF CONSTRUCTION:
CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHOD OF CONSTRUCTION. PERFORM CONSTRUCTION MEANS, METHODS, SEQUENCES, TECHNIQUES AND PROCEDURES COMPLYING WITH NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES. CONTRACTOR SHALL PROVIDE SHORING AND BRACING TO ENSURE STABILITY OF STRUCTURE AND GENERAL SAFETY DURING CONSTRUCTION.

10. SITE OBSERVATIONS:
SITE OBSERVATION VISITS BY FIELD REPRESENTATIVES OF ARCHITECT (STRUCTURAL ENGINEER) DO NOT INCLUDE CONTINUOUS INSPECTION SERVICES AND/OR APPROVAL FOR METHOD OF CONSTRUCTION. OBSERVATIONS BY ARCHITECT (STRUCTURAL ENGINEER) ARE PERFORMED TO DETERMINE IF CONTRACTOR UNDERSTANDS DESIGN INTENT OF CONTRACT DOCUMENTS. OBSERVATIONS DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSIDERED SUPERVISION OF CONSTRUCTION.

11. MODIFICATIONS AND SUBSTITUTIONS:
MATERIALS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE CONSIDERED FOR USE PROVIDED A WRITTEN REQUEST IS SUBMITTED TO OWNER, ARCHITECT (STRUCTURAL ENGINEER) AND GOVERNING CODE AUTHORITY FOR APPROVAL PRIOR TO ITS USE OR INCLUSION IN SHOP DRAWINGS. MODIFICATIONS AND SUBSTITUTIONS WILL NOT BE ACCEPTED DURING SHOP DRAWING REVIEW.

12. SHOP DRAWING SUBMITTALS:
A. CONTRACTOR SHALL REVIEW FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS PRIOR TO SUBMITTING TO ARCHITECT (STRUCTURAL ENGINEER).
B. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
C. PROVIDE A PROFESSIONAL ENGINEER'S SIGNATURE AND SEAL IN THE STATE WHERE THE PROJECT SITE OCCURS WHEN INDICATED.
D. REVIEW IS FOR GENERAL CONFORMANCE WITH DESIGN INTENT AND DOES NOT CONSTITUTE AN AUTHORIZATION TO DEVIATE FROM THE CONTRACT DOCUMENTS.
E. SHOP DRAWINGS WILL BE REJECTED FOR INCOMPLETENESS, LACK OF COORDINATION WITH OTHER PORTIONS OF CONTRACT DOCUMENTS, LACK OF CALCULATIONS (WHEN REQUIRED), OR WHERE MODIFICATIONS OR SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR REVIEW AND APPROVAL.
F. MAINTAIN A COPY OF REVIEWED AND ACCEPTED SHOP DRAWINGS AT SITE FOR DURATION OF CONSTRUCTION.
G. STRUCTURAL ENGINEER REQUIRES 10 WORKING DAYS FOLLOWING RECEIPT OF SHOP DRAWINGS AND CALCULATIONS FOR COMPLETION OF REVIEW. SHOP DRAWINGS WILL BE REVIEWED A MAXIMUM OF 2 TIMES.
H. FOR DESIGN-BUILD ITEMS, SUBMIT SHOP DRAWINGS THAT BEAR THE SIGNATURE AND SEAL OF A REGISTERED CIVIL ENGINEER TO ARCHITECT (STRUCTURAL ENGINEER) AND GOVERNING CODE AUTHORITY FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION.

13. PIPE AND DUCT BRACING:
BRACE PIPES AND DUCTS COMPLYING WITH LATEST EDITION OF "SEISMIC RESTRAINT MANUAL; GUIDELINES FOR MECHANICAL SYSTEMS" BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION.

14. EQUIPMENT INSTALLATION AND ANCHORAGE:
INSTALL AND ANCHOR MECHANICAL AND ELECTRICAL EQUIPMENT TO STRUCTURE COMPLYING WITH ASCE 7 SECTION 13.4. ISOLATORS, FASTENERS, AND ANY OTHER ELEMENT THAT ANCHORS EQUIPMENT SHALL BE APPROVED BY ICC OR EQUIVALENT TESTING PROCEDURE. SUSPENDED EQUIPMENT SHALL BE SECURED BY APPROVED LATERAL OR SWAY BRACING.

15. STRUCTURAL DEFERRED SUBMITTAL ITEMS:
SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT (STRUCTURAL ENGINEER) TO BE REVIEWED FOR GENERAL CONFORMANCE TO CONTRACT DOCUMENTS. PROVIDE A PROFESSIONAL ENGINEER'S SIGNATURE AND SEAL IN THE STATE WHERE THE PROJECT SITE OCCURS. CONTRACTOR SHALL SUBMIT REVIEWED SUBMITTAL DOCUMENTS TO GOVERNING CODE AUTHORITY FOR APPROVAL. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. STRUCTURAL DEFERRED SUBMITTAL ITEMS ARE AS FOLLOWS:
A. STEEL STAIRS.
B. STOREFRONT AND ATTACHMENT.
C. RTU ANCHORAGE.
D. EQUIPMENT ANCHORAGE AND FOUNDATION.
E. SIGNAGE.
F. METAL CANOPY.

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
105 SYCAMORE
VISTA, CA 92081
TEL: (858) 240-4336
FAX: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
FAX: (818) 956-0120

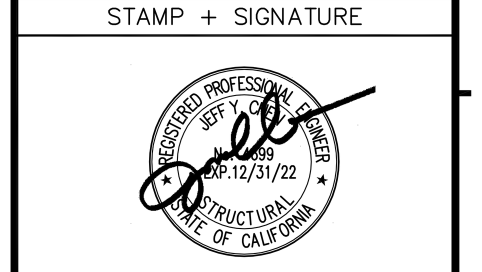
CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

NOT FOR CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE



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SHEET TITLE

GENERAL NOTES

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.1

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

STANDARD ABBREVIATIONS AND SYMBOLS

&	AND
@	AT
(A) OR ABV	ABOVE
A.B.	ANCHOR BOLT
ADD L	ADDITIONAL
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
ALT	ALTERNATE
ARCH	ARCHITECT(URAL)
(B) OR BEL	BELOW
BLKG	BLOCKING
B.N.	BOUNDARY NAILING
B.O.	BOTTOM OF
B.S.	BOTH SIDES
BTWN	BETWEEN
c	CAMBER
℄	CENTERLINE
C.J.	CEILING JOIST OR CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
DBL	DOUBLE
DF	DOUGLAS FIR
DIA OR ø	DIAMETER
DIM	DIMENSION
DO	DITTO
(E)	EXISTING
EA	EACH
E.F.	EACH FACE
ELEV	ELEVATION
ELEV	ELEVATION
EMBED	EMBEDMENT
EQ	EQUAL
E.S.	EACH SIDE
E.W.	EACH WAY
EXP	EXPANSION
EXT	EXTERIOR
F.F.	FINISH FLOOR
F.G.	FINISH GRADE
F.J.	FLOOR JOIST
F.N.	FIELD NAILING
F.S.	FAR SIDE
FT	FEET OR FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZE
GLB	GLUED-LAMINATED BEAM
GR	GRADE
(H)	HIGH OR HORIZONTAL
HDR	HEADER
HORIZ	HORIZONTAL
I.D.	INSIDE DIAMETER
I.F.	INSIDE FACE
IN.	INCHES
INT	INTERIOR
K	KIP (1000 LB)
(L)	LOW
LONG.	LONGITUDINAL
LB	POUND
LLH	LONG LEG HORIZONTAL
LLV	LAMINATED VENEER LUMBER
LVL	LONG LEG VERTICAL
LTWT	LIGHT WEIGHT
MANUF	MANUFACTURER
M.B.	MACHINE BOLT
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
(N)	NEW
N.I.C.	NOT IN CONTRACT
NO. OR #	NUMBER
N.S.	NEAR SIDE
N.S.	NEAR SIDE
N.T.S	NOT TO SCALE
o.c.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
O.H.	OPPOSITE HAND
OPNG	OPENING
PJP	PARTIAL JOINT PENETRATION
PCF	POUNDS PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
ℙ	PLATE
P.T.	PRESSURE TREATED
PT	POST-TENSIONED
REINF	REINFORCING
REQ'D	REQUIRED
R.J.	ROOF JOIST
R.R.	ROOF RAFTER
SF	SQUARE FEET
SFRS	SEISMIC FORCE RESISTING SYSTEM
SHTG	SHEATHING
SIM	SIMILAR
S.M.S.	SHEET METAL SCREW
S.O.G.	SLAB ON GRADE
SPEC	SPECIFICATION
SQ.	SQUARE
S.S.	SELECT STRUCTURAL
STAGG	STAGGERED
STD	STANDARD
STIFF	STIFFENER
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.S.	TOP OF STEEL
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
URM	UNREINFORCED MASONRY
(V) OR VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
w/	WITH
w/o	WITHOUT
W.P.	WORK POINT
WWF	WELD WIRE FABRIC
XS	EXTRA STRONG
XXS	DOUBLE EXTRA STRONG

INSTITUTIONS

ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
IAPMO	INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS
ICC	INTERNATIONAL CODE COUNCIL
SDI	STEEL DECK INSTITUTE
SJI	STEEL JOIST INSTITUTE
TMS	THE MASONRY SOCIETY

STRUCTURAL STEEL SHAPES

C	STANDARD CHANNEL
HSS	HOLLOW STRUCTURAL SECTION
L	ANGLE
MC	MISCELLANEOUS CHANNEL
W	WIDE FLANGE
WT	TEE

STATEMENT OF SPECIAL INSPECTIONS AND QUALITY ASSURANCE

1. TESTING AGENCY:
TESTING AGENCY RETAINED BY OWNER AND SATISFACTORY TO ARCHITECT (STRUCTURAL ENGINEER) AND GOVERNING CODE AUTHORITY SHALL PERFORM TESTS AND INSPECTIONS COMPLYING WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES.

2. TEST AND INSPECTION REPORTS:
TESTING AGENCY SHALL SUBMIT TEST AND INSPECTION REPORTS INDICATING RESULTS, OBSERVATIONS, AND COMPLIANCE OR NONCOMPLIANCE WITH CONTRACT DOCUMENTS TO OWNER, ARCHITECT (STRUCTURAL ENGINEER), AND GOVERNING CODE AUTHORITY. UPON COMPLETION OF WORK, TESTING AGENCY SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT ALL WORK REQUIRING SPECIAL INSPECTION WAS PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES.

3. MATERIAL CERTIFICATION:
CONTRACTOR SHALL SUBMIT CERTIFIED LABORATORY TEST REPORTS CONFIRMING MATERIALS ARE FROM IDENTIFIABLE TESTED STOCK TO OWNER, TESTING AGENCY, ARCHITECT (STRUCTURAL ENGINEER), AND GOVERNING CODE AUTHORITY. IF MATERIALS CANNOT BE IDENTIFIED OR IF CERTIFIED LABORATORY TEST REPORTS CANNOT BE MADE AVAILABLE, TESTING AGENCY SHALL PERFORM TESTING AT CONTRACTOR'S EXPENSE TO DETERMINE COMPLIANCE WITH CONTRACT DOCUMENTS AS DIRECTED BY ARCHITECT (STRUCTURAL ENGINEER). 1

4. APPROVED FABRICATORS:
SPECIAL INSPECTION IS NOT REQUIRED WHERE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

5. STATEMENT OF SPECIAL INSPECTIONS:
TESTING AGENCY SHALL PERFORM SPECIAL INSPECTION COMPLYING WITH CBC SECTION 1705 (UNLESS NOTED OTHERWISE) FOR THE FOLLOWING WORK:
   A. STEEL CONSTRUCTION – SEE AISC 360 CHAPTER N.
   B. STEEL CONSTRUCTION (SFRS) – SEE AISC 341 CHAPTER J.
   C. COLD-FORMED STEEL DECK – SEE SDI QA/QC APPENDIX 1.
   D. CONCRETE CONSTRUCTION – SEE CBC SECTION 1705.3 AND TABLE 1705.3.
   E. MASONRY CONSTRUCTION – SEE TMS 602 TABLE 4.
   F. SOILS – SEE CBC SECTION 1705.6 AND TABLE 1705.6.
   G. POST-INSTALLED ANCHORS – SEE CODE REPORTS.
   H. EXTERIOR CLADDING – SEE CBC SECTION 1705.12.5.
   I. SPRAY-APPLIED FIREPROOFING – SEE CBC SECTION 1705.14.
   J. INTUMESCENT PAINT – SEE CBC SECTION 1705.15.
   K. EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) – SEE CBC SECTION 1705.16.
   L. SUSPENDED CEILING INSTALLATION (PERIODIC).

6. NON-DESTRUCTIVE TESTING OF WELDS:
   A. TESTING AGENCY SHALL PERFORM NON-DESTRUCTIVE TESTING OF WELDED JOINTS IN ACCORDANCE WITH AISC 360 SECTION N5.5 FOR THE FOLLOWING ITEMS:
      1. 100% OF CJP GROOVE WELDS IN MATERIALS 5/16 INCH OR GREATER (REDUCTION IN TESTING PERMITTED IN ACCORDANCE WITH SECTION N5.5E)
      2. THERMALLY CUT ACCESS HOLES WHEN FLANGE THICKNESS EXCEEDS 2 INCHES.
   B. TESTING AGENCY SHALL PERFORM NON-DESTRUCTIVE TESTING OF WELDED JOINTS IN THE SEISMIC FORCE RESISTING SYSTEM IN ACCORDANCE WITH WITH AISC 341 SECTION J6.2 FOR THE FOLLOWING ITEMS:
      1. K-AREA WELDS
      2. CJP GROOVE WELDS
      3. BASE METAL FOR LAMELLAR TEARING AND LAMINATIONS
      4. THERMALLY CUT BEAM COPES AND ACCESS HOLES WHEN FLANGE THICKNESS EXCEEDS 1-1/2 INCHES
      5. REDUCED BEAM SECTION REPAIR
      6. WELD TAB REMOVAL SITES

7. CONTRACTOR RESPONSIBILITY:
EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC- FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND- OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:
   1. ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.
   2. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
   3. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS.
   4. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

8. FINAL REPORTS FOR ALL ITEMS REQUIRING SPECIAL INSPECTION SHALL BE COMPLETED AND SUBMITTED TO CITY OF COSTA MESA INSPECTION DIVISION PRIOR TO FINAL INSPECTION BY CITY INSPECTOR. 1

MASONRY

1. APPLICABLE STANDARD:
PERFORM MASONRY WORK COMPLYING WITH TMS 602 AND ACI 530.1

2. COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY (f'm):
MINIMUM COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY SHALL BE 2000 PSI UNLESS NOTED OTHERWISE.

3. DETERMINATION OF COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY:
COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY SHALL BE DETERMINED IN ACCORDANCE WITH THE UNIT STRENGTH METHOD OR THE PRISM TEST METHOD PER TMS 602 SECTION 1.4B.

4. UNIT STRENGTH METHOD:
COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY DETERMINED USING THE UNIT STRENGTH METHOD SHALL MEET THE FOLLOWING MINIMUM VALUES:

MASONRY COMPRESSIVE STRENGTH	MINIMUM COMPRESSIVE STRENGTH		
	CONCRETE MASONRY UNIT	MORTAR	GROUT
f'm = 2000 PSI	2000 PSI	1800 PSI	2000 PSI
f'm = 2500 PSI	3250 PSI	1800 PSI	2500 PSI

5. PRISM TEST METHOD:
COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY DETERMINED USING THE PRISM TEST METHOD SHALL BE IN ACCORDANCE WITH TMS 602 SECTION 1.4B. COMPRESSIVE STRENGTH OF THE CONCRETE MASONRY UNIT AND GROUT SHALL NOT BE LESS THAN THE COMPRESSIVE STRENGTH OF THE MASONRY ASSEMBLY. SUBMIT PRISM TEST RESULTS FOR EACH TYPE AND COMPRESSIVE STRENGTH OF MASONRY REQUIRED BEARING THE SEAL AND SIGNATURE OF A REGISTERED CIVIL ENGINEER IN THE STATE WHERE THE PROJECT SITE OCCURS TO ARCHITECT (STRUCTURAL ENGINEER).

6. CONCRETE MASONRY UNITS:
CONCRETE MASONRY UNITS SHALL BE MEDIUM WEIGHT DENSITY COMPLYING WITH ASTM C90. UNITS SHALL BE OPEN END, AND BOND BEAM UNITS SHALL BE USED AT HORIZONTAL REINFORCING. REFER TO ARCHITECT FOR FINISH AND COLOR OF CONCRETE MASONRY UNITS.

7. MORTAR:
MORTAR SHALL BE TYPE S COMPLYING WITH ASTM C270. MIX BY VOLUME IN PROPORTIONS OF 1 PART PORTLAND CEMENT, 1/2 PART LIME PUTTY AND 3 PARTS SAND. DO NOT USE MASONRY CEMENT OR PLASTIC CEMENT. MORTAR AGGREGATE SHALL COMPLY WITH ASTM C144.

8. GROUT:
GROUT SHALL COMPLY WITH ASTM C476. GROUT AGGREGATE SHALL COMPLY WITH ASTM C404. GROUT MIXES SHALL BE DESIGNED BY QUALIFIED TESTING LABORATORY AND LICENSED ENGINEER OF LOCAL JURISDICTION.

9. PORTLAND CEMENT:
PORTLAND CEMENT SHALL BE TYPE II COMPLYING WITH ASTM C150.

10. REINFORCING STEEL:
SEE REINFORCING STEEL SECTION.

11. MINIMUM COVER AT REINFORCING STEEL:
MAINTAIN THE FOLLOWING MINIMUM CLEAR DISTANCE BETWEEN REINFORCING STEEL AND MASONRY UNIT, UNLESS NOTED OTHERWISE:

REINFORCING TO OUTSIDE FACE OF MASONRY (8 INCH WALL)....2 INCHES
REINFORCING TO OUTSIDE FACE OF MASONRY (12 INCH WALL)...2-1/2 INCHES
REINFORCING TO INSIDE FACE OF MASONRY...................1/2 INCH

12. PLACEMENT OF MASONRY UNITS:
   A. MASONRY UNITS SHALL BE LAID IN RUNNING BOND.
   B. CELLS SHALL BE PLACED IN VERTICAL ALIGNMENT.
   C. MASONRY UNITS SHALL OVERLAP AT WALL CORNERS AND INTERSECTIONS.

13. PLACEMENT OF GROUT:
   A. GROUT SOLID ALL CELLS.
   B. MECHANICALLY VIBRATE GROUT IN CELLS.
   C. PROVIDE 1 INCH MINIMUM GROUT AROUND REINFORCING STEEL, ANCHOR BOLTS AND INSERTS PENETRATING MASONRY SHELL.
   D. PROVIDE CLEANOUTS IN BOTTOM MASONRY COURSE FOR EACH GROUT POUR WHEN GROUT POUR HEIGHT EXCEEDS 5 FEET. CLEANOUTS SHALL COMPLY WITH TMS 602 SECTION 3.2F.
   E. GROUT POUR HEIGHTS SHALL COMPLY WITH TMS 602 TABLE 6.
   F. GROUT LIFT HEIGHT SHALL NOT EXCEED 5 FEET FOR LOW-LIFT CONSTRUCTION.

COLD-FORMED STEEL FRAMING

1. INTERIOR NON-BEARING METAL STUDS:
SEE ARCHITECTURAL DRAWINGS FOR INFORMATION ON INTERIOR NON-BEARING METAL STUDS. REFER TO TYPICAL DETAILS IN THE STRUCTURAL DRAWINGS FOR STUD GAUGE AND CONNECTIONS.

2. EXTERIOR METAL STUDS:
EXTERIOR METAL STUDS SHALL BE DESIGN-BUILD AS PART OF THE EXTERIOR CLADDING SYSTEM UNLESS SPECIFICALLY SHOWN AND DETAILED IN THE STRUCTURAL DRAWINGS.

3. APPLICABLE STANDARDS:
PROVIDE COLD-FORMED STEEL COMPLYING WITH AISI S100, AISI S200, AISI S240 AND ASTM A1003.

4. MANUFACTURER AND PROPERTIES:
   A. PROVIDE STUDS AND TRACK COMPLYING WITH ICC ESR-3064P.
   B. PROVIDE COLD-FORMED STEEL WITH A MINIMUM YIELD STRENGTH OF 33 KSI FOR 18 GAUGE AND LIGHTER, AND 50 KSI FOR 16 GAUGE AND HEAVIER.
   C. PROVIDE COLD-FORMED STEEL WITH THE FOLLOWING MINIMUM DESIGN THICKNESS:

10 GA (118 MIL) – 0.1242 INCH	16 GA (54 MIL) – 0.0566 INCH
12 GA (97 MIL) – 0.1017 INCH	18 GA (43 MIL) – 0.0451 INCH
14 GA (68 MIL) – 0.0713 INCH	20 GA (33 MIL) – 0.0346 INCH

5. WELDING:
   A. WELDING STANDARD: AWS D1.1 AND AWS D1.3
   B. WELDERS SHALL BE CERTIFIED AS REQUIRED BY THE GOVERNING CODE AUTHORITY.
   C. ELECTRODE: E60XX AT 33 KSI MEMBERS, E70XX AT 50 KSI MEMBERS, E70XX AT LIGHT GAUGE METAL TO STRUCTURAL STEEL.
   D. NOMINAL WELD SIZES FOR WELDING COLD-FORMED STEEL SHALL BE AS FOLLOWS:
      18 GAUGE......................................1/16 INCH
      16 GAUGE......................................3/32 INCH
      14 GAUGE AND HEAVIER..........................1/8 INCH

6. SHEET METAL SCREWS:
PROVIDE SCREWS MANUFACTURED BY ITW BUILDEX COMPLYING WITH ICC ESR-3223, OR APPROVED EQUAL. MAINTAIN 3/4 INCH MINIMUM CLEARANCE FROM ALL EDGES AND 3/4 INCH MINIMUM SPACING BETWEEN ADJACENT SCREWS. SCREWS SHALL PROTRUDE AT LEAST 3 FULL THREADS PAST BACK SIDE OF SUPPORTING STEEL.

7. POWDER DRIVEN FASTENERS (SHOTPINS):
SHOTPINS SHALL BE HILTI X-U COMPLYING WITH ICC ESR-2269, OR APPROVED EQUAL. SHOTPINS SHALL BE 0.157 INCH DIAMETER WITH 1-1/4 INCH EMBEDMENT INTO CONCRETE, UNLESS NOTED OTHERWISE. PROVIDE FULL PENETRATION AT SHOTPINS DRIVEN INTO STEEL.

8. SECURING STUDS AND BRACES:
PLUMB, ALIGN, AND TIGHTLY NEST STUDS AND BRACES INTO UPPER AND LOWER TRACKS AND SECURE WITH ATTACHMENT TO BOTH FLANGES. HOLD MEMBERS FIRMLY IN POSITION UNTIL PROPERLY FASTENED. WIRE TYING OF FRAMING COMPONENTS IS NOT PERMITTED.

9. LATERAL BRIDGING FOR STUDS:
PROVIDE LATERAL BRIDGING FOR STUDS WHEN WALL FINISH DOES NOT EXTEND FULL HEIGHT ON BOTH SIDES OF STUD. INSTALL HORIZONTAL STRAPS OR COLD-ROLLED CHANNELS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AT A MAXIMUM SPACING OF 4 FEET.

10. PROVIDE UNPUNCHED TRACK WITH GAUGE TO MATCH STUD FRAMING UNLESS NOTED OTHERWISE. PROVIDE BUTT WELDS OR SPLICES AT JOINTS IN TRACK.

11. SPLICES IN STUDS, BRACES, JOISTS, AND HEADERS ARE NOT PERMITTED UNLESS SPECIFICALLY SHOWN AND DETAILED IN THE DRAWINGS.

12. ALL FIELD CUTTING SHALL BE DONE BY SAWING, SHEARING, OR PLASMA CUTTING. TORCH CUTTING OF COLD-FORMED STEEL IS NOT PERMITTED.

13. UTILITY PUNCH HOLES IN STUDS SHALL BE LOCATED AWAY FROM CONNECTIONS.

METAL DECKING

1. PROVIDE METAL DECKING MANUFACTURED BY VERCO COMPLYING WITH IAPMO ER-0217, OR APPROVED EQUAL.

2. FLOOR DECKING:
   A. PROVIDE METAL FLOOR DECKING AND CLOSURE ANGLES COMPLYING WITH ASTM A653 SS GRADE 50 MINIMUM WITH A G60 GALVANIZED COATING.
   B. FORM FLOOR DECKING WITH INTEGRAL LOCKING LUGS OR EMBOSSMENTS TO PROVIDE A MECHANICAL BOND WITH CONCRETE.
   C. SHEAR STUDS:
      1. PROVIDE SHEAR STUDS MANUFACTURED BY NELSON COMPLYING WITH ICC ESR-2856 AND ASTM A108 WITH A MINIMUM TENSILE STRENGTH OF 65,000 PSI.
      2. PROVIDE 3/4 INCH DIAMETER SHEAR STUDS IN A SINGLE ROW OVER CENTER OF MEMBER WEB UNLESS NOTED OTHERWISE.
      3. WELD SHEAR STUDS IN COMPLIANCE WITH AWS D1.1. WELDERS SHALL BE CERTIFIED AS REQUIRED BY THE GOVERNING CODE AUTHORITY. FASTEN WITH AN AUTOMATIC STUD WELDING GUN.
      4. DO NOT LAP 18 GAUGE DECKING OR THICKER WHERE 3/4 INCH DIAMETER SHEAR STUDS ARE TO BE ATTACHED TO SUPPORTS.
   D. PROVIDE VENTED FLOOR DECKING WITH 1-1/2 PERCENT MAXIMUM OPEN AREA WHERE STRUCTURAL CONCRETE WILL BE EXPOSED TO WEATHER OR WHERE WATERPROOFING IS APPLIED OVER CONCRETE.

3. ROOF DECKING:
   A. PROVIDE METAL ROOF DECKING AND CLOSURE ANGLES COMPLYING WITH ASTM A653 SS GRADE 50 MINIMUM WITH A G60 GALVANIZED COATING.
   B. PROVIDE VENTED ROOF DECKING WITH 1-1/2 PERCENT MAXIMUM OPEN AREA WHERE STRUCTURAL OR INSULATING CONCRETE IS SPECIFIED.
   C. THE FOLLOWING NOTES SHALL APPLY WHERE INSULATING CONCRETE IS SPECIFIED:
      1. PROVIDE INSULATING CONCRETE (ZONOLITE) AS MANUFACTURED BY SIPLAST COMPLYING WITH ICC ER-3260 WITH A MAXIMUM DRY DENSITY OF 30 PCF.
      2. PROVIDE INSULATING, LIGHTWEIGHT AGGREGATE COMPLYING WITH ASTM C332, GROUP I. PROVIDE PORTLAND CEMENT COMPLYING WITH ASTM C150.
      3. PROVIDE REINFORCING OF 2 INCH HEXAGONAL MESH WOVEN FROM 19 GAUGE GALVANIZED WIRE WITH LONGITUDINAL 16 GAUGE GALVANIZED WIRE SPACED 3-1/2 INCHES ON CENTER.
   D. DO NOT SUSPEND PIPING, DUCTS, WORK UTILITIES OR OTHER LOADS WITH EXCEPTION OF SUSPENDED ACOUSTICAL CEILINGS WITH INTEGRALLY SUPPORTED LIGHT FIXTURES FROM ROOF DECKING. SUBMIT METHODS OF SUPPORT FROM ROOF FRAMING FOR LOADS OTHER THAN ACOUSTICAL CEILINGS TO ARCHITECT (STRUCTURAL ENGINEER) FOR APPROVAL.

4. CLOSURE ANGLES AT OPENINGS:
PROVIDE CLOSURE ANGLES AT OPENINGS FOR MECHANICAL EQUIPMENT, DUCTS, PIPING, VENTS, CONDUITS, ETC. CLOSURE ANGLES SHALL BE 18 GAUGE MINIMUM AND SHALL BE WELDED TO DECKING, UNLESS NOTED OTHERWISE.

5. METAL DECK BEARING:
BEAR DECKING AT LEAST 2 INCHES AT SUPPORTS. LAP ROOF DECKING AT LEAST 2 INCHES AND CENTER LAPS OVER SUPPORTS.

6. METAL DECK WELDING:
WELD METAL DECKING IN COMPLIANCE WITH AWS D1.3 USING A MINIMUM OF E60XX ELECTRODES. WELDERS SHALL BE CERTIFIED AS REQUIRED BY THE GOVERNING CODE AUTHORITY. PUDDLE WELDS SHOWN IN THE DRAWINGS ARE EFFECTIVE DIAMETER, UNLESS NOTED OTHERWISE.

7. METAL DECK AT PARALLEL SUPPORTS:
METAL DECKING SHALL BE LAID OUT SO THAT A LOW FLUTE LANDS ON EACH PARALLEL SUPPORT.

8. METAL DECK SHORING:
METAL DECKING IS DESIGNED FOR UNSHORED CONSTRUCTION WITH MAXIMUM SPANS INDICATED. DECK UNITS SHALL BE CONTINUOUS OVER THREE OR MORE SPANS WHERE POSSIBLE. NOTIFY ARCHITECT (STRUCTURAL ENGINEER) IF CONDITIONS OCCUR WHERE SPANS EXCEED MAXIMUM.

9. SHOP DRAWINGS:
SUBMIT METAL DECKING SHOP DRAWINGS TO ARCHITECT (STRUCTURAL ENGINEER) FOR APPROVAL. INCLUDE DECK UNIT LAYOUT, ATTACHMENT TO SUPPORTS, SHEAR STUD LAYOUT, GAUGE CLOSURE PLATES, ETC.

10. CONCRETE SCREEDING:
SCREED CONCRETE PARALLEL TO METAL DECKING TO THICKNESS INDICATED IN STRUCTURAL DRAWINGS.

11. EMBEDDED ITEMS:
PIPES, SLEEVES, ELECTRICAL CONDUIT, ETC. SHALL NOT BE EMBEDDED IN METAL DECK CONCRETE UNLESS APPROVED BY THE STRUCTURAL ENGINEER. EMBEDDED ITEMS SHALL NOT REDUCE THE ASSEMBLY FIRE RATING UNLESS SUPPLEMENTAL FIREPROOFING IS PROVIDED AS REQUIRED.

12. FIREPROOFING:
HOURLY FIRE RESISTIVE REQUIREMENTS SHALL BE DETERMINED USING CBC TABLE 601. BUILDING CONSTRUCTION TYPES AND FIREPROOFING MATERIALS ARE AS INDICATED IN ARCHITECTURAL DRAWINGS.

MISCELLANEOUS METALS (DESIGN-BUILD)

1. STEEL STAIRS:
   A. DESIGN AND SUPPLY STEEL STAIRS COMPLYING WITH GOVERNING BUILDING CODE AND CONTRACT DOCUMENTS UNLESS SPECIFICALLY SHOWN AND DETAILED IN THE STRUCTURAL DRAWINGS. STEEL STAIRS CONSIST OF FRAMING MEMBERS AND THEIR CONNECTIONS TO THE PRIMARY STRUCTURE, LANDINGS, AND RAILING SYSTEMS.
   B. STEEL STAIRS SHALL ACCOMMODATE LATERAL MOVEMENTS LISTED IN THE STRUCTURAL DESIGN CRITERIA SECTION. ALL STAIRS SHALL REMAIN FUNCTIONAL UNDER THE SERVICEABILITY STORY DRIFT. EGRESS STAIRS SHALL REMAIN FUNCTIONAL UNDER THE DESIGN STORY DRIFT. ALL OTHER STAIRS SHALL REMAIN CONNECTED TO THE BUILDING UNDER THE DESIGN STORY DRIFT.

2. ELEVATORS:
   A. DESIGN AND SUPPLY ELEVATOR MACHINE BEAMS, HOIST BEAMS, SILLS, DOOR SUPPORTS, AND RAILS AND THEIR CONNECTIONS TO THE PRIMARY STRUCTURE COMPLYING WITH GOVERNING BUILDING CODE AND CONTRACT DOCUMENTS.
   B. DESIGN AND SUPPLY ELEVATOR GUIDE RAIL SUPPORT FRAMING AS REQUIRED BY ELEVATOR MANUFACTURER UNLESS SPECIFICALLY SHOWN AND DETAILED IN THE STRUCTURAL DRAWINGS.

3. ARCHITECTURAL MISCELLANEOUS METALS:
   A. DESIGN AND SUPPLY ALL MISCELLANEOUS METALS THAT ARE INDICATED IN THE ARCHITECTURAL DRAWINGS OR THAT ARE REQUIRED TO SUPPORT ARCHITECTURAL FINISHES OR OTHER BUILDING SYSTEMS UNLESS SPECIFICALLY SHOWN AND DETAILED IN THE STRUCTURAL DRAWINGS. SPECIFICALLY SHOWN AND DETAILED IN THE STRUCTURAL DRAWINGS.

4. PROVIDE BRACES, STIFFENERS, OR OTHER STABILIZING ELEMENTS SO THAT CONNECTIONS DO NOT IMPOSE ECCENTRIC LOADING ON STRUCTURAL MEMBERS. STABILIZING ELEMENTS SHALL BE PROVIDED AT NO ADDITIONAL COST TO OWNER.

5. SUBMIT SHOP DRAWINGS AND CALCULATIONS BEARING THE SEAL AND SIGNATURE OF A REGISTERED CIVIL ENGINEER IN THE STATE WHERE THE PROJECT SITE OCCURS TO ARCHITECT (STRUCTURAL ENGINEER) AND TO GOVERNING CODE AUTHORITY FOR APPROVAL.

STRUCTURAL STEEL

1. FABRICATION AND ERECTION:
DETAIL, FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360), AISC SEISMIC PROVISIONS (AISC 341), AND AISC CODE OF STANDARD PRACTICE (AISC 303). FABRICATOR SHALL BE APPROVED BY THE GOVERNING CODE AUTHORITY.

2. STRUCTURAL STEEL:
PROVIDE STRUCTURAL STEEL COMPLYING WITH THE FOLLOWING ASTM STANDARD SPECIFICATIONS, UNLESS NOTED OTHERWISE:

WIDE FLANGE AND WT SHAPES ....ASTM A992
ANGLES AND CHANNELS ....ASTM A36
DECK CLOSURE PLATES AND SHIMS.....ASTM A36 OR ASTM A572, GRADE 50
ALL OTHER PLATES..................ASTM A572, GRADE 50
PIPES ....ASTM A53, GRADE B
HOLLOW STRUCTURAL SECTIONS ....ASTM A500, GRADE C
STRUCTURAL STEEL NOTED THUS (50) .ASTM A992 OR A572, GRADE 50
ANCHOR BOLTS ....ASTM F1554, GRADE 36
ANCHOR BOLTS IN SFRS ....ASTM F1554, GRADE 55 (S1)
HIGH STRENGTH BOLTS ....ASTM F3125, GRADE A325 OR GRADE F
MACHINE BOLTS ....ASTM A307
THREADED RODS ....ASTM A36

3. BOLTING:
   A. PROVIDE HIGH STRENGTH BOLTS, NUTS, AND WASHERS COMPLYING WITH ASTM F3125 GRADE A325, UNLESS NOTED OTHERWISE. HIGH STRENG BOLTS SHALL BE BEARING TYPE WITH THREADS INCLUDED IN SHEAR PLAN (A325-N), UNLESS NOTED OTHERWISE. PROVIDE SLIP-CRITICAL HIGH STRENGTH BOLTS (A325-SC) AT CONNECTIONS IN THE SEISMIC FORCE RESISTING SYSTEM AND WHERE SPECIFICALLY INDICATED IN THE STRUCTURAL DRAWINGS.
   B. INSTALL HIGH STRENGTH BOLTS COMPLYING WITH RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS".
   C. TIGHTEN A325-N BOLTS TO A SNUG TIGHT CONDITION. TIGHTEN A325-SC BOLTS TO AT LEAST THE MINIMUM TENSION USING ONE OF THE FOLLOWING METHODS: TURN-OF-NUT, CALIBRATED WRENCH, OR DIRECT TENSION INDICATOR TIGHTENING.
   D. BOLT HOLES SHALL BE STANDARD HOLES, UNLESS NOTED OTHERWISE. HOLES IN BASE PLATES MAY BE OVERSIZED IF PLATE WASHERS ARE PROVIDED PER AISC STEEL CONSTRUCTION MANUAL TABLE 14-2.

4. WELDING:
   A. WELDING SHALL CONFORM TO AWS D1.1 AND AISC 360. WELDING IN THE SEISMIC FORCE RESISTING SYSTEM SHALL CONFORM TO AWS D1.8 AND AISC 341.
   B. WELDING SHALL BE DONE BY ELECTRIC ARC PROCESS USING LOW HYDROGEN E70XX ELECTRODES, UNLESS NOTED OTHERWISE. SUBMERGED ARC PROCESS (SAW) WITH AUTOMATIC WELDING MAY BE USED AS AN ALTERNATIVE.
   C. WELDS SHALL BE PREQUALIFIED COMPLYING WITH WELDING STANDARD. WHERE NON-PREQUALIFIED WELDS ARE SPECIFICALLY INDICATED, QUALIFY BY TEST COMPLYING WITH WELDING STANDARD.
   D. WELDERS SHALL BE CERTIFIED BY AWS AND APPROVED BY GOVERNING CODE AUTHORITY.
   E. PROVIDE MINIMUM FILLET WELD SIZE COMPLYING WITH AISC 360 SECTION J2 AND TABLE J2.4 UNLESS A LARGER WELD IS INDICATED ON DRAWINGS.
   F. NO ATTEMPT IS MADE TO DIFFERENTIATE BETWEEN SHOP AND FIELD WELDED CONNECTIONS.
   G. WELDED CONNECTIONS IN THE SEISMIC FORCE RESISTING SYSTEM SHALL HAVE FILLER METAL WITH A MINIMUM CVN TOUGHNESS OF 20 FT-LB @ 0°F AS DETERMINED IN ACCORDANCE WITH THE APPLICABLE AWS A5 SPECIFICATION.
   H. WELDED CONNECTIONS DESIGNATED AS "DEMAND CRITICAL" SHALL HAVE FILLER METAL WITH A MINIMUM CVN TOUGHNESS OF 40 FT-LB @ 70°F AS DETERMINED IN ACCORDANCE WITH AWS D1.8 ANNEX A.

5. WELD INSPECTIONS:
   A. WELDING INSPECTORS AND NDT PERSONNEL SHALL BE QUALIFIED IN ACCORDANCE WITH AISC 360 SECTIONS N4.2 AND N4.3, RESPECTIVELY, AND SHALL BE APPROVED BY THE GOVERNING CODE AUTHORITY.
   B. WELDING INSPECTORS AND NDT PERSONNEL FOR THE SEISMIC FORCE RESISTING SYSTEM SHALL ADDITIONALLY BE QUALIFIED IN ACCORDANCE WITH AISC 341 SECTION J4.
   C. SEE STATEMENT OF SPECIAL INSPECTIONS AND QUALITY ASSURANCE SECTION FOR REQUIRED INSPECTIONS.

6. STRUCTURAL STEEL IN SFRS:
STRUCTURAL STEEL IN THE SEISMIC FORCE RESISTING SYSTEM (SFRS) CONSISTS OF AN ASSEMBLY OF STRUCTURAL ELEMENTS THAT RESIST SEISMIC LOADS, INCLUDING BUT NOT LIMITED TO COLUMNS, BEAMS, GIRDERS, COLLECTORS AND BRACES, AND THE CONNECTIONS BETWEEN THESE ELEMENTS. MEMBERS AND CONNECTIONS SUBJECT TO THE REQUIREMENTS FOR THE SFRS ARE DESIGNATED AS "SFRS" IN THESE DRAWINGS, UNLESS NOTED OTHERWISE.

7. HEAVY SECTIONS:
   A. HOT-ROLLED SHAPES WITH A FLANGE THICKNESS EXCEEDING 2 INCHES THAT ARE SPLICED OR CONNECTED USING CJP GROOVE WELDS SHALL BE SUPPLIED WITH CVN IMPACT TEST RESULTS IN ACCORDANCE WITH ASTM A6 SUPPLEMENTARY REQUIREMENT S30. THE IMPACT TEST SHALL MEET A MINIMUM AVERAGE VALUE OF 20 FT-LB @ 70°F.
   B. HOT-ROLLED SHAPES IN THE SEISMIC FORCE RESISTING SYSTEM WITH FLANGES 1-1/2 INCHES THICK AND THICKER SHALL HAVE A MINIMUM CVN TOUGHNESS OF 20 FT-LB @ 70°F AS DETERMINED IN ACCORDANCE WITH ASTM A6 SUPPLEMENTARY REQUIREMENT S30.
   C. PLATES IN THE SEISMIC FORCE RESISTING SYSTEM THAT ARE 2 INCHES THICK AND THICKER SHALL HAVE A MINIMUM CVN TOUGHNESS OF 20 FT-L @ 70°F MEASURED AT ANY LOCATION PERMITTED BY ASTM A673, FREQUENCY P.

8. SHOP DRAWINGS:
SUBMIT SHOP DRAWINGS TO ARCHITECT (STRUCTURAL ENGINEER) FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

9. BEARING PLATE GROUT:
PROVIDE NONMETALLIC, NON-SHRINK GROUT COMPLYING WITH ASTM C1107 UNDER BEARING PLATES AND COLUMN BASE PLATES.

10. SHORING:
COMPOSITE STRUCTURAL STEEL BEAMS ARE DESIGNED FOR UNSHORED CONSTRUCTION, UNLESS NOTED OTHERWISE.

11. FIREPROOFING:
HOURLY FIRE RESISTIVE REQUIREMENTS SHALL BE DETERMINED USING CBC TABLE 601. BUILDING CONSTRUCTION TYPES AND FIREPROOFING MATERIALS ARE AS INDICATED IN ARCHITECTURAL DRAWINGS.

12. STEEL EXPOSED TO WEATHER:
STEEL THAT WILL BE PERMANENTLY EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED AFTER FABRICATION UNLESS A WEATHER PROOF COATING IS SPECIFIED BY THE ARCHITECT.

13. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL:
STEEL DESIGNATED AS "AESS" SHALL COMPLY WITH THE REQUIREMENTS OF AISC 303 FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL.

EXTERIOR CLADDING, CURTAIN WALLS, STOREFRONTS (DESIGN-BUILD)

1. DESIGN AND SUPPLY EXTERIOR CLADDING SYSTEMS, INCLUDING MEMBERS AND THEIR CONNECTIONS TO THE PRIMARY STRUCTURE, COMPLYING WITH GOVERNING BUILDING CODE AND CONTRACT DOCUMENTS. PROVIDE BRACES, STIFFENERS, OR OTHER STABILIZING ELEMENTS SO THAT CONNECTIONS DO NOT IMPOSE ECCENTRIC LOADING ON STRUCTURAL MEMBERS. STABILIZING ELEMENTS SHALL BE PROVIDED AT NO ADDITIONAL COST TO OWNER.

2. EXTERIOR CLADDING SHALL ACCOMMODATE VERTICAL LIVE LOAD DEFLECTION OF 1/2 INCH AT EACH FLOOR. CONNECTIONS TO PRIMARY STRUCTURE SHALL BE MADE AFTER ALL SHORING HAS BEEN REMOVED AND SHALL ACCOUNT FOR CONSTRUCTION TOLERANCES.

3. EXTERIOR CLADDING SHALL ACCOMMODATE LATERAL MOVEMENTS LISTED IN THE STRUCTURAL DESIGN CRITERIA SECTION. CLADDING SHALL REMAIN UNDAMAGED UNDER THE SERVICEABILITY STORY DRIFT AND SHALL NOT FALL FROM THE BUILDING UNDER THE DESIGN STORY DRIFT.

4. EXTERIOR CLADDING CONNECTIONS SHALL NOT BE MADE TO PROTECTED ZONES OF STEEL SEISMIC FORCE RESISTING SYSTEMS. POST-INSTALLED ANCHORS ARE NOT PERMITTED IN POST-TENSIONED CONCRETE EXCEPT AS NOTED IN THE POST-TENSIONED CONCRETE SECTION.

5. SUBMIT SHOP DRAWINGS AND CALCULATIONS BEARING THE SEAL AND SIGNATURE OF A REGISTERED CIVIL ENGINEER IN THE STATE WHERE THE PROJECT SITE OCCURS TO ARCHITECT (STRUCTURAL ENGINEER) AND TO GOVERNING CODE AUTHORITY FOR APPROVAL.

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

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PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
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ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
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ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

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1	PLAN CHECK CORRECTION	07/06/21
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REGISTERED PROFESSIONAL ENGINEER
EXP.12/31/22
STRUCTURAL
STATE OF CALIFORNIA

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SHEET TITLE

GENERAL NOTES

DATE:	11/10/21
SCALE:	AS SHOWN
DRAWN BY:	RT
PROJECT NUMBER	19-119

S1.1.1

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

AISC 341 CHAPTER J
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION (SFRS)

INSPECTION TASKS PRIOR TO WELDING (TABLE J6.1)	TASK	DOC.
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	–
WELDER IDENTIFICATION SYSTEM	O	–
FIT–UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) – JOINT PREPARATION – DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) – CLEANLINESS (CONDITION OF STEEL SURFACES) – TACKING (TACK WELD QUALITY AND LOCATION) – BACKING TYPE AND FIT (IF APPLICABLE)	O	–
CONFIGURATION AND FINISH OF ACCESS HOLES	O	–
FIT–UP OF FILLET WELDS – DIMENSIONS (ALIGNMENT, GAPS AT ROOT) – CLEANLINESS (CONDITION OF STEEL SURFACES) – TACKING (TACK WELD QUALITY AND LOCATION)	O	–
INSPECTION TASKS DURING WELDING (TABLE J6.2)	**TASK**	**DOC.**
WPS FOLLOWED – SETTINGS ON WELDING EQUIPMENT – TRAVEL SPEED – SELECTED WELDING MATERIALS – SHIELDING GAS TYPE/FLOW RATE – PREHEAT APPLIED – INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) – PROPER POSITION (F, V, H, OH) – INTERMIX OF FILLER METALS AVOIDED UNLESS APPROVED	O	–
USE OF QUALIFIED WELDERS	O	–
CONTROL AND HANDLING OF WELDING CONSUMABLES – PACKAGING – EXPOSURE AND TEMPERATURE	O	–
ENVIRONMENTAL CONDITIONS – WIND SPEED WITHIN LIMITS – PRECIPITATION AND TEMPERATURE	O	–
WELDING TECHNIQUES – INTERPASS AND FINAL CLEANING – EACH PASS WITHIN PROFILE LIMITATIONS – EACH PASS MEETS QUALITY REQUIREMENTS	O	–
NO WELDING OVER CRACKED TACK WELDS	O	–
INSPECTION TASKS AFTER WELDING (TABLE J6.3)	**TASK**	**DOC.**
WELDS CLEANED	O	–
SIZE, LENGTH AND LOCATION OF WELDS	P	–
WELDS MEET VISUAL ACCEPTANCE CRITERIA – CRACK PROHIBITION – WELD/BASE–METAL FUSION – CRATER CROSS SECTION – WELD PROFILES – WELD SIZE – UNDERCUT – POROSITY	P	D
k–AREA	P	D
PLACEMENT OF REINFORCING OR CONTOURING FILLET WELDS (IF REQUIRED)	P	D
BACKING REMOVED, WELD TABS REMOVED AND FINISHED, AND FILLET WELDS ADDED (IF REQUIRED)	P	D
REPAIR ACTIVITIES	P	D
INSPECTION TASKS PRIOR TO BOLTING (TABLE J7.1)	**TASK**	**DOC.**
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL	O	–
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	–
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	–
PRE–INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	O	D
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	–
INSPECTION TASKS DURING BOLTING (TABLE J7.2)	**TASK**	**DOC.**
FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	–
JOINT BROUGHT TO THE SNUG–TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	–
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	–
BOLTS ARE PRETENSIONED PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	–
INSPECTION TASKS AFTER BOLTING (TABLE J7.3)	**TASK**	**DOC.**
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	D
OTHER INSPECTION TASKS (TABLE J8.1)	**TASK**	**DOC.**
RBS REQUIREMENTS, IF APPLICABLE – CONTOUR AND FINISH – DIMENSIONAL TOLERANCES	P	D
PROTECTED ZONE – NO HOLES AND UNAPPROVED ATTACHMENTS MADE BY FABRICATOR OR ERECTOR, AS APPLICABLE	P	D

LEGEND

O– OBSERVE THESE ITEMS ON A RANDOM, DAILY BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

P– PERFORM THESE TASKS FOR EACH CONNECTION OR MEMBER.

D– THE INSPECTOR SHALL PREPARE REPORTS INDICATING THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE REPORT NEED NOT PROVIDE DETAILED MEASUREMENTS FOR JOINT FIT–UP, WPS SETTINGS, COMPLETED WELDS, OR OTHER INDIVIDUAL ITEMS LISTED IN THE TABLES. FOR SHOP FABRICATION, THE REPORT SHALL INDICATE THE PIECE MARK OF THE PIECE INSPECTED. FOR FIELD WORK, THE REPORT SHALL INDICATE THE REFERENCE GRID LINES AND FLOOR OR ELEVATION INSPECTED. WORK NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS AND WHETHER THE NONCOMPLIANCE HAS BEEN SATISFACTORILY REPAIRED SHALL BE NOTED IN THE INSPECTION REPORT.

AISC 360 CHAPTER N
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

INSPECTION TASKS PRIOR TO WELDING (TABLE N5.4-1)	TASK
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	P
WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	P
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P
MATERIAL IDENTIFICATION (TYPE/GRADE)	O
WELDER IDENTIFICATION SYSTEM	O
FIT–UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) – JOINT PREPARATIONS – DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) – CLEANLINESS (CONDITION OF STEEL SURFACES) – TACKING (TACK WELD QUALITY AND LOCATION) – BACKING TYPE AND FIT (IF APPLICABLE)	O
FIT–UP OF CJP GROOVE WELDS OF HSS T–, Y– AND K–JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY) – JOINT PREPARATIONS – DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) – CLEANLINESS (CONDITION OF STEEL SURFACES) – TACKING (TACK WELD QUALITY AND LOCATION)	P
CONFIGURATION AND FINISH OF ACCESS HOLES	O
FIT–UP OF FILLET WELDS – DIMENSIONS (ALIGNMENT, GAPS AT ROOT) – CLEANLINESS (CONDITION OF STEEL SURFACES) – TACKING (TACK WELD QUALITY AND LOCATION)	O
CHECK WELDING EQUIPMENT	O
INSPECTION TASKS DURING WELDING (TABLE N5.4-2)	**TASK**
CONTROL AND HANDLING OF WELDING CONSUMABLES – PACKAGING – EXPOSURE CONTROL	O
NO WELDING OVER CRACKED TACK WELDS	O
ENVIRONMENTAL CONDITIONS – WIND SPEED WITHIN LIMITS – PRECIPITATION AND TEMPERATURE	O
WPS FOLLOWED – SETTINGS ON WELDING EQUIPMENT – TRAVEL SPEED – SELECTED WELDING MATERIALS – SHIELDING GAS TYPE/FLOW RATE – PREHEAT APPLIED – INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) – PROPER POSITION (F, V, H, OH)	O
WELDING TECHNIQUES – INTERPASS AND FINAL CLEANING – EACH PASS WITHIN PROFILE LIMITATIONS – EACH PASS MEETS QUALITY REQUIREMENTS	O
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P
INSPECTION TASKS AFTER WELDING (TABLE N5.4-3)	**TASK**
WELDS CLEANED	O
SIZE, LENGTH AND LOCATION OF WELDS	P
WELDS MEET VISUAL ACCEPTANCE CRITERIA – CRACK PROHIBITION – WELD/BASE–METAL FUSION – CRATER CROSS SECTION – WELD PROFILES – WELD SIZE – UNDERCUT – POROSITY	P
ARC STRIKES	P
K–AREA	P
WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT–UP HEAVY SHAPES	P
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P
REPAIR ACTIVITIES	P
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR	O
INSPECTION TASKS PRIOR TO BOLTING (TABLE N5.6-1)	**TASK**
MANUFACTURER CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O
CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O
CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O
PRE–INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P
PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O
INSPECTION TASKS DURING BOLTING (TABLE N5.6-2)	**TASK**
FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED	O
JOINT BROUGHT TO THE SNUG–TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O
INSPECTION TASKS AFTER BOLTING (TABLE N5.6-3)	**TASK**
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P
INSPECTION TASKS FOR COMPOSITE DECK (TABLE N6.1)	**TASK**
PLACEMENT AND INSTALLATION OF STEEL DECK	P
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P
DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS	P

LEGEND

O– OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

P– PERFORM THESE TASKS FOR EACH CONNECTION OR MEMBER.

CBC TABLE 1705.6
REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASKS	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	–	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	–	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	–	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	–
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	–	X

SDI QA/QC APPENDIX 1
REQUIRED VERIFICATION AND INSPECTION OF COLD-FORMED STEEL DECK

INSPECTION TASKS PRIOR TO DECK PLACEMENT (TABLE 1.1)	TASK
VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS	P
DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES	P
INSPECTION TASKS AFTER DECK PLACEMENT (TABLE 1.2)	**TASK**
VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS	P
VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS	N/A
DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES	P
INSPECTION TASKS PRIOR TO WELDING (TABLE 1.3)	**TASK**
WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	O
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	O
MATERIAL INDENTIFICATION (TYPE/GRADE)	O
CHECK WELDING EQUIPMENT	O
INSPECTION TASKS DURING WELDING (TABLE 1.4)	**TASK**
USE OF QUALIFIED WELDERS	O
CONTROL AND HANDLING OF WELDING CONSUMABLES	O
ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	O
WPS FOLLOWED	O
INSPECTION TASKS AFTER WELDING (TABLE 1.5)	**TASK**
VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS	P
WELDS MEET VISUAL ACCEPTANCE CRITERIA	P
VERIFY REPAIR ACTIVITIES	P
DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	P
INSPECTION TASKS PRIOR TO MECHANICAL FASTENING (TABLE 1.6)	**TASK**
MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS	O
PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION	O
PROPER STORAGE FOR MECHANICAL FASTENERS	O
INSPECTION TASKS DURING MECHANICAL FASTENING (TABLE 1.7)	**TASK**
FASTENERS ARE POSITIONED AS REQUIRED	O
FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	O
INSPECTION TASKS AFTER MECHANICAL FASTENING (TABLE 1.8)	**TASK**
CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS	P
CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS	P
CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS	P
VERIFY REPAIR ACTIVITIES	P
DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS	P

LEGEND

O– OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

P– PERFORM THESE TASKS FOR EACH CONNECTION OR MEMBER.

TMS 602 TABLE 4
REQUIRED INSPECTION OF MASONRY CONSTRUCTION (LEVEL 2)

INSPECTION TASKS	CONTINUOUS	PERDIOC
1. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE.		
A. PROPORTIONS OF SITE–PREPARED MORTAR		X
C. GRADE, TYPE AND SIZE OF REINFORCEMENT, CONNECTORS, ANCHOR BOLTS,		X
F. SAMPLE PANEL CONSTRUCTION		X
2. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE		
A. GROUT SPACE		X
C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND ANCHOR BOLTS		X
D. PROPORTIONS OF SITE–PREPARED GROUT		X
3. VERIFY COMPLIANCE FOR THE FOLLOWING DURING CONSTRUCTION:		
A. MATERIAL AND PROCEDURES WITH THE APPROVED SUBMITTALS		X
B. PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION		X
C. SIZE AND LOCATION OF STRUCTURAL MEMBERS		X
D. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION		X
E. WELDING OF REINFORCEMENT	X	
F. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER TEMPERATURE ABOVE 90°F		X
4. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS		X

CBC TABLE 1705.3
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION TASKS	CONTINUOUS	PERIODIC
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	–	X
2. REINFORCING BAR WELDING: A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706. B. INSPECT SINGLE–PASS FILLET WELDS, MAXIMUM 5/16 INCH. C. INSPECT ALL OTHER WELDS.	 – – X	 X X –
3. INSPECT ANCHORS CAST IN CONCRETE.	–	X
4. INSPECT ANCHORS POST–INSTALLED IN HARDENED CONCRETE MEMBERS. A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4A.	 X –	 – X
5. VERIFY USE OF REQUIRED DESIGN MIX.	–	X
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	–
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	–
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	–	X
9. INSPECT PRESTRESSED CONCRETE FOR: A. APPLICATION OF PRESTRESSING FORCES. B. GROUTING OF BONDED PRESTRESSING TENDONS.	 X X	 – –
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	–	X
11. VERIFY IN–SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST–TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	–	X
12. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	–	X

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453–4431
FAX: (310) 829–5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250–3150
FAX: (949) 203–0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240–4336
FAX: (866) 936–5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956–8101
FAX: (818) 956–0120

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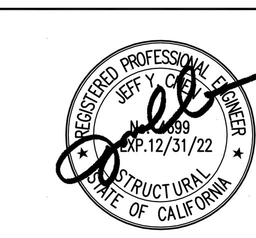
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848–0566
FAX: (714) 848–6322

NOT FOR CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE



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SHEET TITLE

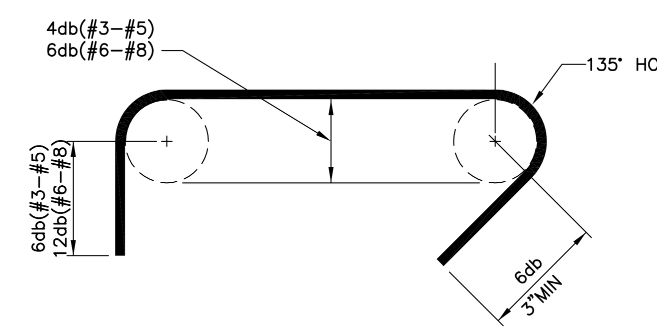
GENERAL NOTES

DATE: 11/10/21	S1.1.2
SCALE: AS SHOWN	
DRAWN BY: RT	
PROJECT NUMBER 19–119	ACTUAL SIZE OF THIS SHEET IS 30" X 42"

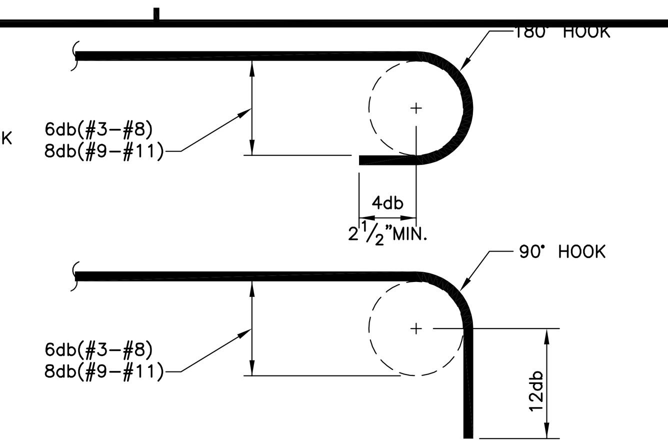
CONCRETE STRENGTH	BAR LOCATION	DEVELOPMENT LENGTH OF BARS									
		8" CONCRETE MASONRY					10" AND 12" CONCRETE MASONRY				
		#4	#5	#6	#7	#8	#4	#5	#6	#7	#8
2000 PSI	CENTER	36"	45"	54"	63"	72"	36"	45"	54"	63"	72"
	EDGE	36"	45"	64"	87"	131"	36"	45"	54"	69"	105"
2500 PSI	CENTER	36"	45"	54"	63"	72"	36"	45"	54"	63"	72"
	EDGE	36"	45"	57"	78"	117"	36"	45"	54"	63"	94"

TYPICAL REINFORCING DEVELOPMENT LENGTH IN MASONRY SCHEDULE

M102 4



STANDARD HOOKS FOR TIES AND STIRRUPS ONLY



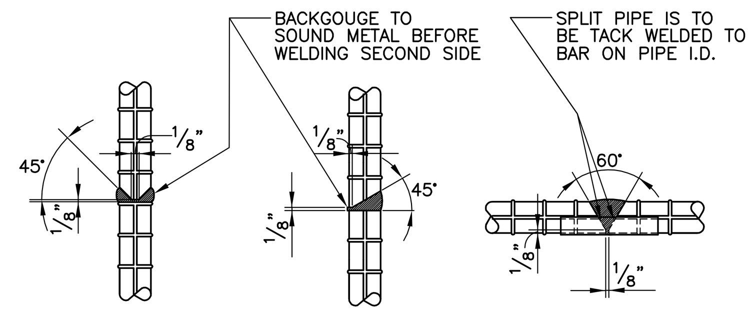
STANDARD HOOKS (EXCLUDING TIES AND STIRRUPS)

LEGEND
db = BAR DIAMETER
* = MINIMUM HOOK LENGTH MAY GOVERN

	BAR SIZE								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
4db	1½"*	2"*	2½"*	3"	3½"	4"	4½"	5"	5½"
6db	2¼"*	3"	3¾"	4½"	5¼"	6"	–	–	–
8db	–	–	–	–	–	–	9½"	10¾"	12"
12db	4½"	6"	7½"	9"	10½"	12"	13½"	15"	16½"

TYPICAL REINFORCING BAR STANDARD HOOK

C103 2



VERTICAL BARS
#9 AND LARGER

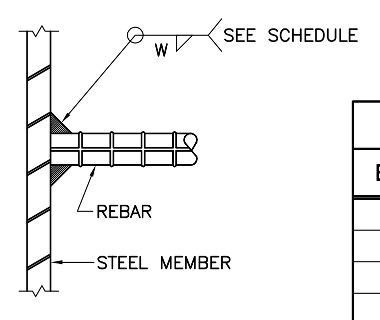
VERTICAL BARS
#8 AND SMALLER

HORIZONTAL BARS

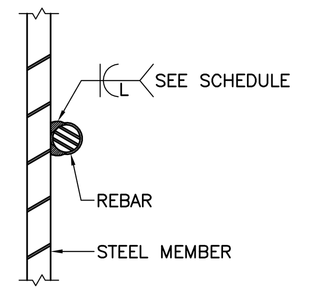
NOTES:
1. BUTT WELDED SPLICES MAY BE USED AS AN ALTERNATE TO LAP SLICES.
2. STAGGER BUTT WELDED SPLICES 2'–0" AT ADJACENT BARS.
3. WELDING SHALL CONFORM TO AWS D1.4.

TYPICAL BUTT WELDED SPLICE DETAIL

C105 7



FILLET WELD



FLARE BEVEL GROOVE WELD

WELD SCHEDULE		
BAR SIZE	L	W
#3	2"	1/4"
#4	3"	5/16"
#5	4"	3/8"
#6	4"	7/16"
#7	5"	1/2"
#8	6"	9/16"
#9	6"	5/8"
#10	7"	11/16"
#11	8"	3/4"

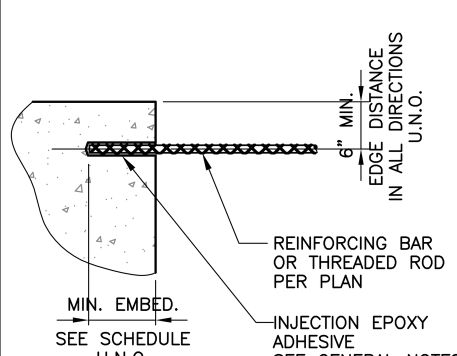
NOTES:
1. WELDING SHALL CONFORM TO AWS D1.4.
2. IT IS ACCEPTABLE TO PROVIDE CJP WELD IN LIEU OF FILLET WELD.
3. WELDED REINFORCING TO COMPLY w/ASTM A706 OR 60.

1

TYPICAL WELDED REBAR DETAIL

C108 6

EPOXY ANCHOR EMBEDMENT SCHEDULE		
BAR SIZE	ROD DIAMETER	MIN. EMBED. U.N.O.
#3	3/8"	3⅜"
#4	1/2"	4½"
#5	5/8"	5⅝"
#6	3/4"	6¾"
#7	7/8"	7⅞"
#8	1"	9"
#9	–	10⅛"
#10	1¼"	11¼"
#11	–	12⅜"



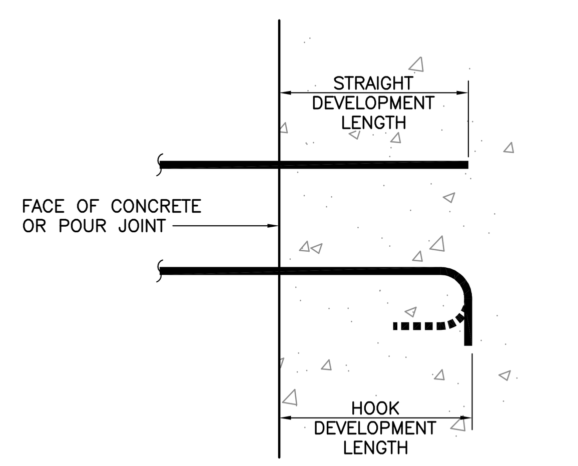
NOTES:
1. EPOXY ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. SEE SCHEDULE FOR MINIMUM EMBEDMENT LENGTHS.
2. EPOXY ANCHORS TO BE USED ONLY WHERE INDICATED ON DRAWINGS.

TYPICAL EPOXY ANCHOR EMBEDMENT SCHEDULE

C104 5

REINFORCING DEVELOPMENT NOTES

1. ALL DEVELOPMENT LENGTHS SHALL BE "CLASS A" UNLESS NOTED OTHERWISE.
2. BAR LOCATION:
   TOP BARS – HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
   OTHER BARS – ALL VERTICAL BARS AND HORIZONTAL BARS WITH LESS THAN 12" OF CONCRETE CAST BELOW BARS.
3. CATEGORY:
   D1 – C ≥ 2db AND CS ≥ 4db
   D2 – ALL OTHER CONDITIONS
   D3 – C < db OR CS < 2db
4. REINFORCING GRADE:
   REINFORCING DEVELOPMENT LENGTH IS FOR GRADE 60 REINFORCING. FOR GRADE 75 REINFORCING MULTIPLY LENGTHS IN SCHEDULE BY 1.25.
5. CONCRETE:
   REINFORCING DEVELOPMENT LENGTH IS FOR NORMAL WEIGHT CONCRETE. FOR LIGHT WEIGHT CONCRETE MULTIPLY LENGTHS IN SCHEDULE BY 1.3.
6. HOOKED BARS:
   HOOKED BARS SHALL EXTEND INTO SUPPORT AS FAR AS POSSIBLE WITH EMBEDMENT NOT LESS THAN SHOWN IN SCHEDULE. PROVIDE 2" MINIMUM END COVER AND 2½" MINIMUM SIDE COVER.



BUNDLED BAR NOTES

1. BUNDLED BARS OF MORE THAN 2 BARS IN THE SAME PLANE ARE NOT PERMITTED. ACCEPTABLE BUNDLED BAR LAYOUTS ARE: ●● & ●●● & ●●●●
2. USE EFFECTIVE BAR DIAMETER TO DETERMINE APPLICABLE COVER AND SPACING LIMITATIONS FOR BUNDLED BARS:
   A. FOR 2–BAR BUNDLE dbe=1.41db
   B. FOR 3–BAR BUNDLE dbe=1.73db
   C. FOR 4–BAR BUNDLE dbe=2.00db
3. FOR 3–BAR BUNDLE MULTIPLY LENGTHS IN SCHEDULE BY 1.20.
   FOR 4–BAR BUNDLE MULTIPLY LENGTHS IN SCHEDULE BY 1.33.

LEGEND

(2) INDICATES "REINFORCING DEVELOPMENT NOTE" REFERENCE
CS = CLEAR SPACING
C = COVER
db = BAR DIAMETER

REINFORCING DEVELOPMENT LENGTH SCHEDULE (INCHES) (4) (5)

CONCRETE STRENGTH(f'c)	CATEGORY (3)	BAR LOCATION (2)	CLASS A									SEISMIC								
			BAR SIZE									BAR SIZE								
			#3	#4	#5	#6	#7	#8	#9	#10	#11	#3	#4	#5	#6	#7	#8	#9	#10	#11
3000 PSI	D1	TOP	13	18	22	26	38	43	49	55	61	17	22	27	33	47	54	61	68	76
		OTHER	12	14	17	20	29	33	37	42	47	13	17	21	25	36	42	47	53	58
	D2	TOP	22	29	36	43	63	72	81	91	101	27	36	45	54	78	90	101	114	126
		OTHER	17	22	28	33	48	55	62	70	78	21	28	35	42	60	69	78	87	97
	D3	TOP	–	–	54	65	94	107	121	136	151	–	–	67	81	117	134	151	170	189
		OTHER	–	–	42	50	72	83	93	105	116	–	–	52	62	90	103	116	131	145
	HOOK		6	8	10	12	14	16	18	20	22	8	10	12	15	17	20	22	25	28
4000 PSI	D1	TOP	12	15	19	23	33	37	42	47	53	14	19	24	28	41	47	53	59	66
		OTHER	12	12	15	18	25	29	33	37	41	12	15	18	22	32	36	41	46	51
	D2	TOP	19	25	31	37	54	62	70	79	87	24	31	39	47	68	78	87	98	109
		OTHER	15	19	24	29	42	48	54	61	67	18	24	30	36	52	60	67	76	84
	D3	TOP	–	–	47	56	81	93	105	118	131	–	–	58	70	102	116	131	147	164
		OTHER	–	–	36	43	63	72	81	91	101	–	–	45	54	78	89	101	113	126
	HOOK		6	7	9	10	12	14	15	17	19	7	9	11	13	15	17	19	22	24
5000 PSI	D1	TOP	12	14	17	20	29	34	38	43	47	13	17	21	25	37	42	47	53	59
		OTHER	12	12	13	16	23	26	29	33	36	12	13	16	20	28	32	36	41	45
	D2	TOP	17	23	28	34	49	56	63	71	78	21	28	35	42	61	69	78	88	98
		OTHER	13	17	22	26	38	43	48	54	60	16	22	27	32	47	54	60	68	75
	D3	TOP	–	–	42	50	73	83	94	106	117	–	–	52	63	91	104	117	132	146
		OTHER	–	–	32	39	56	64	72	81	90	–	–	40	48	70	80	90	102	113
	HOOK		6	6	8	9	11	12	14	16	17	6	8	10	12	13	15	17	19	21
BAR DIAMETERS (INCHES)		db	0.38	0.50	0.63	0.75	0.88	1.00	1.13	1.27	1.41	0.38	0.50	0.63	0.75	0.88	1.00	1.13	1.27	1.41
		2db	0.75	1.00	1.25	1.50	1.75	2.00	2.26	2.54	2.82	0.75	1.00	1.25	1.50	1.75	2.00	2.26	2.54	2.82
		4db	1.50	2.00	2.50	3.00	3.50	4.00	4.51	5.08	5.64	1.50	2.00	2.50	3.00	3.50	4.00	4.51	5.08	5.64

TYPICAL REINFORCING DEVELOPMENT LENGTH SCHEDULE

C102 3

REINFORCING SPLICE NOTES

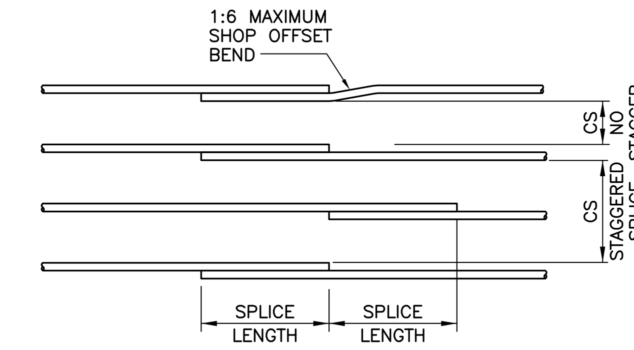
1. ALL LAP SPLICES SHALL BE "CLASS B" UNLESS NOTED OTHERWISE.
2. BAR LOCATION:
   TOP BARS – HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
   OTHER BARS – ALL VERTICAL BARS AND HORIZONTAL BARS WITH LESS THAN 12" OF CONCRETE CAST BELOW BARS.
3. CATEGORY:
   S1 – C ≥ 2db AND CS ≥ 4db
   S2 – ALL OTHER CONDITIONS
   S3 – C < db OR CS < 2db
4. REINFORCING GRADE:
   REINFORCING SPLICE LENGTH IS FOR GRADE 60 REINFORCING. FOR GRADE 75 REINFORCING MULTIPLY LENGTHS IN SCHEDULE BY 1.25.
5. CONCRETE:
   REINFORCING SPLICE LENGTH IS FOR NORMAL WEIGHT CONCRETE. FOR LIGHT WEIGHT CONCRETE MULTIPLY LENGTHS IN SCHEDULE BY 1.3.
6. WHERE BARS OF DIFFERENT SIZE ARE SPLICED, SPLICE LENGTH SHALL BE THE LARGER OF DEVELOPMENT LENGTH OF THE LARGER BAR AND SPLICE LENGTH OF THE SMALER BAR.

BUNDLED BAR NOTES

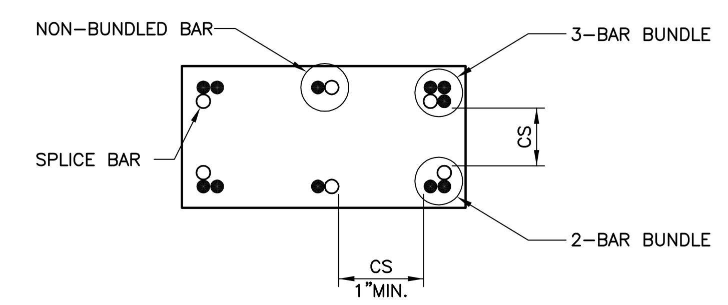
1. BUNDLED BARS OF MORE THAN 2 BARS (INCLUDING SPLICE BAR) IN THE SAME PLANE ARE NOT PERMITTED. ACCEPTABLE BUNDLED BAR LAYOUTS ARE: ●●● & ●●●●
2. USE EFFECTIVE BAR DIAMETER TO DETERMINE APPLICABLE COVER AND SPACING LIMITATIONS FOR BUNDLED BARS:
   A. FOR 2–BAR BUNDLE dbe=1.41db
   B. FOR 3–BAR BUNDLE dbe=1.73db
3. FOR 2–BAR BUNDLE MULTIPLY LENGTHS IN SCHEDULE BY 1.20.
   FOR 3–BAR BUNDLE MULTIPLY LENGTHS IN SCHEDULE BY 1.33.

LEGEND

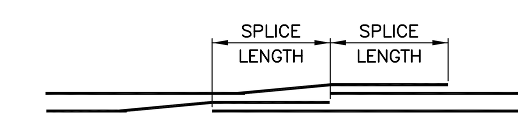
(2) INDICATES "REINFORCING SPLICE NOTE" REFERENCE
CS = CLEAR SPACING
C = COVER
db = BAR DIAMETER



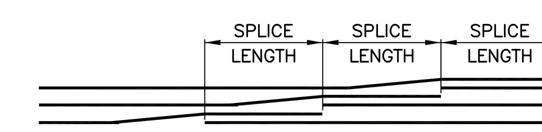
TYPICAL LAP SPLICE



BAR SPACING



2-BAR BUNDLE



3-BAR BUNDLE

BUNDLED BAR LAP SPLICE

REINFORCING SPLICE LENGTH SCHEDULE (INCHES) (4) (5)

CONCRETE STRENGTH(f'c)	CATEGORY (3)	BAR LOCATION (2)	CLASS B									SEISMIC								
			BAR SIZE									BAR SIZE								
			#3	#4	#5	#6	#7	#8	#9	#10	#11	#3	#4	#5	#6	#7	#8	#9	#10	#11
3000 PSI	S1	TOP	17	23	28	34	49	56	63	71	79	21	28	35	42	61	70	79	89	98
		OTHER	13	18	22	26	38	43	49	55	61	17	22	27	33	47	54	61	68	76
	S2	TOP	28	38	47	56	81	93	105	118	131	35	47	58	70	102	116	131	147	164
		OTHER	22	29	36	43	63	72	81	91	101	27	36	45	54	78	90	101	114	126
	S3	TOP	–	–	70	84	122	139	157	177	196	–	–	87	105	152	174	196	221	245
		OTHER	–	–	54	65	94	107	121	136	151	–	–	67	81	117	134	151	170	189
4000 PSI	S1	TOP	15	20	25	29	43	49	55	62	68	19	25	31	37	53	61	68	77	85
		OTHER	12	15	19	23	33	37	42	47	53	14	19	24	28	41	47	53	59	66
	S2	TOP	25	33	41	49	71	81	91	102	114	31	41	51	61	88	101	114	128	142
		OTHER	19	25	31	37	54	62	70	79	87	24	31	39	47	68	78	87	98	109
	S3	TOP	–	–	61	73	106	121	136	153	170	–	–	76	91	132	151	170	191	212
		OTHER	–	–	47	56	81	93	105	118	131	–	–	58	70	102	116	131	147	164
5000 PSI	S1	TOP	13	18	22	26	38	44	49	55	61	17	22	27	33	48	54	61	69	76
		OTHER	12	14	17	20	29	34	38	43	47	13	17	21	25	37	42	47	53	59
	S2	TOP	22	29	36	44	63	72	81	92	102	27	36	45	54	79	90	102	114	127
		OTHER	17	23	28	34	49	56	63	71	78	21	28	35	42	61	69	78	88	98
	S3	TOP	–	–	54	65	95	108	122	137	152	–	–	68	81	118	135	152	171	190
		OTHER	–	–	42	50	73	83	94	106	117	–	–	52	63	91	104	117	132	146
BAR DIAMETERS (INCHES)		db	0.38	0.50	0.63	0.75	0.88	1.00	1.13	1.27	1.41	0.38	0.50	0.63	0.75	0.88	1.00	1.13	1.27	1.41
		2db	0.75	1.00	1.25	1.50	1.75	2.00	2.26	2.54	2.82	0.75	1.00	1.25	1.50	1.75	2.00	2.26	2.54	2.82
		4db	1.50	2.00	2.50	3.00	3.50	4.00	4.51	5.08	5.64	1.50	2.00	2.50	3.00	3.50	4.00	4.51	5.08	5.64

TYPICAL REINFORCING SPLICE LENGTH SCHEDULE

C101 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453–4431
FAX: (310) 829–5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250–3150
FAX: (949) 203–0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240–4336
FAX: (866) 936–5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956–8101
FAX: (818) 956–0120

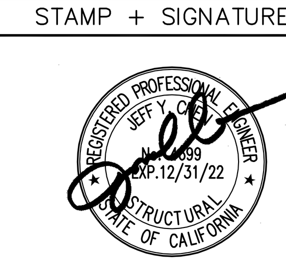
CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848–0566
FAX: (714) 848–6322

NOT FOR CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE



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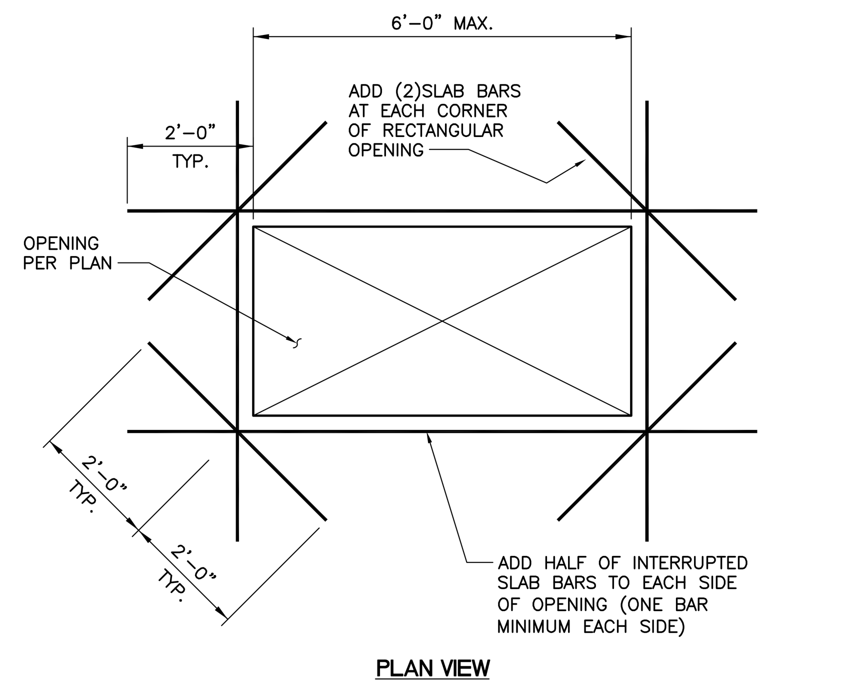
SHEET TITLE

TYPICAL REINFORCING DETAILS

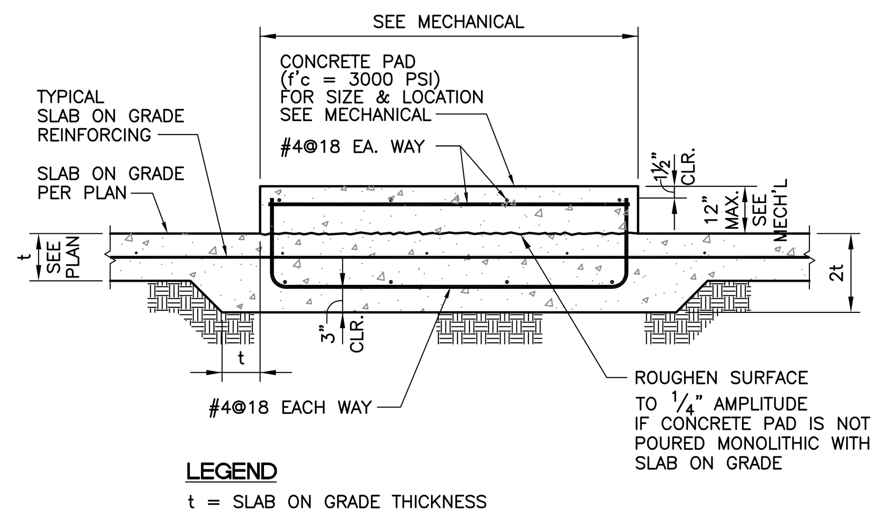
DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19–119

S1.2

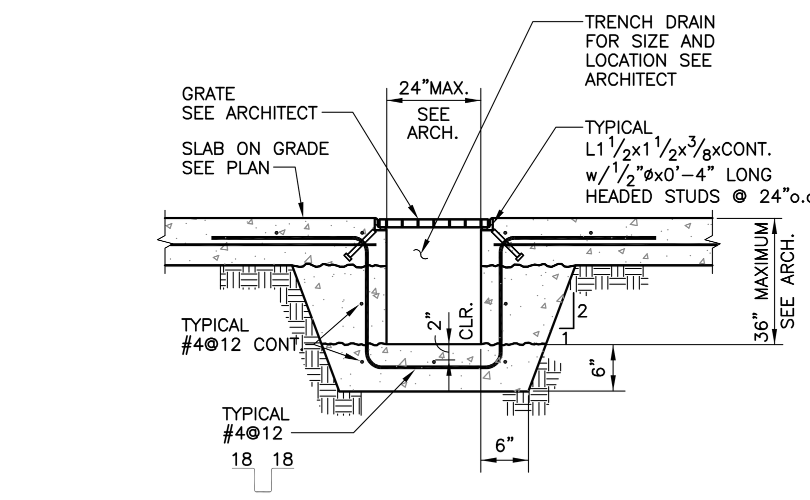
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



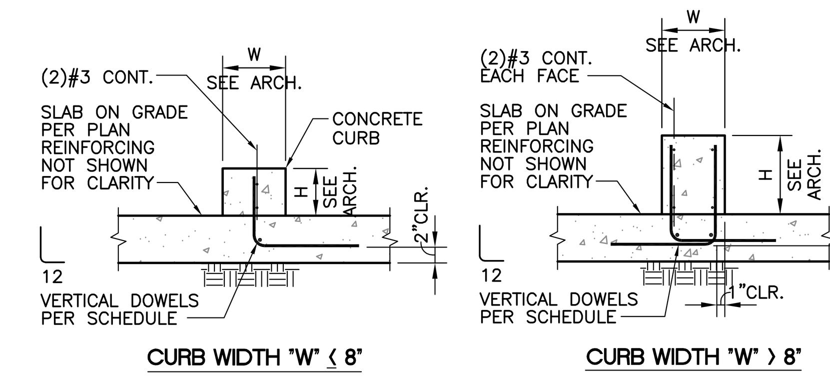
TYPICAL SLAB ON GRADE OPENING DETAIL (12)
½"=1'-0"



TYPICAL EQUIPMENT PAD AT SLAB ON GRADE DETAIL (10)
C213



TYPICAL SUMP PIT AND TRENCH DRAIN DETAIL (6)
C206

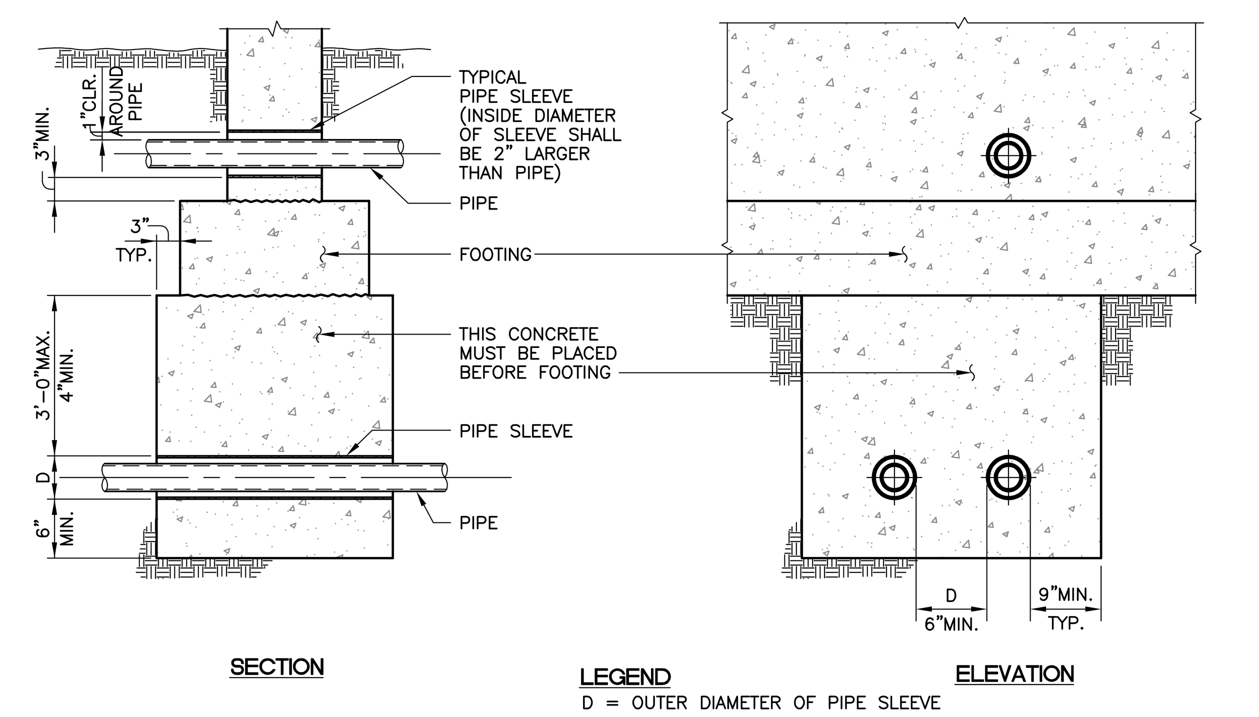


LEGEND
H = CURB HEIGHT
W = CURB WIDTH

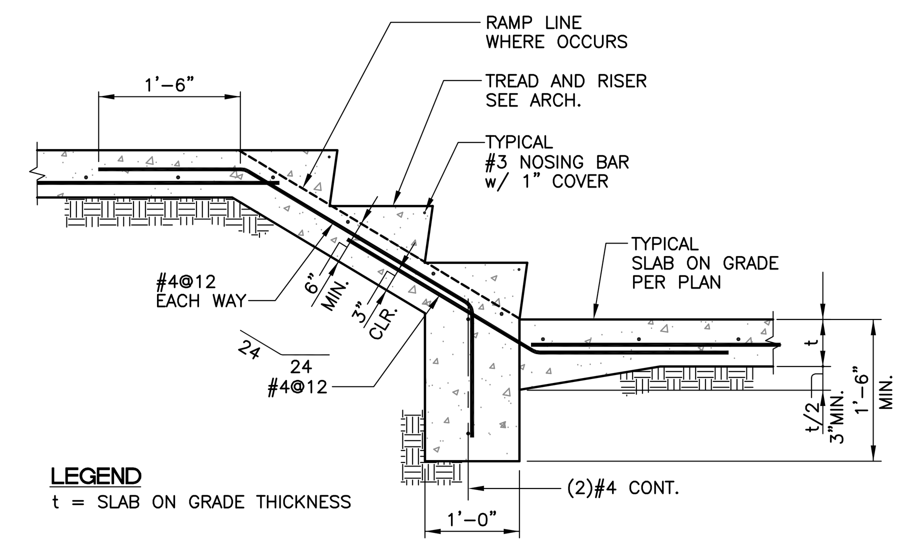
VERTICAL DOWEL SCHEDULE		
CURB HEIGHT	W ≤ 8"	W > 8"
H ≤ 12"	#4@18 CENTERED	#4@18 E.F.
12 < H ≤ 18"	#4@12 CENTERED	#4@12 E.F.

NOTE:
1. DRILL & EPOXY VERTICAL DOWELS w/4" EMBED AT (E)SLAB ON GRADE

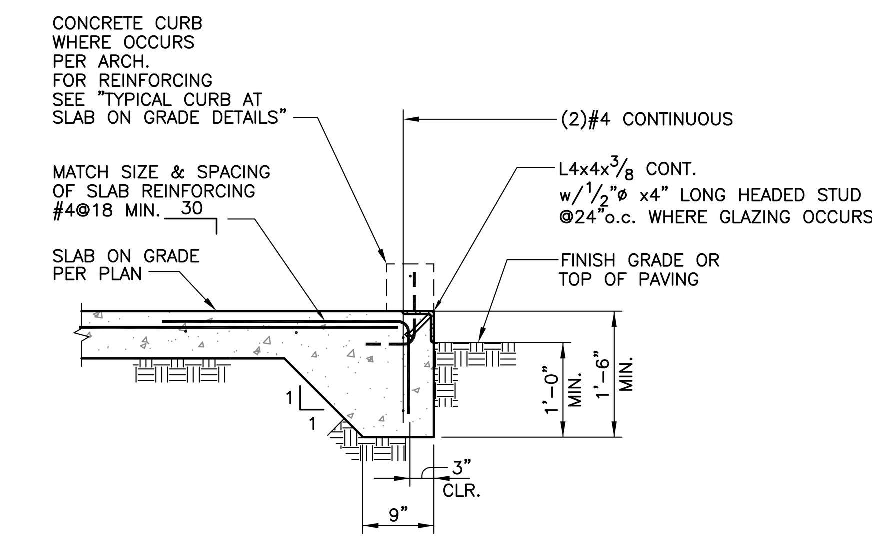
TYPICAL CURB AT SLAB ON GRADE DETAILS (4)
C204



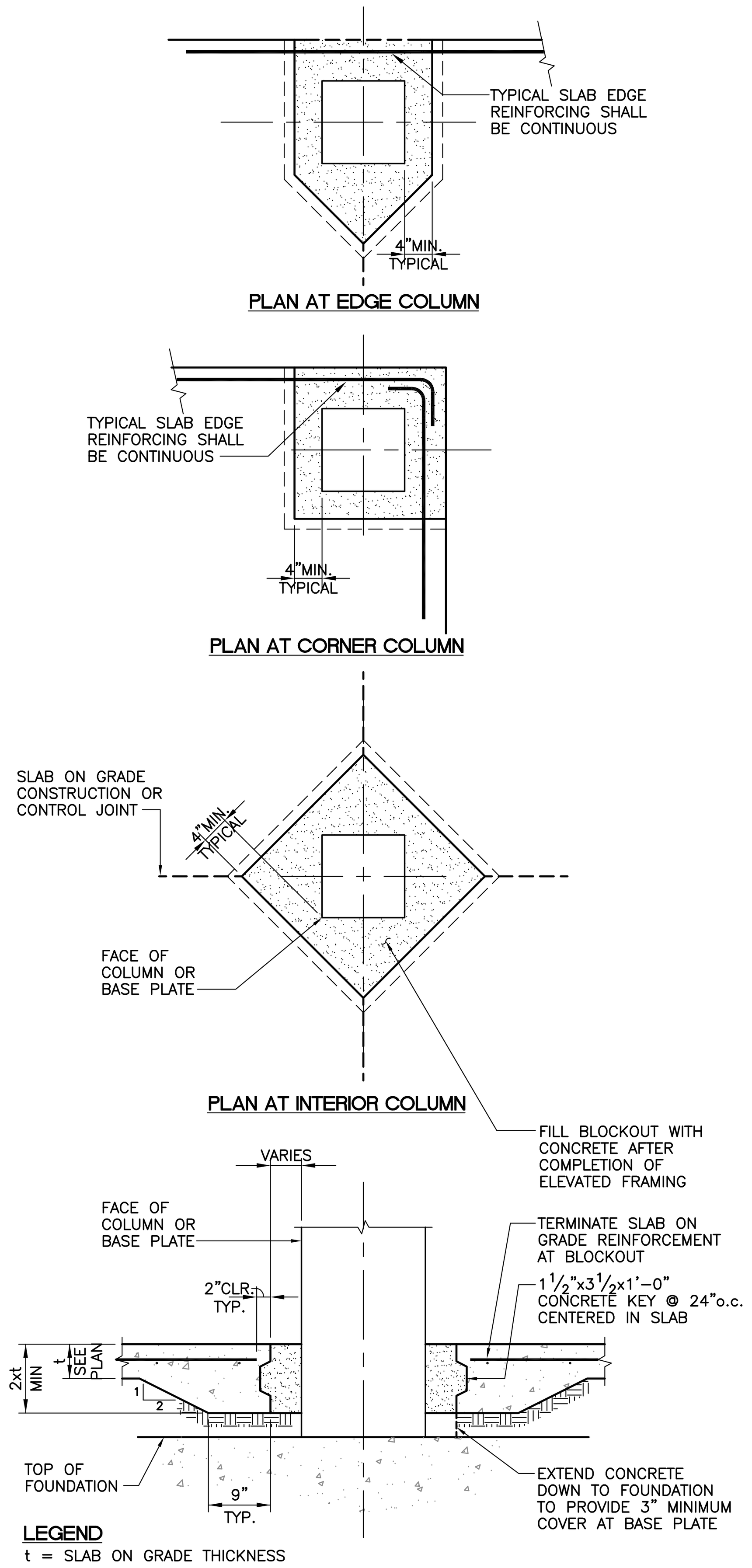
TYPICAL PIPE THRU FOUNDATION DETAIL (9)
C207



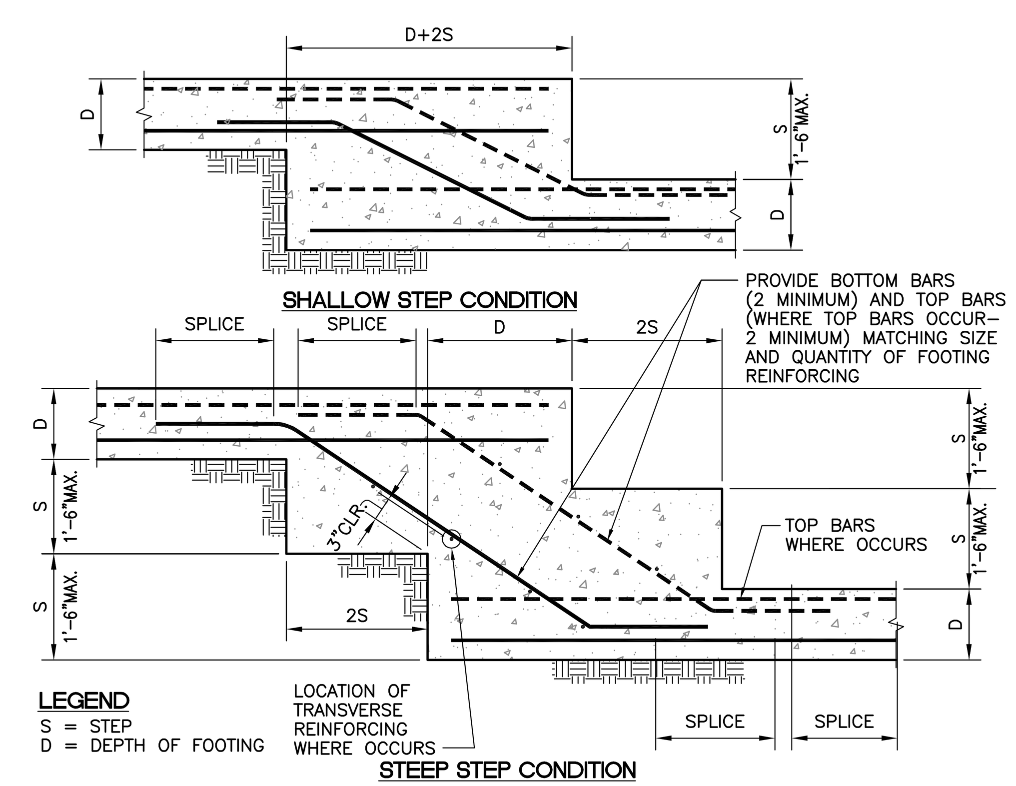
TYPICAL STAIR OR RAMP ON GRADE DETAIL (5)
C205



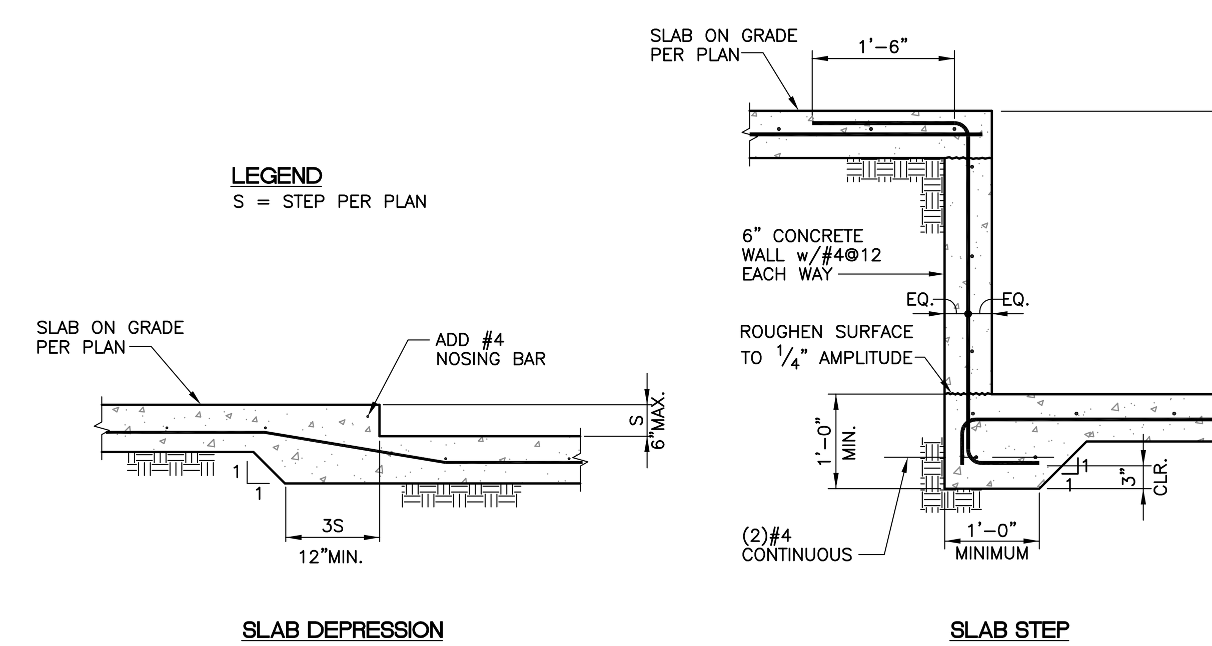
TYPICAL EDGE OF SLAB ON GRADE DETAIL (3)
C203



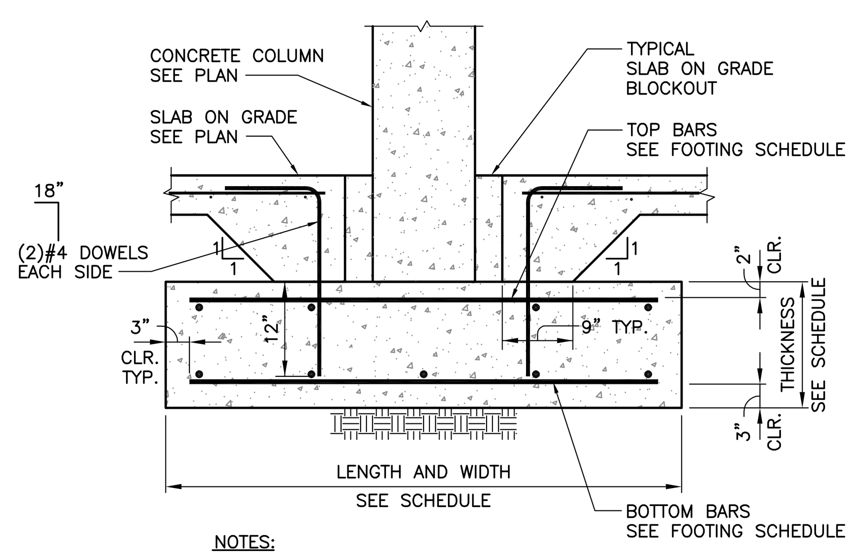
TYPICAL SLAB ON GRADE BLOCK OUT AT COLUMN DETAILS (13)
C212



TYPICAL STEPPED FOOTING DETAIL (8)
C210

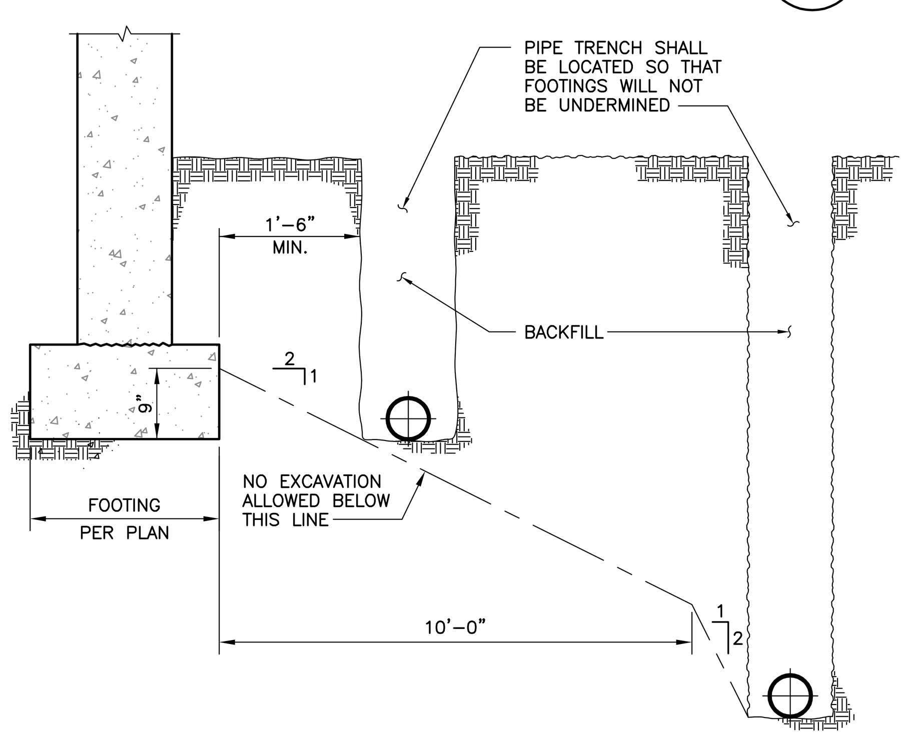


TYPICAL SLAB ON GRADE STEP DETAILS (2)
C202

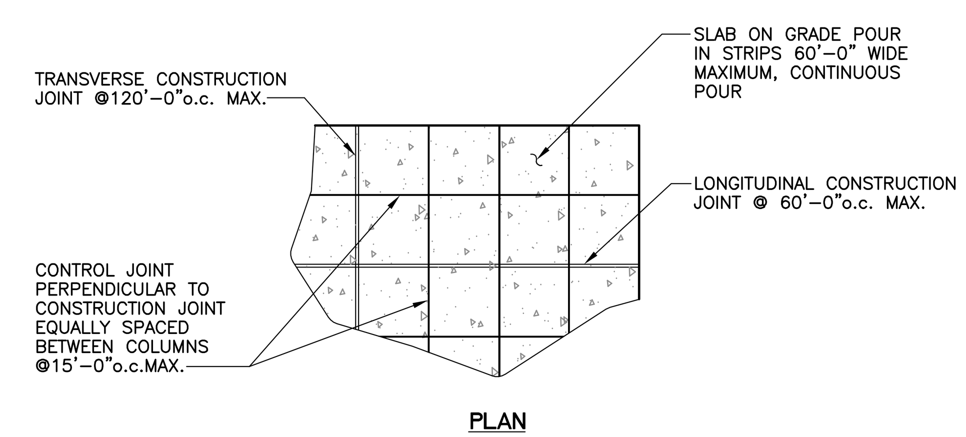


NOTES:
1. FOOTING SHALL BE CENTERED AT COLUMN UNLESS NOTED OTHERWISE.
2. LONGITUDINAL REINFORCING IS PARALLEL TO LONG FOOTING DIRECTION. TRANSVERSE REINFORCING IS PARALLEL TO SHORT FOOTING DIRECTION.

TYPICAL SPREAD FOOTING REINFORCING DETAIL (11)
C214B

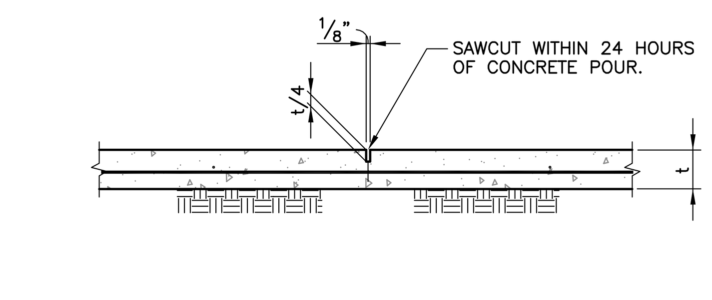


TYPICALTRENCH NEAR FOUNDATION DETAIL (7)
C208

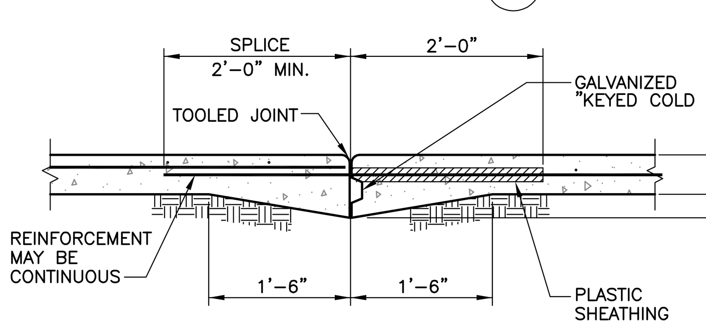


NOTES:
1. FOR SLAB ON GRADE THICKNESS, REINFORCING AND SUBGRADE PREPARATION SEE PLAN.
2. FOR ADDITIONAL JOINT SPACING REQUIREMENTS SEE ARCHITECTURAL AND SPECIFICATIONS.

LEGEND
t = SLAB ON GRADE THICKNESS



CONTROL JOINT (B)



CONSTRUCTION JOINT (A)

TYPICAL SLAB ON GRADE JOINT DETAILS (1)
C201

PROJECT
No.1 COLLISION
LUXURY AUTOMOTIVE REPAIR FACILITY
2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT
AHT ARCHITECTS INC.

2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

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17500 REDHILL, SUITE 240
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GLENDALE, CA 91201
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ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

NOT FOR CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE

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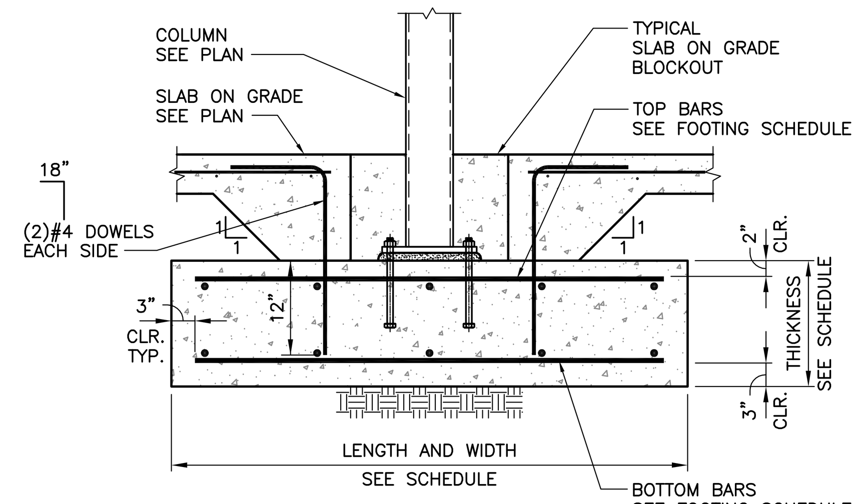
SHEET TITLE
TYPICAL CONCRETE FOUNDATION DETAILS

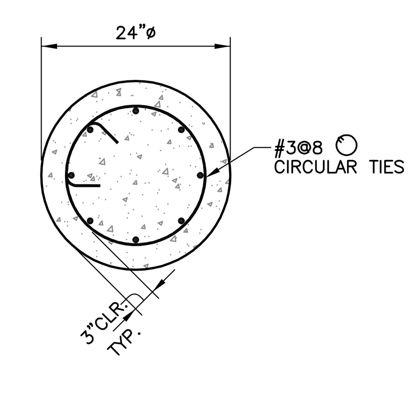
DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119
S1.3
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



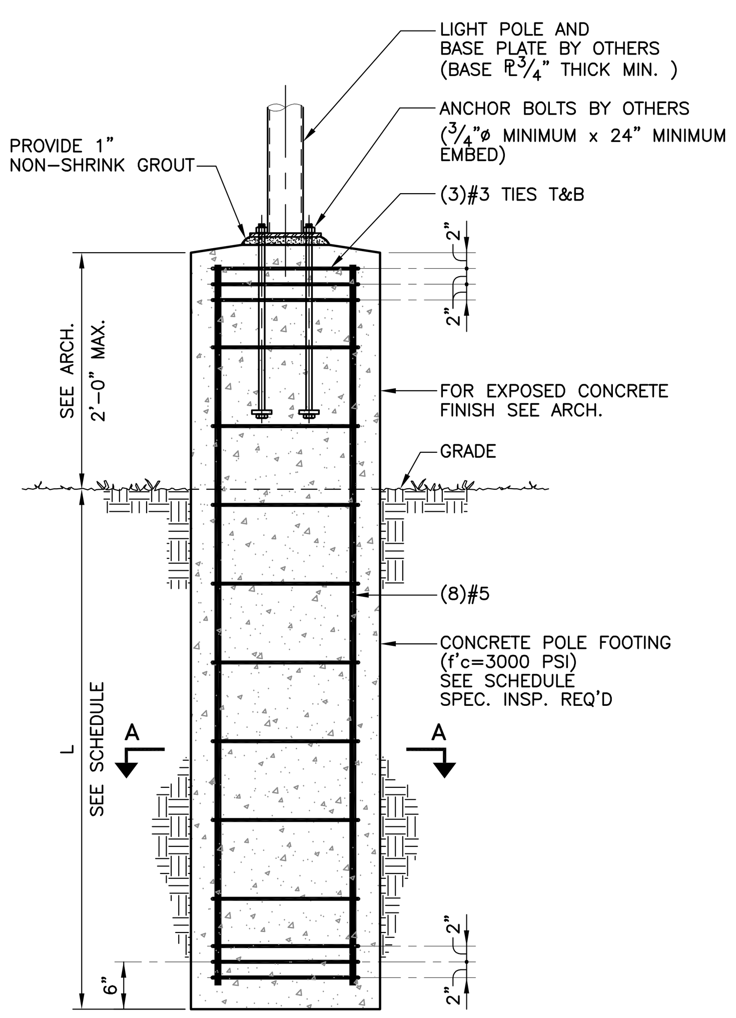
NOTES:
1. FOOTING SHALL BE CENTERED AT COLUMN UNLESS NOTED OTHERWISE.
2. LONGITUDINAL REINFORCING IS PARALLEL TO LONG FOOTING DIRECTION. TRANSVERSE REINFORCING IS PARALLEL TO SHORT FOOTING DIRECTION.

TYPICAL SPREAD FOOTING REINFORCING DETAIL (9)

C214A



PLAN A-A



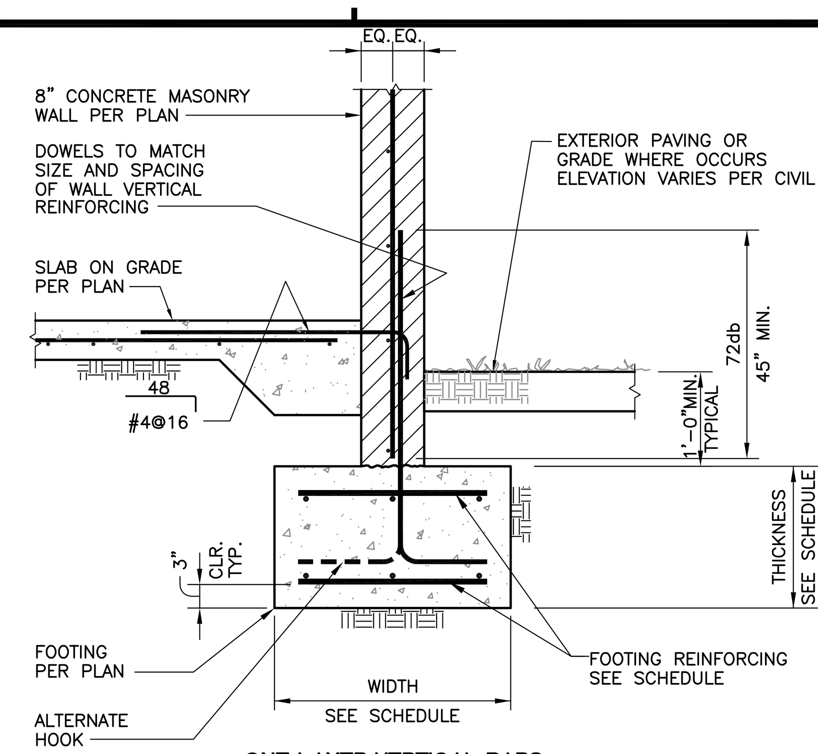
NOTE:
1. DRILL PIERS SHALL BE INSPECTED BY GEOTECHNICAL ENGINEER PRIOR TO PLACING REBAR AND CONCRETE
2. PROVIDE AND SUBMIT DRAWING FOR LIGHT POLE BASE PLATE AND ANCHORAGE TO EOR FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

LEGEND
L = POLE FOOTING EMBEDMENT LENGTH
D = POLE FOOTING DIAMETER

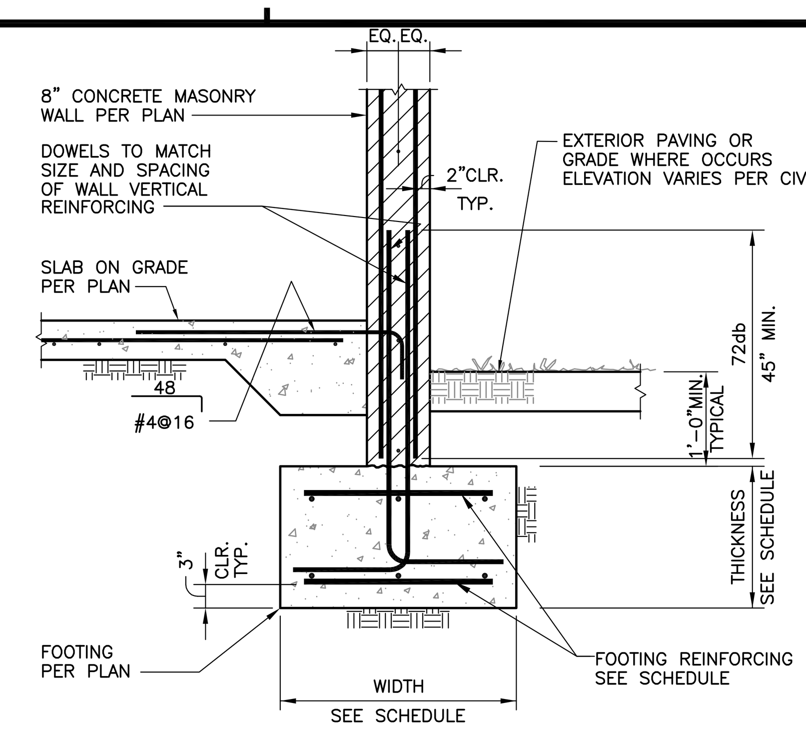
LIGHT POLE HEIGHT	FOOTING LENGTH (L)
15'-0"	4'-6"
20'-0"	5'-0"
25'-0"	5'-6"
30'-0"	6'-0"

LIGHT POLE FOOTING DETAIL (7)

3/4"=1'-0"



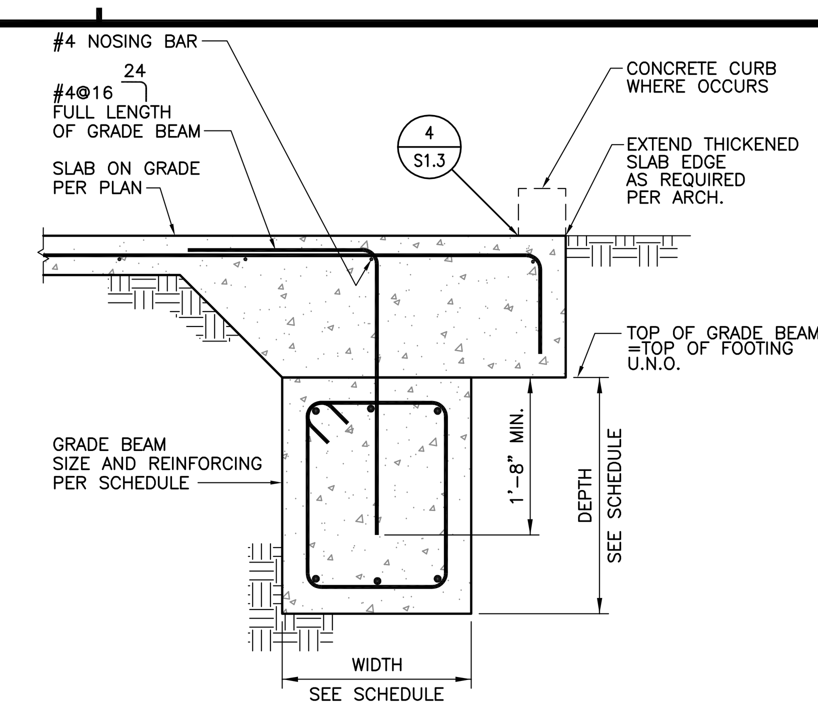
ONE LAYER VERTICAL BARS



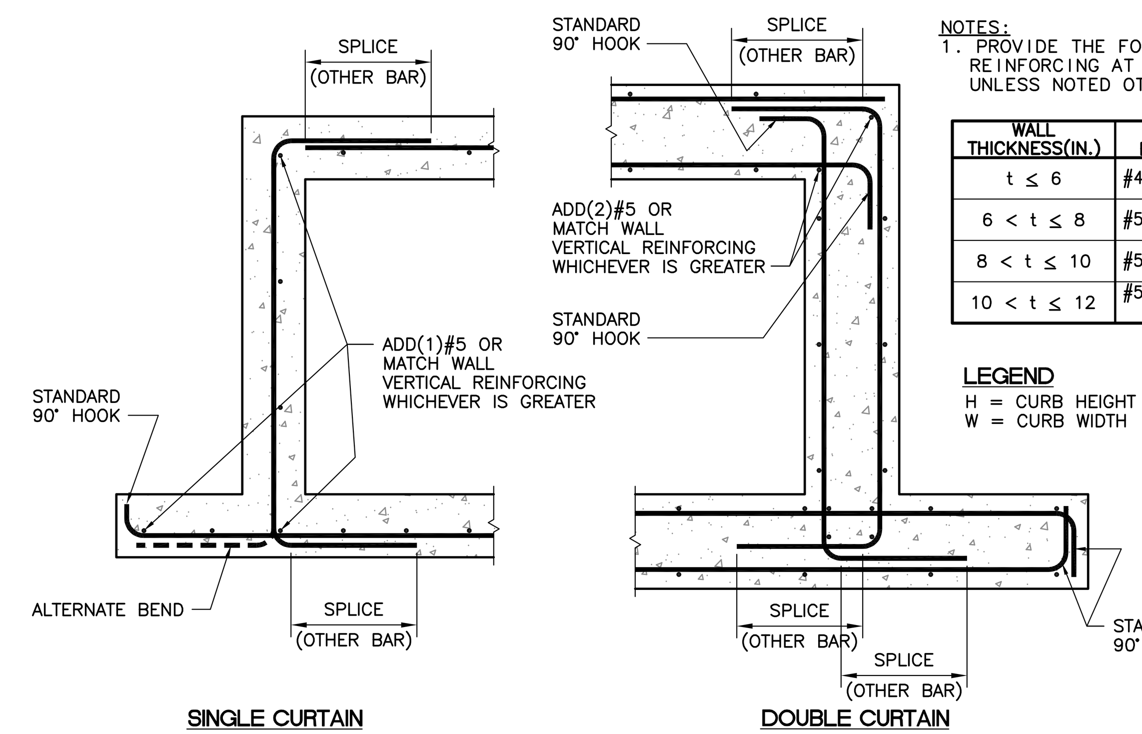
TWO LAYER VERTICAL BARS

TYPICAL EXTERIOR 8" CONCRETE MASONRY WALL TO FOUNDATION DETAIL (4)

N.T.S.



EDGE OF SLAB CONDITION



SINGLE CURTAIN

DOUBLE CURTAIN

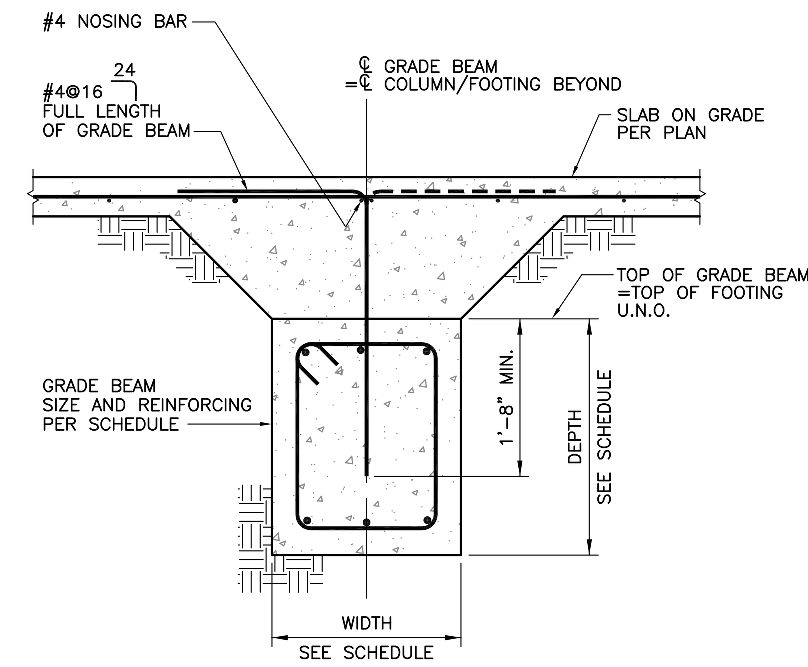
NOTES:
1. PROVIDE THE FOLLOWING MINIMUM REINFORCING AT CONCRETE WALLS UNLESS NOTED OTHERWISE.

WALL THICKNESS(IN.)	WALL REINFORCING
t ≤ 6	#4@12 EACH WAY
6 < t ≤ 8	#5@16 EACH WAY
8 < t ≤ 10	#5@12 EACH WAY
10 < t ≤ 12	#5@18 EACH WAY EACH FACE

LEGEND
H = CURB HEIGHT
W = CURB WIDTH

TYPICAL CONCRETE WALL AND FOOTING REINFORCING AT INTERSECTIONS AND ENDS (3)

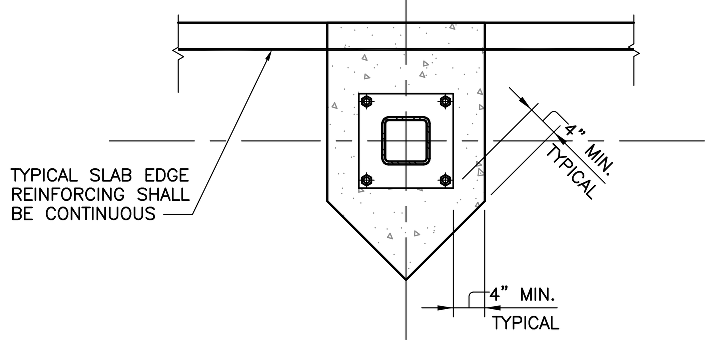
C211



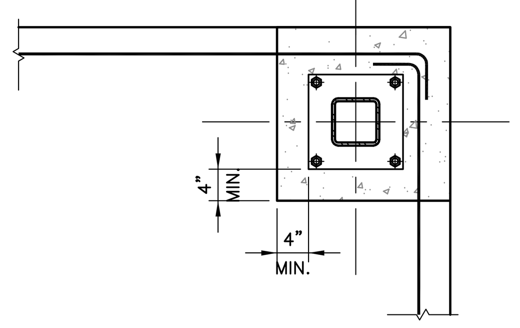
INTERIOR CONDITION

TYPICAL GRADE BEAM CONNECTION TO SLAB ON GRADE DETAIL (2)

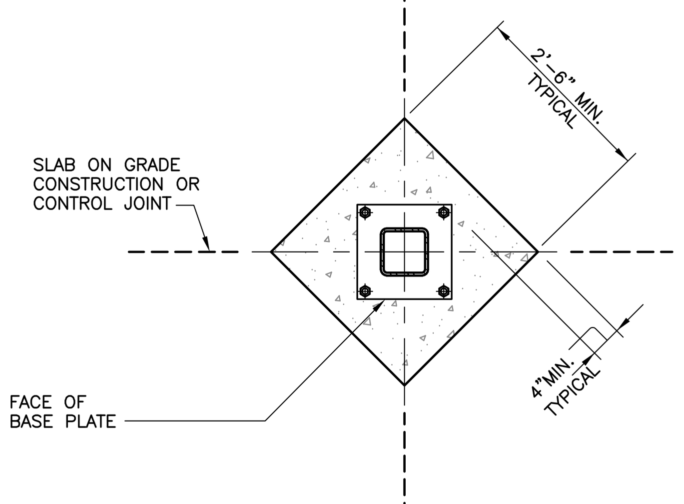
C241



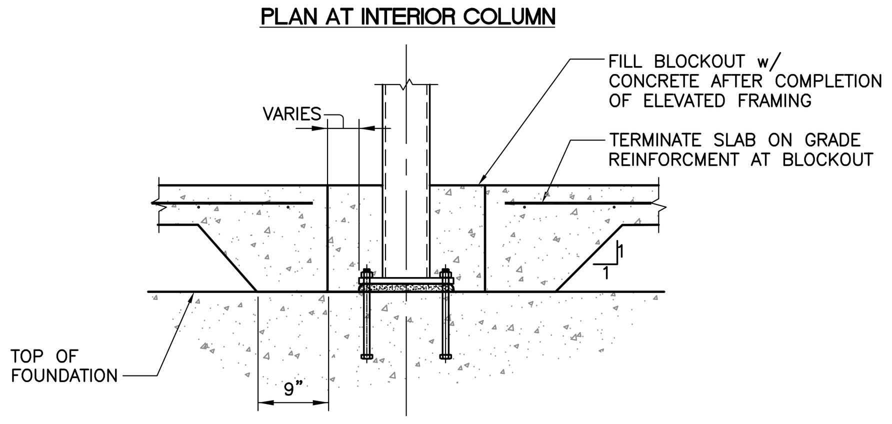
PLAN AT EDGE COLUMN



PLAN AT CORNER COLUMN



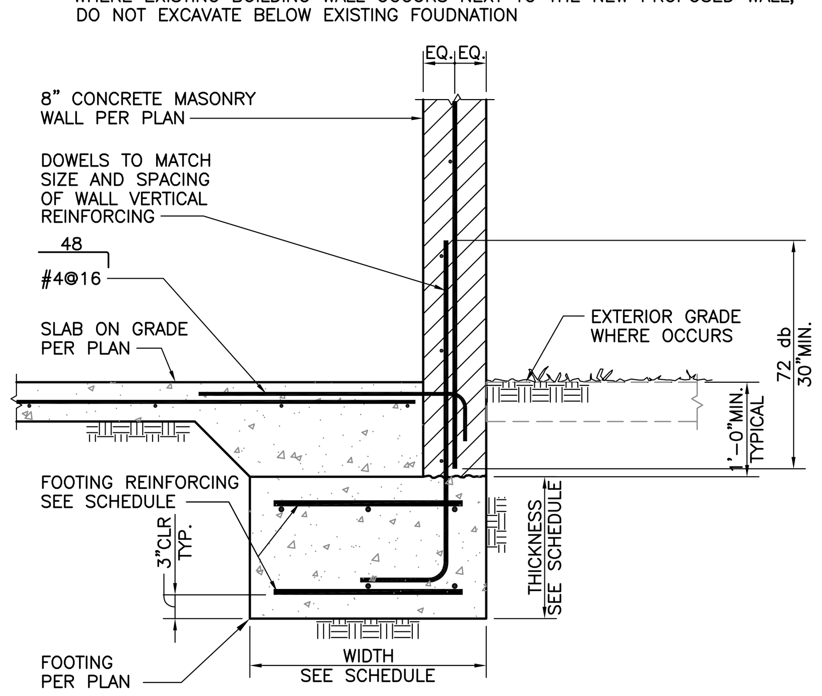
PLAN AT INTERIOR COLUMN



TYPICAL SLAB ON GRADE BLOCKOUT AT COLUMN DETAILS (8)

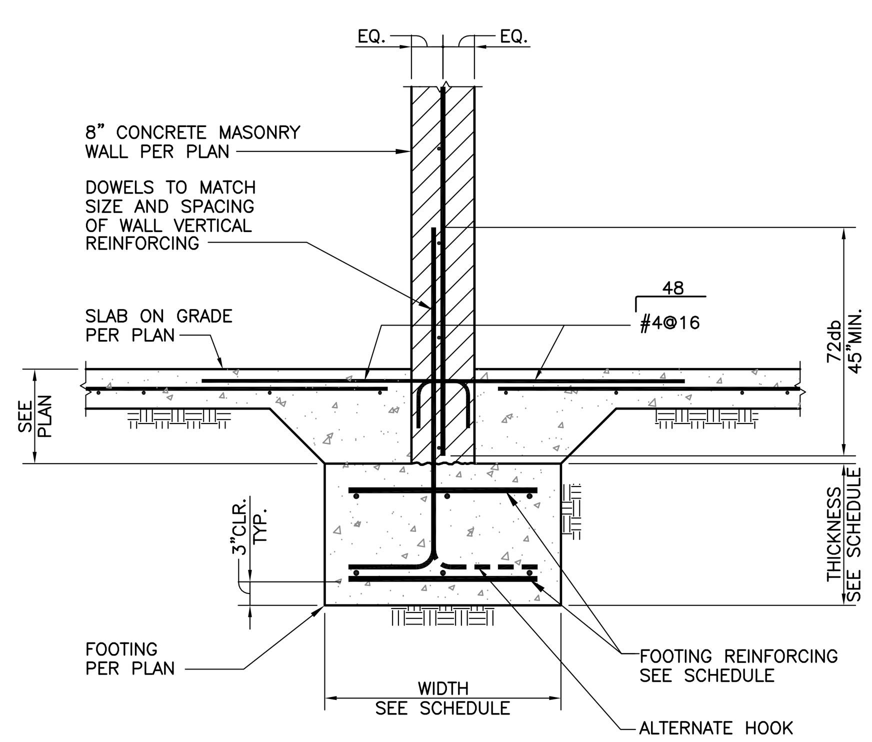
3/4"=1'-0"

* WHERE EXISTING BUILDING WALL OCCURS NEXT TO THE NEW PROPOSED WALL, DO NOT EXCAVATE BELOW EXISTING FOUDNATION

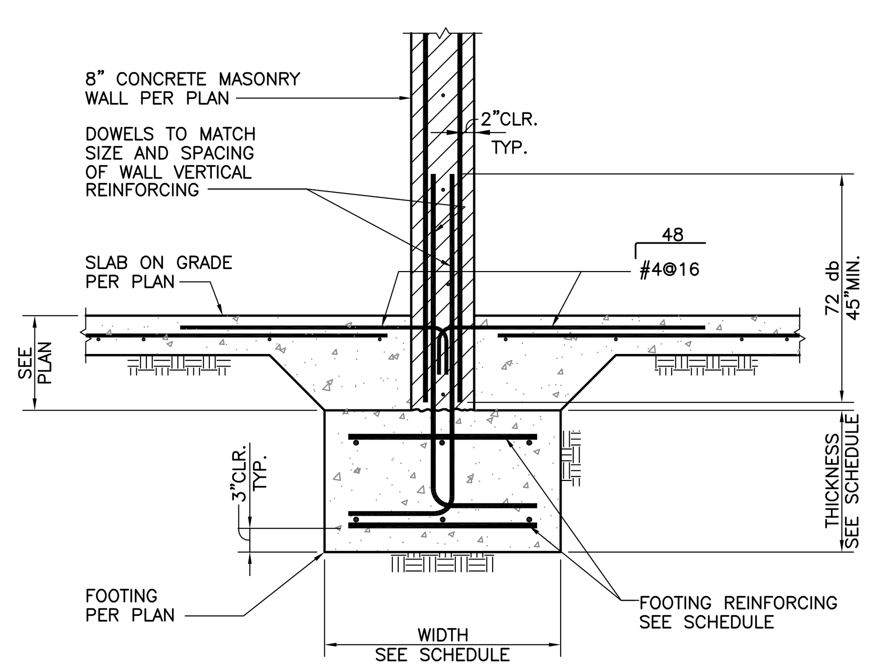


TYPICAL EXTERIOR CONCRETE MASONRY WALL TO FOUNDATION DETAIL (6)

M202



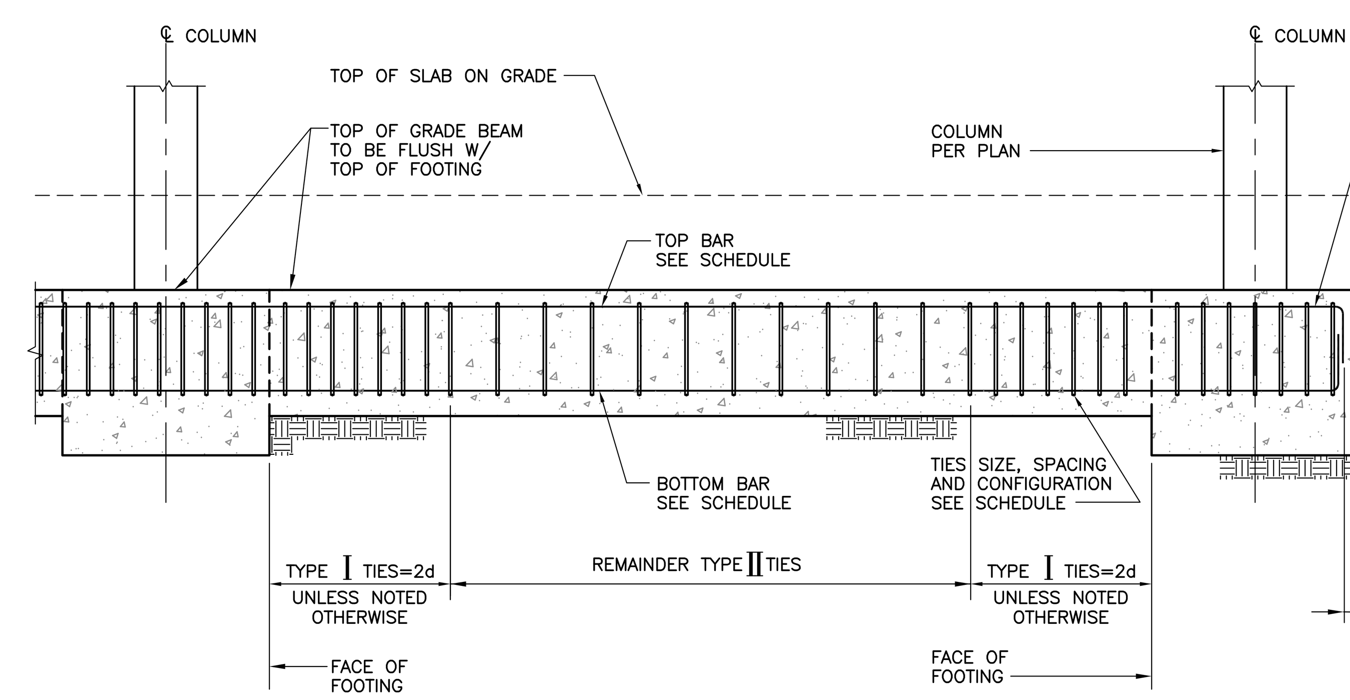
ONE LAYER VERTICAL BARS



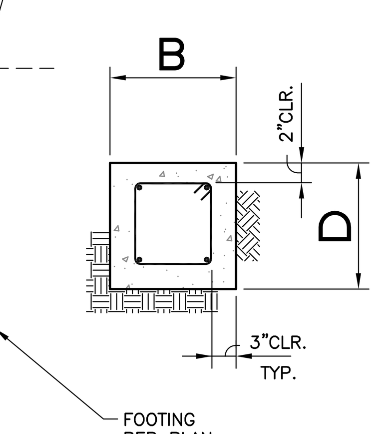
TWO LAYER VERTICAL BARS

TYPICAL INTERIOR 8" CONCRETE MASONRY WALL TO FOUNDATION DETAIL (5)

N.T.S.



GRADE BEAM EACH SIDE OF FOOTING



END CONDITION

NOTES:
1. WHERE TOP OF FOOTING ELEVATIONS VARY EACH END OF GRADE BEAM SLOPE GRADE BEAM SUCH THAT TOP OF GRADE BEAM MATCHES TOP OF FOOTING AT EACH END

MARK	SIZE (IN.)		TOP BARS	BOTTOM BARS	TIE OR STIRRUP TYPES		REMARKS
	B	D			I	II	
GB1	50	30	(6)#9	(6)#9	#4@6	#4@10	

TYPICAL GRADE BEAM SCHEDULE (1)

C215

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
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HUNTINGTON BEACH, CA 92648
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NOT FOR CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
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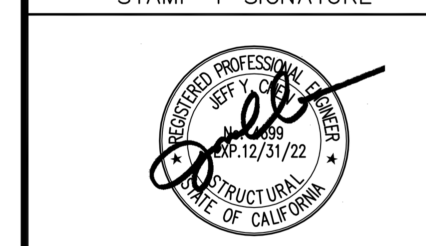
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE



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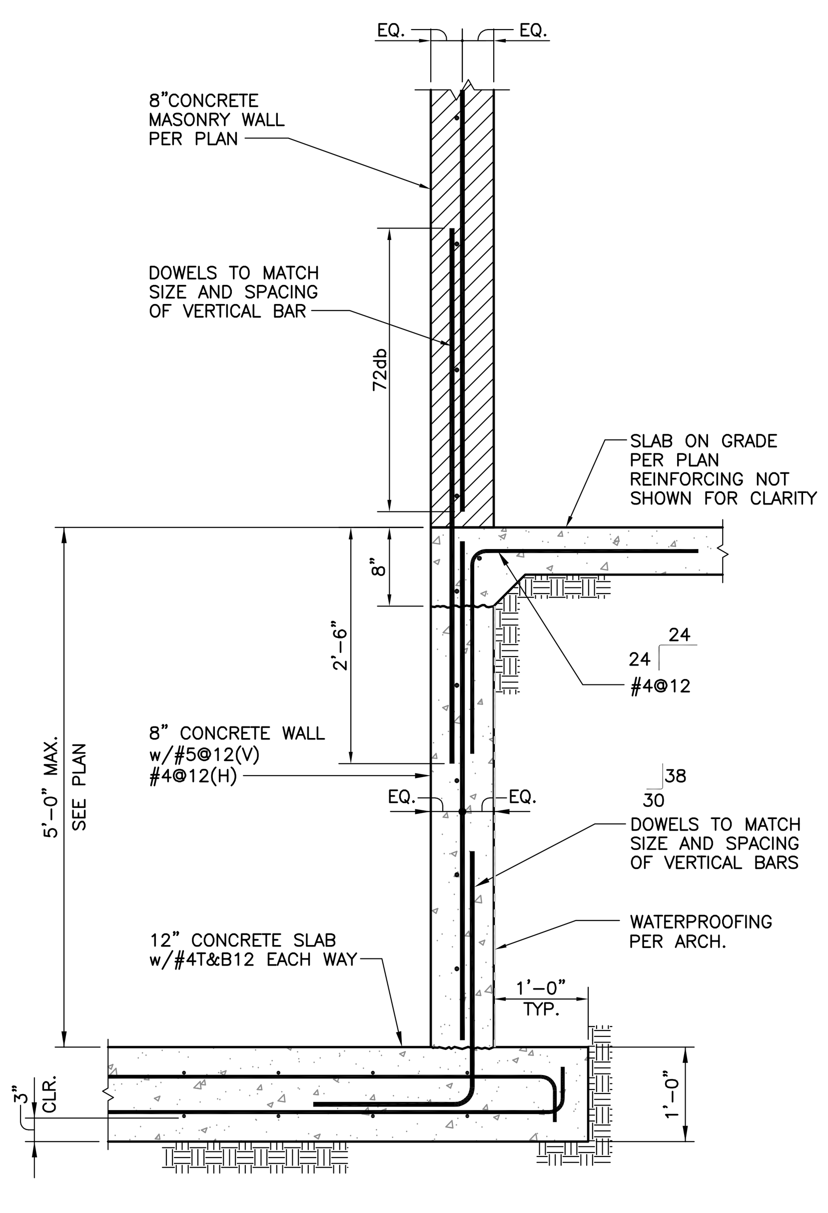
SHEET TITLE

TYPICAL CONCRETE FOUNDATION DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

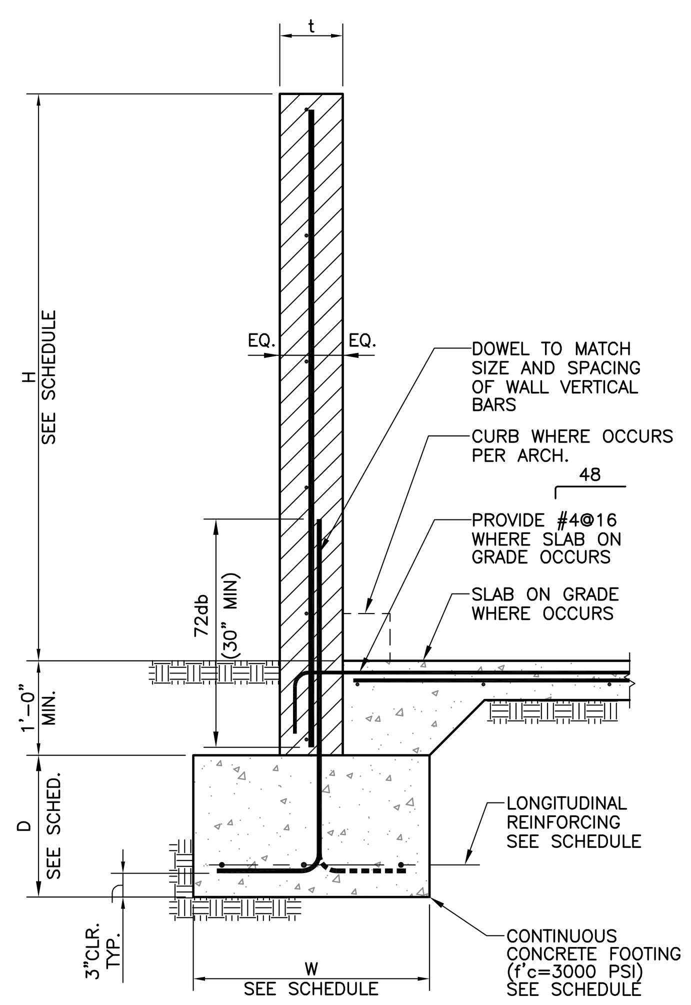
S1.3.1

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

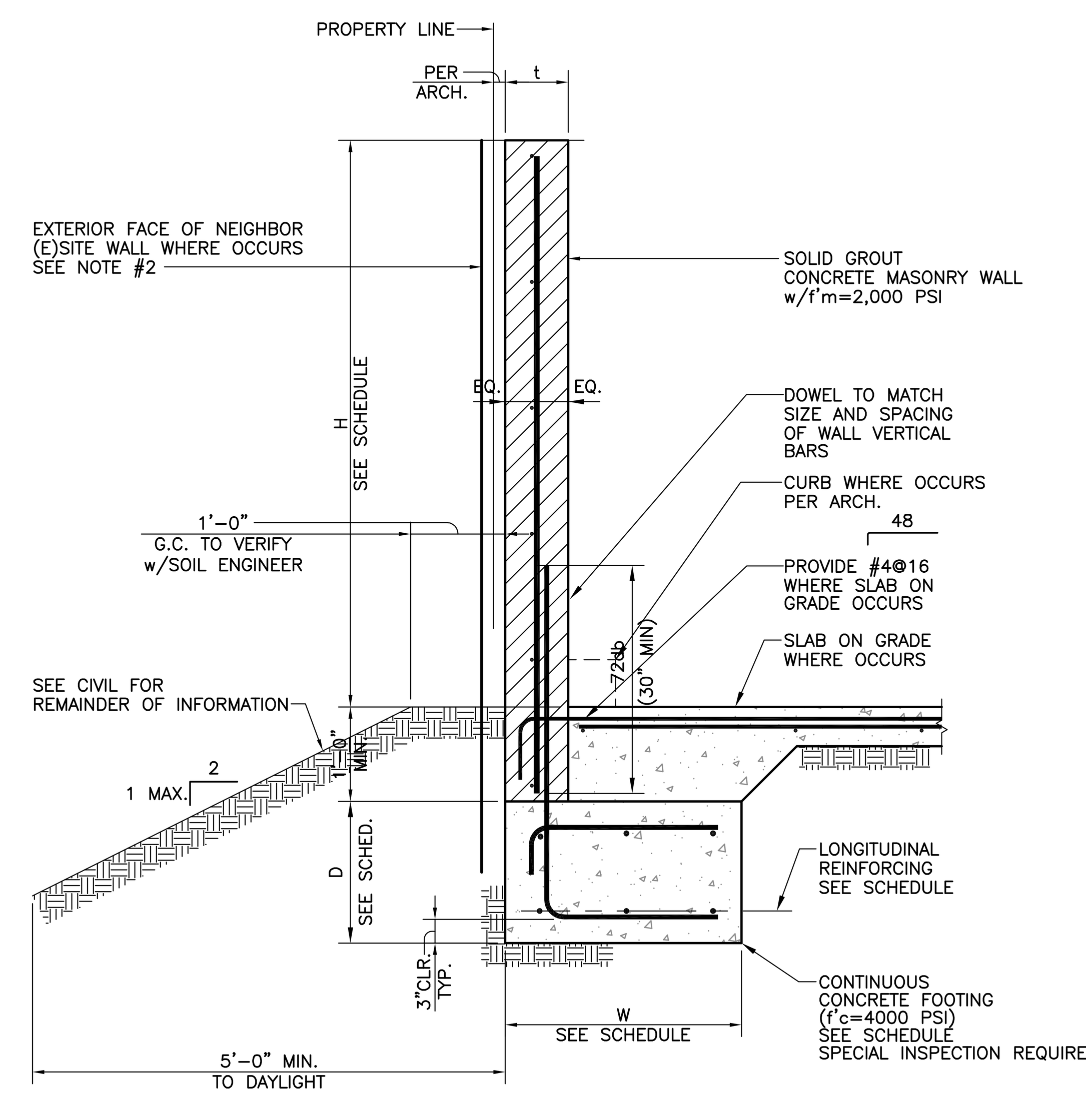


TYPICAL ELEVATOR PIT DETAIL

C209-REV 7



CONCENTRIC FOOTING



ECCENTRIC FOOTING

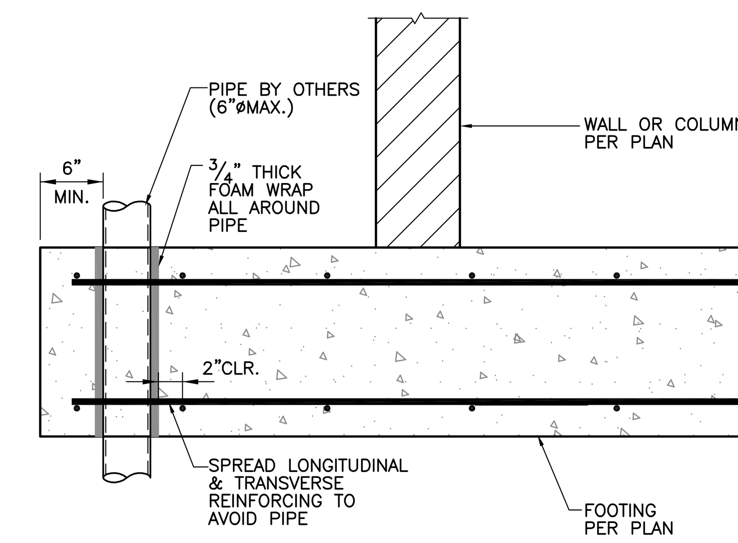
CONCRETE MASONRY WALL				CONCENTRIC FOOTING				ECCENTRIC FOOTING			
WALL HEIGHT (H)	t	REINFORCING		SIZE		REINFORCING		SIZE		REINFORCING	
		VERTICAL	HORIZONTAL	D	W	LONGITUDINAL	TRANSVERSE	D	W	LONGITUDINAL	TRANSVERSE
H ≤ 6'-0"	8"	#5@24	#5@24	16"	2'-6"	(4)#5	–	18"	3'-6"	(4)#5 T&B	#5@18 T&B
6'-0" < H ≤ 8'-0"	8"	#5@16	#5@24	18"	3'-0"	(4)#5	–	18"	4'-3"	(5)#5 T&B	#5@12 T&B

LEGEND

H = WALL HEIGHT ABOVE LOWEST ADJACENT GRADE
D = DEPTH OF FOOTING
W = WIDTH OF FOOTING
db = BAR DIAMETER
t = NOMINAL THICKNESS OF CONCRETE MASONRY WALL

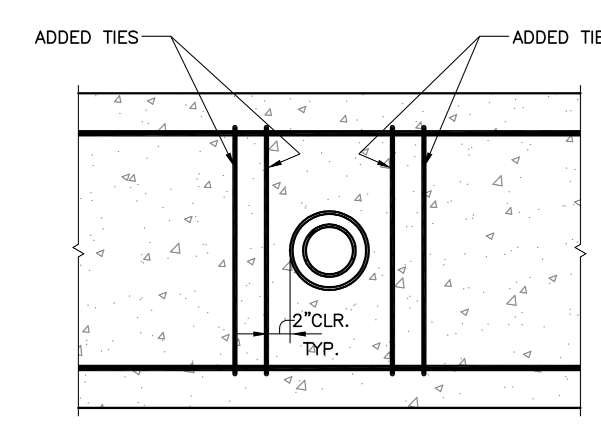
TYPICAL CONCRETE MASONRY FENCE WALL SCHEDULE

M220 5 2

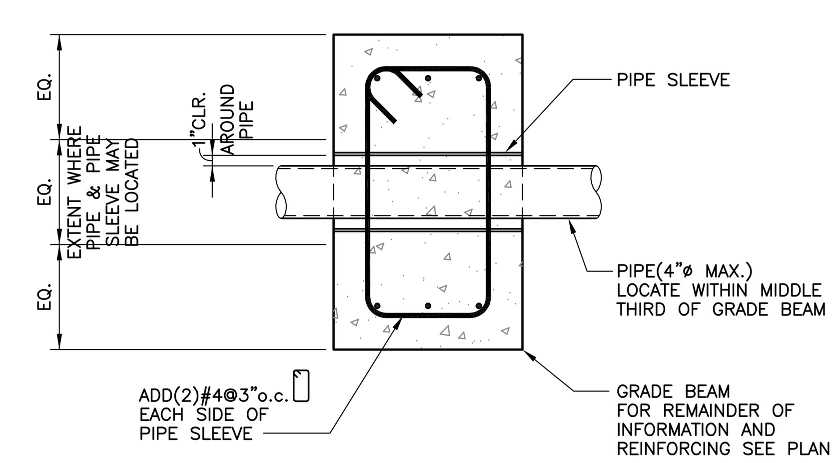


VERTICAL PIPE THRU FOOTING DETAIL

1"=1'-0" 3

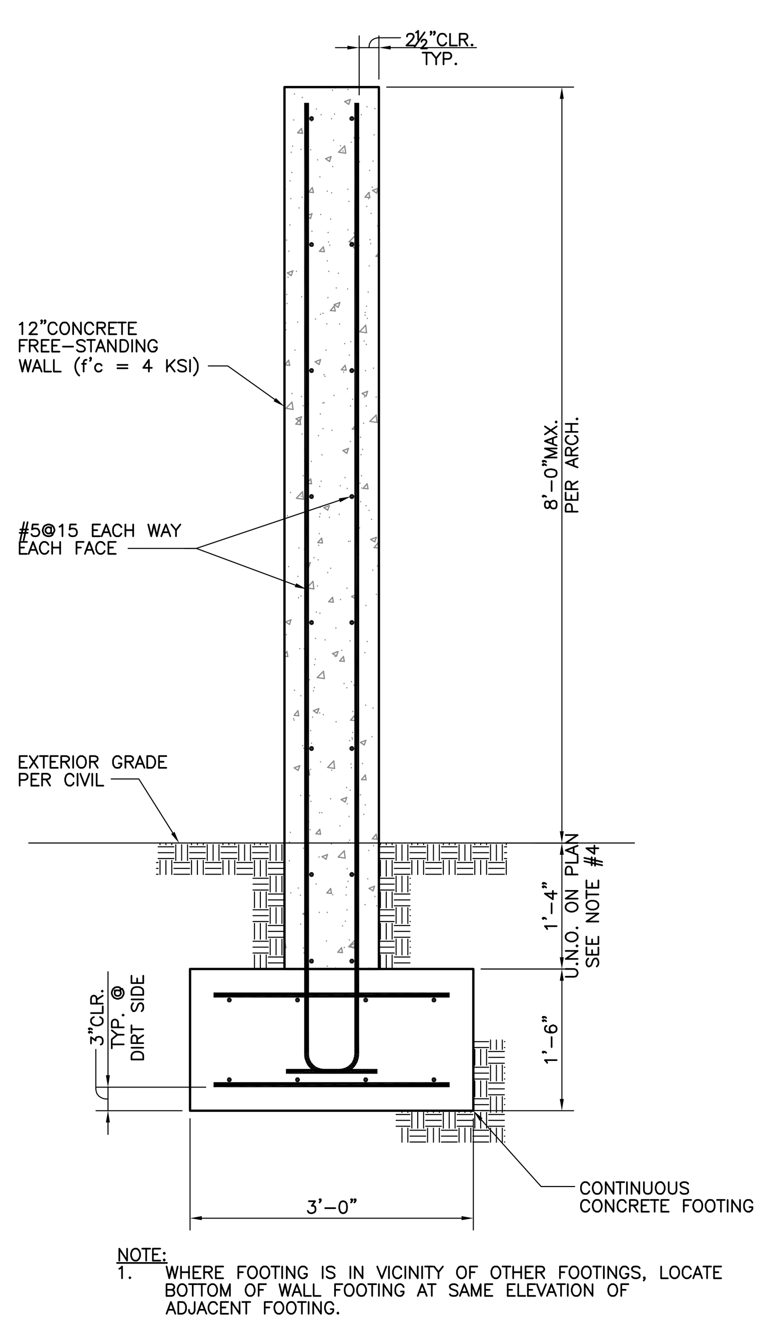


ELEVATION



TYPICAL PIPE THRU GRADE BEAM

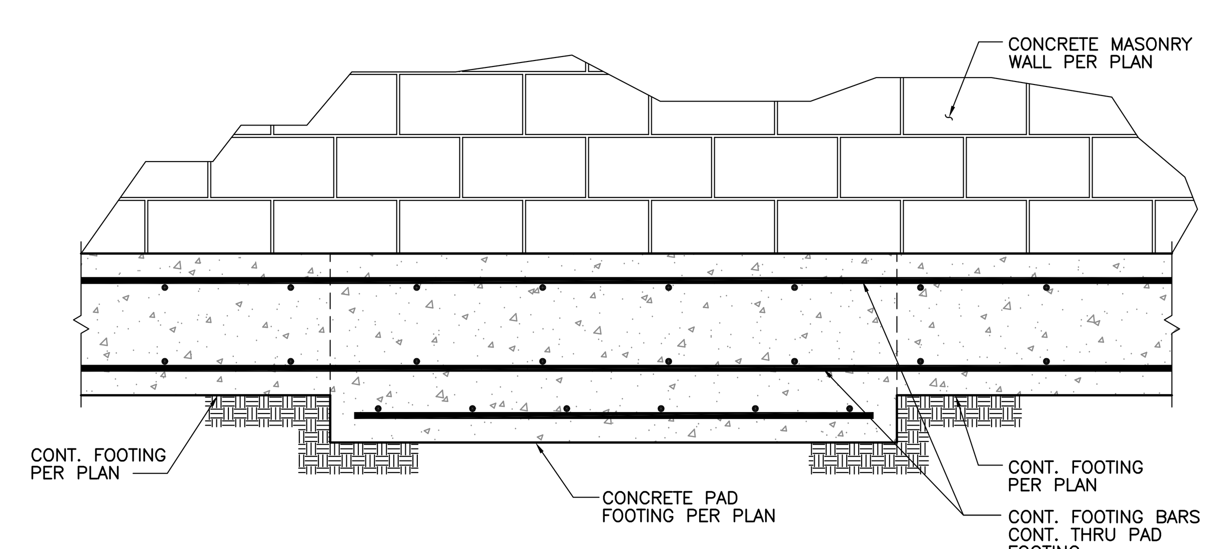
1"=1'-0" 2



NOTE:
1. WHERE FOOTING IS IN VICINITY OF OTHER FOOTINGS, LOCATE BOTTOM OF WALL FOOTING AT SAME ELEVATION OF ADJACENT FOOTING.

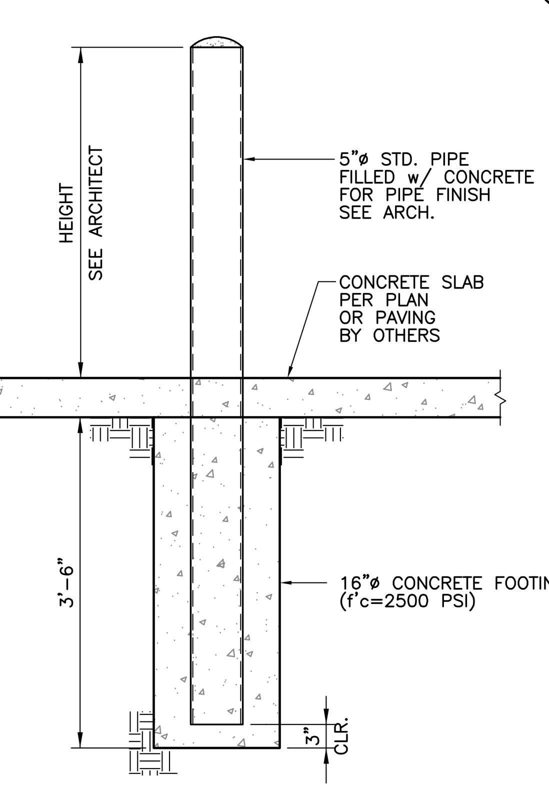
CONCRETE FREE-STANDING WALL DETAIL

N.T.S. 6



TYPICAL CONTINUOUS FOOTING AT PAD FOOTING DETAIL

N.T.S. 4



TYPICAL BOLLARD DETAIL

C907 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
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STAMP + SIGNATURE

REGISTERED PROFESSIONAL ENGINEER JEFF Y. CHEN EXP.12/31/22 STRUCTURAL STATE OF CALIFORNIA

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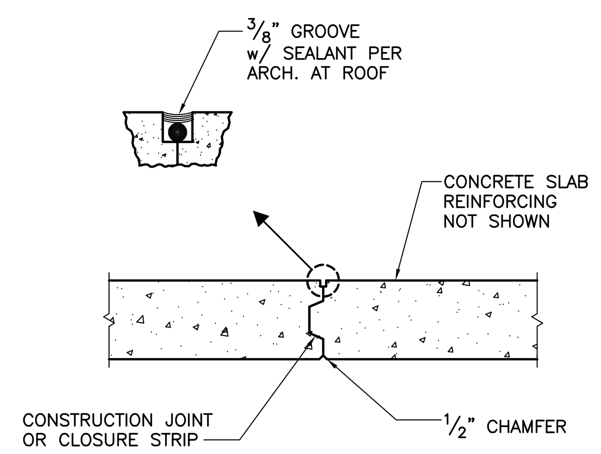
SHEET TITLE

TYPICAL CONCRETE FOUNDATION DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.3.2

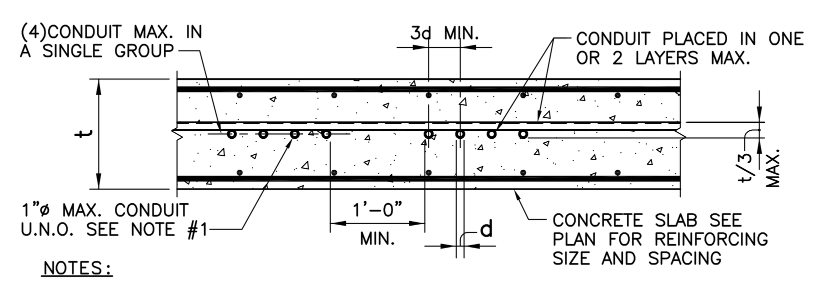
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



NOTE:
1. SEE ARCH. FOR WATERPROOFING OVER JOINTS AND AT ROOF.

TYPICAL SLAB JOINT SEALANT AT ROOF (5)

C313

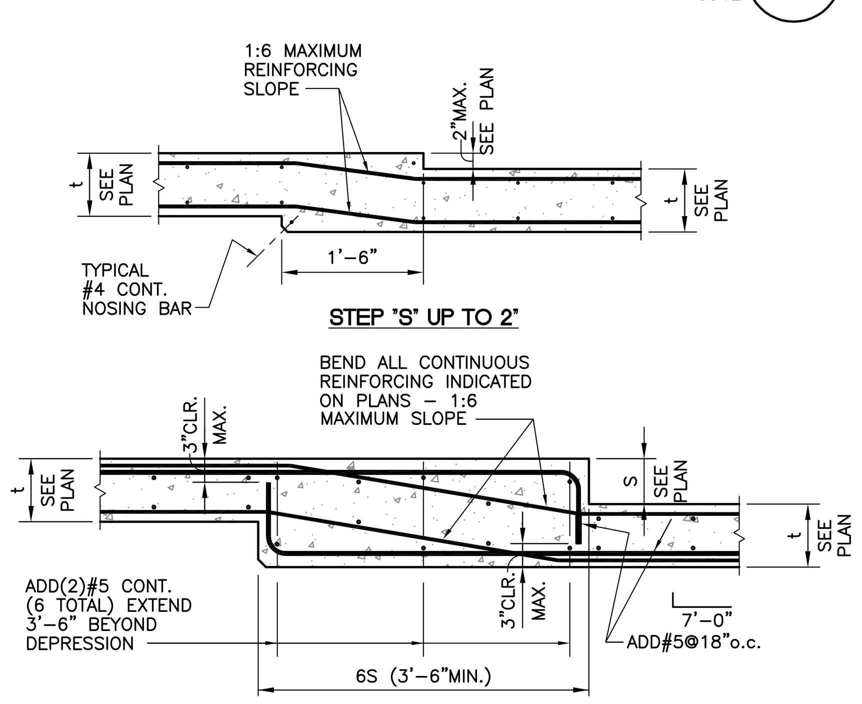


NOTES:
1. TOTAL THICKNESS OF CONDUITS EMBEDDED IN A SLAB SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE PLACED WITHIN THE MIDDLE 1/3 OF THE SLAB THICKNESS.
2. CONDUITS SHALL BE CHAIRED TO MAINTAIN A CONSTANT ELEVATION WITHIN THE MIDDLE 1/3 OF THE SLAB THICKNESS.
3. MINIMUM CONDUIT CLEARANCE TO SLAB REINFORCING:
   A. CONDUIT PARALLEL TO REBAR....................1"
   B. CONDUIT PARALLEL TO PT.......................6"
   C. CONDUIT CROSSING PT TENDON...................1" VERT.
   D. CONDUIT AT PT TENDON ANCHOR..................18"
4. CONDUIT SHALL BE PVC OR STEEL PIPE.
5. CONDUIT SHALL NOT DISPLACE SLAB REINFORCING.
6. AREAS OF CONDUIT THAT DO NOT COMPLY WITH THIS DETAIL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO PLACING CONDUIT. ADDITIONAL REINFORCING AND/OR RELOCATION OF CONDUIT MAY BE REQUIRED.

LEGEND
t = SLAB THICKNESS
d = OUTER DIAMETER OF CONDUIT

TYPICAL CONDUITS AND PIPES EMBEDDED IN CONCRETE SLAB DETAIL (4)

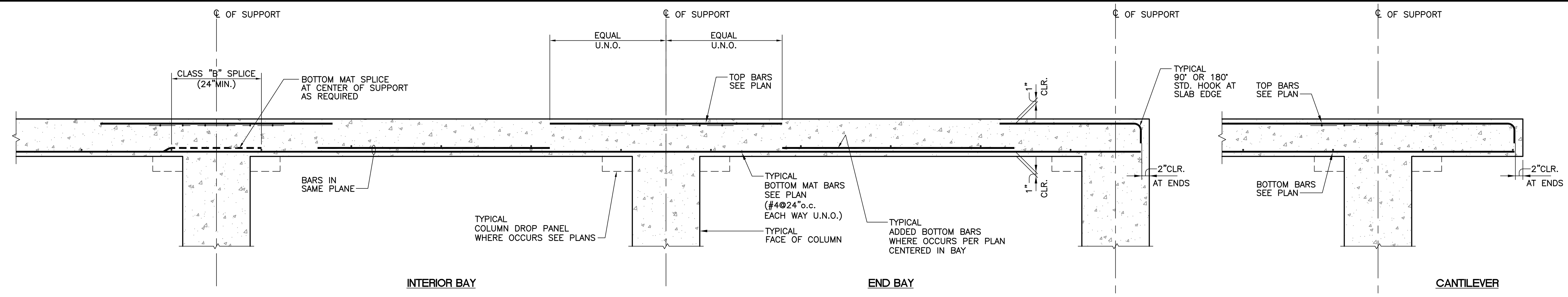
C312



LEGEND
S = STEP
t = SLAB THICKNESS

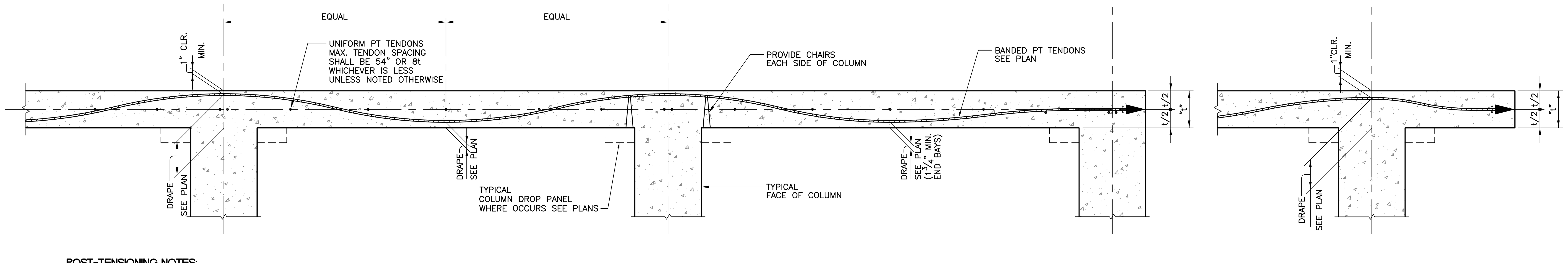
TYPICAL ELEVATED SLAB STEP DETAIL (3)

C310



REINFORCING NOTES:
1. FOR HOOKED BARS, LENGTH INDICATED ON PLAN DOES NOT INCLUDE HOOK.

REINFORCING DIAGRAM

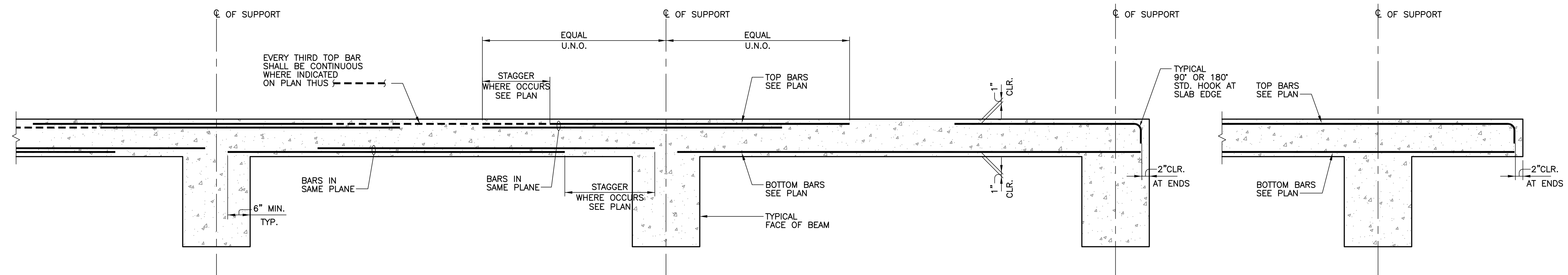


POST-TENSIONING NOTES:
1. CONTROL POINTS OF TENDON DRAPES ARE MEASURED FROM CENTER OF TENDONS TO BOTTOM OF SLAB. WHERE CONTROL POINT OCCURS AT CHANGE IN SLAB THICKNESS, DRAPE IS MEASURED TO BOTTOM OF THICKER SLAB.
2. PROVIDE EFFECTIVE FORCE AFTER LOSSES (Fe) AS INDICATED ON PLANS.
3. PROVIDE PARABOLIC DRAPE EXCEPT AT CANTILEVER, UNLESS NOTED OTHERWISE.
4. SEE "TYPICAL BANDED AND UNIFORM TENDON DETAILS" FOR ADDITIONAL INFORMATION.

PT TENDON PROFILE

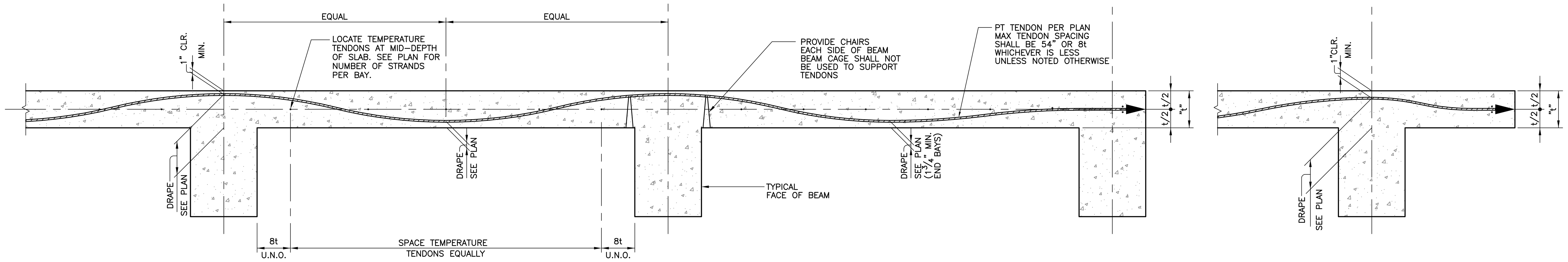
TYPICAL TWO-WAY POST-TENSIONED SLAB DETAIL (2)

C302



REINFORCING NOTES:
1. FOR HOOKED BARS, LENGTH INDICATED ON PLAN DOES NOT INCLUDE HOOK.

REINFORCING DIAGRAM



POST-TENSIONING NOTES:
1. CONTROL POINTS OF TENDON DRAPES ARE MEASURED FROM CENTER OF TENDONS TO BOTTOM OF SLAB. WHERE CONTROL POINT OCCURS AT CHANGE IN SLAB THICKNESS, DRAPE IS MEASURED TO BOTTOM OF THICKER SLAB.
2. PROVIDE EFFECTIVE FORCE AFTER LOSSES (Fe) AS INDICATED ON PLANS.
3. PROVIDE PARABOLIC DRAPE EXCEPT AT CANTILEVER, UNLESS NOTED OTHERWISE.

PT TENDON PROFILE

TYPICAL ONE-WAY POST-TENSIONED SLAB DETAIL (1)

C301

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240-4336
FAX: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
FAX: (818) 956-0120

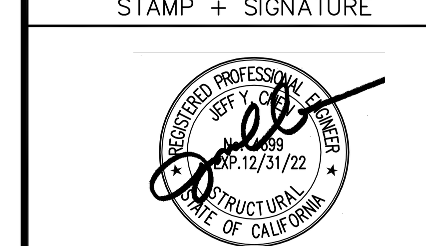
CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

NOT FOR CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE



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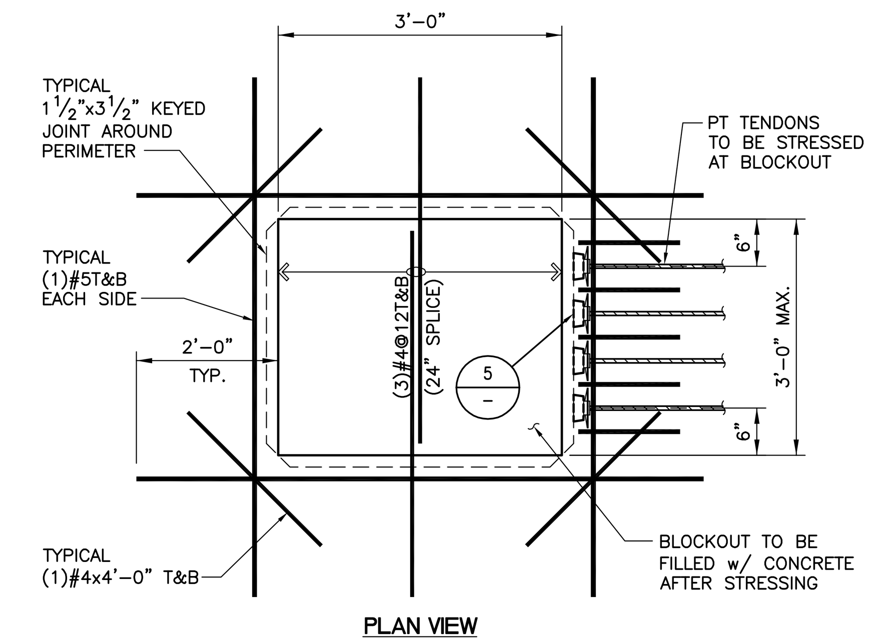
SHEET TITLE

TYPICAL CONCRETE SLAB DETAILS

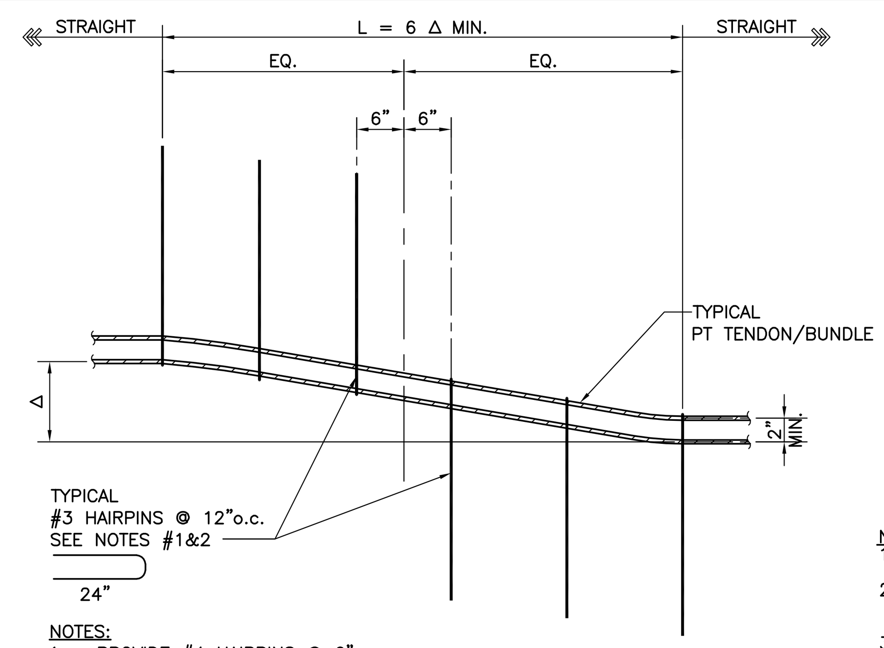
DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.4

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

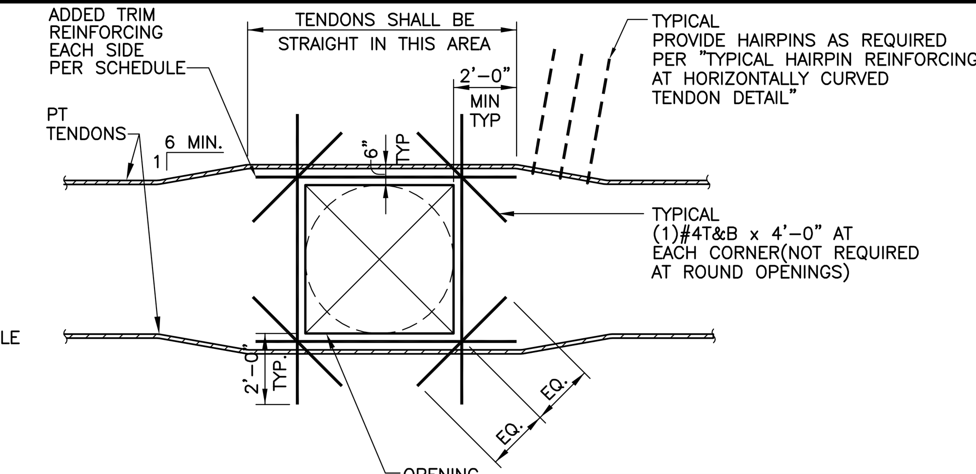


TYPICAL STRESSING BLOCKOUT DETAIL (11) C339



NOTES:
1. PROVIDE #4 HAIRPINS @ 6"o.c. AT BANDED TENDONS WHERE OCCURS.
2. HAIRPINS MAYBE OMITTED WHERE L ≥ 12 Δ.

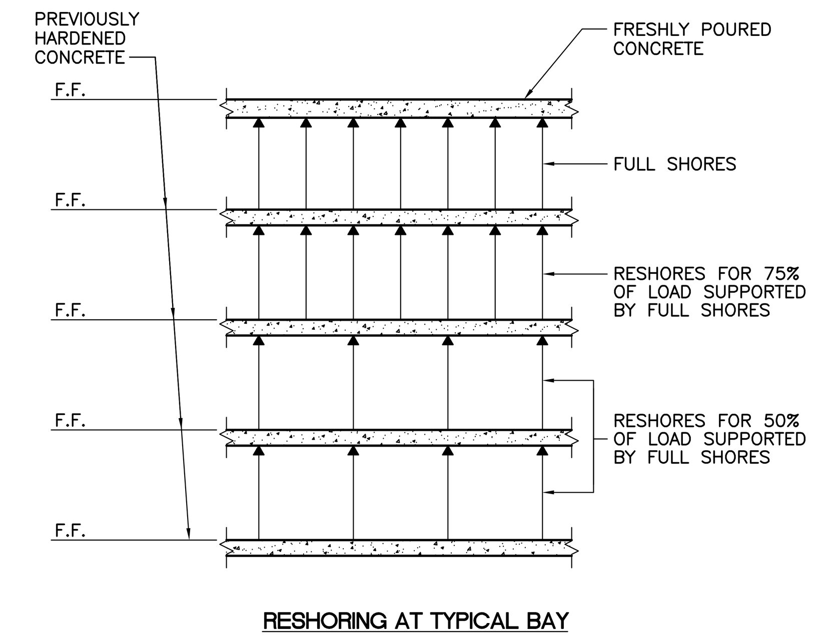
TYPICAL HAIRPIN REINFORCING AT HORIZONTALLY CURVED TENDON DETAIL (9) C336



MAX. OPENING DIMENSION	TRIM REINFORCING
8"	NONE
1'-6"	(1)#4T&B
2'-6"	(1)#5T&B
4'-0"	(2)#5T&B

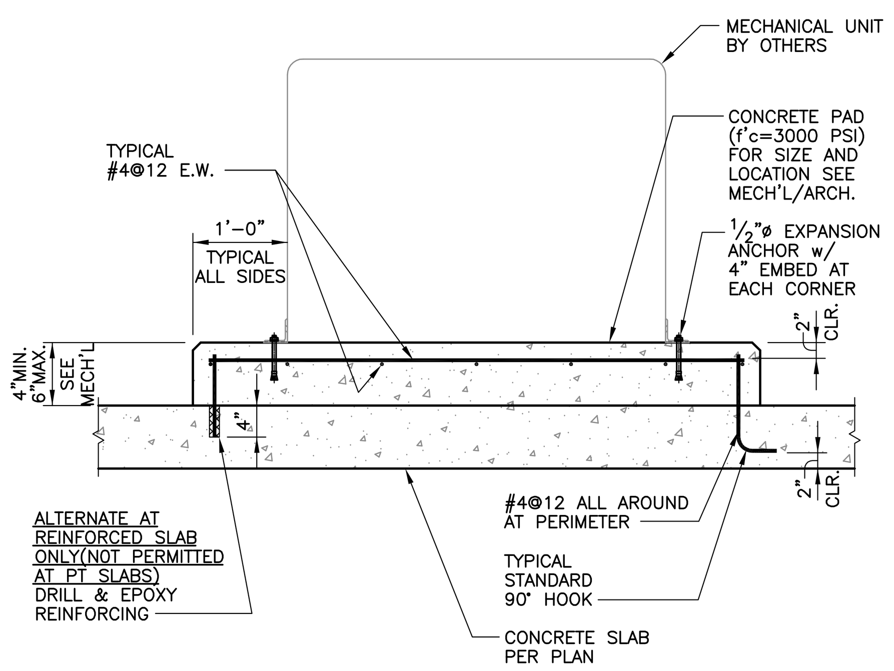
NOTES:
1. ALL OPENINGS SHALL BE LOCATED ON POST-TENSIONING SHOP DRAWINGS.
2. TRIM BARS SHOWN IN THIS DETAIL ARE IN LIEU OF ADDED TRIM BARS SHOWN IN "TYPICAL REINFORCING AT SLAB OPENING DETAIL".
3. SEE "TYPICAL REINFORCING AT SLAB OPENING DETAIL" FOR ADDED CONTINUOUS BARS WHERE BARS ARE INTERRUPTED BY OPENING.

TYPICAL POST-TENSIONING AT SLAB OPENING DETAIL (6) C333

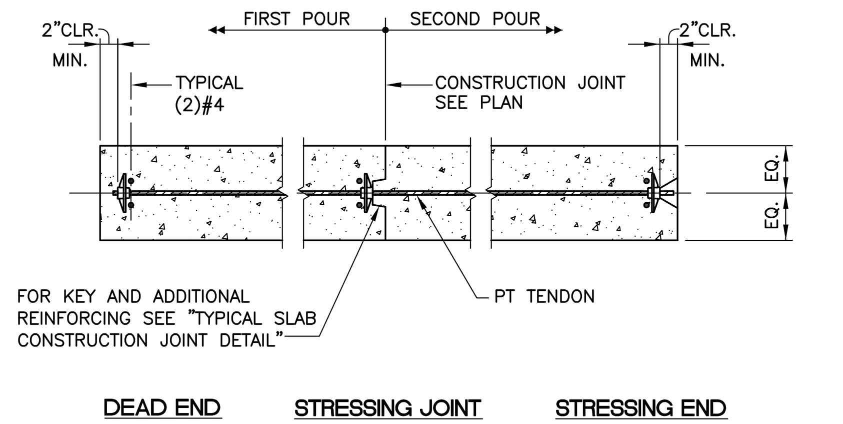


NOTES:
1. SHORING AND RESHORING IS CONSIDERED CONSTRUCTION MEANS AND METHODS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PERFORM SHORING AND RESHORING IN ACCORDANCE WITH ACI 347.
2. THIS DETAIL ILLUSTRATES WHAT IS CONSIDERED TO BE THE MINIMUM LEVEL OF SUPPORT REQUIRED DURING CONSTRUCTION. SHORING AND RESHORING DESIGN IS THE RESPONSIBILITY OF THE SHORING ENGINEER.
3. RESHORING SHALL BE INSTALLED IMMEDIATELY AFTER REMOVAL OF SHORING.
4. UNLESS REQUIRED TO SUPPORT FLOORS ABOVE, SHORING MAY BE REMOVED AFTER CONCRETE HAS REACHED ITS 28 DAY DESIGN STRENGTH.

TYPICAL MINIMUM RESHORING DETAIL (3) C316A

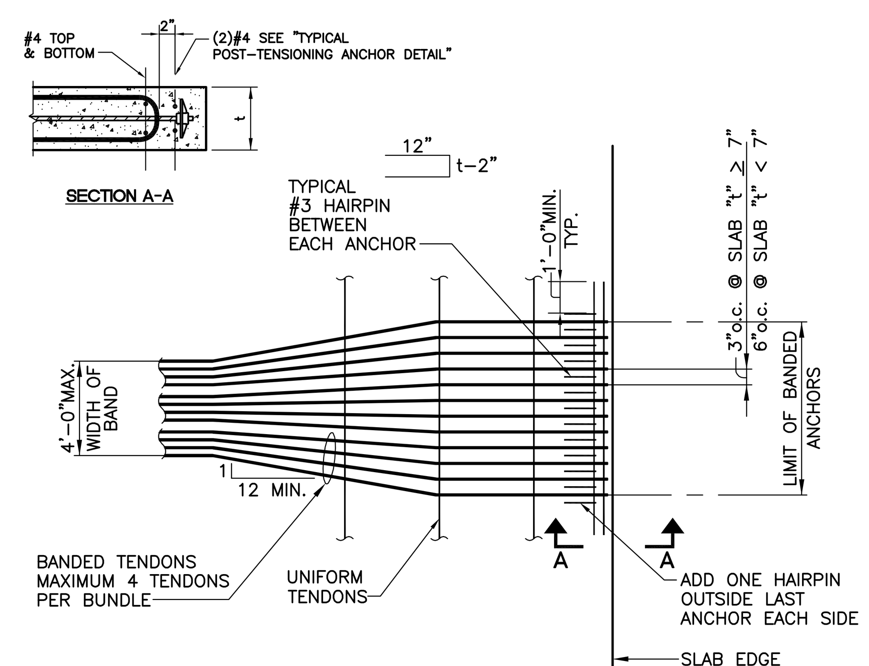


TYPICAL CONCRETE PAD DETAIL (10) C351

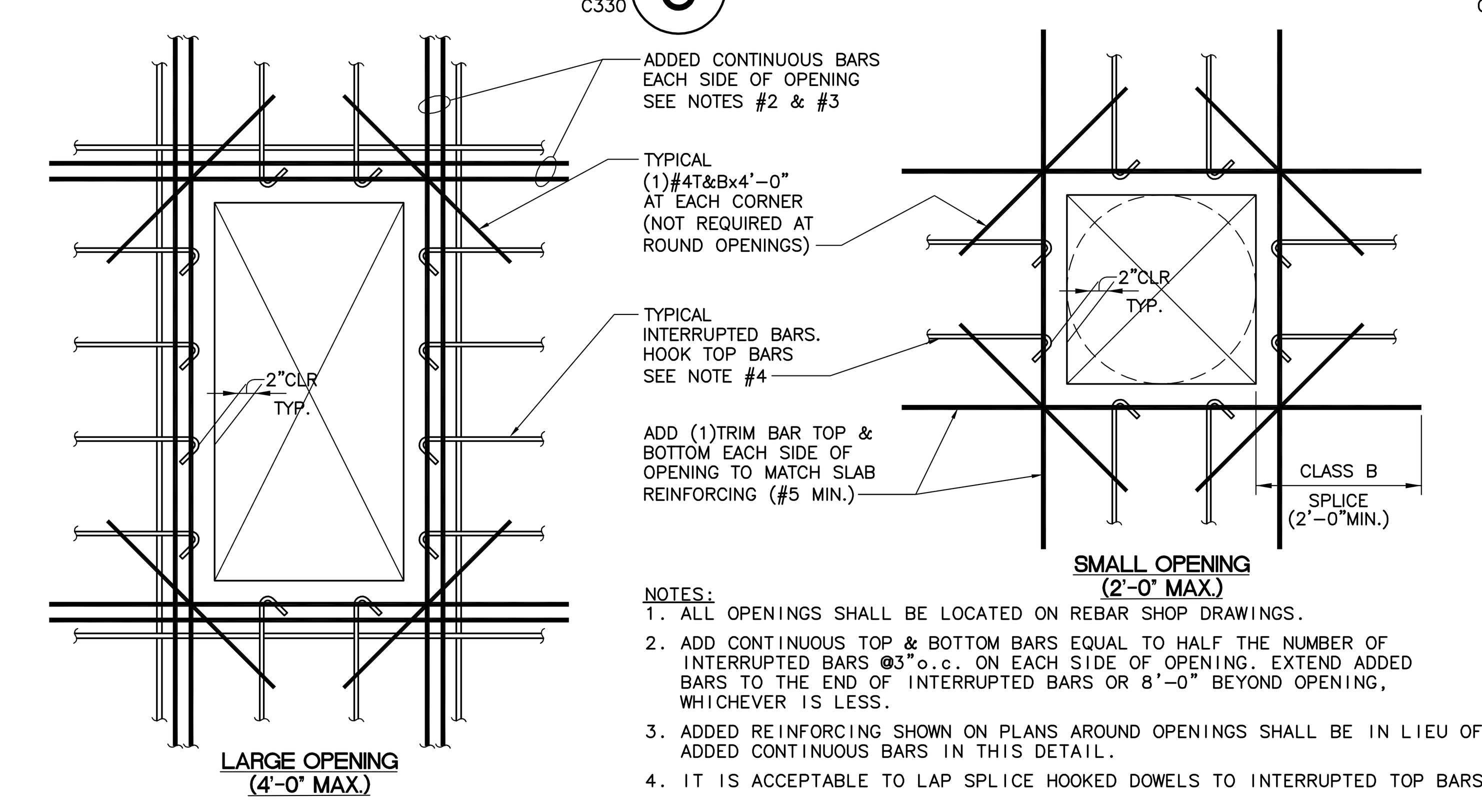


NOTES:
1. ANCHORAGE HARDWARE SHALL HAVE A CURRENT ICC EVALUATION REPORT NUMBER. ANCHORAGE ASSEMBLY SHALL BE ENCAPSULATED.
2. TENDON ENDS SHALL BE PROTECTED WITH A GREASE-FILLED CAP WITHIN ONE DAY OF CUTTING TENDONS.
3. ANCHORAGE POCKETS SHALL BE FILLED WITH NON-SHRINK GROUT AS SOON AS PRACTICAL AFTER STRESSING. GROUT CONTAINING CHLORIDES SHALL NOT BE USED.
4. LOCATION OF STRESSING BLOCKOUTS, JOINTS OR CONTINUOUS CLOSURE STRIPS, IF NOT INDICATED ON THE DRAWINGS, SHALL BE DETERMINED BY THE GENERAL CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

TYPICAL POST-TENSIONING ANCHOR DETAIL (8) C335

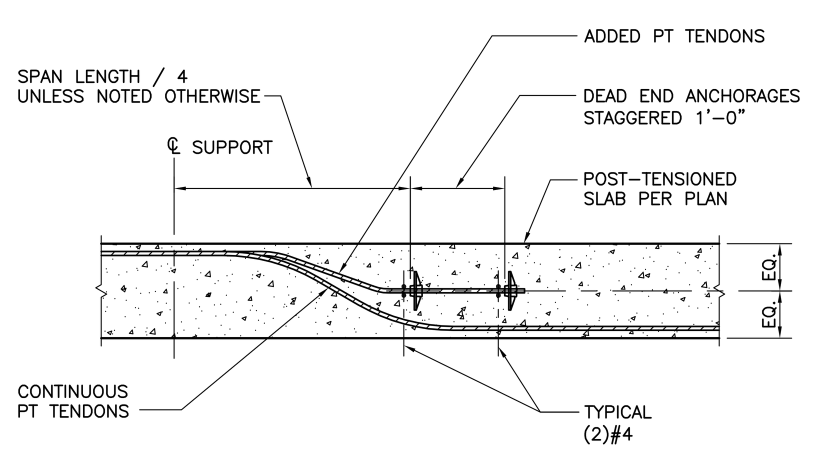


TYPICAL BANDED TENDONS AT SLAB EDGE OR CONSTRUCTION JOINT DETAIL (5) C330

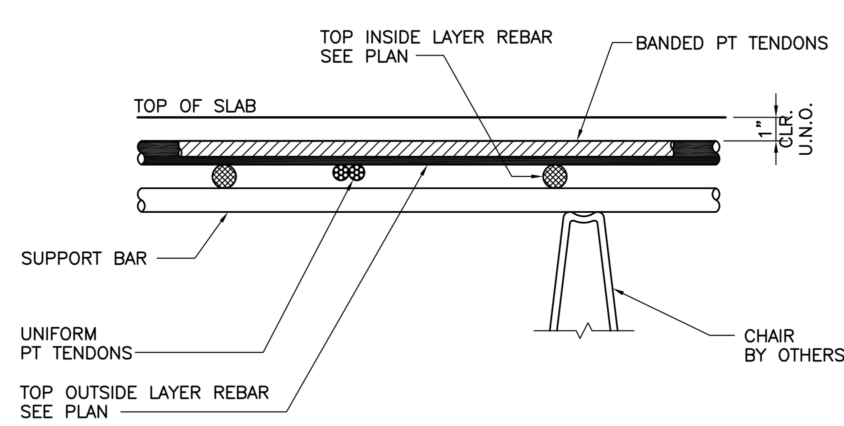


NOTES:
1. ALL OPENINGS SHALL BE LOCATED ON REBAR SHOP DRAWINGS.
2. ADD CONTINUOUS TOP & BOTTOM BARS EQUAL TO HALF THE NUMBER OF INTERRUPTED BARS @3"o.c. ON EACH SIDE OF OPENING. EXTEND ADDED BARS TO THE END OF INTERRUPTED BARS OR 8'-0" BEYOND OPENING, WHICHEVER IS LESS.
3. ADDED REINFORCING SHOWN ON PLANS AROUND OPENINGS SHALL BE IN LIEU OF ADDED CONTINUOUS BARS IN THIS DETAIL.
4. IT IS ACCEPTABLE TO LAP SPLICE HOOKED DOWELS TO INTERRUPTED TOP BARS.

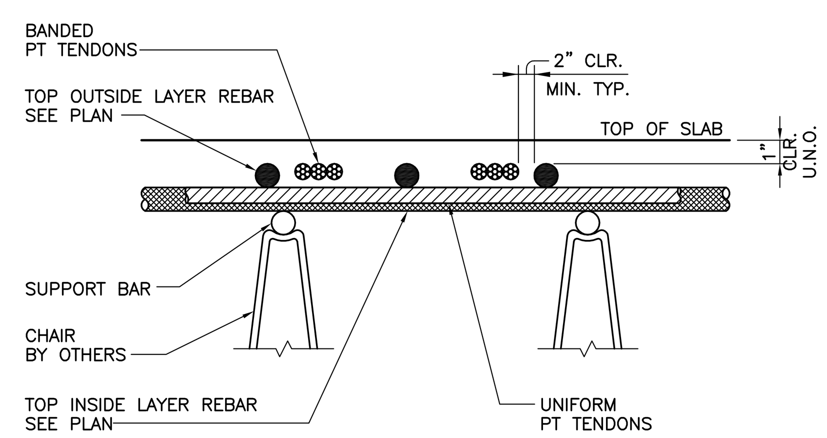
TYPICAL REINFORCING AT SLAB OPENING DETAIL (2) C315



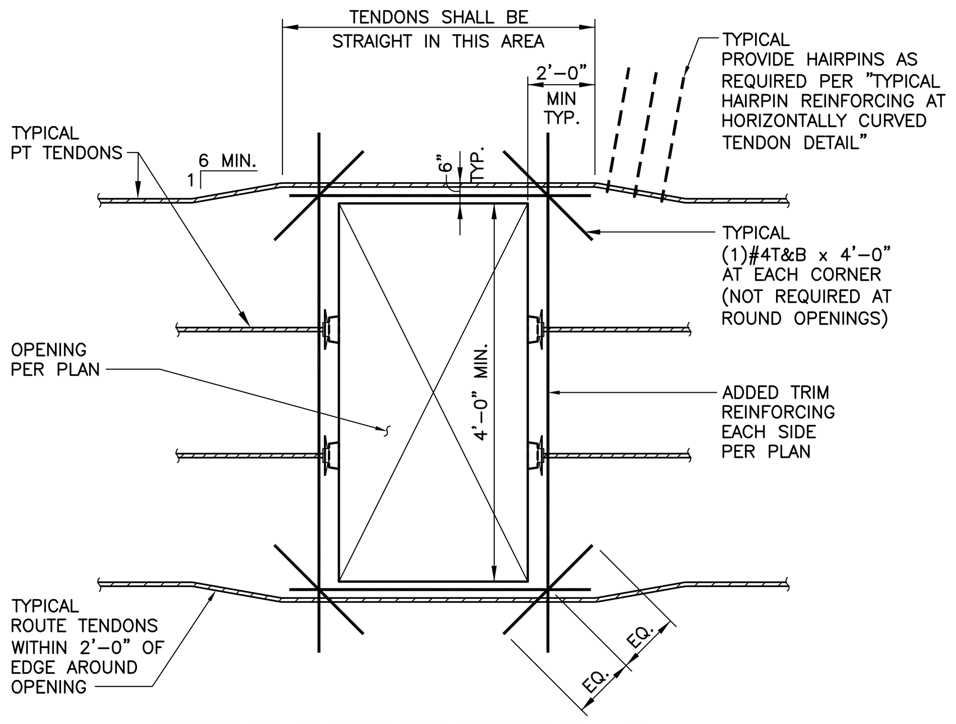
TYPICAL ADDED TENDON DETAIL (13) C337



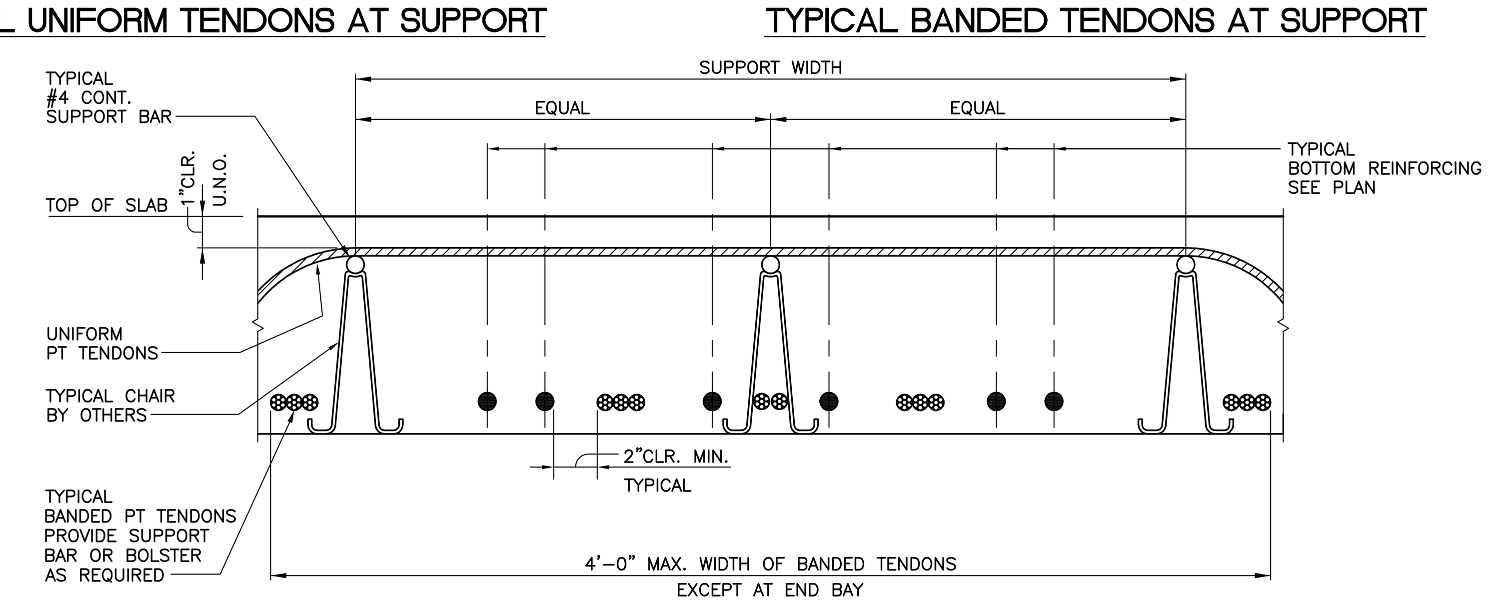
TYPICAL UNIFORM TENDONS AT SUPPORT



TYPICAL BANDED TENDONS AT SUPPORT



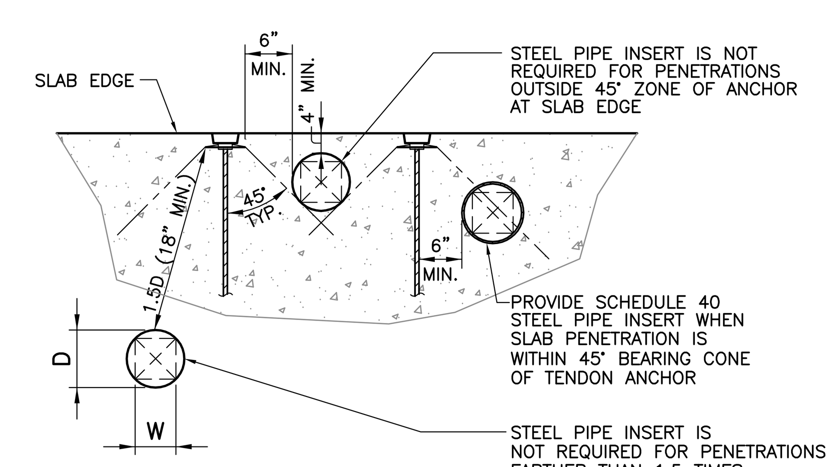
TYPICAL POST-TENSIONING AT SLAB OPENING GREATER THAN 4'-0' (12) C340



NOTES:
1. MINIMUM 2 TENDONS SHALL PASS THRU COLUMN CORE IN EACH DIRECTION.
2. NUMBER OF PT TENDONS PER BUNDLE MAY VARY. 4 PT TENDONS MAXIMUM PER BUNDLE.

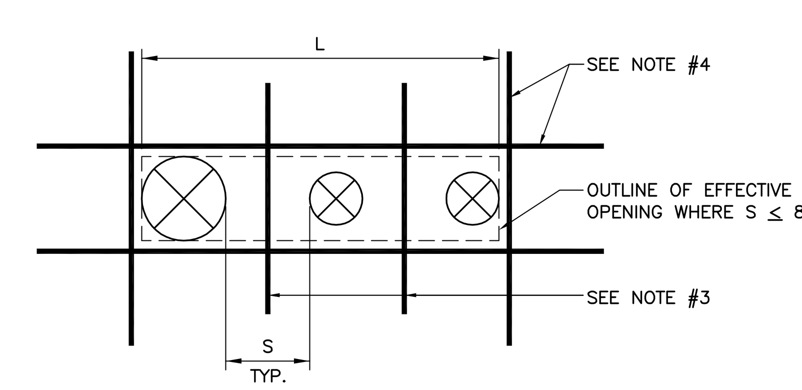
TYPICAL BANDED TENDONS AT MID-SPAN

TYPICAL BANDED AND UNIFORM TENDON DETAILS (7) C334



NOTE:
1. PROVIDE TRIM REINFORCING AROUND OPENINGS PER "TYPICAL POST-TENSIONING AT SLAB OPENING DETAIL".

TYPICAL PENETRATIONS AT TENDON ANCHORS (4) C332



NOTES:
1. THIS DETAIL APPLIES TO GROUPS OF PENETRATIONS 8"⌀ OR SMALLER WHERE S ≤ 8".
2. WHERE S > 8", TREAT EACH PENETRATION AS AN INDIVIDUAL OPENING.
3. WHERE 3" < S ≤ 8", ADD (1)#4T&B BETWEEN OPENINGS. EXTEND 1'-0" BEYOND EFFECTIVE OPENING EACH SIDE.
4. WHERE L > 1'-0", ADD TRIM BARS AROUND EFFECTIVE OPENING PER TYPICAL DETAILS. DIAGONAL BARS NOT REQUIRED.

TYPICAL GROUPED SLAB PENETRATION DETAIL (1) C314

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200 Santa Monica California 90403 310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240-4336
FAX: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
FAX: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

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NO.	DESCRIPTION	DATE
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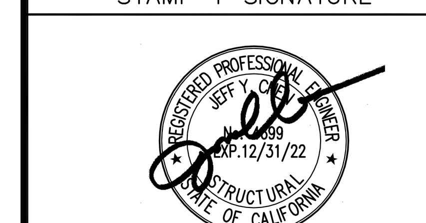
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE



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SHEET TITLE

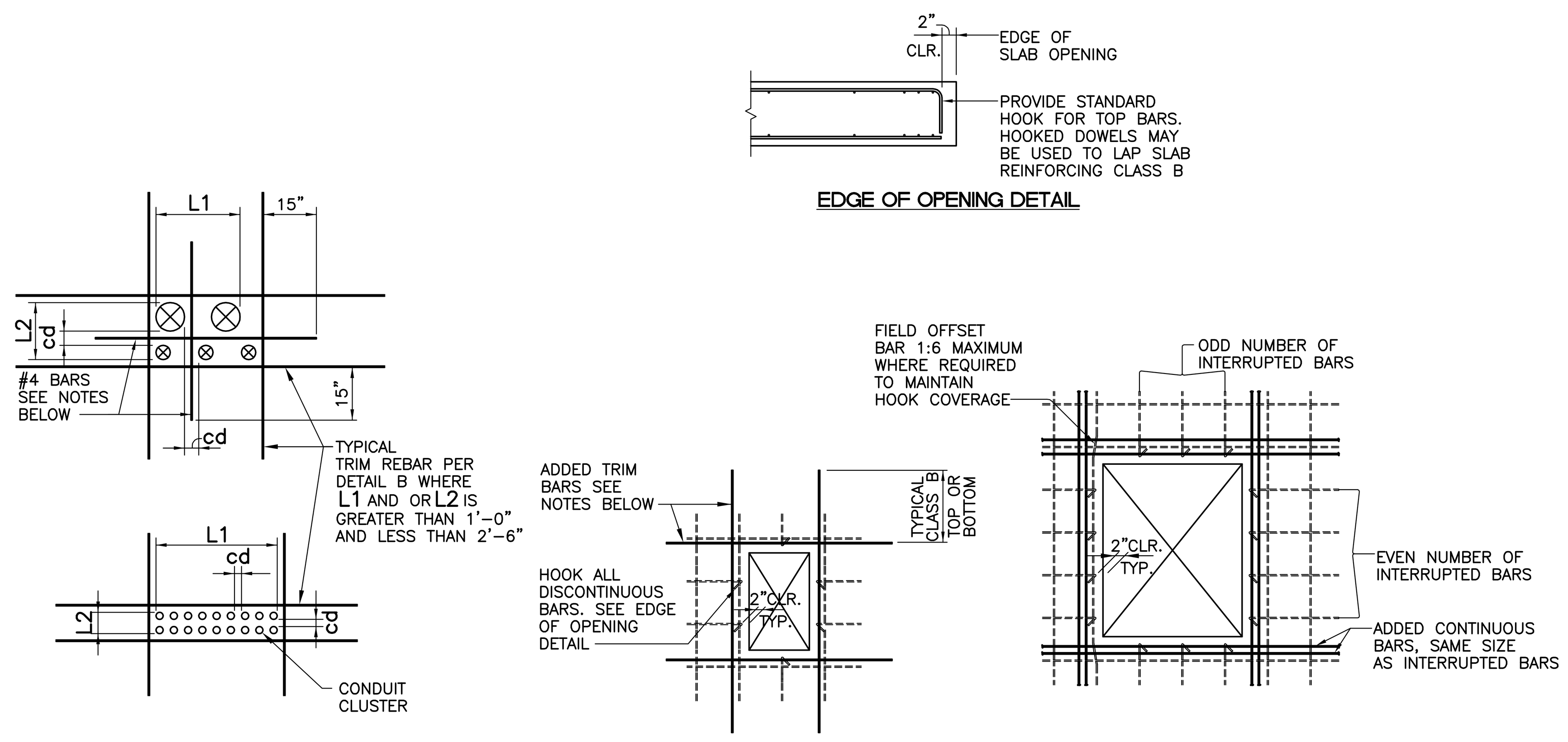
TYPICAL CONCRETE SLAB DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.4.1

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

TYPICAL REINFORCING AROUND OPENINGS AND PENETRATIONS (7) N.T.S.



OPENINGS FOR PIPES AND CONDUITS (C)

1. WHERE (cd) CLEAR DISTANCES IS EQUAL TO OR GREATER THAN (t) SLAB THICKNESS TYPICAL CONTINUOUS SLAB REINFORCING SHALL BE PROVIDED TOP AND OR BOTTOM BETWEEN OPENINGS.
2. WHERE (cd) IS LESS THAN (t) AND GREATER THAN OR EQUAL TO 4" PROVIDE 1-#4 BAR TOP AND BOTTOM AS SHOWN ABOVE.

OPENINGS ≤30" MAXIMUM (B)

1. ADDED BARS
   A. PROVIDE 1-#5 BAR TOP AND BOTTOM ALL FOUR SIDES WHERE SLAB REINFORCING USES #5 BARS OR LESS.
   B. PROVIDE 1-#6 BAR TOP AND BOTTOM ALL FOUR SIDES WHERE SLAB REINFORCING USES #6 BARS OR GREATER

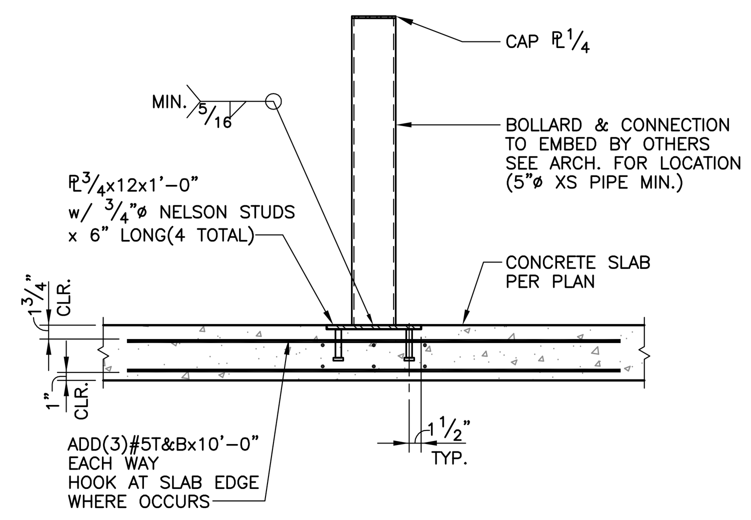
INTERRUPTED BAR LAYOUT OPENINGS >30" ≤48" MAXIMUM (A)

1. WHERE EVEN NUMBER OF BARS ARE INTERRUPTED, ADD HALF THE NUMBER OF EVEN BARS TO EACH SIDE OF OPENING.
2. WHERE ODD NUMBER OF BARS ARE INTERRUPTED, ADD ONE AND ADD HALF THE NUMBER OF EVEN BARS TO EACH SIDE OF OPENING.
3. ALL REINFORCING INDICATED ON PLANS AT OPENINGS SHALL BE IN LIEU OF REINFORCING REQUIRED BY THE INTERRUPTED BAR LAYOUT.

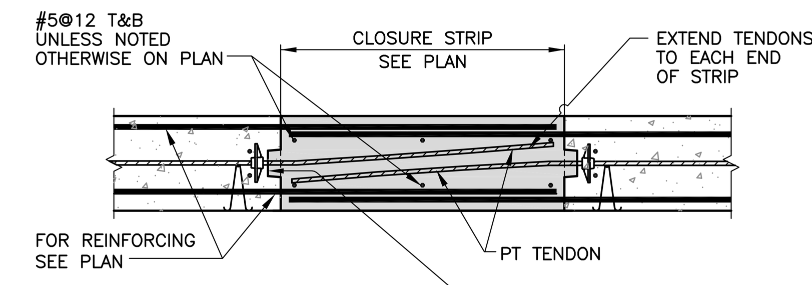
OPENINGS NOTES

1. OPENINGS IN SLABS CLOSER THAN 10 TIMES SLAB THICKNESS FROM FACE OR CORNER OF COLUMN SHALL BE SUBMITTED AND APPROVED BY THE STRUCTURAL ENGINEER.
2. ALL OPENINGS TO BE LOCATED ON REBAR SHOP DRAWINGS.

TYPICAL BOLLARD EMBED DETAIL (4) C353



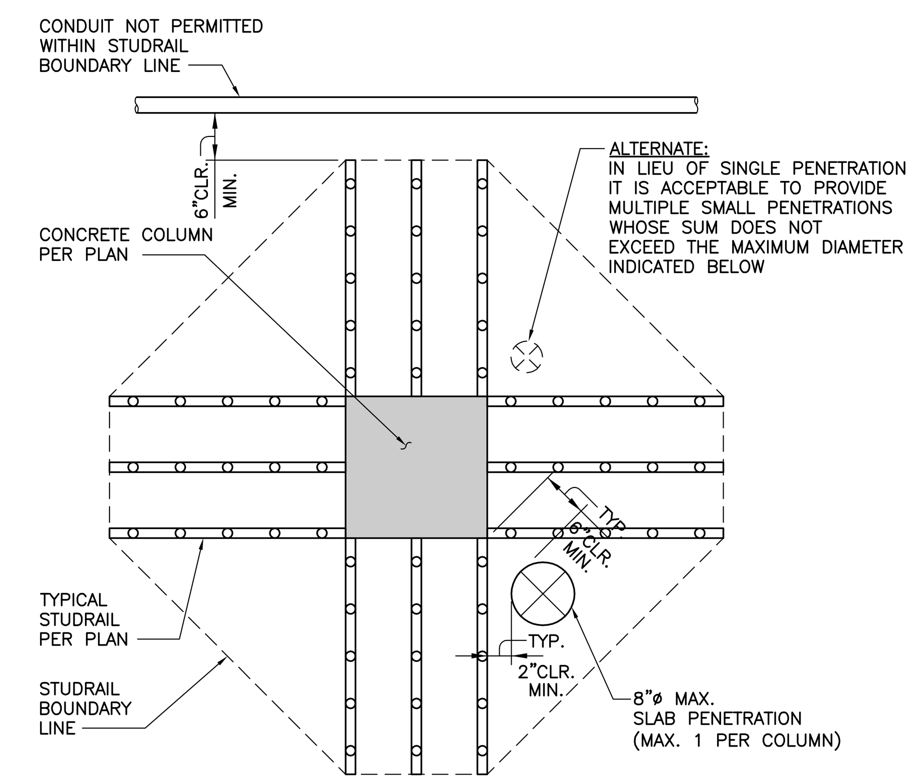
TYPICAL POST TENSIONED SLAB CLOSURE STRIP DETAILS (3) C331



NOTE:
1. CLOSURE STRIP TO REMAIN OPEN FOR A MINIMUM OF 28 DAYS

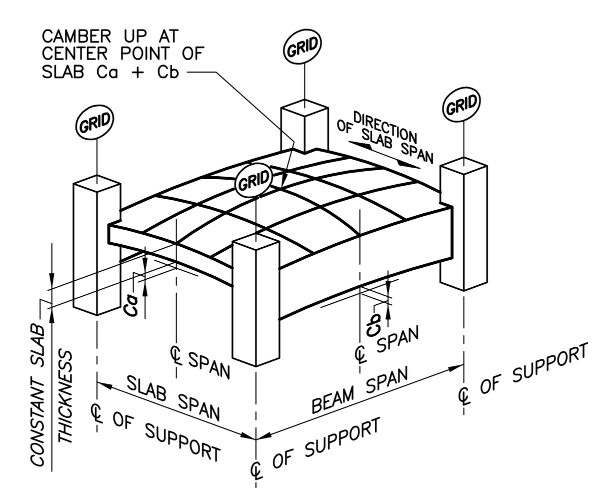
CLOSURE STRIP

TYPICAL SMALL SLAB PENETRATION AT COLUMN DETAIL (2) 3/4"=1'-0"



NOTES:
1. WHERE SLAB PENETRATION IS LARGER THAN MAXIMUM INDICATED IN DETAIL SEE "TYPICAL LARGE SLAB PENETRATION AT COLUMN DETAIL".
2. SLAB PENETRATIONS NOT PERMITTED AT CORNER COLUMNS.
3. FAILURE TO COMPLY WITH DETAIL WILL RESULT IN ADDITIONAL STUDRAILS AND/OR RELOCATION OF SLAB PENETRATIONS.

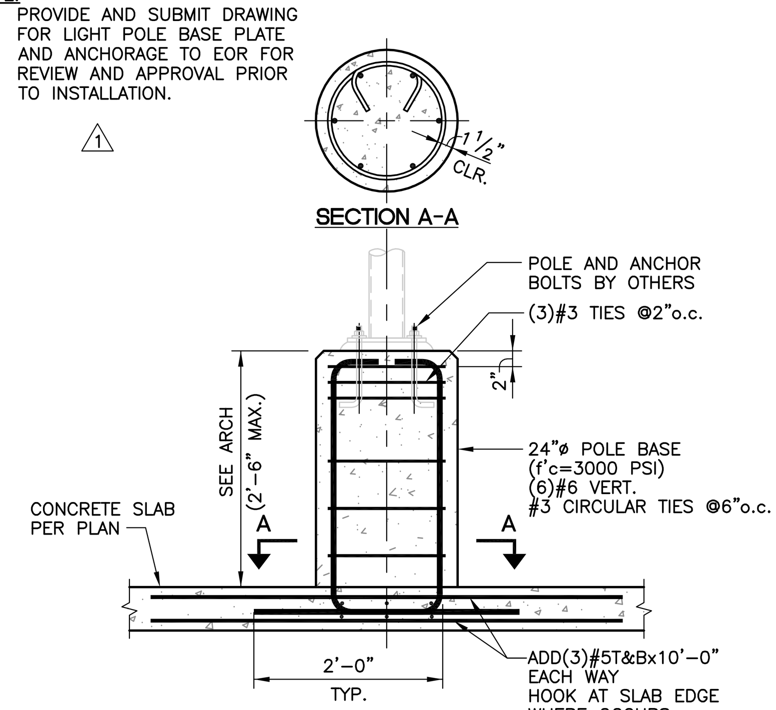
TYPICAL ONE-WAY CONCRETEQ SLAB AND BEAM CAMBERS (6) N.T.S.



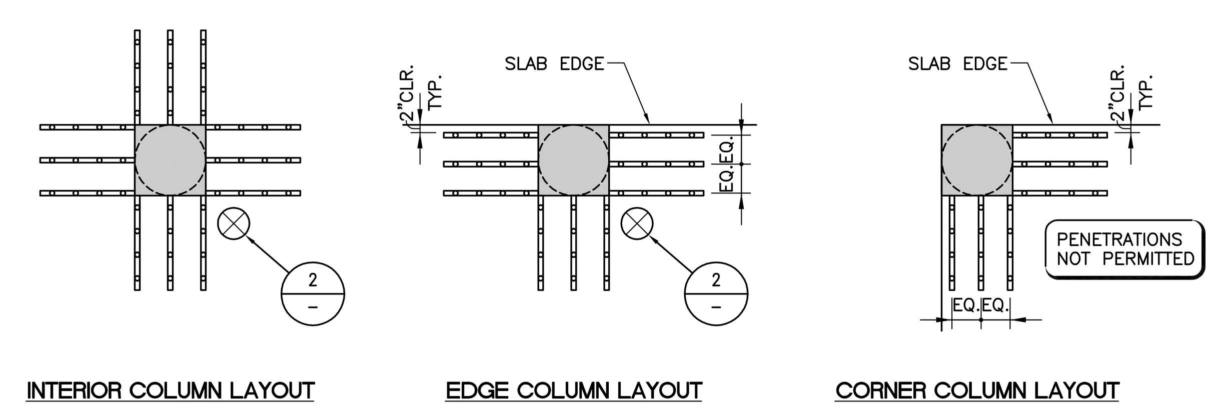
SPAN	CAMBER SLAB Ca	CAMBER BEAM Cb
≤ 15'-0"	0"	0"
> 15'-0" ≤ 20'-0"	1/2"	3/8"
> 20'-0" ≤ 30'-0"	3/4"	1/2"
> 30'-0" ≤ 40'-0"	1"	3/4"

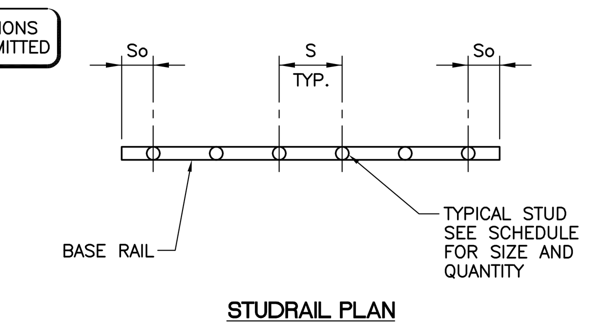
NOTE:
DO NOT CAMBER SLABS OR BEAMS CONTAINING P.T. STRANDS.

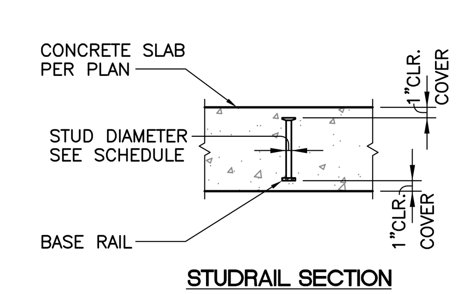
NOTE:
1. PROVIDE AND SUBMIT DRAWING FOR LIGHT POLE BASE PLATE AND ANCHORAGE TO EOR FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.



TYPICAL LIGHT POLE BASE DETAIL (5) C354







STUDRAIL SCHEDULE

MARK	NUMBER OF RAILS	STUDS PER RAIL	STUD DIAMETER	So	S	REMARKS
SR1	12	13	1/2"	2 7/8	2 7/8"	INTERIOR
SR2	9	13	1/2"	2 7/8	2 7/8"	EDGE
SR3	6	13	1/2"	2 7/8	2 7/8"	CORNER

NOTES:
1. PROVIDE STUDRAILS AS MANUFACTURED BY DECON COMPLYING WITH ESR-2494 OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SPECIAL INSPECTION REQUIRED.
2. STUDRAILS ARE NOT REQUIRED ON COLUMN FACES WITH BEAMS OR SHEARWALLS.
3. ADJUST STUDRAIL HEIGHT FOR CHANGE IN SLAB THICKNESS WHERE OCCURS PER PLAN.

TYPICAL STUDRAIL DETAIL (1) 3/8"=1'-0"

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
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ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240-4336
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ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
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ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

NOT FOR CONSTRUCTION

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NO.	DESCRIPTION	DATE
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1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

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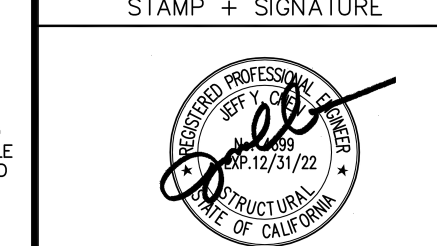

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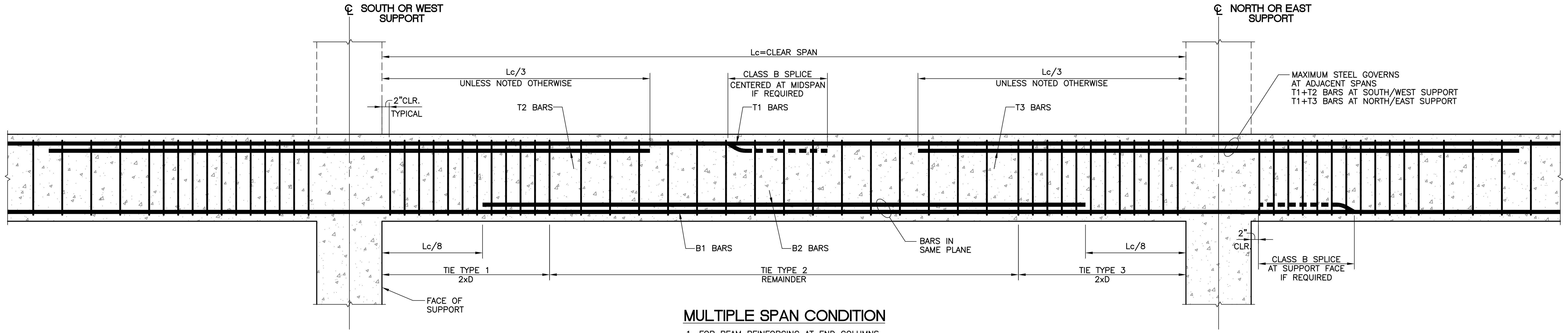
SHEET TITLE

TYPICAL CONCRETE SLAB DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

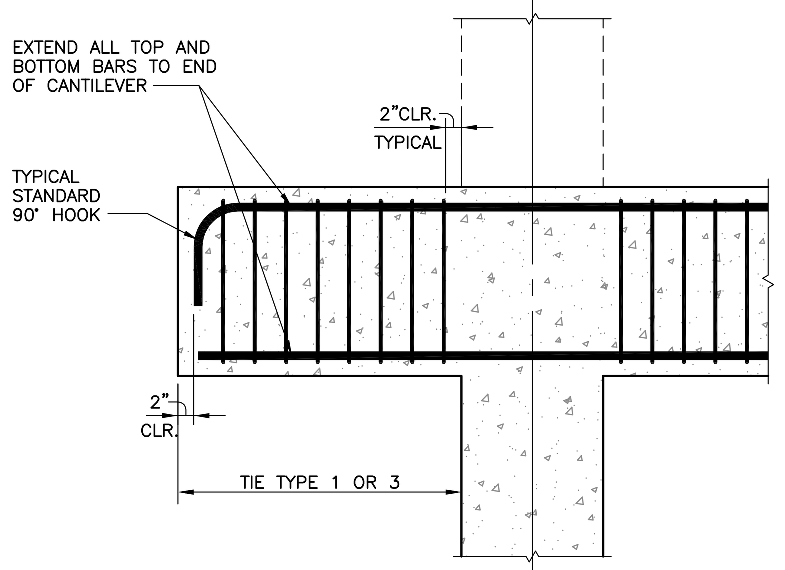
S1.4.2

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

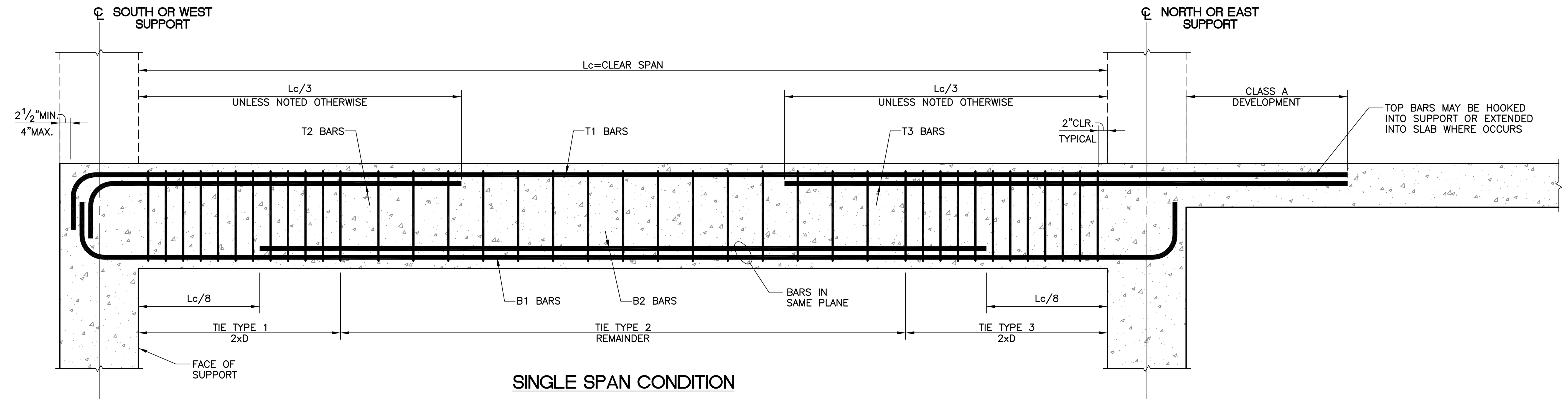


MULTIPLE SPAN CONDITION

1. FOR BEAM REINFORCING AT END COLUMNS SEE SINGLE SPAN CONDITION.



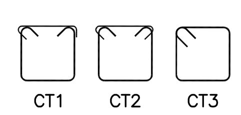
CANTILEVER CONDITION



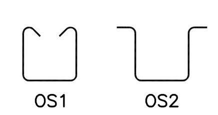
SINGLE SPAN CONDITION

ACCEPTABLE TIE OR STIRRUP CONFIGURATIONS			
TYPE	SLAB 2 SIDES	SLAB 1 SIDE	NO SLAB/UPTURNED BEAM
CLOSED TIE	CT1,CT2,CT3	CT1*,CT2,CT3	CT2,CT3
OPEN STIRRUP	OS1,OS2	N/A	N/A

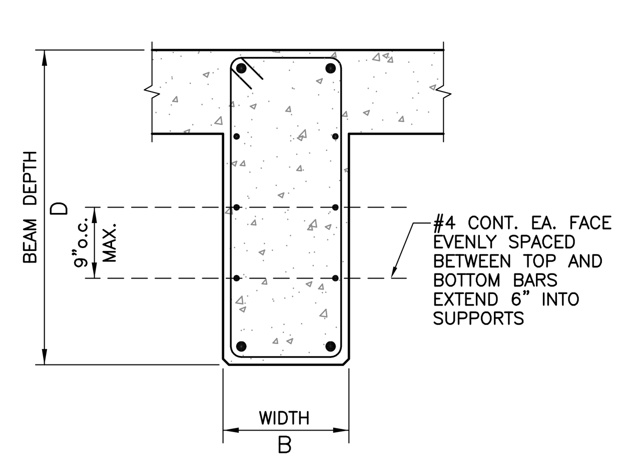
NOTES:
1. USE CLOSED TIES UNLESS NOTED OTHERWISE IN SCHEDULE.
2. ALTERNATE HOOKS ON TIE CAPS EXCEPT WHERE SLAB OCCURS ONE SIDE ONLY.
3. * INDICATES ALL TIE CAPS SHALL BE PLACED WITH 90° HOOKS ON SLAB SIDE.
4. FOR HOOKS AND BENDS SEE "TYPICAL REINFORCING BAR STANDARD HOOK" DETAIL.
5. REFER TO SCHEDULE FOR ADDITIONAL VERTICAL HAIRPINS WHERE REQUIRED.



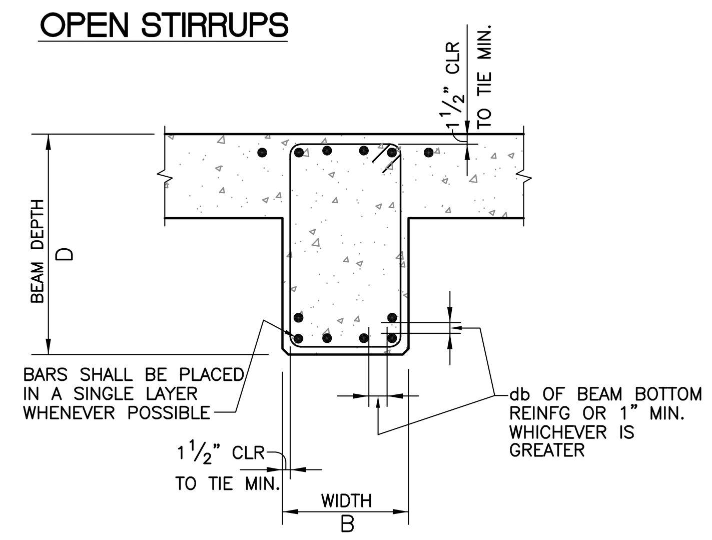
CLOSED TIES



OPEN STIRRUPS



SKIN REINFORCEMENT FOR BEAMS WITH DEPTH > 36"



TYPICAL BEAM SECTION

CONCRETE BEAM SCHEDULE											
MARK	SIZE (INCHES)		MAIN HORIZONTAL REINFORCING					TIE OR STIRRUP TYPE			REMARKS
	WIDTH	DEPTH	TOP BARS			BOTTOM BARS		1	2	3	
	B	D	T1 BARS	T2 BARS	T3 BARS	B1 BARS	B2 BARS	CLOSED TIES	CT=CLOSED TIES OS=OPEN STIRRUP	CLOSED TIES	
B1	36	18	(7)#9	–	–	(7)#9	–	#4@6	#4@6 CT	#4@6	SEE DETAIL 3/S4.1.4
B2	18	36	(6)#9	–	–	(3)#9	–	#4@6	#4@12 CT	#4@10	SEE DETAIL 2/S4.1.4
B3	18	36	(7)#9	–	–	(4)#9		#4@6	#4@10 CT	#4@10	SEE DETAIL 4/S4.1.7 2
B4	24	30	(7)#9	–	–	(6)#9	–	#4@8	#4@8 CT	#4@8	SEE DETAIL 4/S4.1.7
B5	18	42	(7)#9	–	–	(6)#9	–	#4@8	#4@12 CT	#4@8	
2 B6	28	30	(7)#9	–	–	(4)#9		#4@10	#4@10 CT	#4@10	

TYPICAL CONCRETE BEAM SCHEDULE

C401 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
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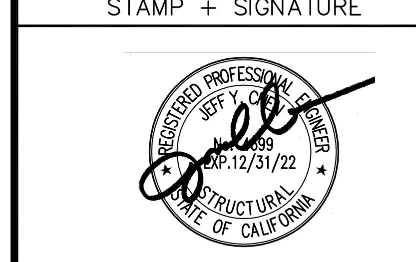
STAMP + SIGNATURE



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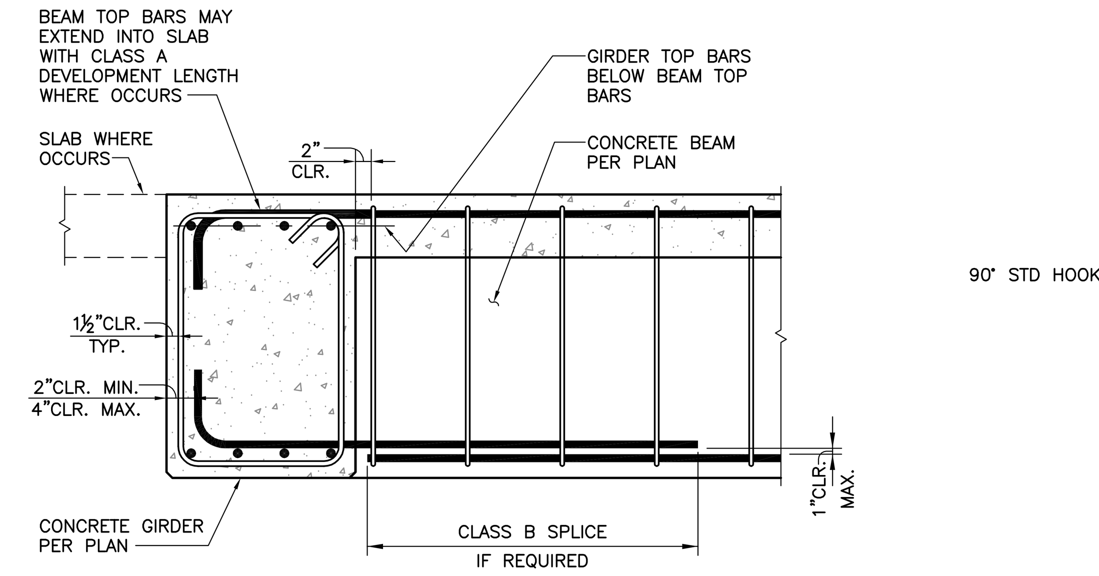
SHEET TITLE

TYPICAL CONCRETE BEAM DETAILS

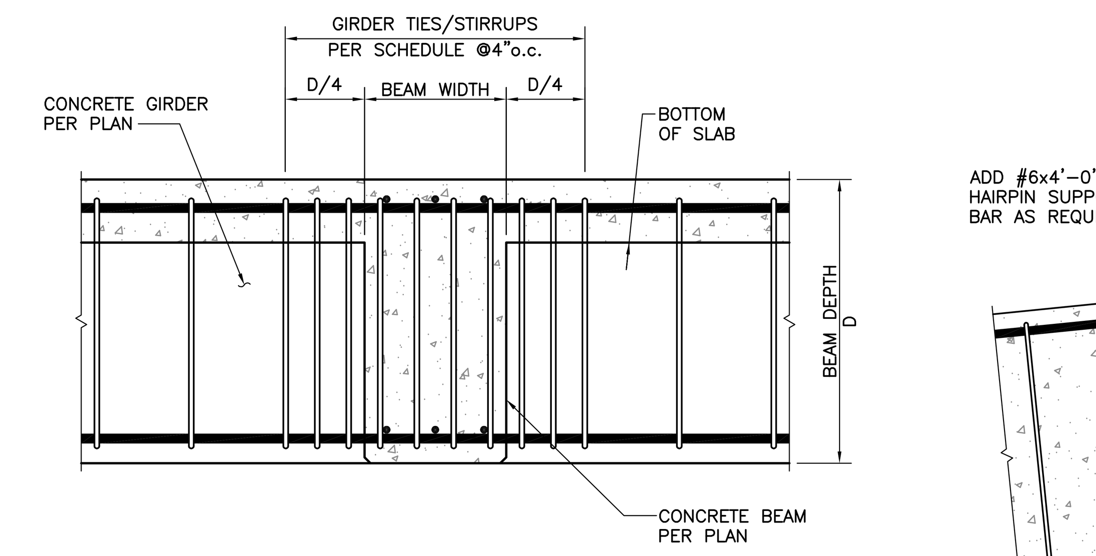
DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.5

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



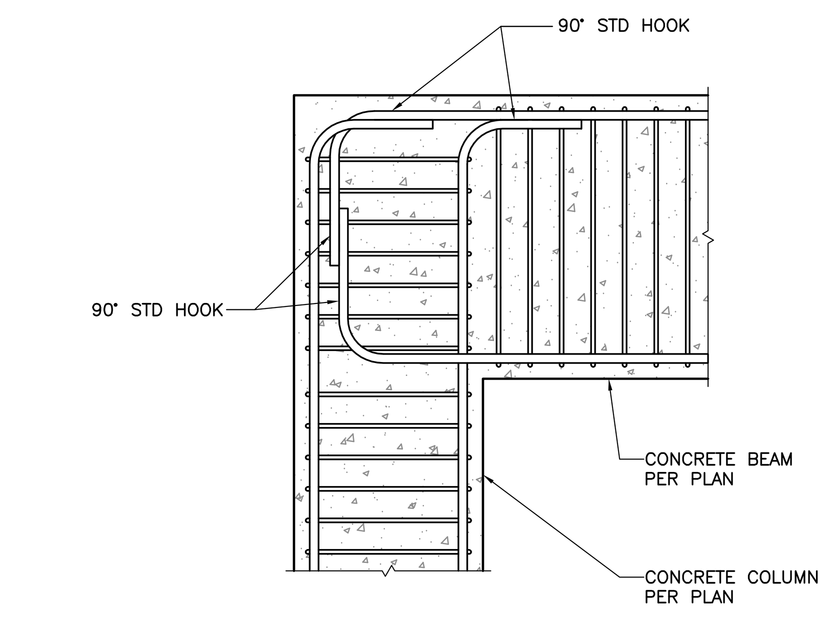
SECTION AT GIRDER



SECTION AT BEAM

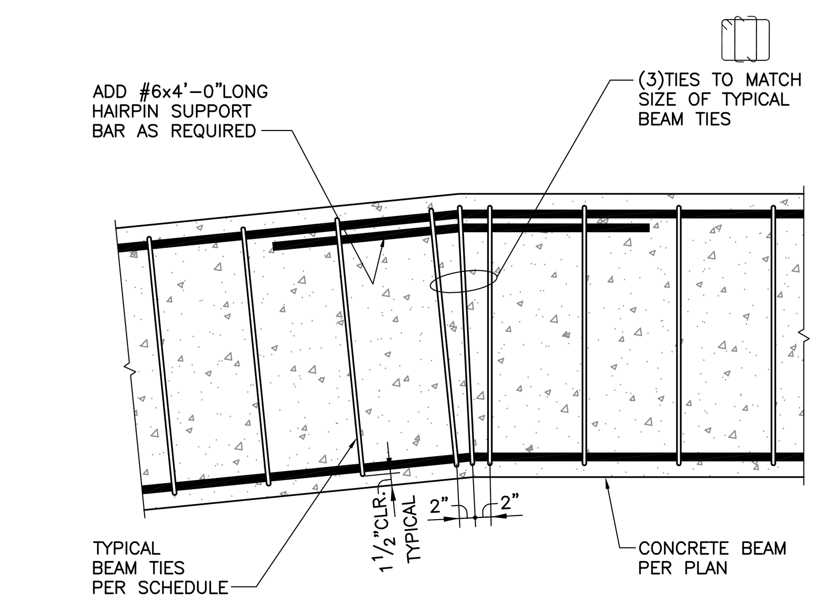
TYPICAL CONCRETE BEAM TO GIRDER DETAIL

C413 5



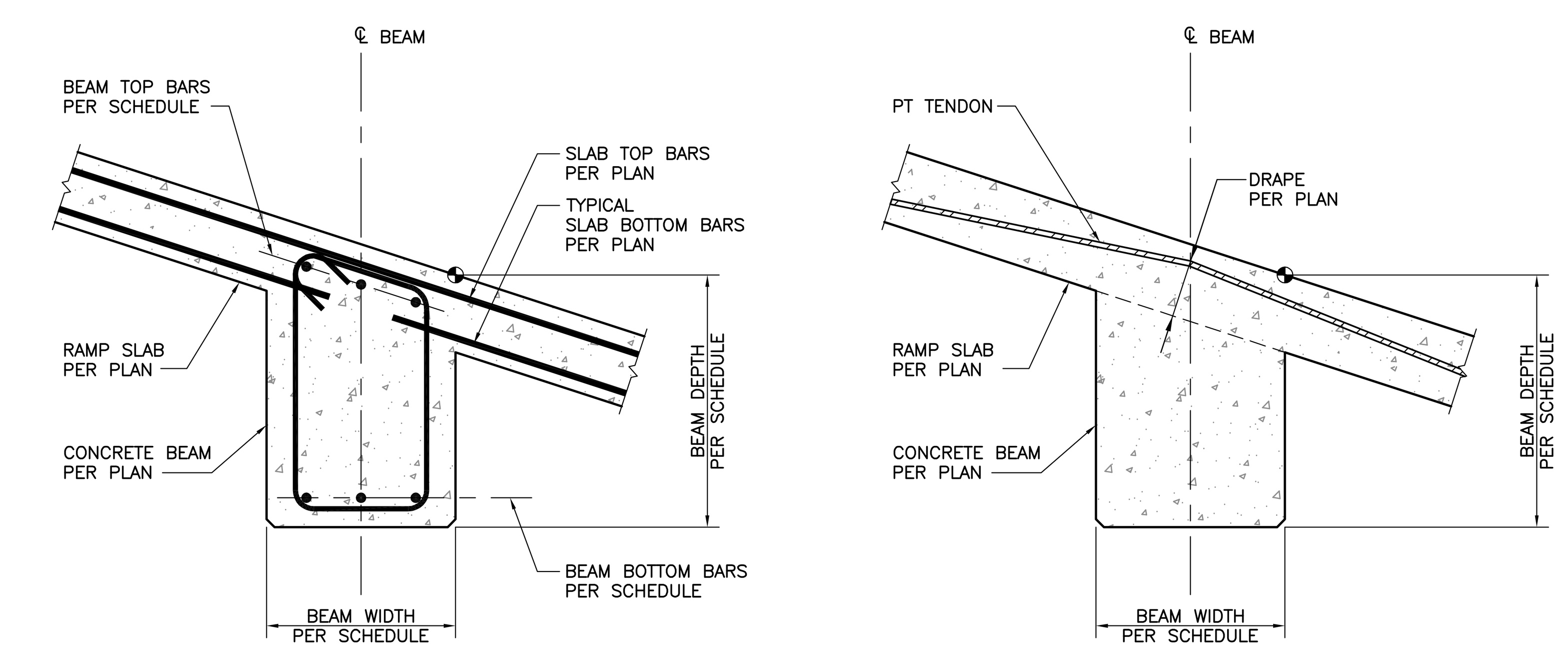
TYPICAL EXTERIOR BEAM-COLUMN JOINT AT ROOF

$^3/_4$"=1'-0" 4



TYPICAL KINKED CONCRETE BEAM DETAIL

$^3/_4$"=1'-0" 3

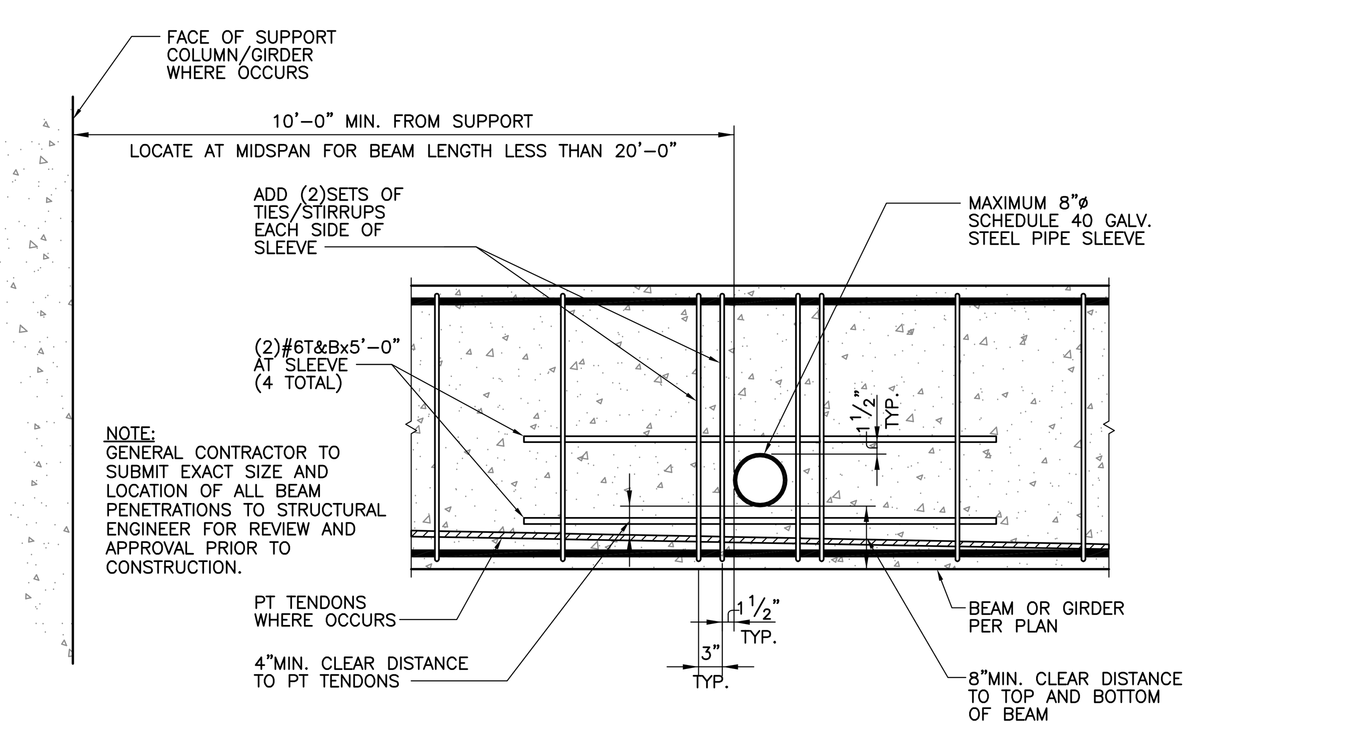


MILD REINFORCING

POST-TENSIONED REINFORCING

TYPICAL RAMP BEAM SECTION

C415 2



TYPICAL CONCRETE BEAM PENETRATION DETAIL

C412 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
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HUNTINGTON BEACH, CA 92648
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SHEET TITLE

TYPICAL CONCRETE BEAM DETAILS

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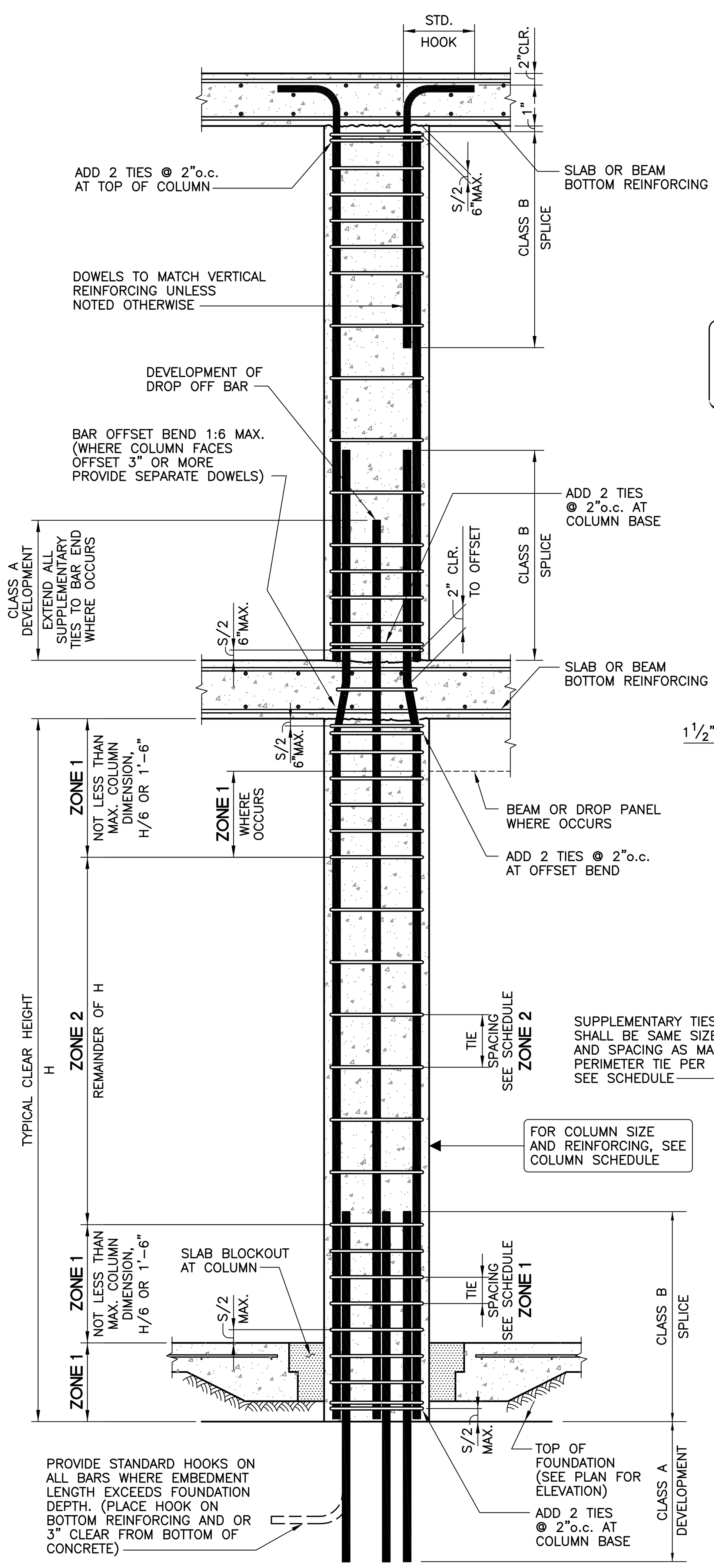
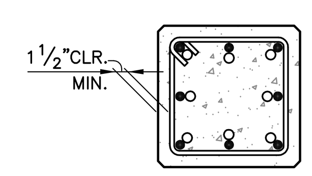
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.5.1

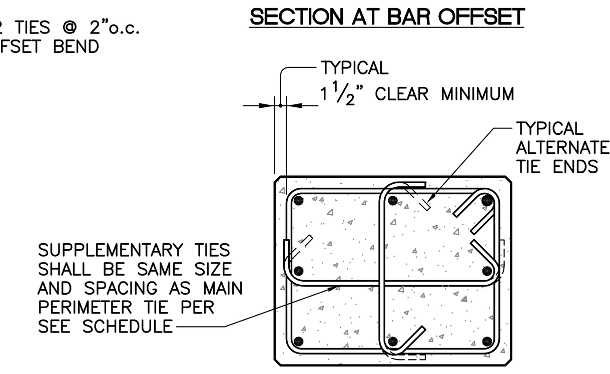
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



NOTE:
TIE SPACING IS NOT SHOWN TO SCALE. SEE COLUMN SCHEDULE FOR ACTUAL TIE SPACING IN ZONES 1 AND 2.



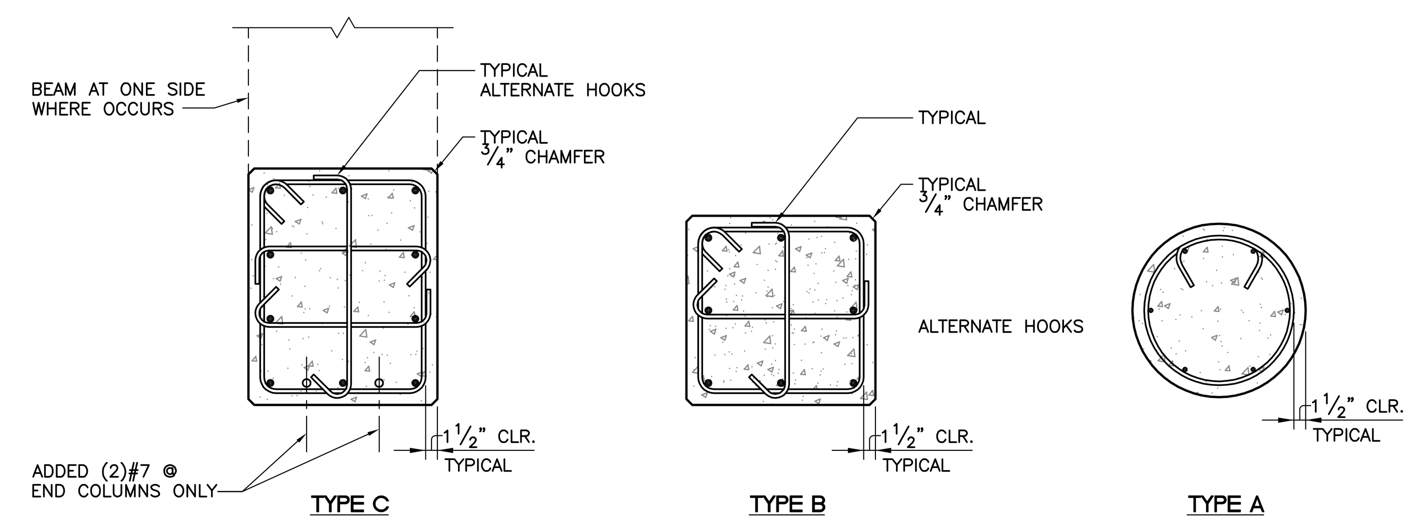
SECTION AT BAR OFFSET



TYPICAL COLUMN SECTION

TYPICAL CONCRETE COLUMN REINFORCING DIAGRAM

C502 2



COLUMN MARK	SPLICING	SIZE	VERTICALS	TIES ZONE 1	TIES ZONE 2	TYPE (ZONE 1)	TYPE (ZONE 2)	CONCRETE STRENGTH (f'c)	BAR DESIGNATION	REMARKS
CC4										SEE DETAIL 2/-
CC3		14" x 24"	(8)#7	#4@3 1/2	#4@5	C	C	4000		SEE DETAIL 2/-
CC2		18" x 18"	(8)#7	#4@3 1/2	#4@5	B	B	4000		SEE DETAIL 2/-
CC1		18"ø	(6)#7	#4@3 1/2	#4@5	A	A	4000		SEE DETAIL 2/-

LEVELS: ROOF PARKING – FIRST FLOOR

TYPICAL CONCRETE COLUMN SCHEDULE

C501 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

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ARCHITECT

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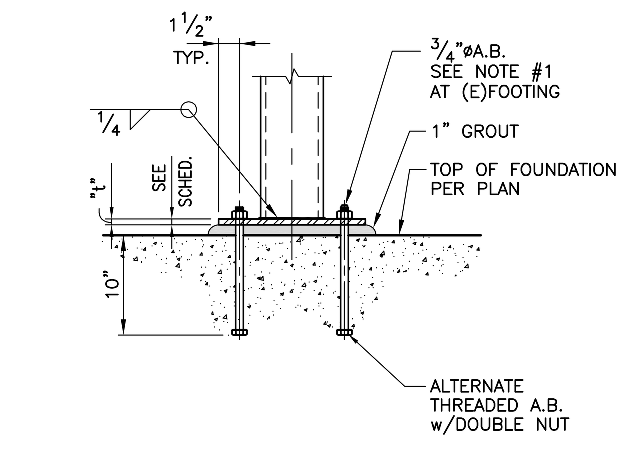
SHEET TITLE

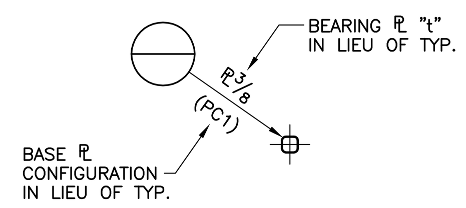
TYPICAL CONCRETE COLUMN DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.6

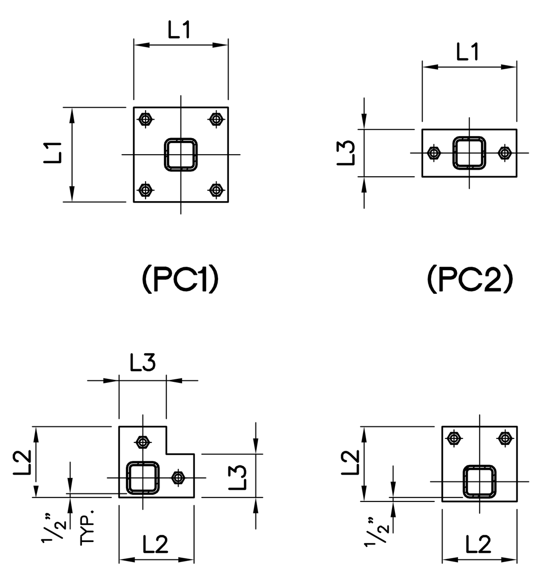
ACTUAL SIZE OF THIS SHEET IS 30" X 42"





EXAMPLE

NOTE:
1. PROVIDE ¾"Ø THREADED ROD DRILL & EPOXY w/ 10" EMBED. AT (E)FOOTING

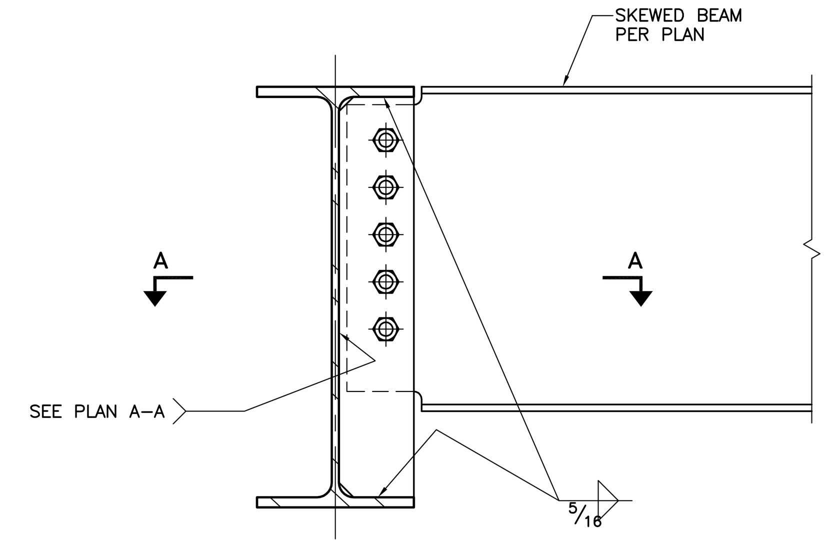


BASE PLATE CONFIGURATIONS

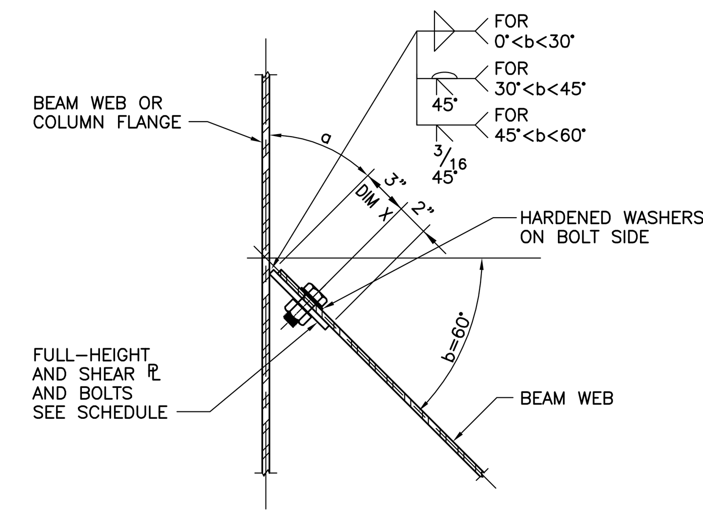
COLUMN POST SIZE	BASE PLATE SIZE (IN.) L1	L2	L3	"t" (MIN.)	BASE PLATE CONFIGURATION U.N.O.
HSS4x4, 4"Ø AND SMALLER	10	8	5	ℙ¾	PC1
HSS5x5, 5"Ø	12	9	6	ℙ1	PC1
HSS6x6, 6"Ø	14	10	7	ℙ1	PC1
HSS8x8, 8.625"Ø	16	12	9	ℙ1	PC1

TYPICAL TUBE AND PIPE COLUMN BASE PLATE DETAIL

S210 3



SECTION



PLAN A-A

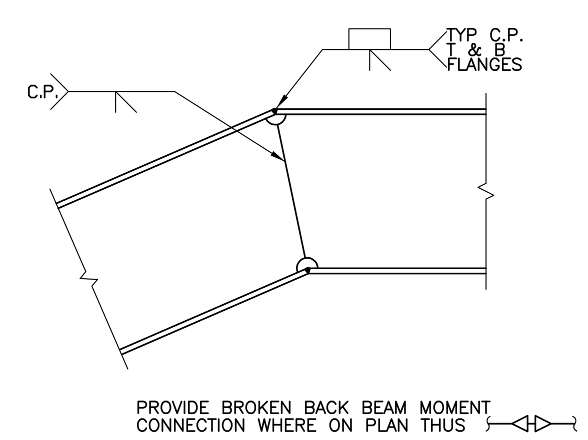
SKEWED BEAM CONNECTION SCHEDULE

BEAM SIZE	BOLTS (A325-N)	SHEAR PLATE "t"	WELD FOR 0°<b<10°	WELD FOR 10°<b<30°
W6x, C6x	2-⅞"Ø	⅜	PER AWS D1.1 FIG.3.11	
W8x, W10x C8x, C10x	2-⅞"Ø	⅜		
W12x, W14x C12x	3-⅞"Ø	⅜		
W16x, W18x	4-⅞"Ø	⅜		
W21x	5-⅞"Ø	⅜		
W24x	6-⅞"Ø	⅜		
W27x	7-⅞"Ø	⅜		
W30x	8-⅞"Ø	⅜		
W33x	9-⅞"Ø	⅜		
W36x	10-⅞"Ø	⅜		

NOTE:
1. FILLET WELD SIZE S = PLATE THICKNESS.
2. FOR BEVEL WELDS, BEVEL END OF CONNECTION PLATE TO MAINTAIN α AT 45°.
3. DO NOT INCREASE DIM X WITHOUT ENGINEER'S APPROVAL.
4. FOR REMAINDER OF INFORMATION NOT SHOWN, SEE "TYPICAL STEEL BEAM CONNECTION SCHEDULE".

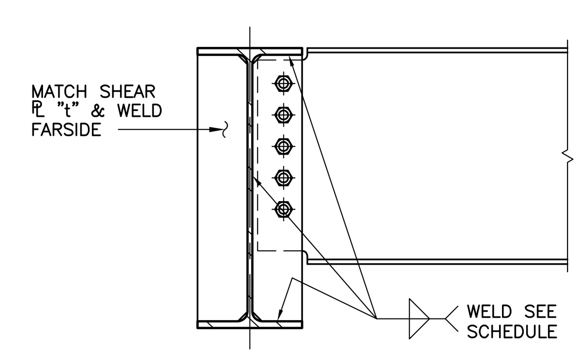
TYPICAL SKEWED BEAM CONNECTION DETAIL

S103 2



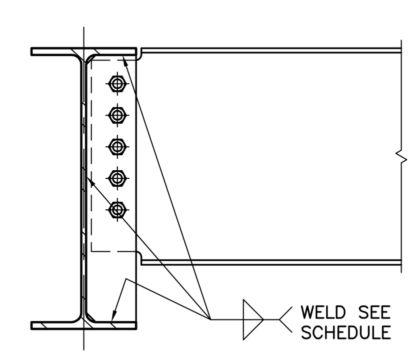
TYPICAL BROKEN BACK BEAM MOMENT CONNECTION

S102 5



FULL HEIGHT (BOTH SIDES)

PROVIDE STIFFENER WHERE INDICATED ON PLAN THUS BS



FULL HEIGHT

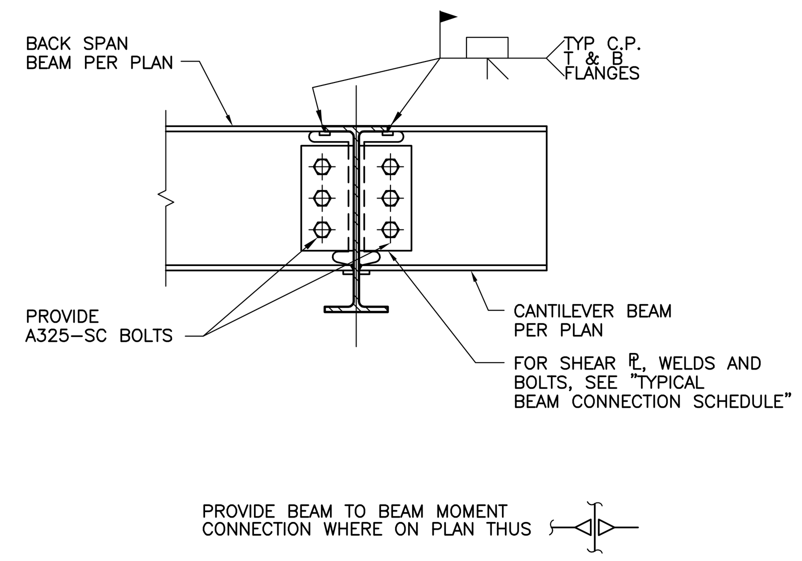
PROVIDE STIFFENER WHERE INDICATED ON PLAN THUS

TYPICAL SHEAR PLATE BEAM STIFFENERS

NOTE:
ALL STIFFENERS SHALL EXTEND TO EDGE OF FLANGE MINIMUM. SEE CONNECTION SCHEDULE AND TYPICAL BEAM CONNECTION DETAIL FOR REMAINDER OF INFORMATION.

CONNECTION SCHEDULE

BEAM SIZE	BOLTS (A325-N)	SHEAR PLATE "t"	WELD (BOTH SIDES)
W6x, C6x	2-⅞"Ø	⅜	¼
W8x, W10x C8x, C10x	2-⅞"Ø	⅜	¼
W12x, W14x C12x	3-⅞"Ø	⅜	¼
W16x, W18x	4-⅞"Ø	⅜	¼
W21x	5-⅞"Ø	⅜	¼
W24x	6-⅞"Ø	⅜	¼
W27x	7-⅞"Ø	⅜	¼
W30x	8-⅞"Ø	⅜	¼
W33x	9-⅞"Ø	⅜	¼
W36x	10-⅞"Ø	⅜	¼

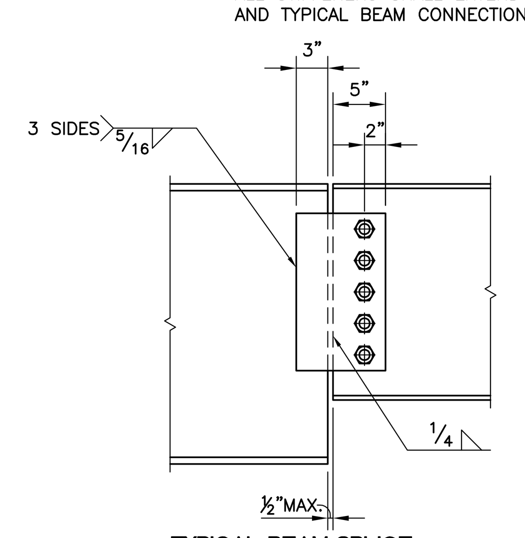


PROVIDE BEAM TO BEAM MOMENT CONNECTION WHERE ON PLAN THUS

NOTE:
1. CANTILEVER BEAM SHALL BE THE SAME SIZE AS THE BACK SPAN BEAM UNLESS NOTED OTHERWISE

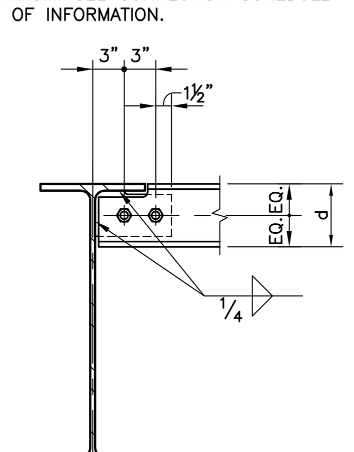
TYPICAL STEEL BEAM TO BEAM MOMENT CONNECTION

S101 4

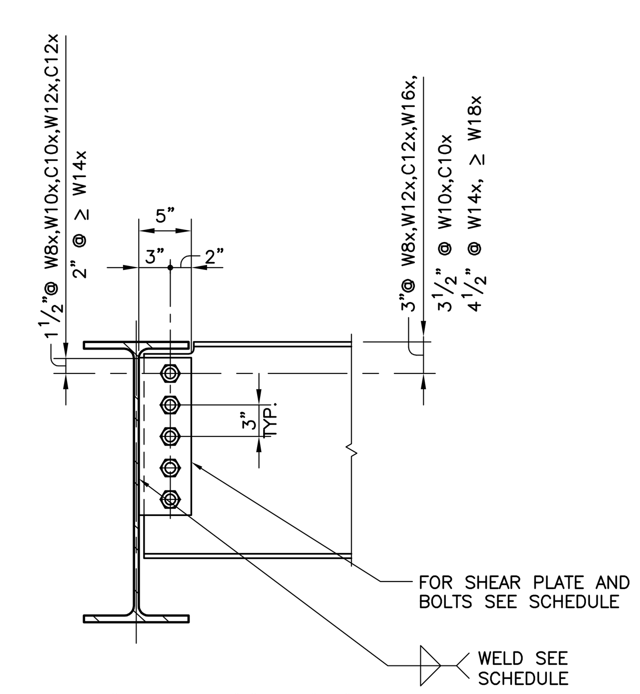


TYPICAL BEAM SPLICE

PROVIDE BEAM SPLICE WHERE INDICATED ON PLAN THUS



TYPICAL W6x+C6x BEAM CONNECTION



TYPICAL BEAM CONNECTION

TYPICAL STEEL BEAM CONNECTION SCHEDULE

S100 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240-4336
FAX: (866) 936-5447

LANDSCAPE ARCHITECT
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ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
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CIVIL ENGINEER
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ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

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REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE

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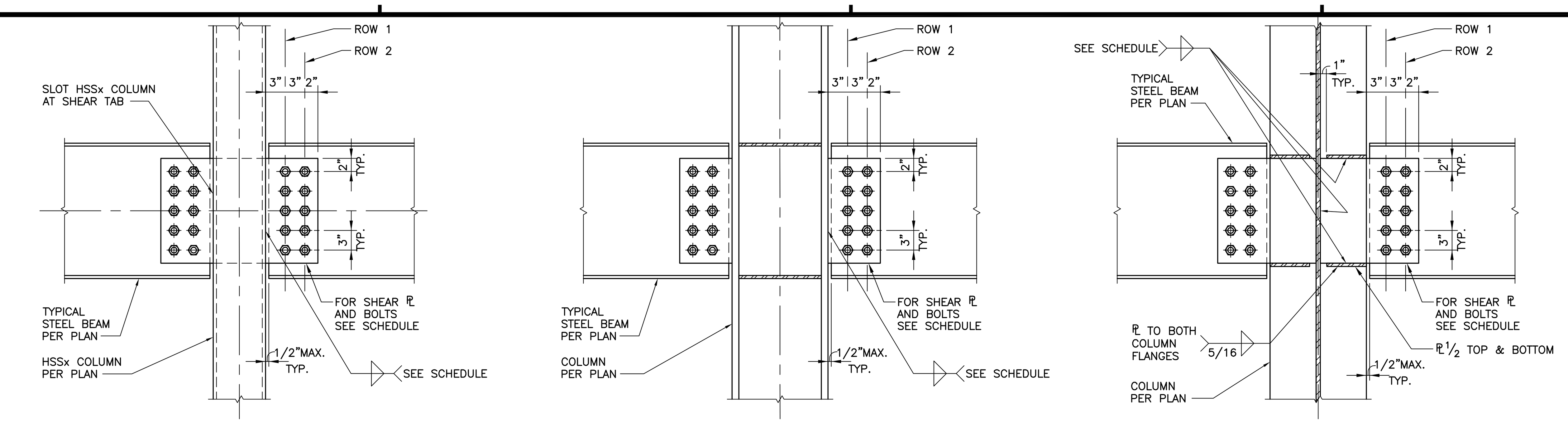
SHEET TITLE

TYPICAL STEEL DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.7

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

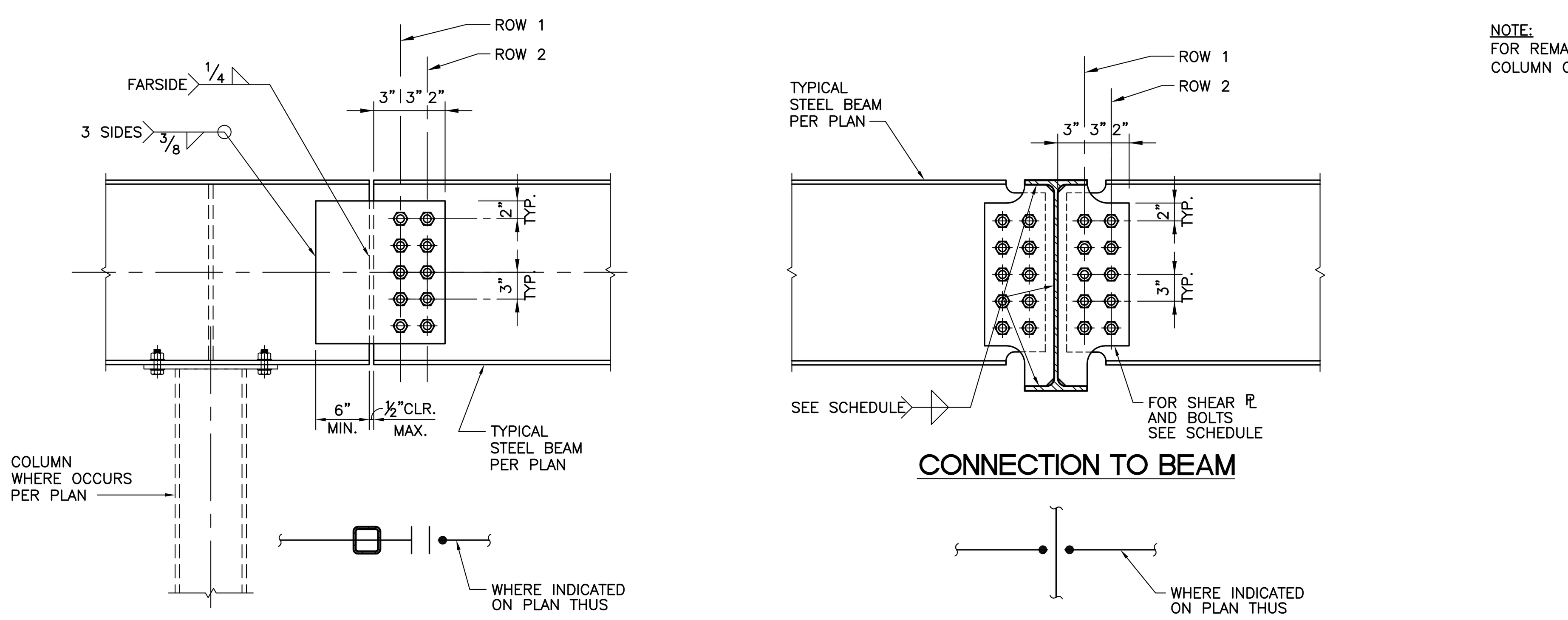


CONNECTION TO HSSx COLUMN

CONNECTION TO COLUMN FLANGE

CONNECTION TO COLUMN WEB

NOTE:
FOR REMAINDER OF INFORMATION SEE "TYPICAL BEAM TO COLUMN CONNECTION" DETAILS.



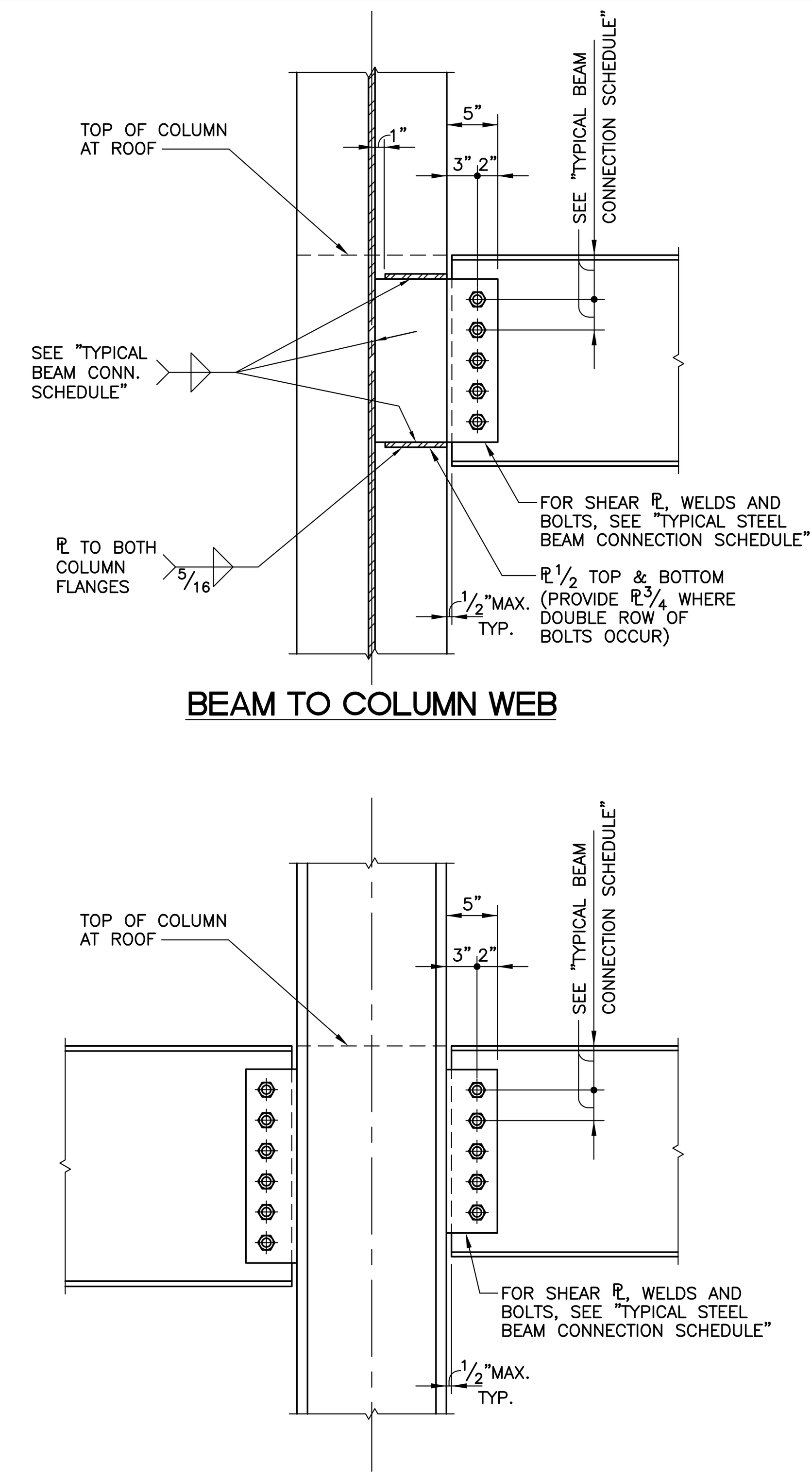
CONNECTION TO END OF BEAM

CONNECTION TO BEAM

DRAG CONNECTION SCHEDULE				
BEAM SIZE	(BOLTS) A325–SC		SHEAR PLATE "t"	WELD (BOTH SIDES)
	ROW 1	ROW 2		
W14x	(3) 7/8"ø	(3) 7/8"ø	1/2"	3/8"
W16x W18x	(4) 7/8"ø	(4) 7/8"ø	1/2"	3/8"
W21x	(5) 7/8"ø	(5) 7/8"ø	1/2"	3/8"
W24x	(6) 7/8"ø	(6) 7/8"ø	1/2"	3/8"
W27x	(7) 7/8"ø	(7) 7/8"ø	1/2"	3/8"

TYPICAL DRAG BEAM CONNECTION DETAIL (SFRS)

S280 6

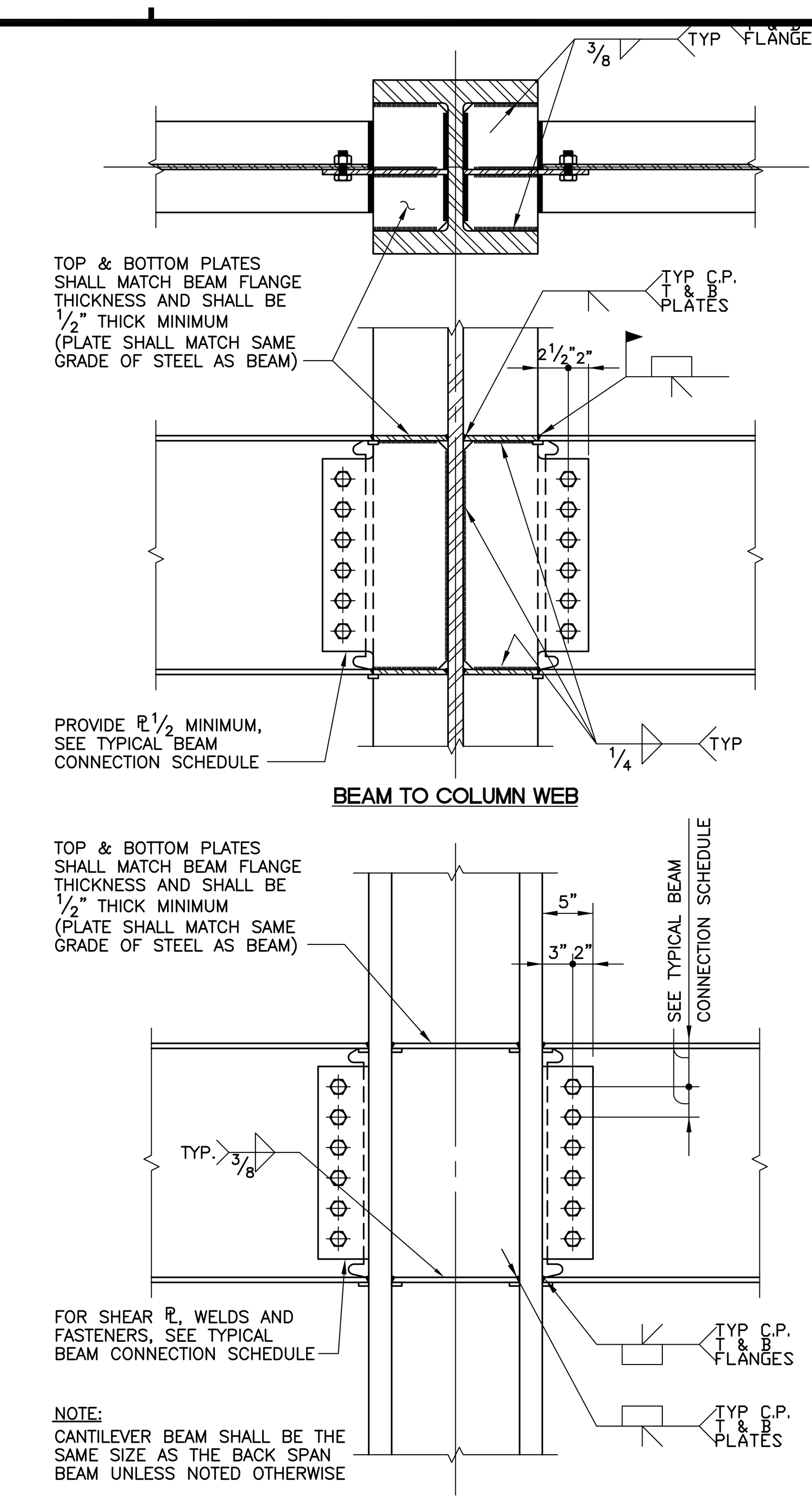


BEAM TO COLUMN WEB

BEAM TO COLUMN FLANGE

TYPICAL BEAM TO Wx COLUMN CONNECTION

S201 3

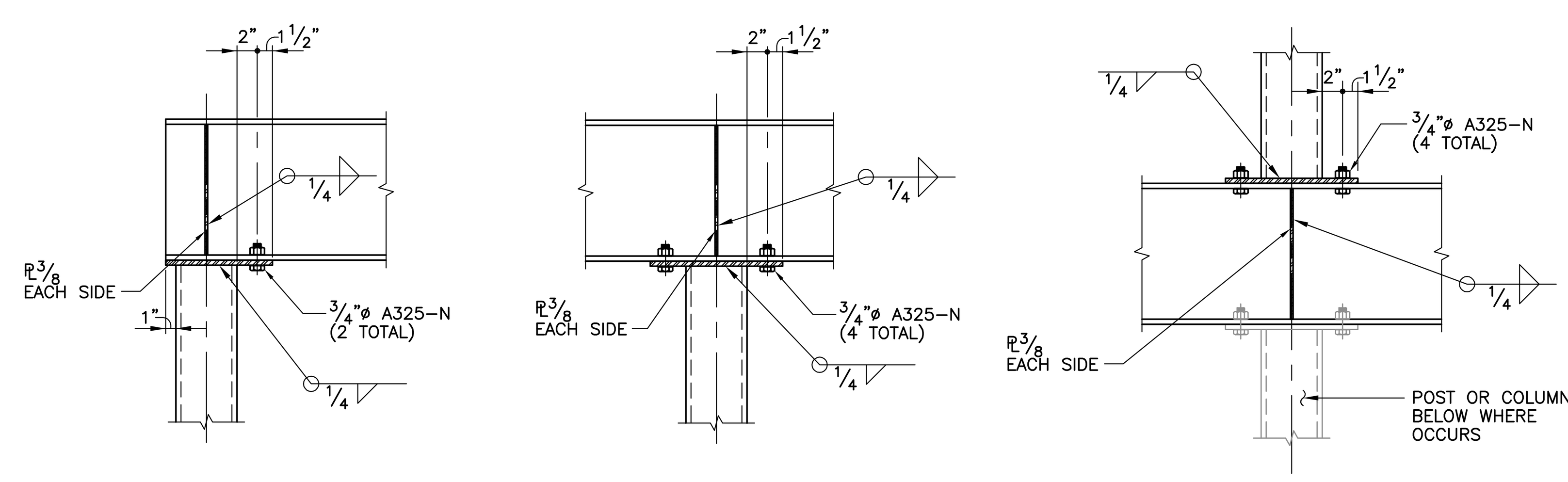


BEAM TO COLUMN WEB

BEAM TO COLUMN FLANGE

TYPICAL MOMENT CONNECTION TO COLUMN DETAILS

1"=1'-0" 2



END BEARING PLATE (C)

INTERMEDIATE BEARING PLATE (B)

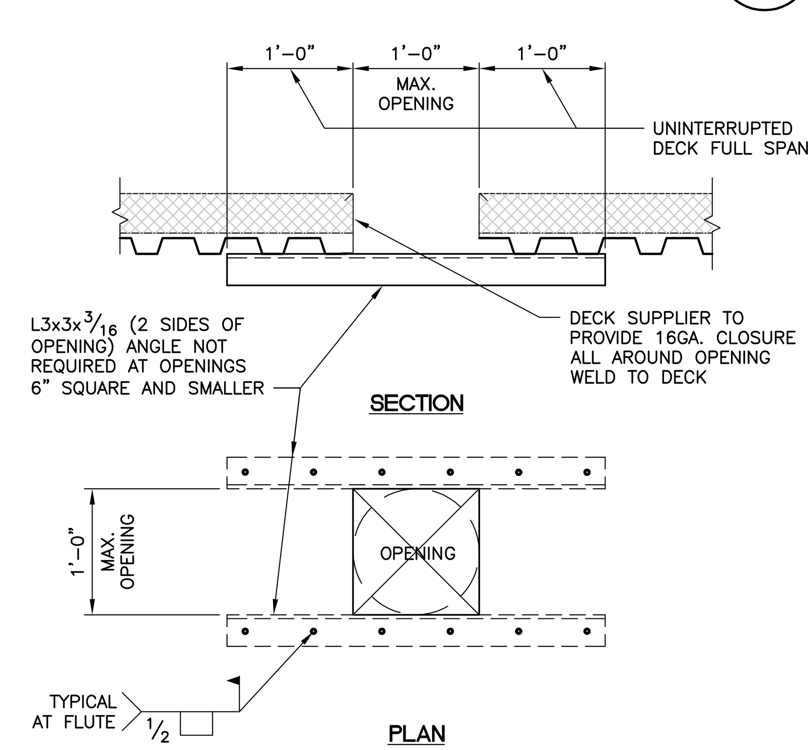
BASE BEARING PLATE (A)

NOTES:

1. ALL TUBE AND PIPE BEARING PLATES SHALL BE 1/2" THICK UNLESS NOTED OTHERWISE ON PLAN OR SECTION.
2. ALL BEARING PLATES SHALL BE AS WIDE AS SUPPORTING SURFACE AND SHALL BE 1" MINIMUM WIDER ON EACH SIDE OF THE TUBE OR PIPE.

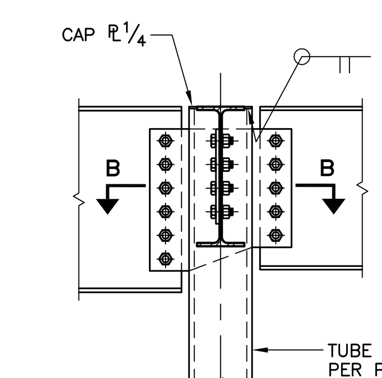
TYPICAL TUBE AND PIPE COLUMN BEARING PLATE DETAILS

S211 5

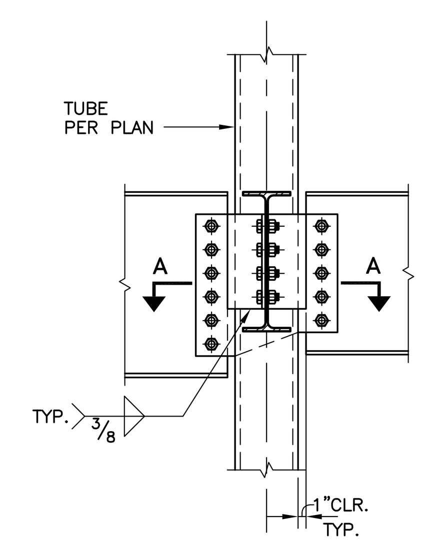


TYPICAL OPENINGS IN ROOF UP TO 1'-0" SQUARE DETAIL

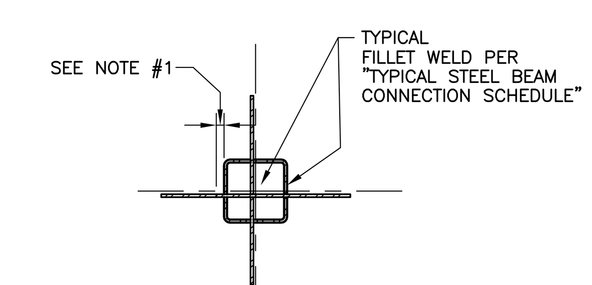
S322 4



ROOF CONDITION



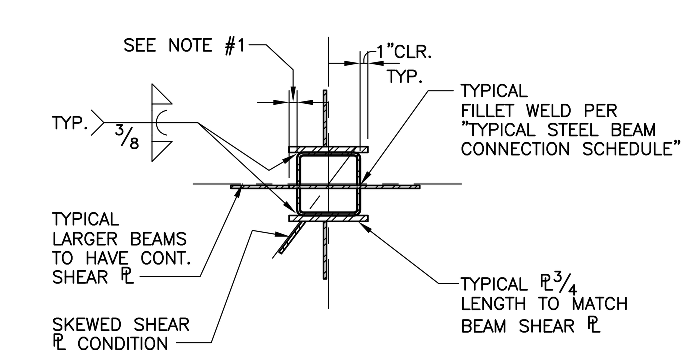
FLOOR CONDITION



PLAN VIEW B-B

NOTES:

1. EXTEND CONTINUOUS SHEAR PLATE 1" CLEAR BEYOND FAR FACE OF COLUMN AT ONE-SIDED BEAM CONDITION ONLY.
2. FOR REMAINDER OF SHEAR PLATE, WELDS AND BOLT INFORMATION SEE "TYPICAL STEEL BEAM CONNECTION SCHEDULE".



PLAN VIEW A-A

TYPICAL TUBE AND PIPE COLUMN CONNECTIONS

S212 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.

2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453–4431
FAX: (310) 829–5296

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REVISIONS

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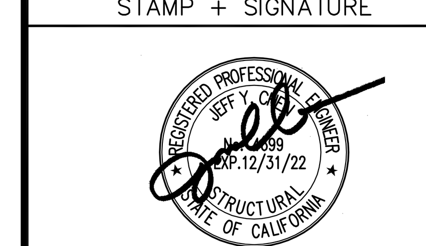
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE



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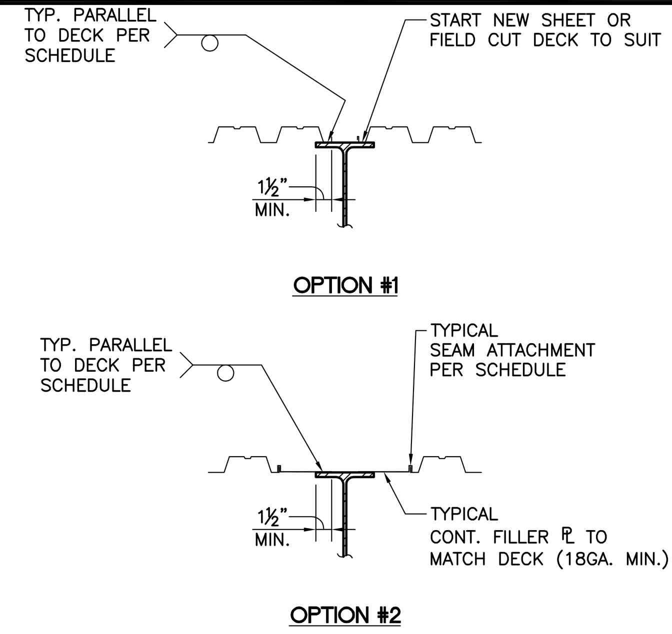
SHEET TITLE

TYPICAL STEEL DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19–119

S1.7.1

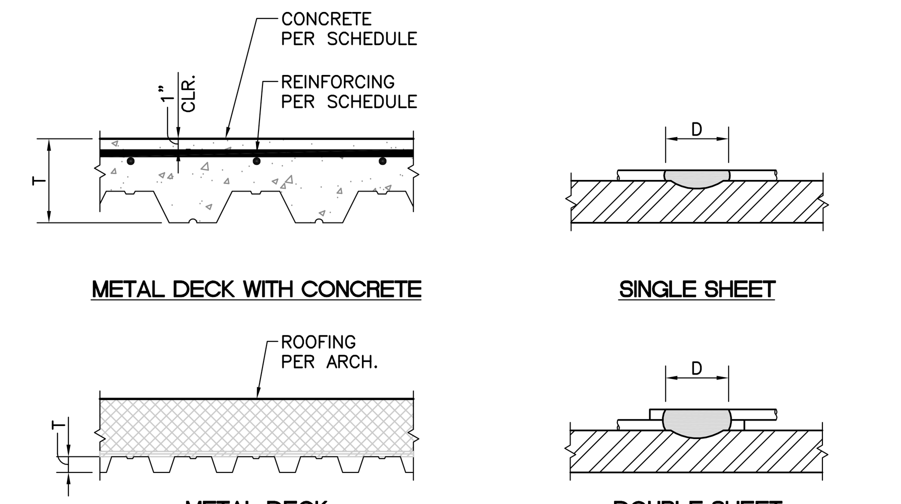
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



NOTE:
1. THIS DETAIL APPLIES WHERE BOTTOM FLUTE CANNOT BE CENTERED OVER BEAM.

TYPICAL ROOF DECK AT PARALLEL SUPPORT

S303 5



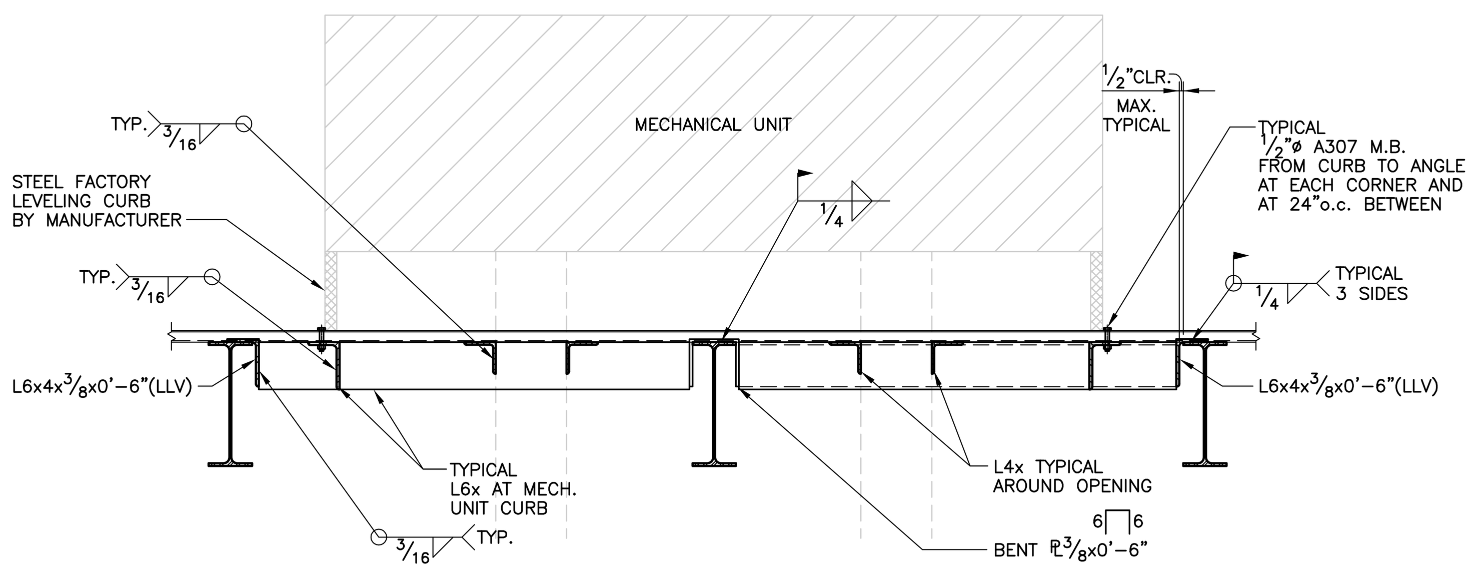
REQUIRED VISIBLE PW DIAMETER		
DECK GAUGE	SINGLE SHEET	DOUBLE SHEET
22	3/4"	7/8"
20	3/4"	7/8"
18	7/8"	1"
16	7/8"	1"

NOTES:
1. SEE REQUIRED VISIBLE PUDDLE WELD TABLE FOR MINIMUM WELDS REQUIRED TO ACHIEVE 1/2 INCH EFFECTIVE DIAMETER. PERFORM WELDS IN ACCORDANCE WITH AWS D1.3.
2. SHORING IS REQUIRED FOR SPANS GREATER THAN THOSE SHOWN IN THE SCHEDULE.
3. NW = NORMAL-WEIGHT
   LW = LIGHTWEIGHT
   PW = PUDDLE WELD
   BP = BUTTON PUNCH
   TSW = TOP SEAM WELD
   VSC2= VERCO SIDELAP CONNECTION 2

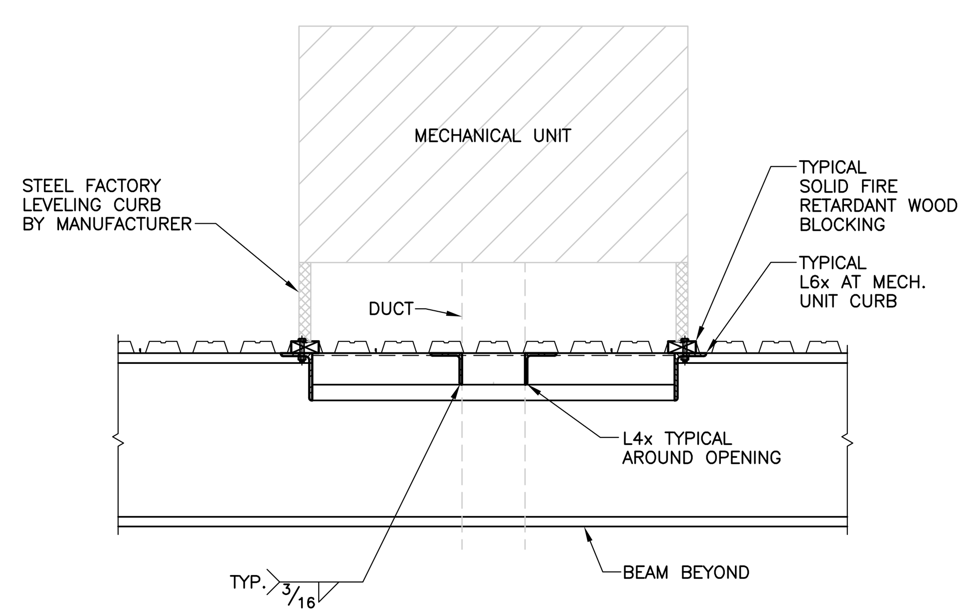
MARK	METAL DECK		CONCRETE		TOTAL SLAB THICKNESS (T)	METAL DECK ATTACHMENT					MAXIMUM UNSHORED CLEAR SPAN		
	TYPE	GAUGE	THICKNESS	REINFORCING		PERPENDICULAR TO DECK		PARALLEL TO DECK	PERIMETER AND EDGES	SEAMS	SINGLE	DOUBLE	TRIPLE
						ENDS	INTERMEDIATE						
D1	VERCO PLB 36	18	–	–	1½"	(7)PW PER 36" SHEET	(7)PW PER 36" SHEET	PW@12"o.c.	PW@6"o.c.	VSC2@12"o.c.	NOT PERMITTED	8'-0"	9'-0"

TYPICAL METAL DECK SCHEDULE

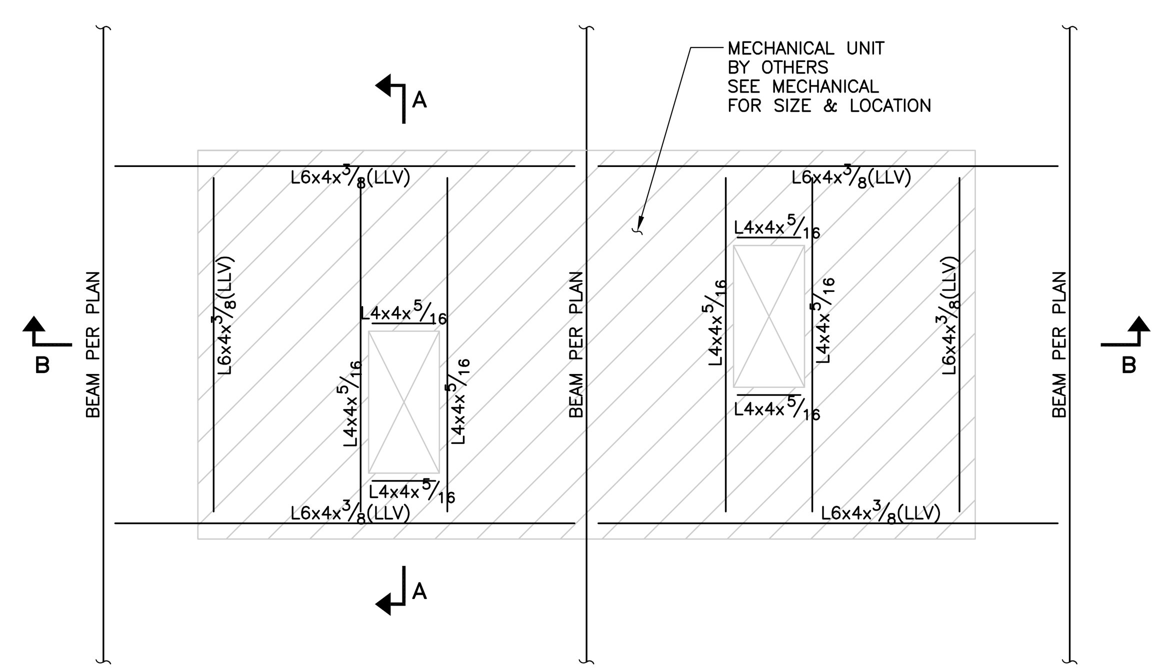
S300 2



SECTION B-B



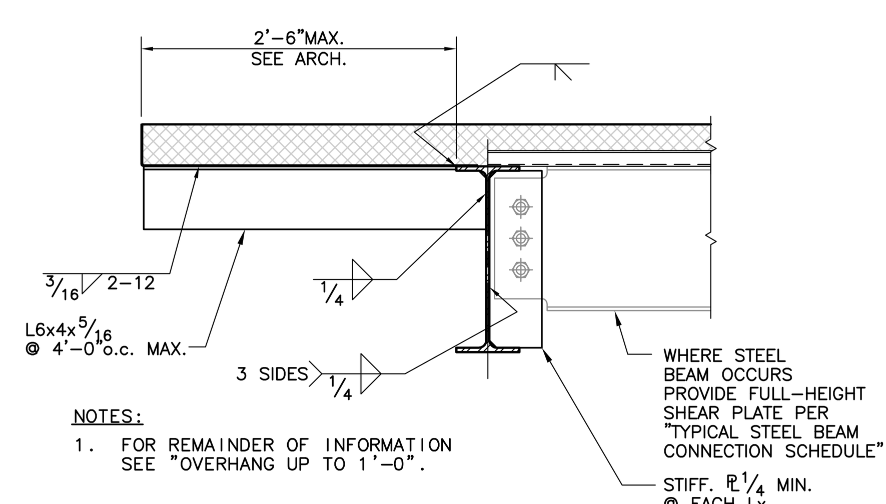
SECTION A-A



MECHANICAL UNIT SUPPORT PLAN

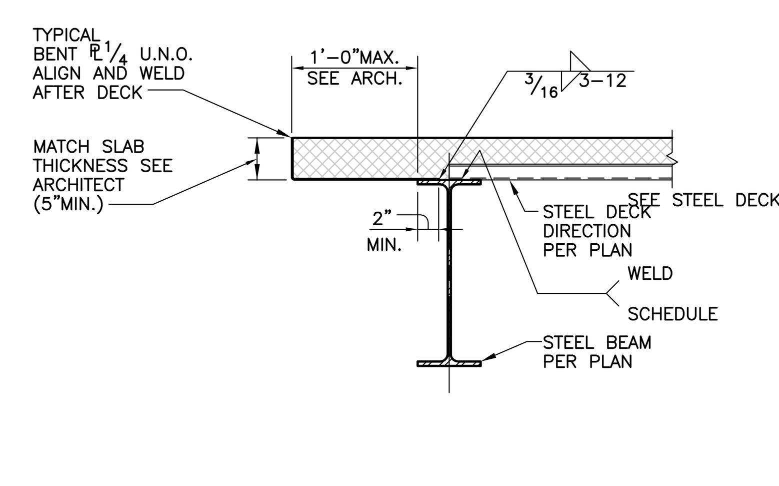
TYPICAL MECHANICAL UNIT FRAMING DETAIL

N.T.S. 4



NOTES:
1. FOR REMAINDER OF INFORMATION SEE "OVERHANG UP TO 1'-0".

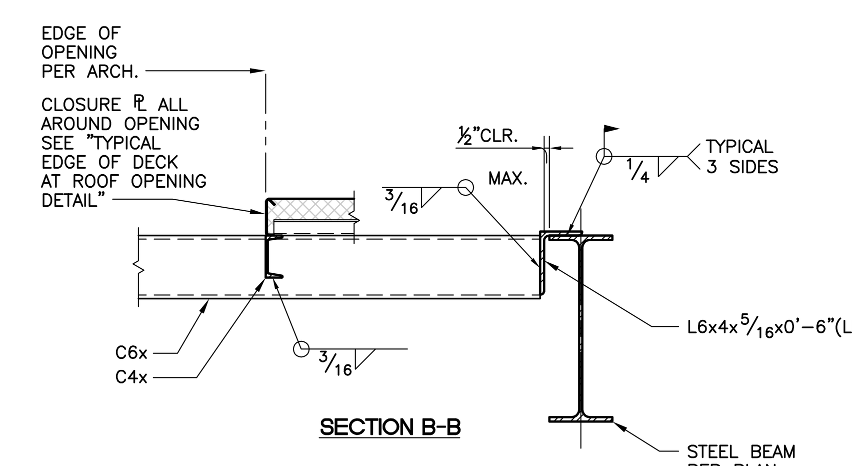
OVERHANG UP TO 2'-6"



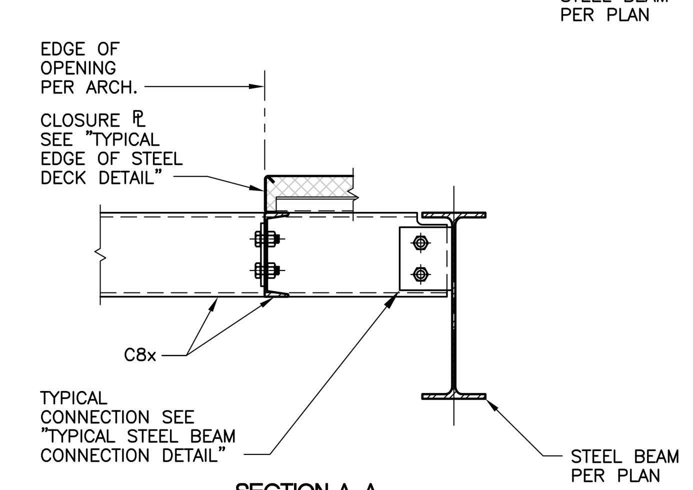
OVERHANG UP TO 1'-0"

TYPICAL EDGE OF DECK AT BUILDING PERIMETER AT METAL DECK DETAIL

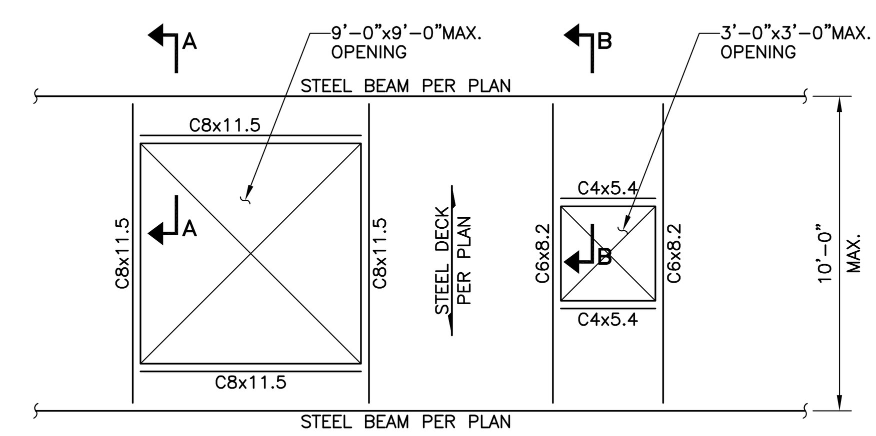
S312 3



SECTION B-B



SECTION A-A



PLAN

TYPICAL LARGE OPENING IN STEEL DECK DETAIL

S323 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
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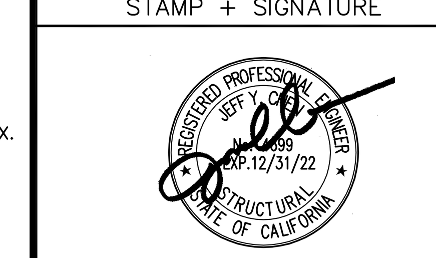

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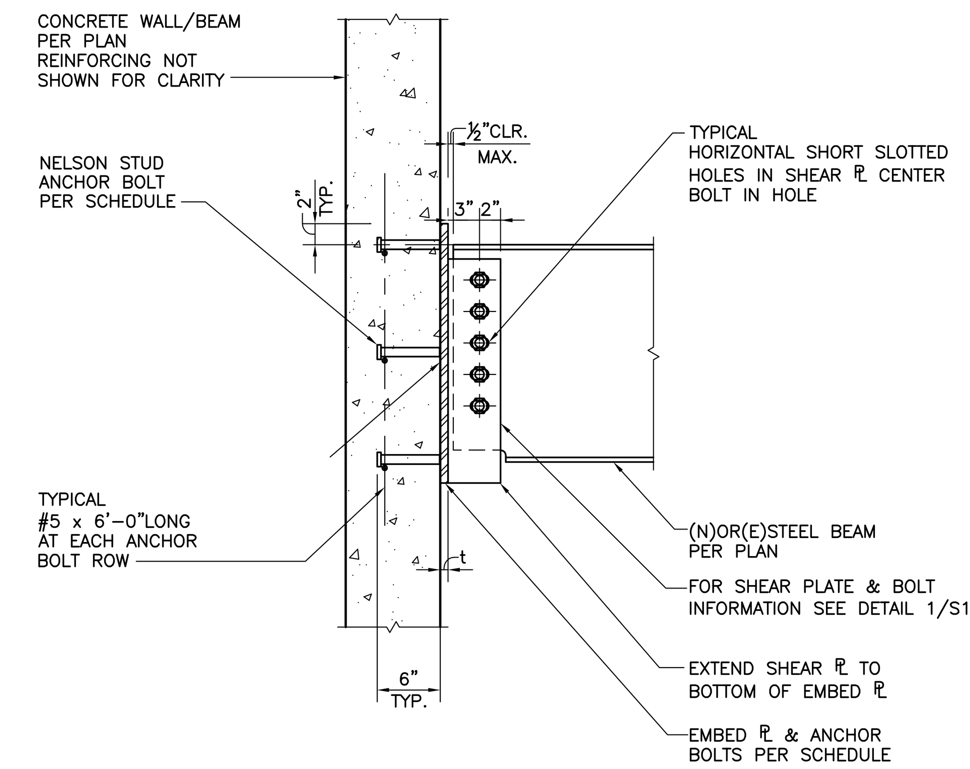
SHEET TITLE

TYPICAL STEEL DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.7.2

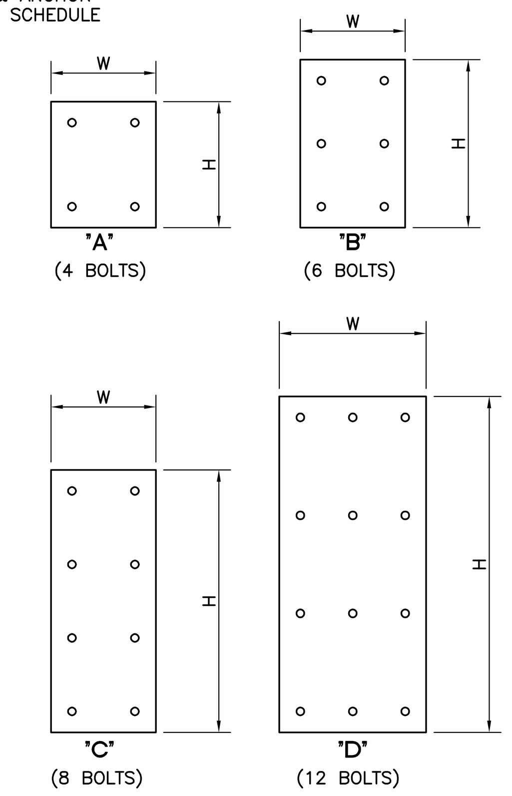
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



NOTE:

1. DRILL AND EPOXY ALL THREAD ANCHORS IN LIEU OF HEADED BOLTS AT EXISTING WALLS ONLY.

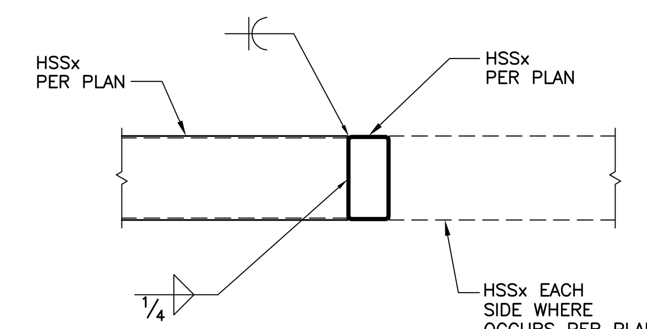
BEAM SIZE	EMBED ℞ txWxH	ANCHOR BOLT	
		DIAMETER	CONFIGURATION
W8x, C8x	½"x10"x12"	¾"ø	A
W10x/C10x	½"x10"x14"	¾"ø	A
W12x/C12x	½"x10"x16"	¾"ø	B
W14x	½"x10"x18"	¾"ø	B
W16x	¾"x12"x20"	¾"ø	B
W18x	¾"x12"x22"	¾"ø	C
W21x	¾"x12"x25"	⅞"ø	C
W24x	¾"x12"x28"	1"ø	C
W27x	¾"x16"x31"	1"ø	D
W30x	¾"x16"x34"	1"ø	D



CONFIGURATION

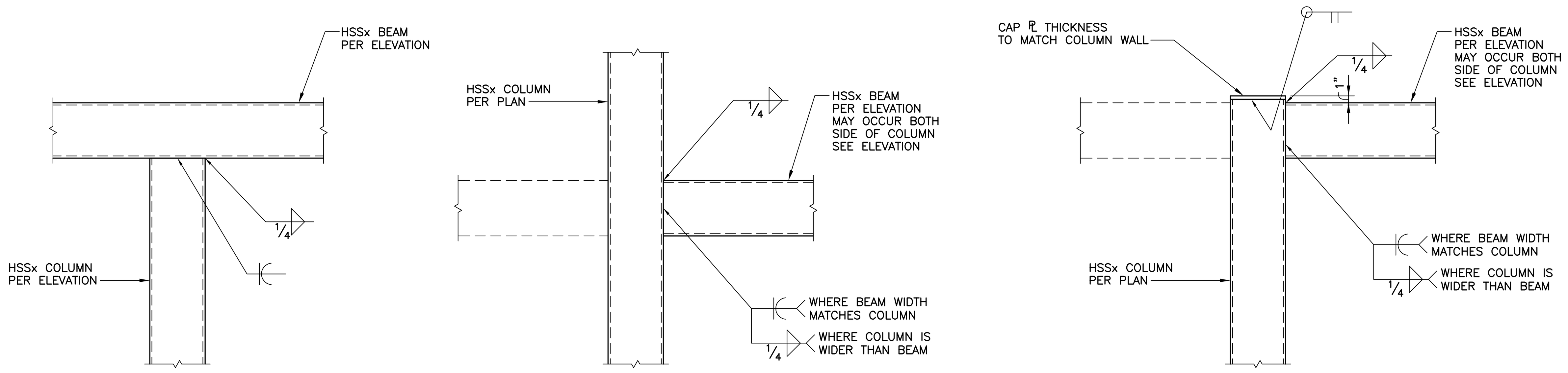
TYPICAL STEEL BEAM EMBED DETAIL

N.T.S. 2



TYPICAL TUBE BEAM TO BEAM CONNECTION DETAIL

N.T.S. 4



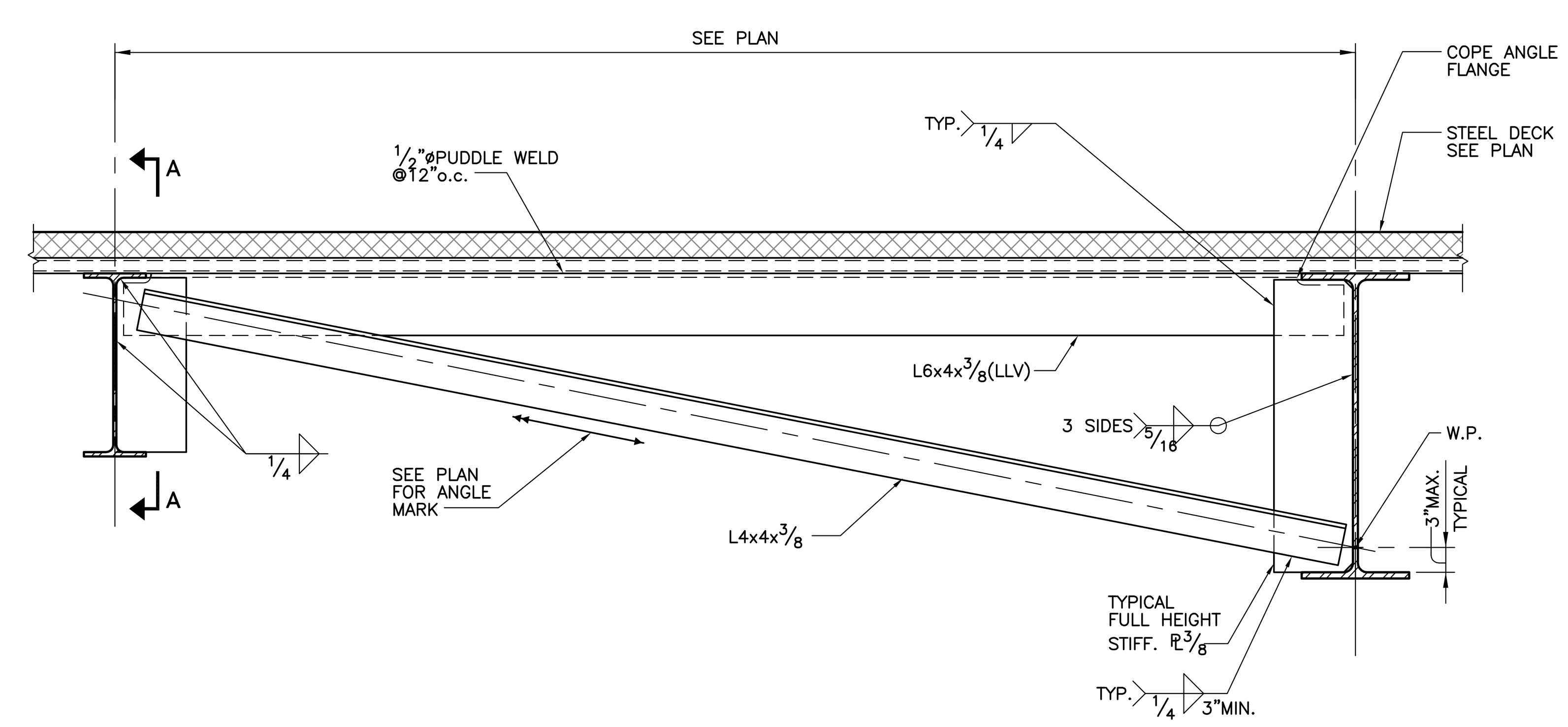
BEAM OVER COLUMN CONNECTION (C)

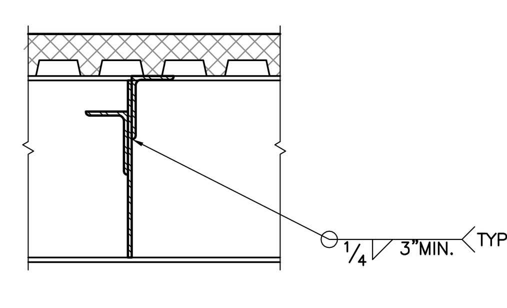
INTERMEDIATE BEAM CONNECTION (B)

ROOF BEAM CONNECTION (A)

TYPICAL STEEL TUBE BEAM TO COLUMN CONNECTION DETAIL

N.T.S. 3





SECTION A-A

TYPICAL ANGLE BRACE AT STEEL DECK DETAIL

S122 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200 Santa Monica California 90403 310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
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VISTA, CA 92081
TEL: (858) 240-4336
FAX: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
FAX: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

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REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

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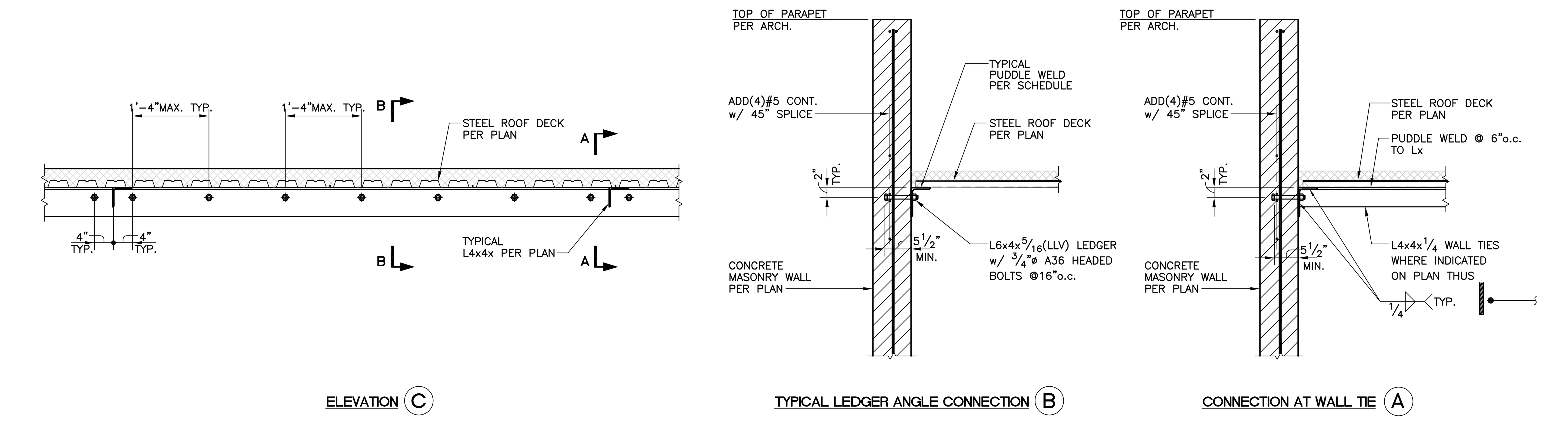
SHEET TITLE

TYPICAL STEEL DETAIL

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

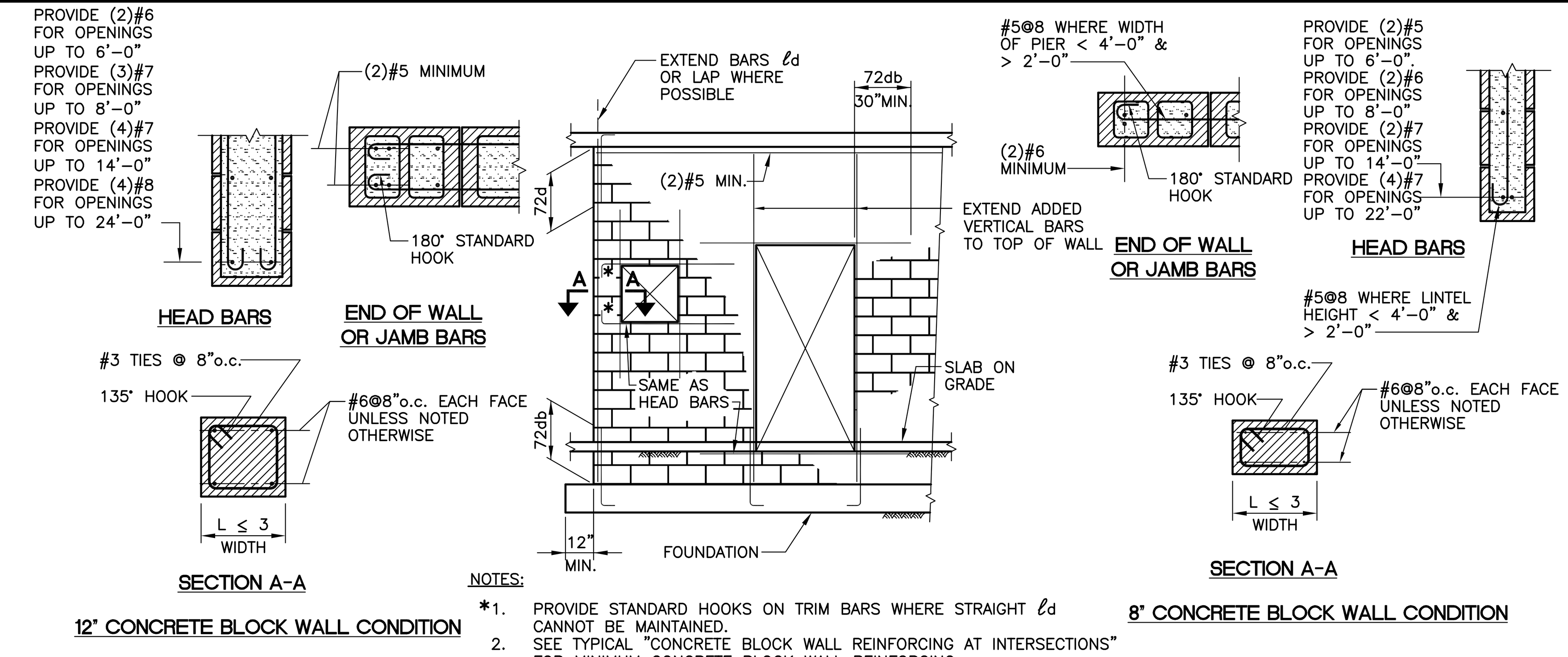
S1.7.3

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



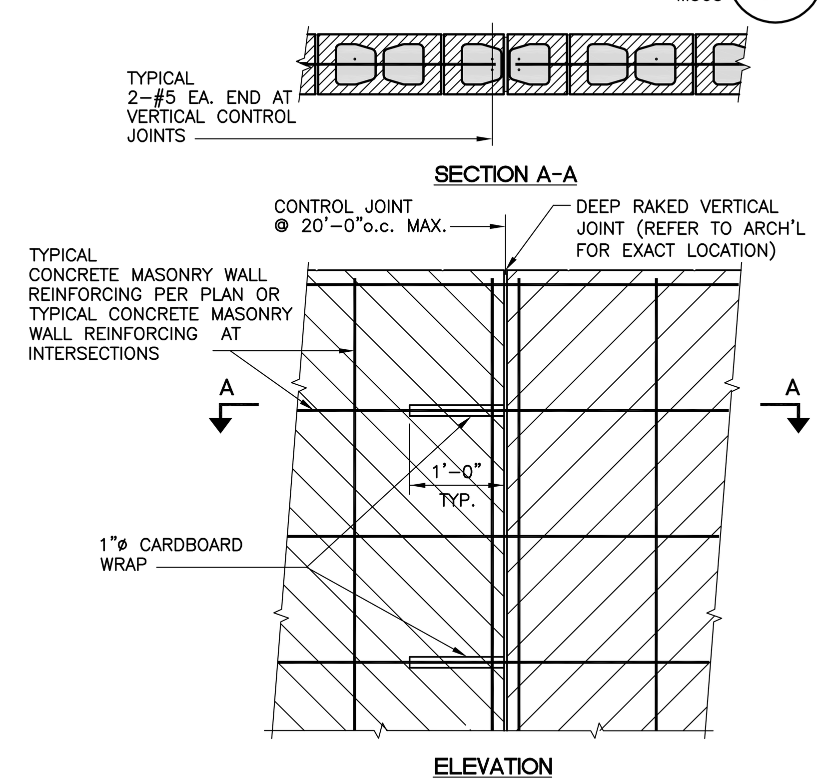
DETAIL

M303 7



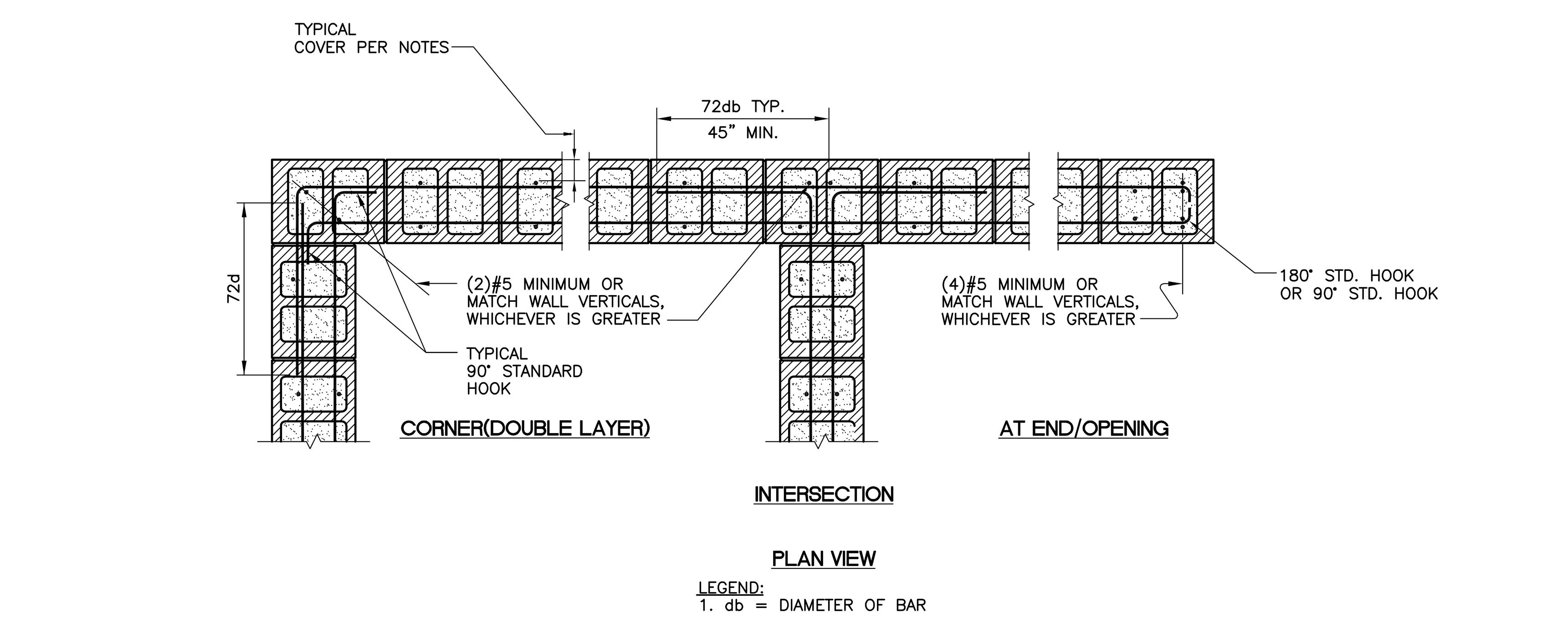
TYPICAL CONCRETE MASONRY WALL REINFORCING AT OPENING

N.T.S. 3



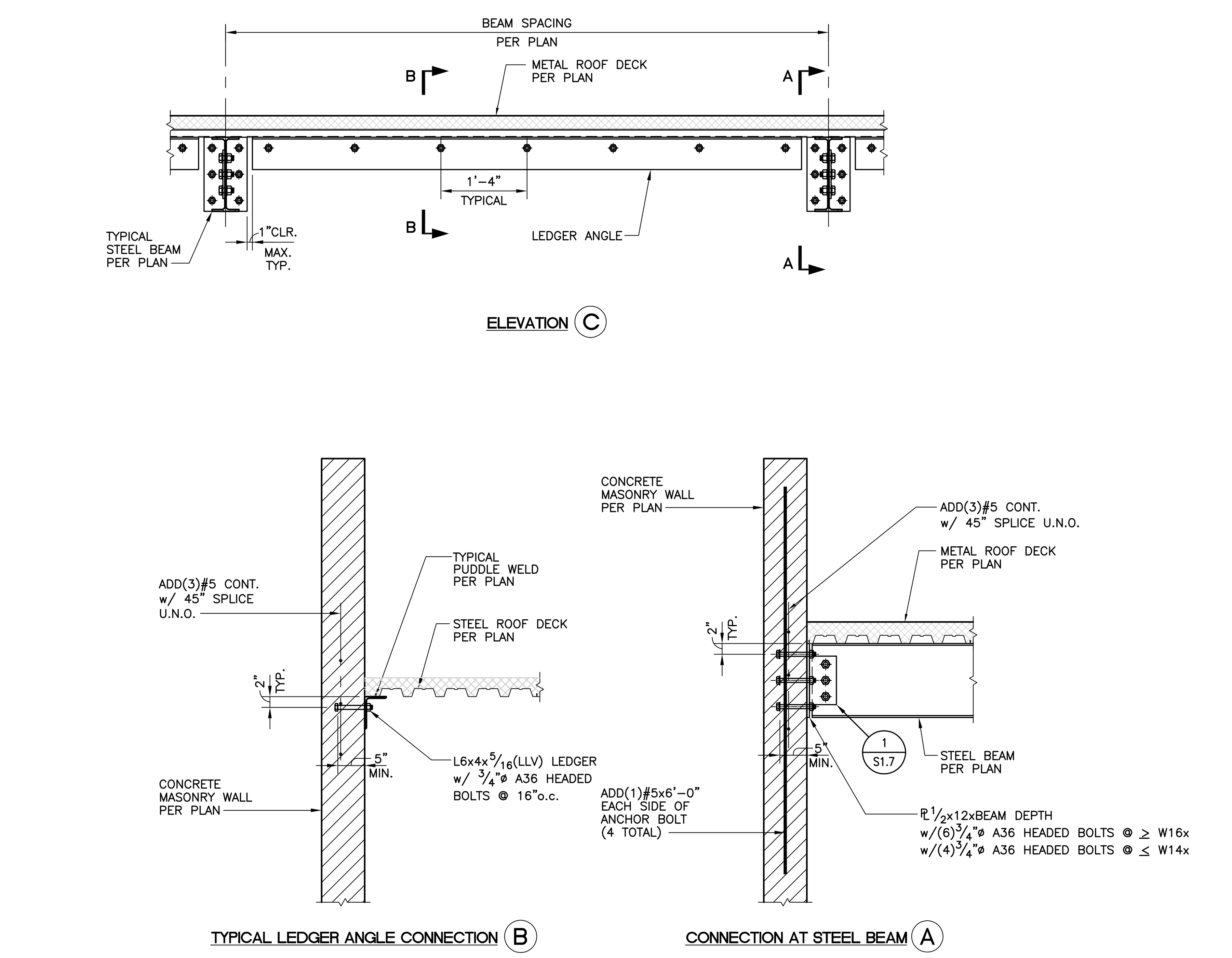
TYPICAL CONCRETE MASONRY WALL CONTROL JOINT DETAIL

M104A 6



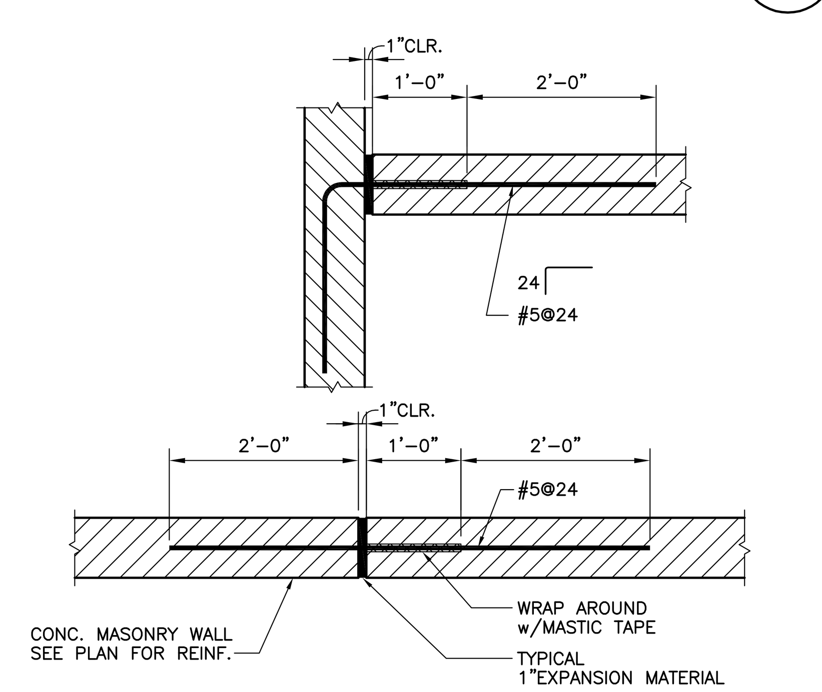
TYPICAL 12" CONCRETE MASONRY WALL REINFORCING DETAIL

M101-REV 2



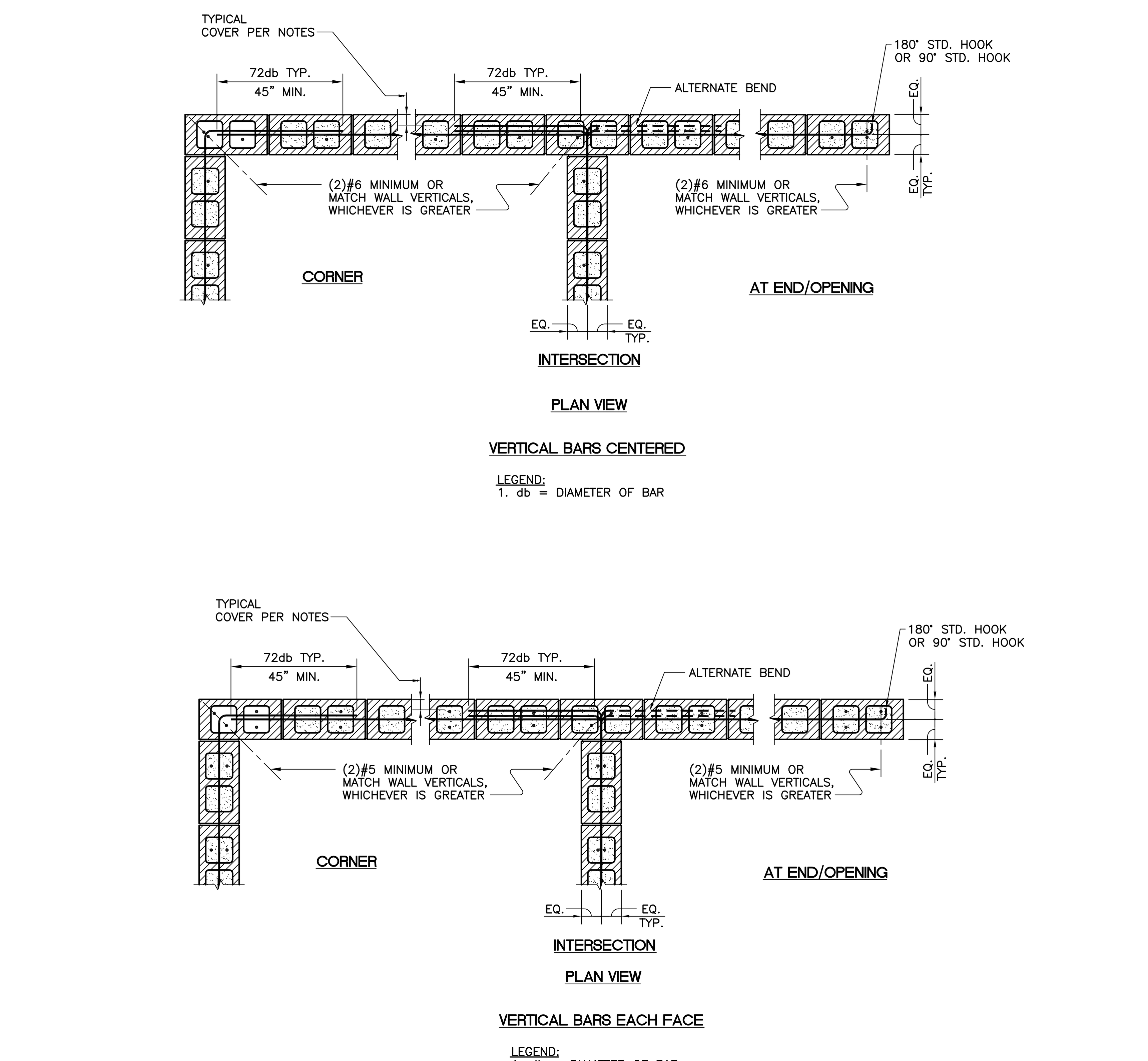
TYPICAL STEEL BEAM TO CONCRETE MASONRY WALL AT ROOF

N.T.S. 8



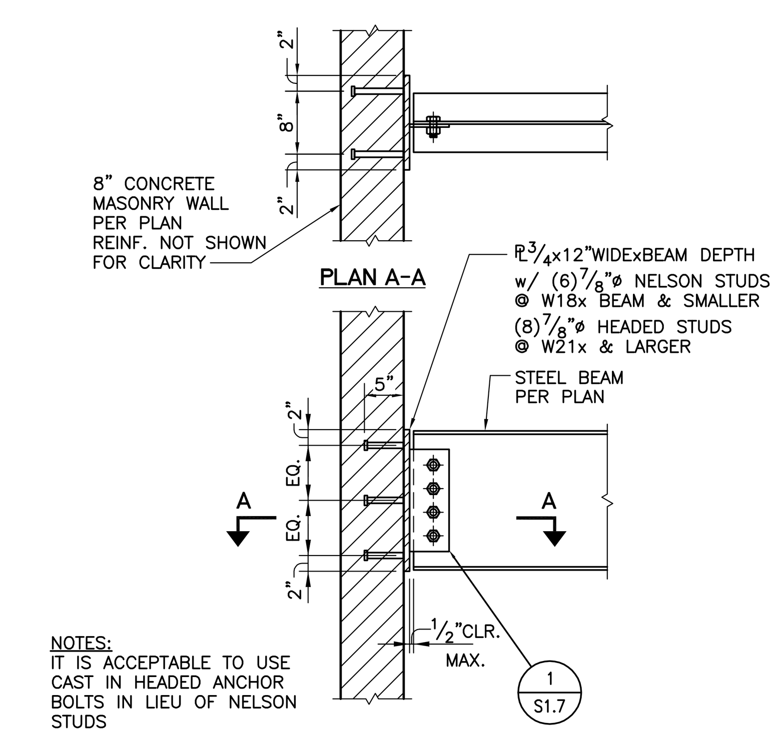
TYPICAL CONCRETE MASONRY EXPANSION JOINT DETAIL

N.T.S. 5



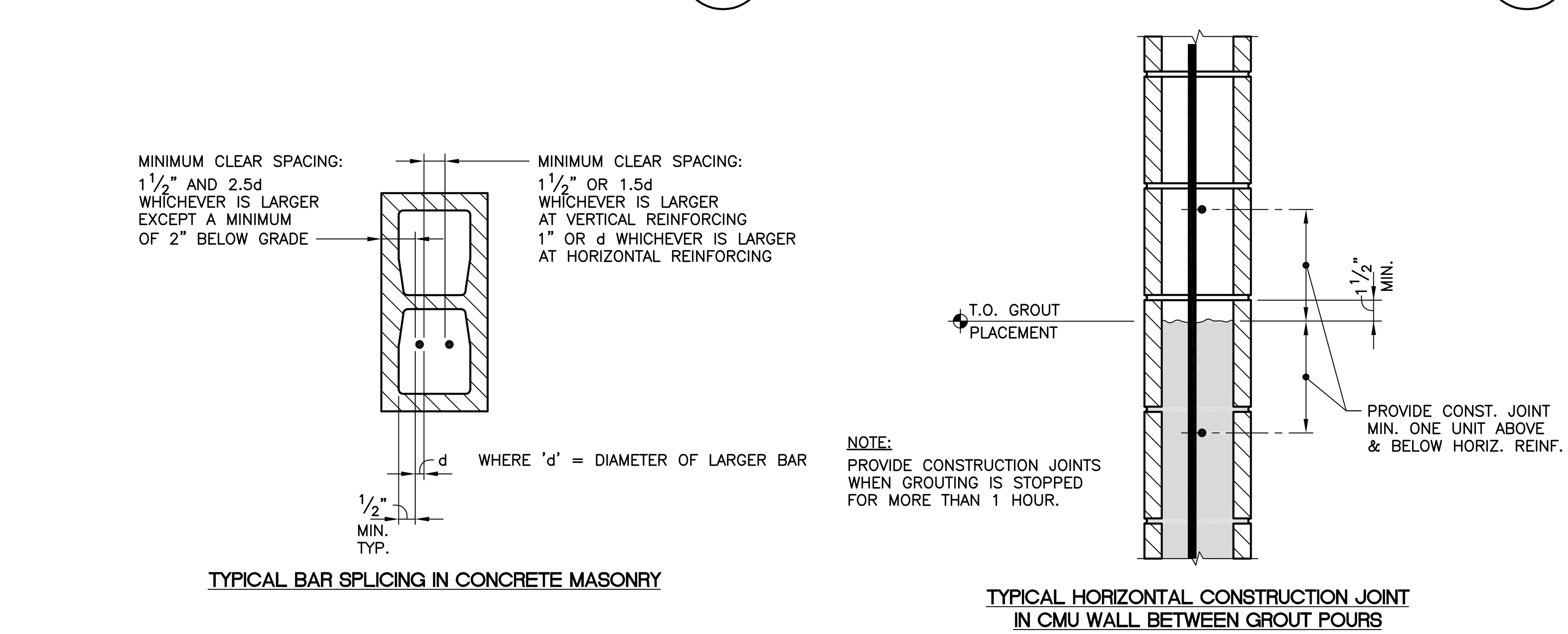
TYPICAL 8" CONCRETE MASONRY WALL REINFORCING DETAIL

M101-REV 1



TYPICAL STEEL BEAM TO MASONRY WALL DETAIL

N.T.S. 9



TYPICAL CONCRETE MASONRY WALL BAR SPLICING AND GROUT POUR JOINT DETAIL

M105 4

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.

2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

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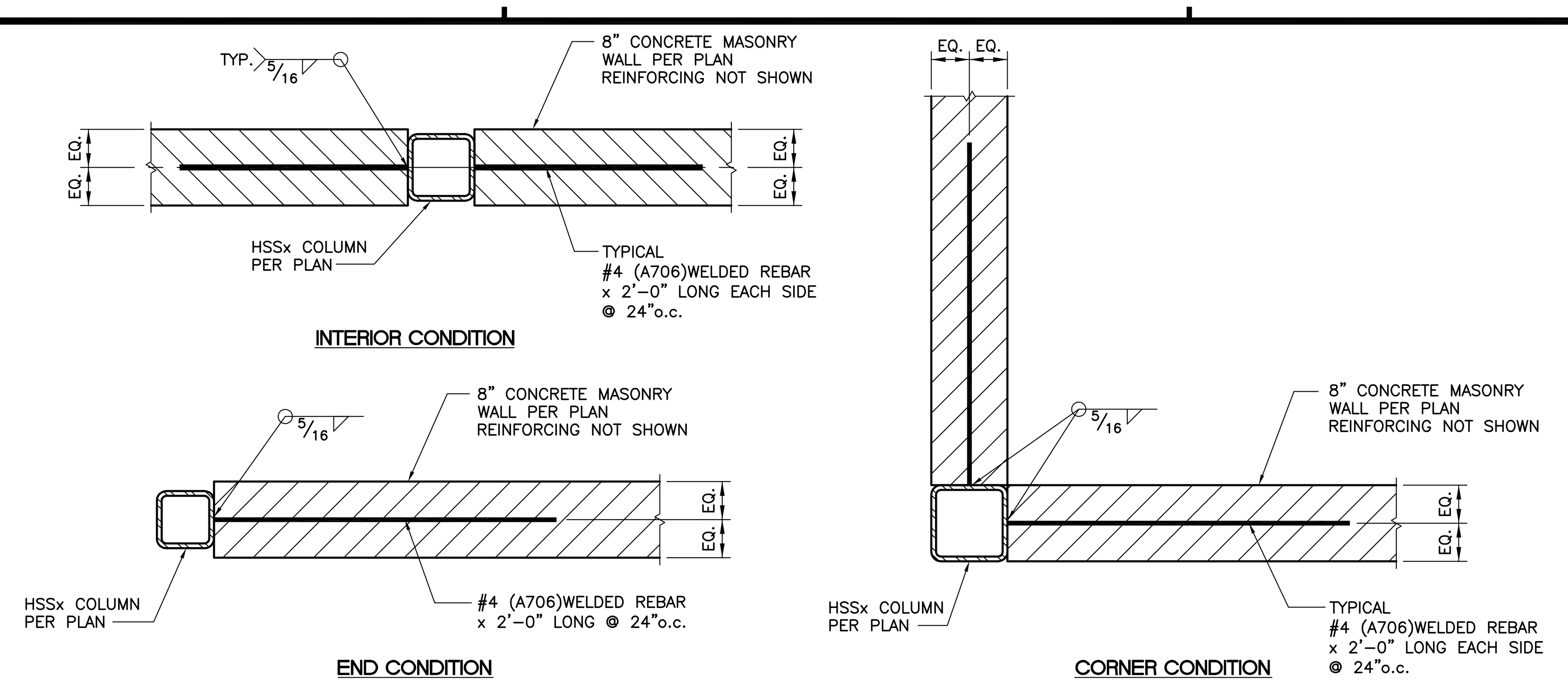
SHEET TITLE

TYPICAL MASONRY WALL DETAILS

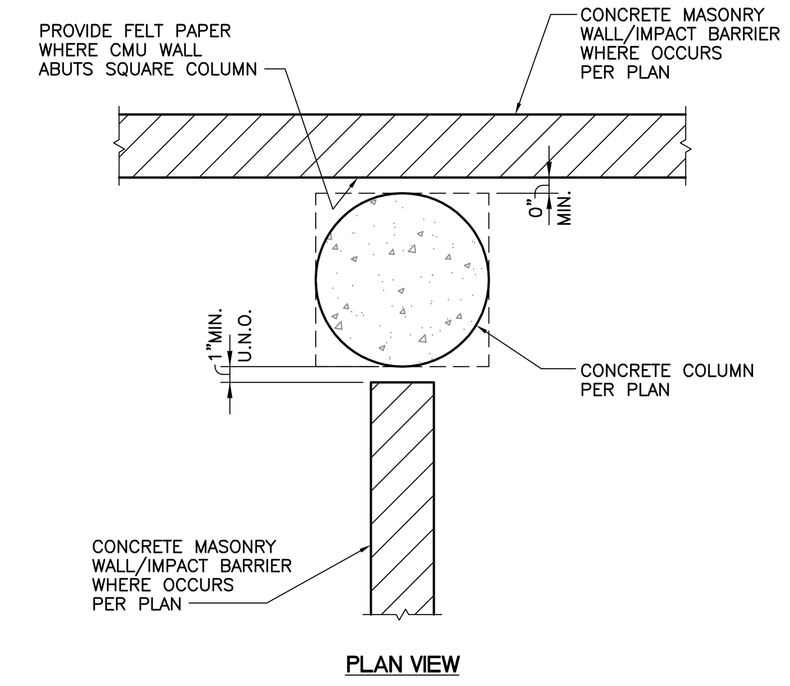
DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.8

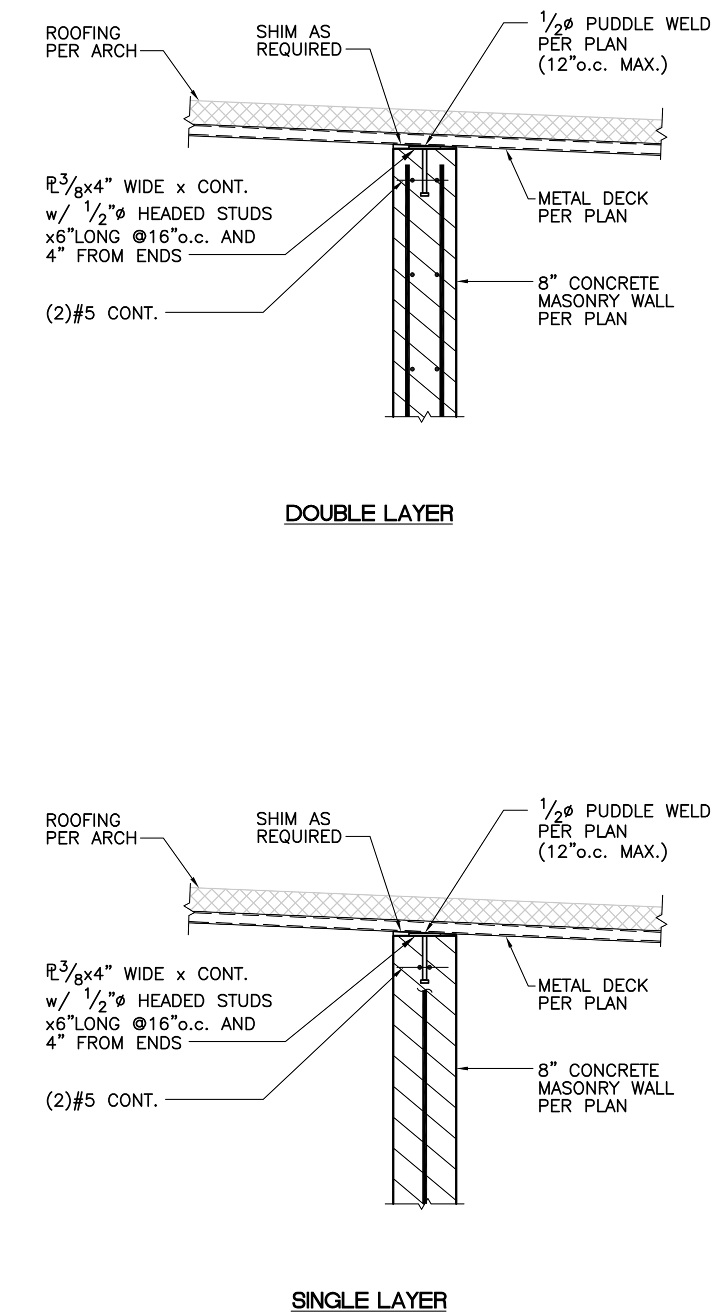
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



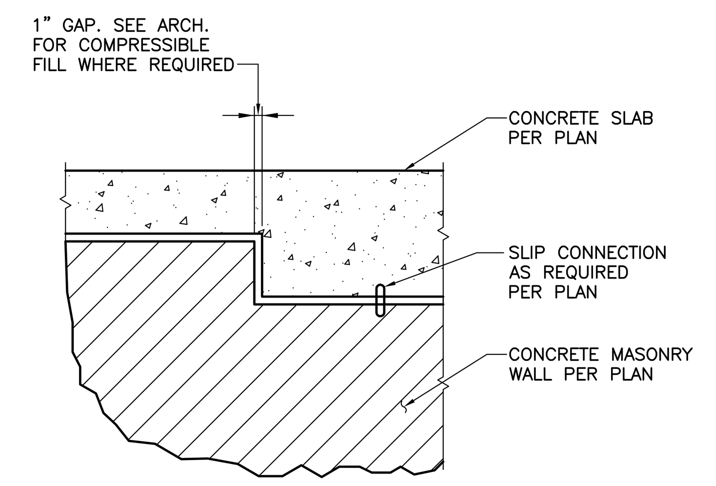
TYPICAL HSSx COLUMN TO MASONRY WALL CONNECTION DETAIL (9)
N.T.S.



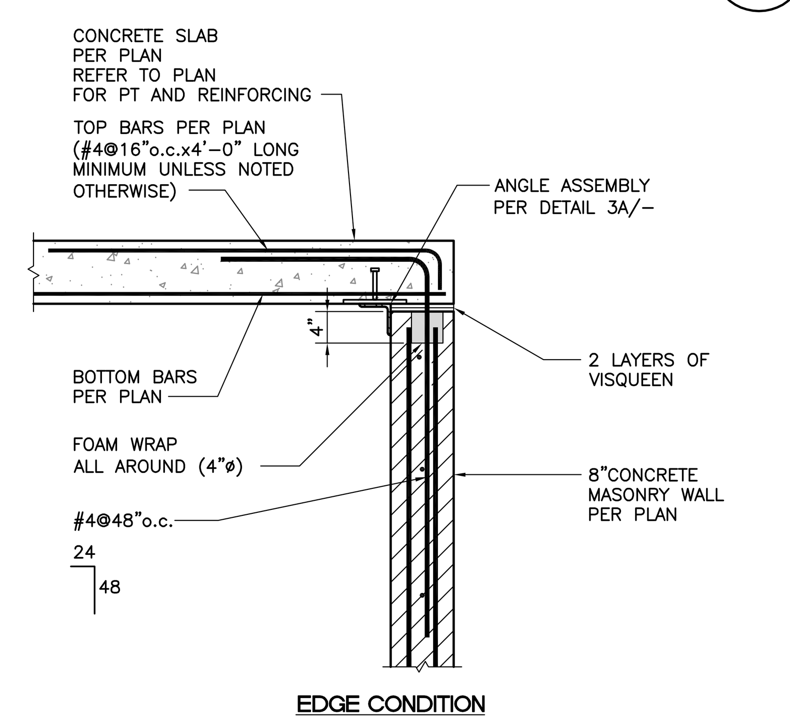
TYPICAL CONCRETE MASONRY WALL AT CONCRETE COLUMN DETAIL (6)
N.T.S.



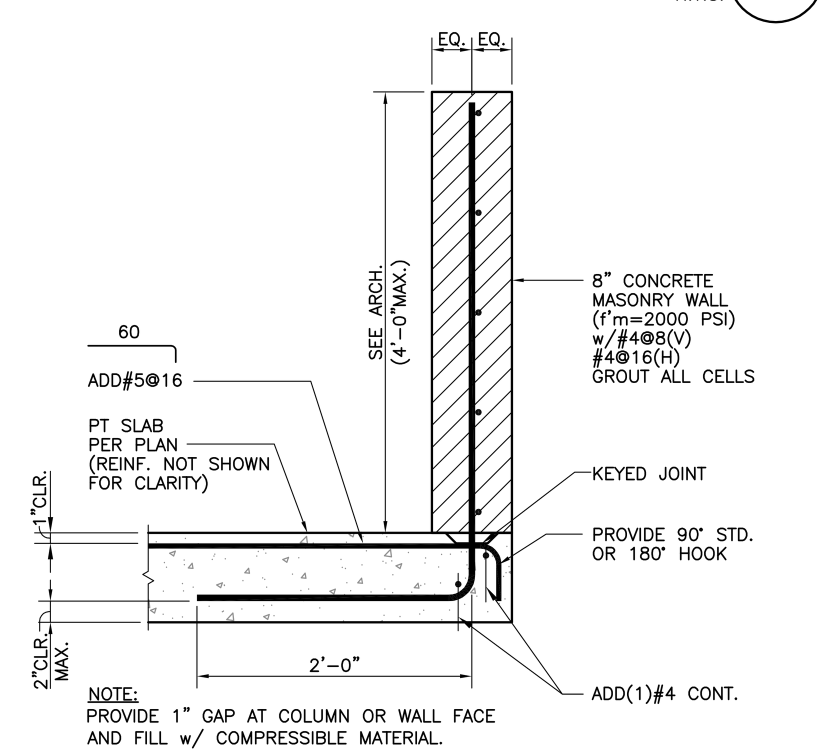
STEEL DECK CONNECTION TO INTERIOR MASONRY WALL DETAIL (2)
N.T.S.



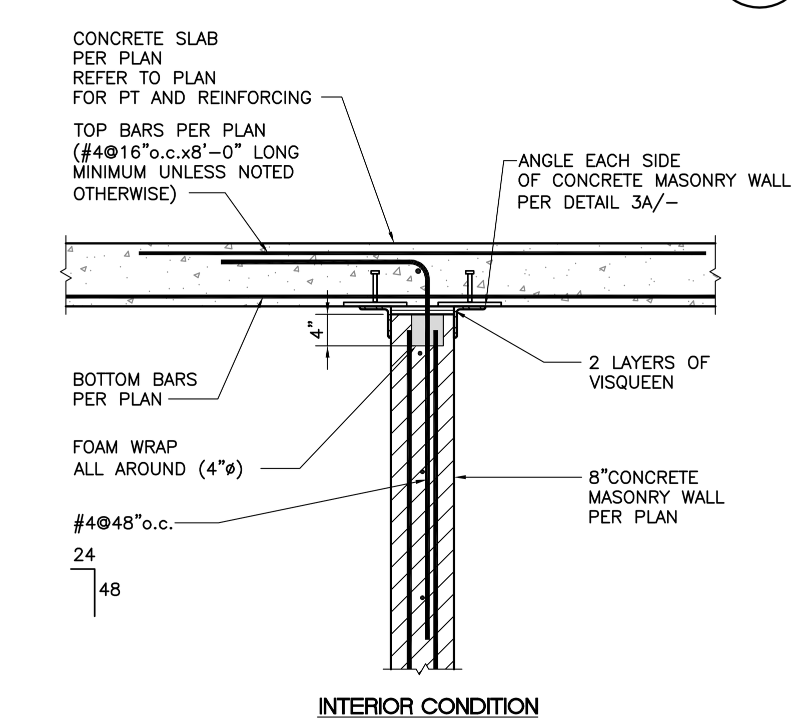
TYPICAL SLIPPED CONCRETE MASONRY WALL AT CHANGE IN SLAB SOFFIT (8)
N.T.S.



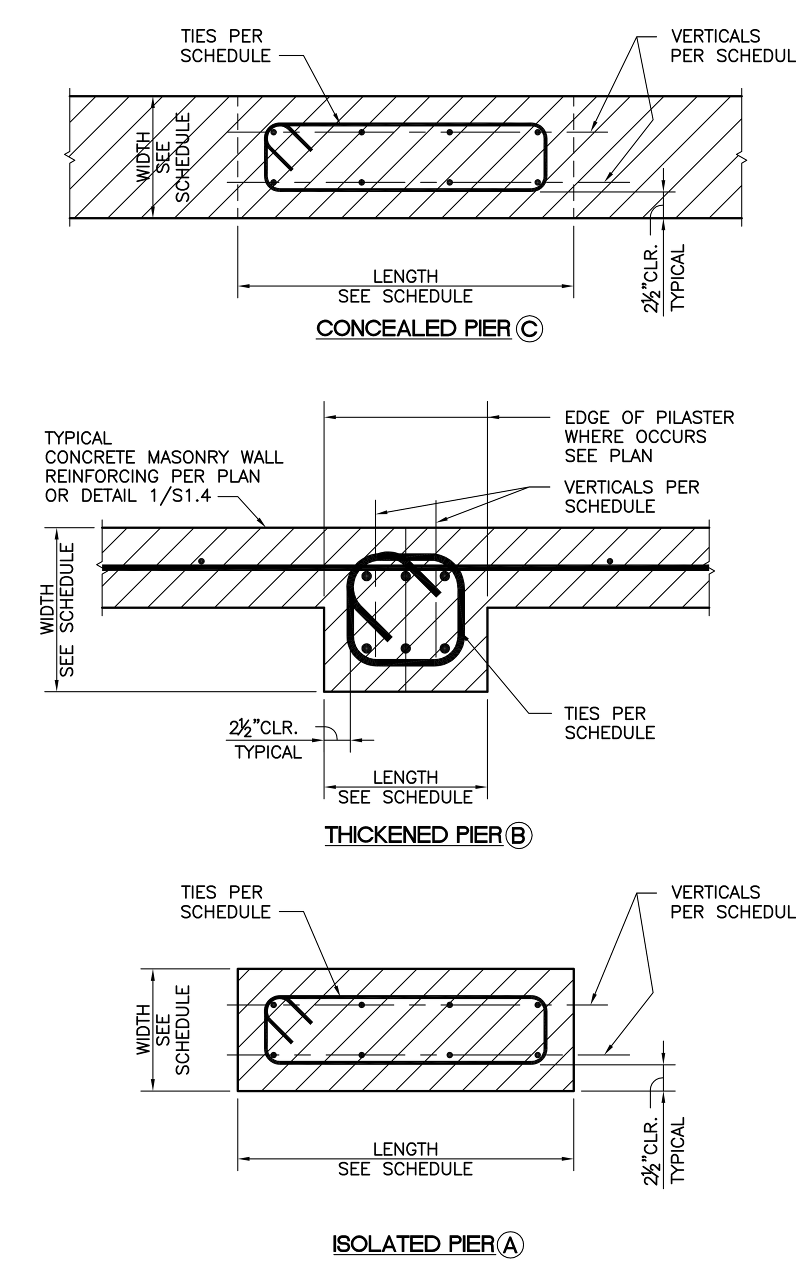
TYPICAL 8" CONCRETE MASONRY BEARING (NON-SHEAR) WALL TO CONCRETE SLAB CONNECTION DETAILS (5)
N.T.S.



TYPICAL CONCRETE MASONRY WALL IMPACT BARRIER DETAIL (7)
N.T.S.



TYPICAL 8" CONCRETE MASONRY BEARING (NON-SHEAR) WALL TO CONCRETE SLAB CONNECTION DETAILS (4)
N.T.S.

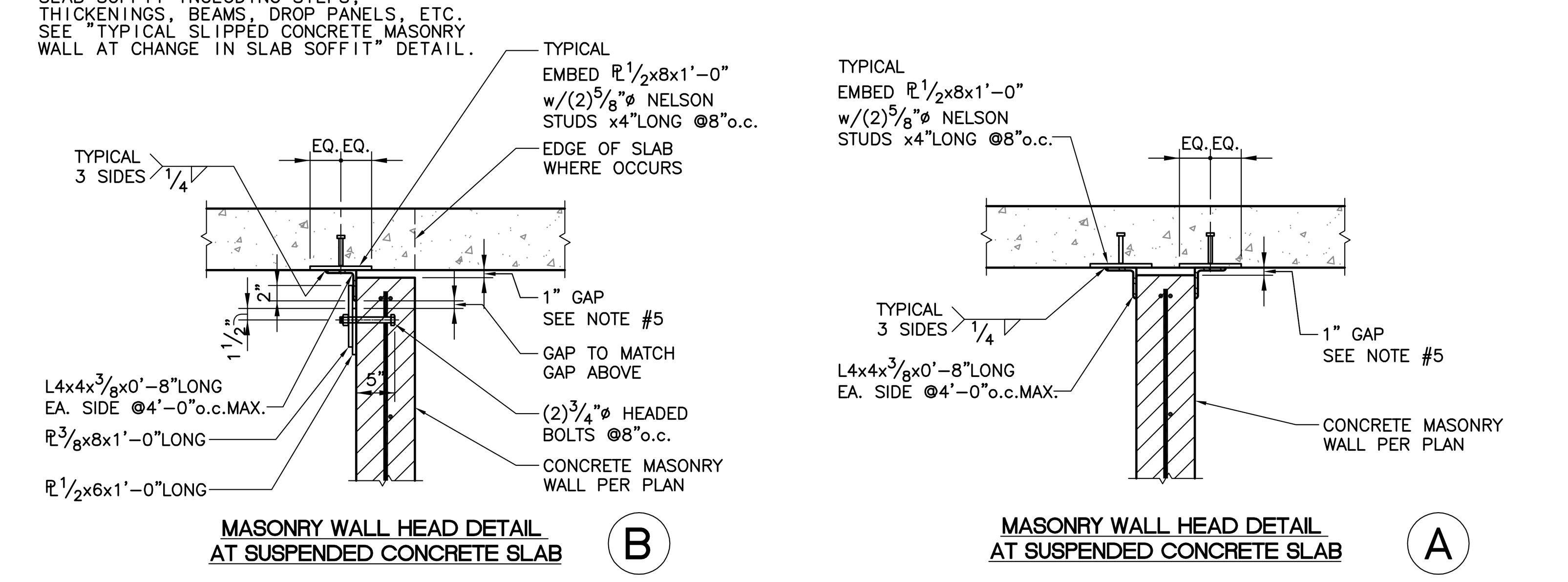


MARK	PILASTER SIZE LENGTH x WIDTH (IN.)	REINFORCING		REMARKS
		VERTICALS	TIES	
MP1	24 x 8	(3)#5 E.F.	#3@8 TIES	C
MP2	PER PLAN x 8	#5@8 E.F.	#3@8 TIES	A
MP3	PER PLAN x 12	#5@8 E.F.	#3@8 TIES	A
MP4	16 x 8	(2)#6 E.F.	#3@8 TIES	A

TYPICAL CONCRETE MASONRY PILASTER DETAIL (1)
N.T.S.

NOTES:

1. DETAILS (A) AND (B) ARE INTERCHANGEABLE.
2. PROVIDE WALL HEAD ANCHOR ASSEMBLY 2'-0" MAX. FROM END OF WALL AND 4'-0" MAX. FROM RETURN WALL WHERE OCCURS.
3. PROVIDE GAP AROUND ALL CHANGES IN SLAB SOFFIT INCLUDING STEPS, THICKENINGS, BEAMS, DROP PANELS, ETC. SEE "TYPICAL SLIPPED CONCRETE MASONRY WALL AT CHANGE IN SLAB SOFFIT" DETAIL.
4. HOLD WALLS DOWN 2"-0" MIN. BELOW SLAB UNTIL AFTER SLAB IS POURED AND STRESSED.
5. PROVIDE COMPRESSIBLE JOINT FILLER THAT MEETS REQUIREMENTS FOR FIRE RATING OF WALL SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.



TYPICAL FULL-HEIGHT CONCRETE MASONRY NON-BEARING WALL TOP CONNECTION DETAILS (3)
N.T.S.

PROJECT

No.1 COLLISION

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2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
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Santa Monica California 90403
310.453.4431

CONSULTANTS

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STAMP + SIGNATURE

REGISTERED PROFESSIONAL ENGINEER JEFF Y. CHEN EXP.12/31/22 STRUCTURAL STATE OF CALIFORNIA

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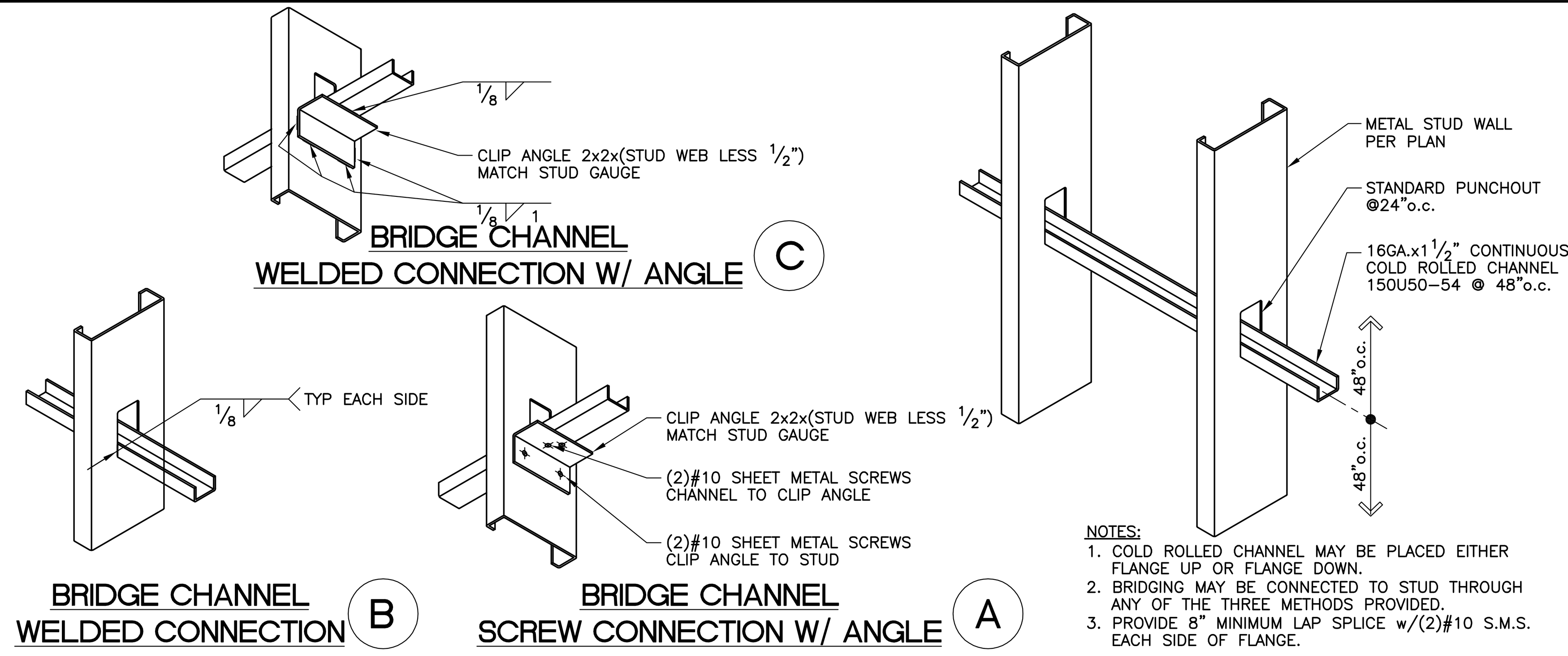
SHEET TITLE

TYPICAL MASONRY WALL DETAILS

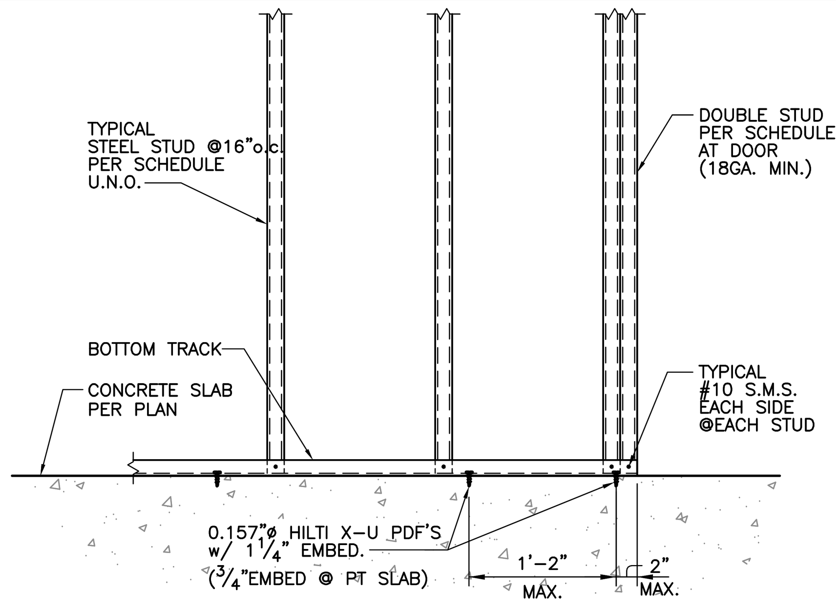
DATE:	11/10/21	S1.8.1
SCALE:	AS SHOWN	
DRAWN BY:	RT	
PROJECT NUMBER	19-119	ACTUAL SIZE OF THIS SHEET IS 30" X 42"



NOTES:
1. COLD ROLLED CHANNEL MAY BE PLACED EITHER FLANGE UP OR FLANGE DOWN.
2. BRIDGING MAY BE CONNECTED TO STUD THROUGH ANY OF THE THREE METHODS PROVIDED.
3. PROVIDE 8" MINIMUM LAP SPLICE w/(2)#10 S.M.S. EACH SIDE OF FLANGE.

TYPICAL METAL STUD BRIDGING DETAILS

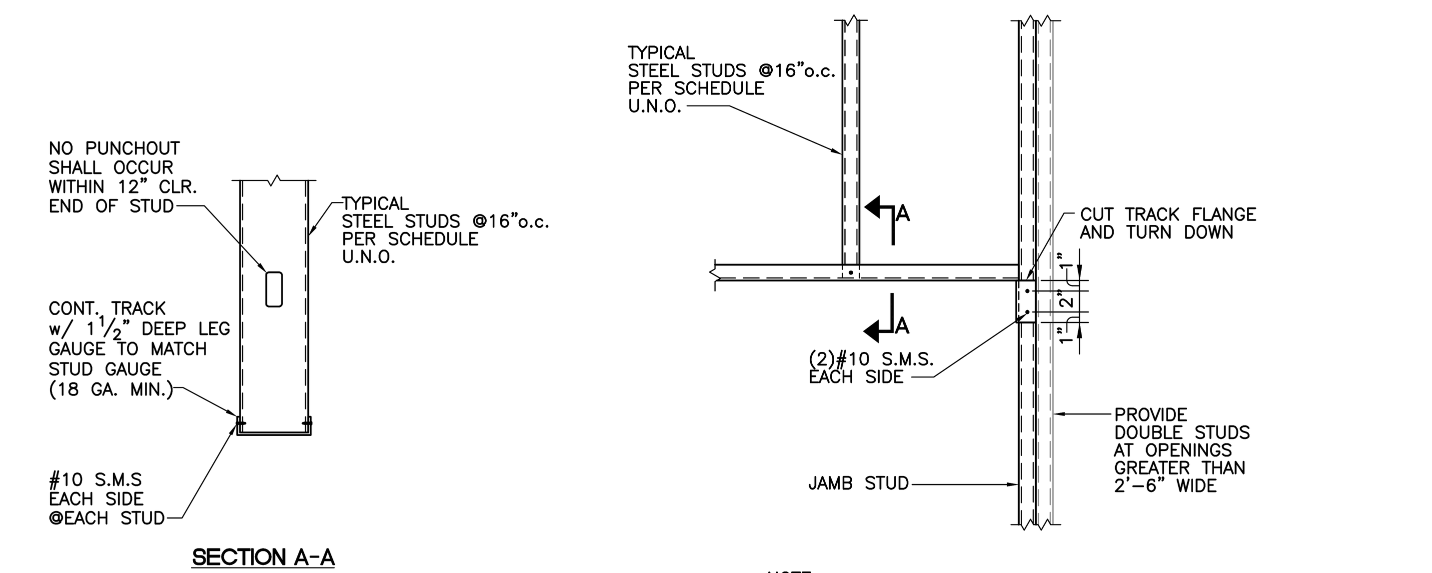
1 1/2"=1'-0" 8



NOTE:
1. FOR REMAINDER OF INFORMATION SEE "TYPICAL BOTTOM TRACK SPLICE AND ACHORAGE DETAIL".

TYPICAL BOTTOM TRACK ANCHORAGE AT DOOR OPENING DETAIL

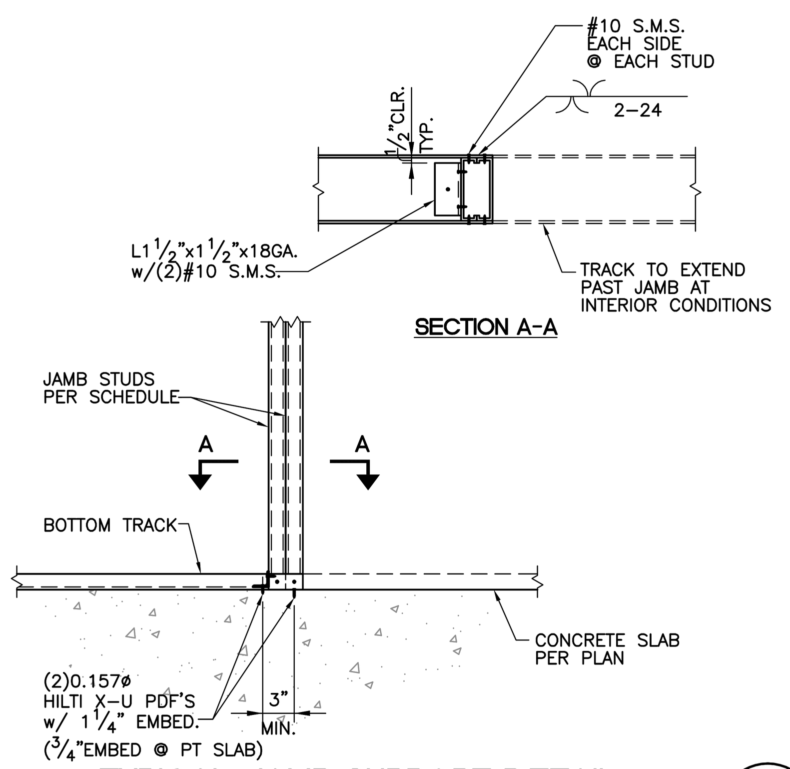
MS105 6



NOTE:
1. APPLIES AT INTERIOR NON-BEARING WALL OPENINGS UP TO 4'-0" WIDE MAX

TYPICAL TRACKHEADER CONNECTION DETAIL

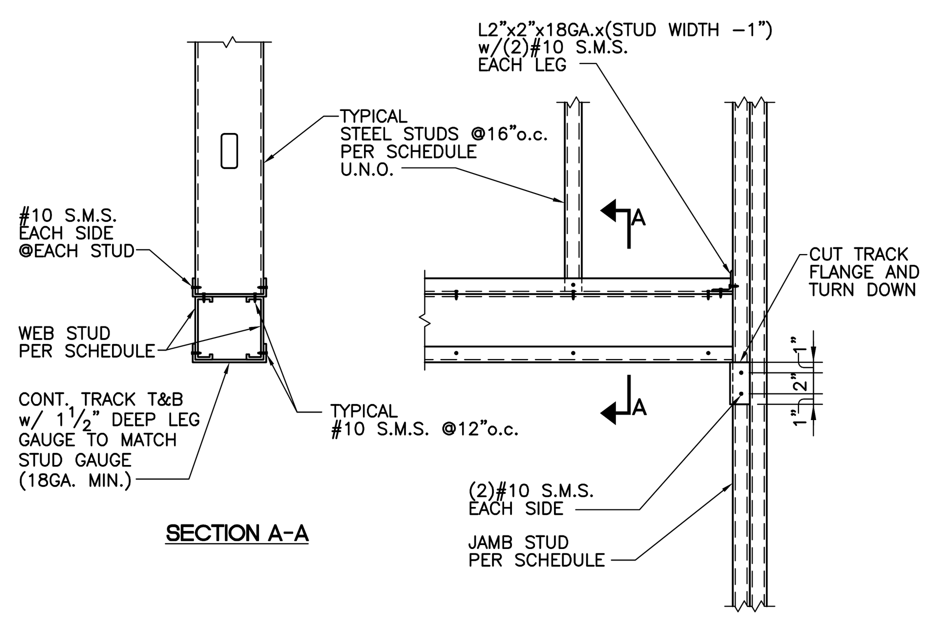
MS106 3



TYPICAL JAMB SUPPORT DETAIL

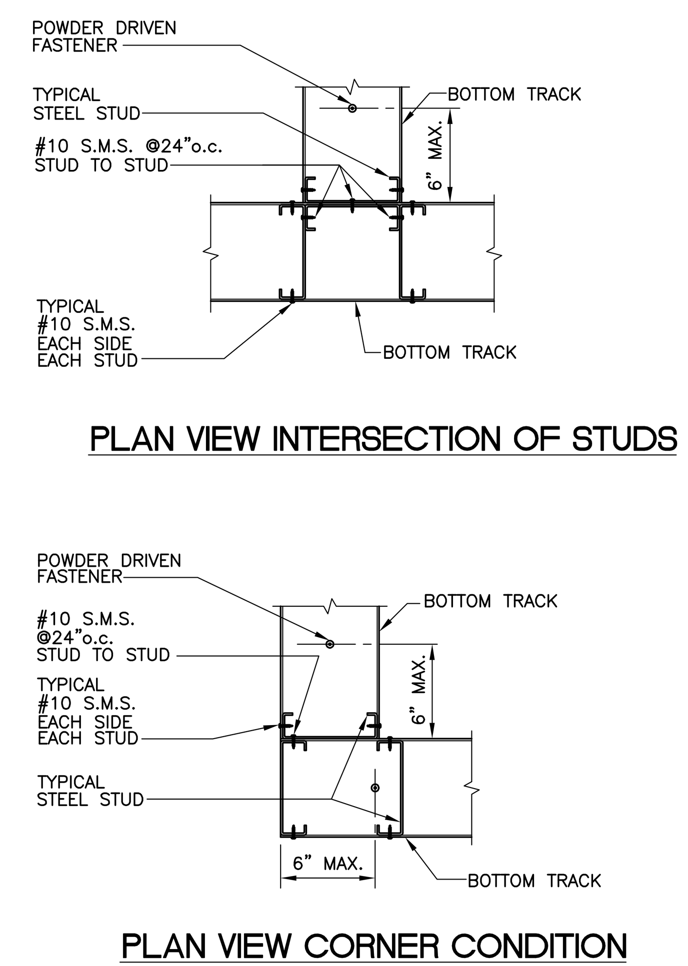
MS110 11

HEADER SCHEDULE	
OPENING SIZE (L)	WEB STUD
L< 6'-0"	(2)362S162-43
8'-0"<L≤10'-0"	(2)800S162-43
10'-0"<L≤12'-0"	(2)1000S162-54



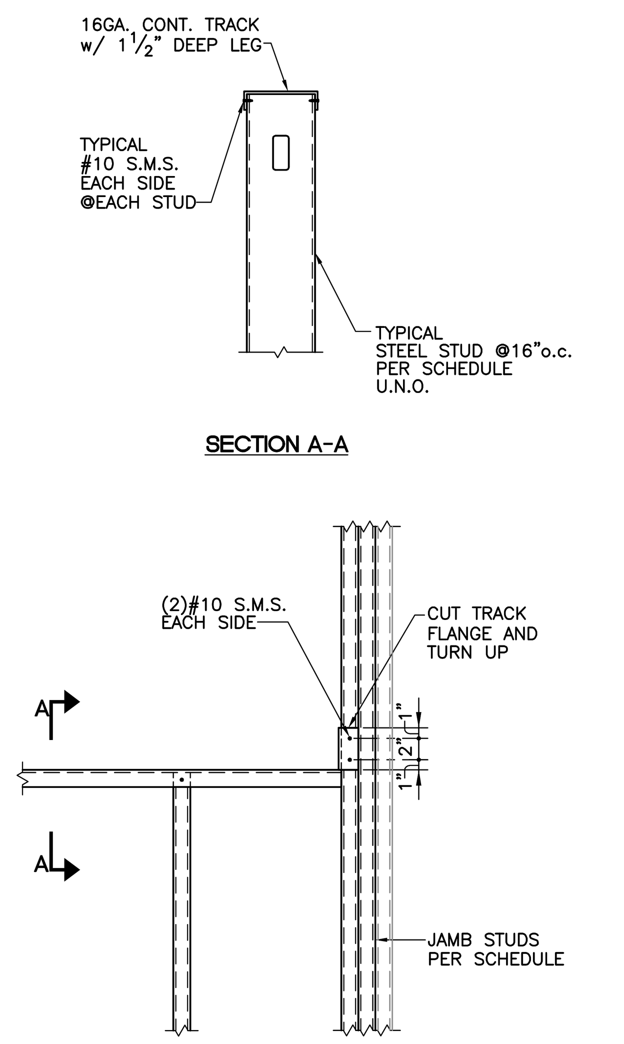
TYPICAL BOX HEADER CONNECTION DETAIL

MS107 7



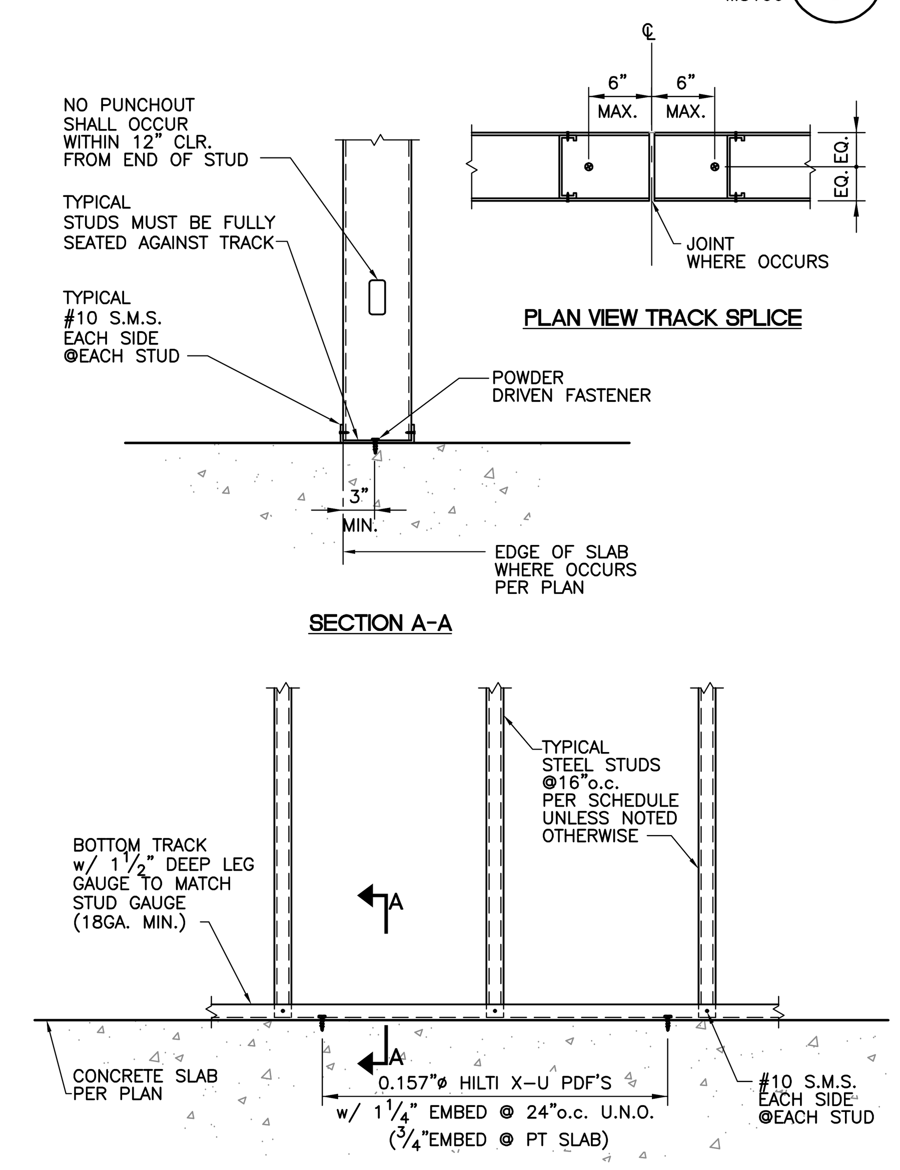
TYPICAL STUD FRAMING AT WALL INTERSECTION DETAILS

MS115 5



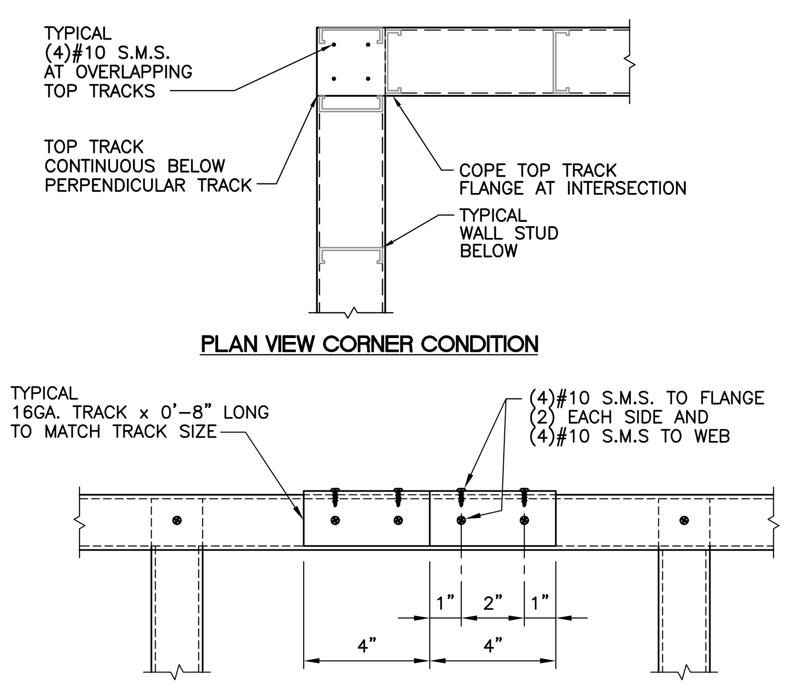
TYPICAL SILL CONNECTION DETAIL (12'-0" MAX. OPENING)

MS109 4



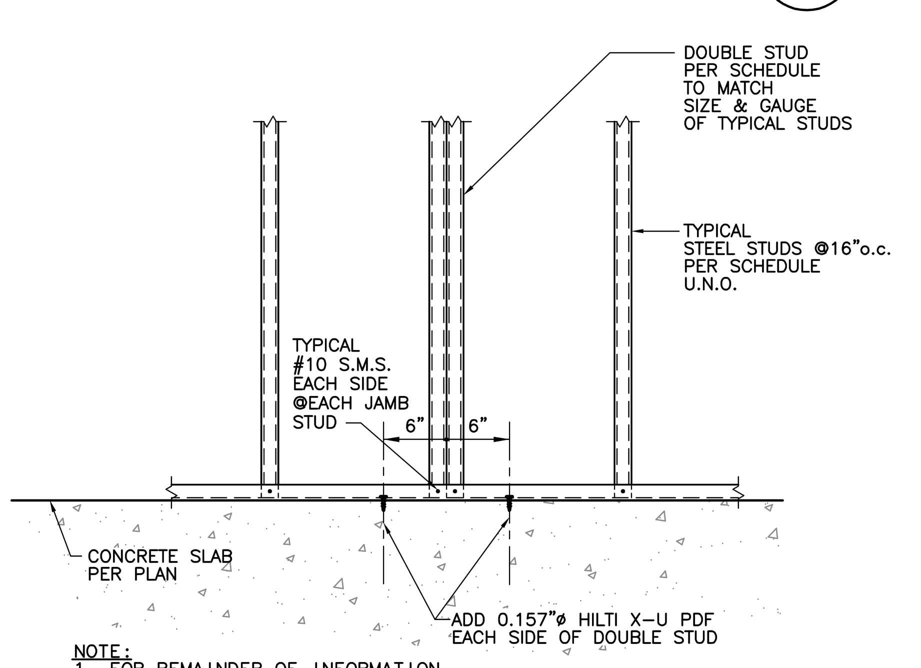
TYPICAL BOTTOM TRACK SPLICE AND ANCHORAGE DETAIL

MS101 2



TYPICAL TOP TRACK SPLICE DETAILS

MS116 10



NOTE:
1. FOR REMAINDER OF INFORMATION SEE "TYPICAL BOTTOM TRACK SPLICE AND ANCHORAGE DETAIL".

TYPICAL BOTTOM TRACK ANCHORAGE WITH DOUBLE STUD FRAMING DETAIL

MS108 9

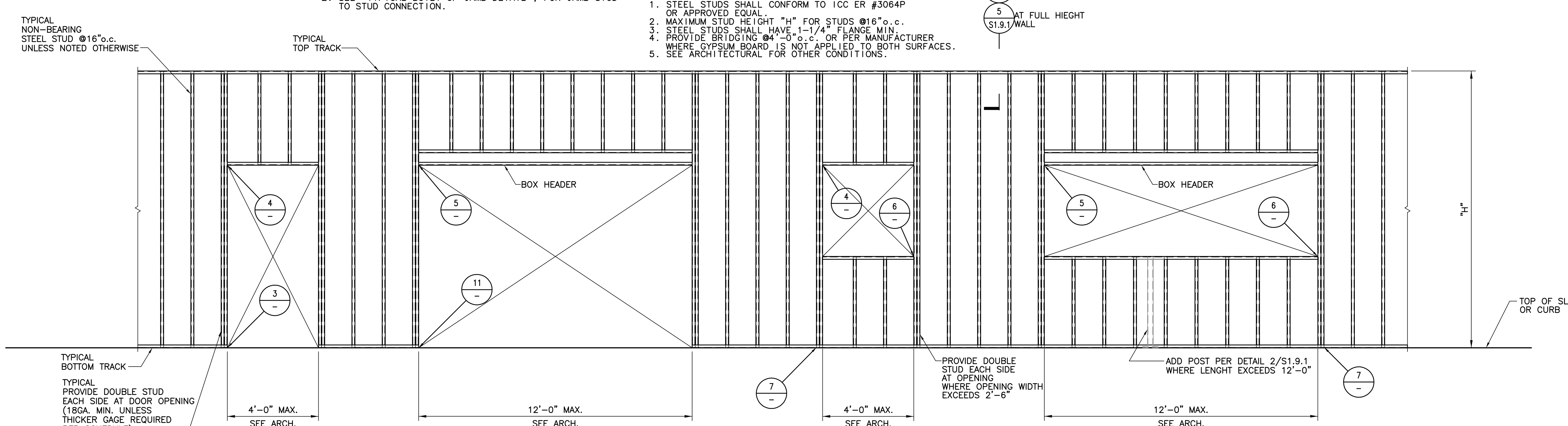
JAMB SCHEDULE	
OPENING SIZE	# OF JAMB STUDS
4'-0" TO 6'-0"	2
6'-0" TO 10'-0"	2
10'-0" TO 12'-0"	3

NOTES:
1. JAMB STUDS TO MATCH SIZE AND GAUGE OF TYPICAL STUDS.
2. SEE "TYPICAL BUILT-UP JAMB DETAIL", FOR JAMB STUD TO STUD CONNECTION.

STEEL STUD SIZE				
GAUGE	3 5/8"	4"	6"	8"
14(68MIL)	19'-9"	21'-3"	29'-9"	30'-0"
16(54MIL)	18'-6"	20'-0"	27'-9"	30'-0"
18(43MIL)	17'-3"	18'-9"	26'-0"	30'-0"
20(33MIL)	15'-9"	17'-0"	23'-6"	–

NOTES:
1. STEEL STUDS SHALL CONFORM TO ICC ER #3064P OR APPROVED EQUAL.
2. MAXIMUM STUD HEIGHT "H" FOR STUDS @16"o.c.
3. STEEL STUDS SHALL HAVE 1-1/4" FLANGE MIN.
4. PROVIDE BRIDGING @4'-0"o.c. OR PER MANUFACTURER WHERE GYPSUM BOARD IS NOT APPLIED TO BOTH SURFACES.
5. SEE ARCHITECTURAL FOR OTHER CONDITIONS.

1 S1.9.1 AT PARTIAL HEIGHT WALL
5 S1.9.1 AT FULL HIEGHT WALL



TYPICAL INTERIOR NON-BEARING STUD WALL FRAMING ELEVATION

MS100 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240-4336
FAX: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
FAX: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

NOT FOR CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE

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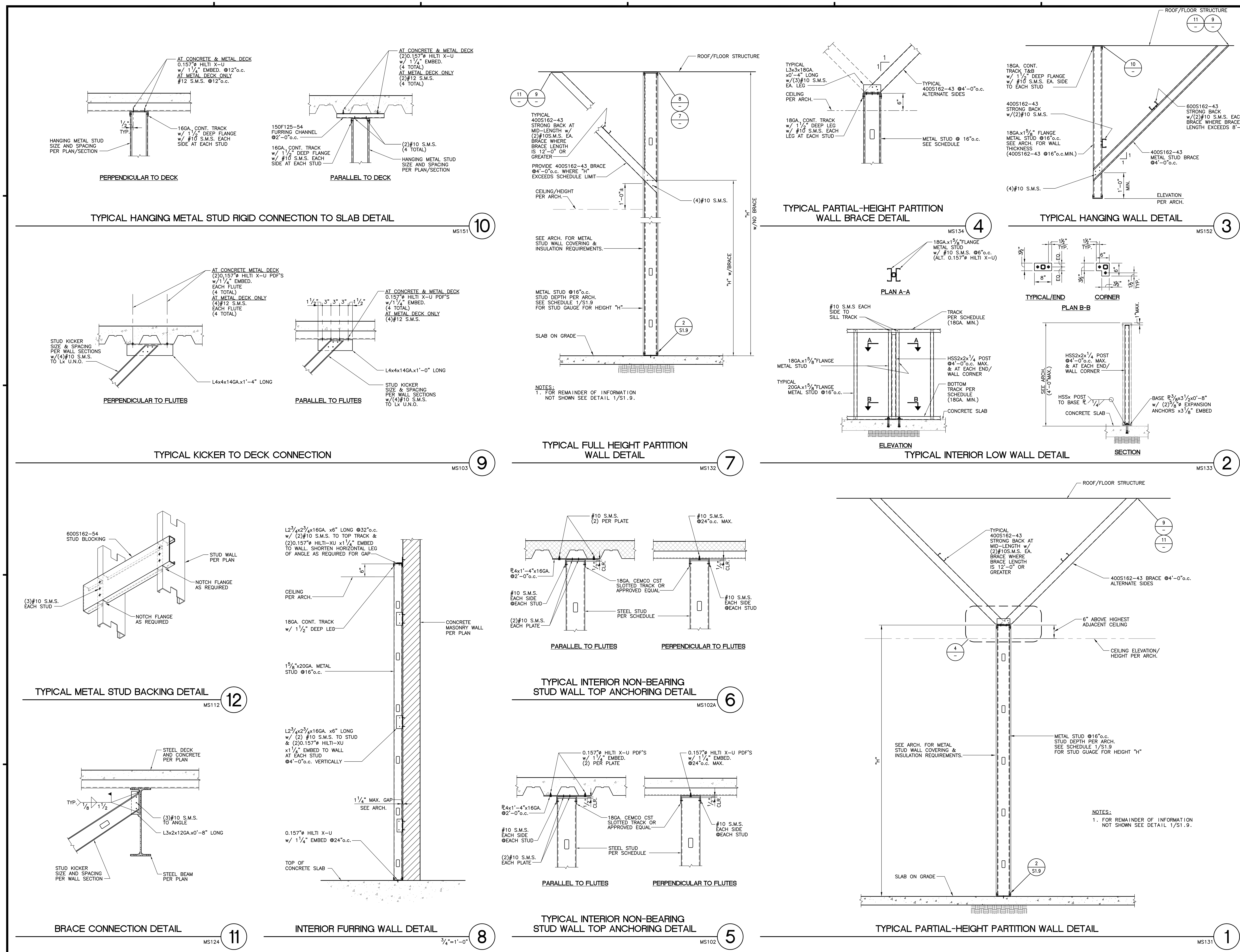
SHEET TITLE

TYPICAL INTERIOR METAL STUD DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.9

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



PROJECT

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LUXURY AUTOMOTIVE REPAIR FACILITY

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COSTA MESA, CA 92626

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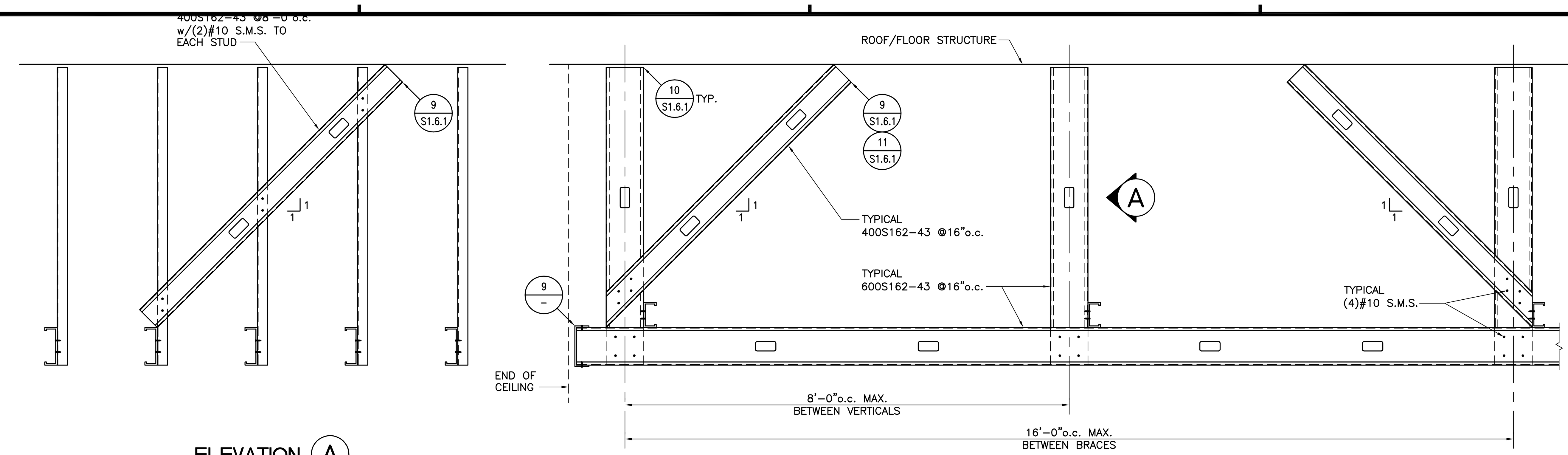
SHEET TITLE

TYPICAL INTERIOR METAL STUD DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.9.1

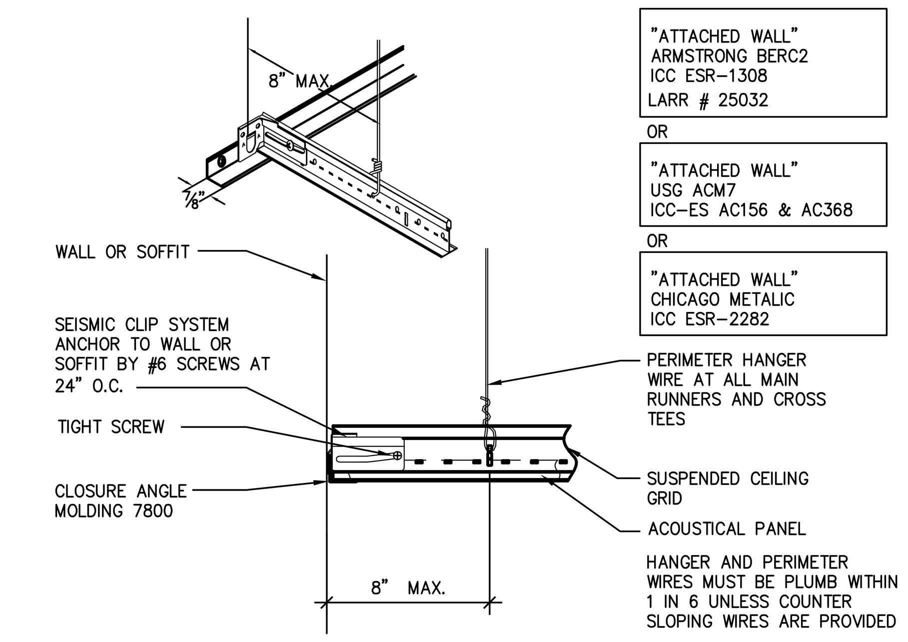
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



ELEVATION (A)

CONCEPTUAL EXTERIOR SUSPENDED CEILING DETAIL

CLG111 (5)



"ATTACHED WALL"
ARMSTRONG BERC2
ICC ESR-1308
LARR # 25032

OR

"ATTACHED WALL"
USG ACM7
ICC-ES AC156 & AC368

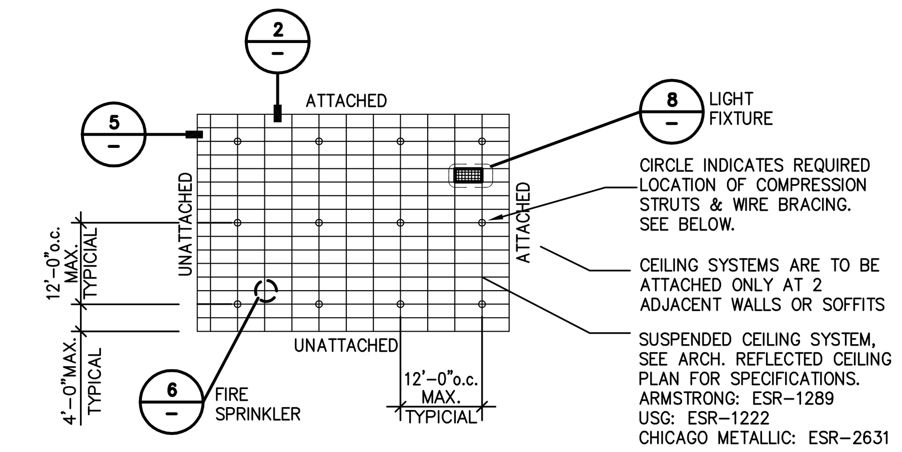
OR

"ATTACHED WALL"
CHICAGO METALIC
ICC ESR-2282

ATTACHED CLOSURE ANGLE

CLG101 (2)

ACOUSTICAL CEILING SUSPENSION SYSTEM



LATERAL FORCE BRACING AND SUSPENSION

LATERAL FORCE BRACING: A STRUT FASTENED TO THE MAIN RUNNER SHALL BE EXTENDED TO THE STRUCTURAL MEMBERS SUPPORTING THE ROOF OR FLOOR ABOVE. LATERAL FORCE BRACING SHALL BE SPACED AS SHOWN AND SHALL BEGIN NO FARTHER THAN 4 FEET FROM WALLS. LATERAL FORCE BRACING MEMBERS MUST BE SPACED A MINIMUM OF 6" FROM ALL HORIZONTAL PIPING OR DUCT WORK THAT IS NOT PROVIDED WITH BRACING RESTRAINTS FOR HORIZ. FORCES.

NOTES:

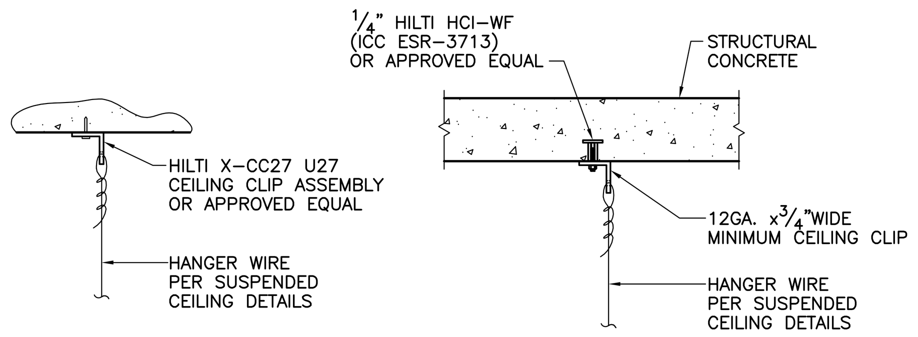
1. WHERE THE ROOF SYSTEM IS COMPOSED OF BEAMS, PURLINS, AND SUB-PURLINS, THE 2x4 SUB-PURLINS SHALL NOT BE USED TO SUPPORT THE CEILING. STRENGTHEN 2x4 SUB-PURLINS AS REQUIRED.
2. CEILING SUSPENSION SYSTEM SHALL COMPLY WITH CBC 808.1, CBC 2506.2.1 & ASCE 7-10 SECTION 13.5.6. COMPONENTS SHALL BE ASTM "HEAVY DUTY" CLASS.
3. THE COMPRESSION STRUT SHALL BE VERTICAL, AND SHALL NOT HANG MORE THAN 1 IN 6 OUT-OF-PLUMB.

METAL STUD COMPRESSION STRUT

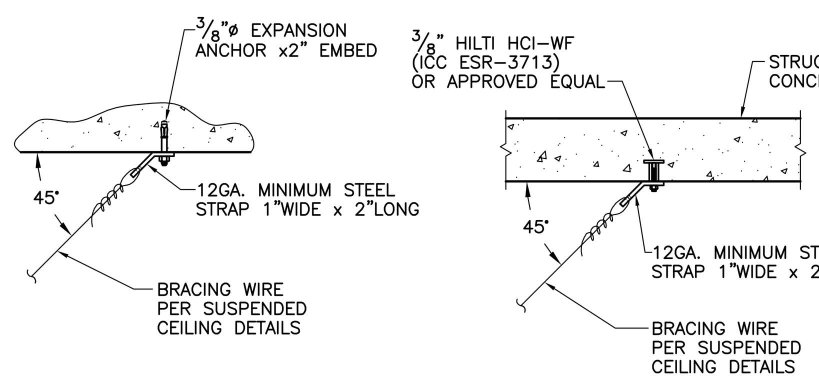
COMPRESSION STRUT SCHEDULE	
STRUT HEIGHT	METAL STUD SIZE
6'-0"	400S162-33
8'-0"	400S162-43
14'-0"	(2)400S162-43

EMT COMPRESSION STRUT

COMPRESSION STRUT SCHEDULE	
STRUT HEIGHT	EMT SIZE
5'-0"	3/4"
6'-6"	1"
8'-6"	1 1/4"
10'-0"	1 1/2"
12'-6"	2"



HANGER WIRE DETAILS

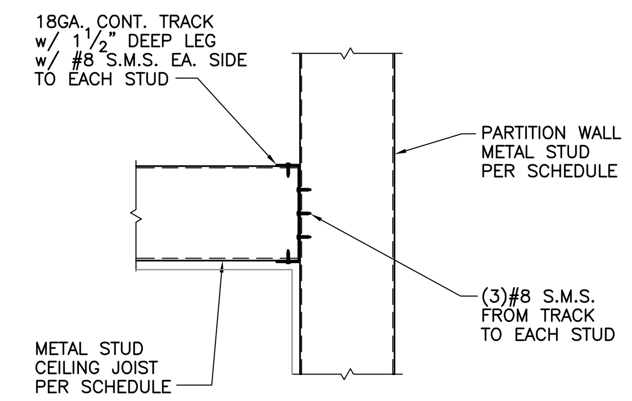


BRACING WIRE DETAILS

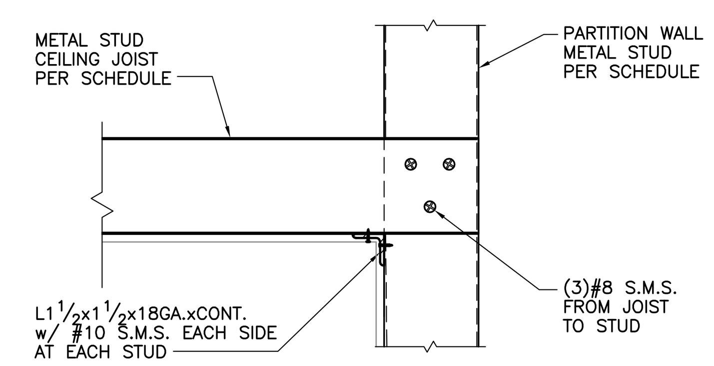
CONTRACTOR SHALL LOCATE, MARK AND AVOID TENDONS PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN POST-TENSIONED CONCRETE.

TYPICAL SUSPENDED CEILING WIRE CONNECTIONS TO CONCRETE FRAMING

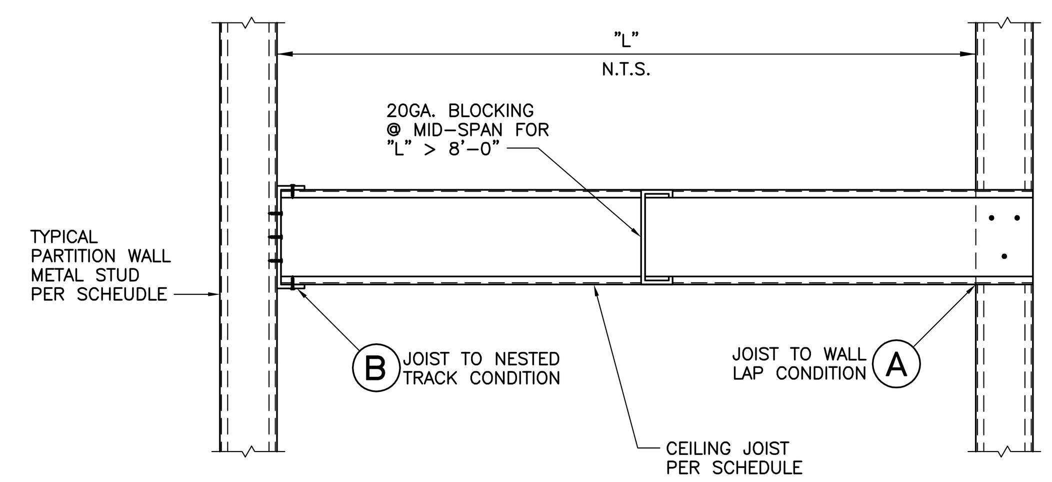
CLG124 (9)



METAL STUD CEILING JOIST CONNECTION TO METAL STUD (B)



METAL STUD CEILING JOIST CONNECTION TO METAL STUD (A)



LENGTH "L"	CEILING JOIST
0'-0" < L ≤ 10'-0"	600S137-33 @16"o.c.
10'-0" < L ≤ 12'-0"	600S162-33 @16"o.c.
12'-0" < L ≤ 15'-0"	600S162-43 @16"o.c.

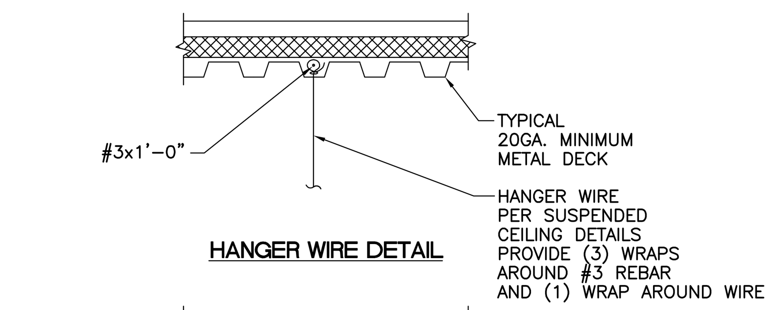
FOR "L" > 15'-0" MUST USE SUSPENDED CEILING

NOTE:

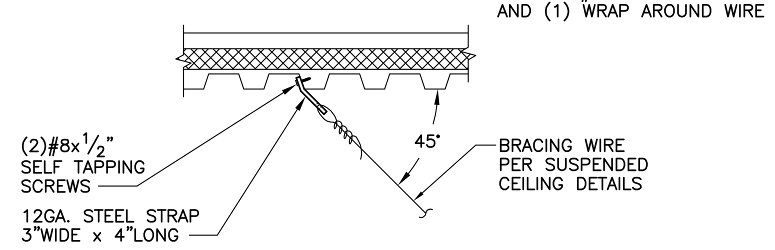
1. IT IS ACCEPTABLE TO USE EITHER DETAIL (A) OR (B) FOR CEILING JOIST END CONNECTION.
2. CEILING JOISTS NOT DESIGNED TO SUPPORT MECHANICAL UNITS, WATER HEATERS, ETC.
3. PROVIDE 18GA DIAGONAL METAL STUD CONNECTING INTERSECTION PARTITION WALL CORNERS w/ (4)#12 SMS EACH END TO WALL TOP TRACK WHERE PARTITION WALL IS NOT FULL-HEIGHT. USE 3/8" EXP. ANCHORS w/ 2" EMBED AT BOTTOM TRACK OF PARTITION WALL WHERE WALL IS NOT BRACED TO DECK ABOVE.

TYPICAL CEILING JOIST SCHEDULE

CLG112 (4)



HANGER WIRE DETAIL

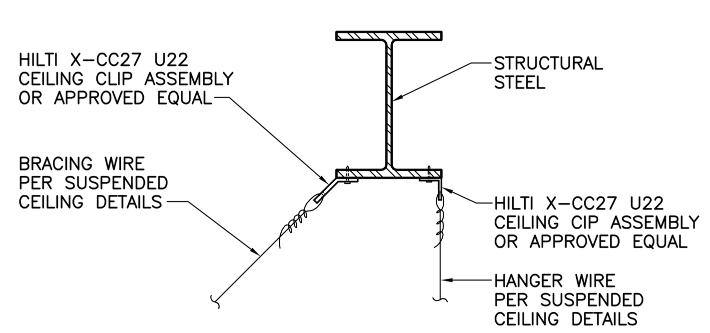


NOTE:
IF SELF TAPPING SCREWS ARE USED WITH CONCRETE FILL, SET SCREWS BEFORE PLACING CONCRETE FILL.

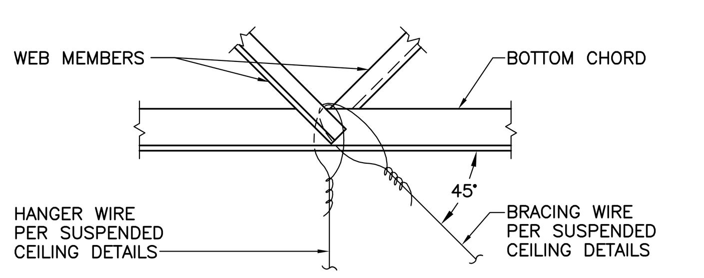
BRACING WIRE DETAIL

TYPICAL SUSPENDED CEILING WIRE CONNECTIONS TO METAL DECK

CLG123 (8)

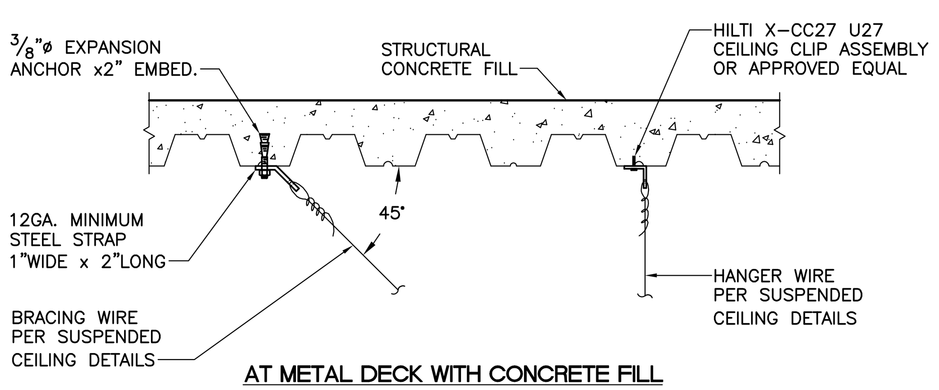


AT STEEL BEAM



NOTE:
DIAGONAL BRACING WIRE SHALL BE PARALLEL TO JOIST. DIAGONAL BRACING WIRE CAN NOT BE PERPENDICULAR TO JOIST. WHERE PERPENDICULAR TO JOIST ATTACH BRACING TO TOP CHORD.

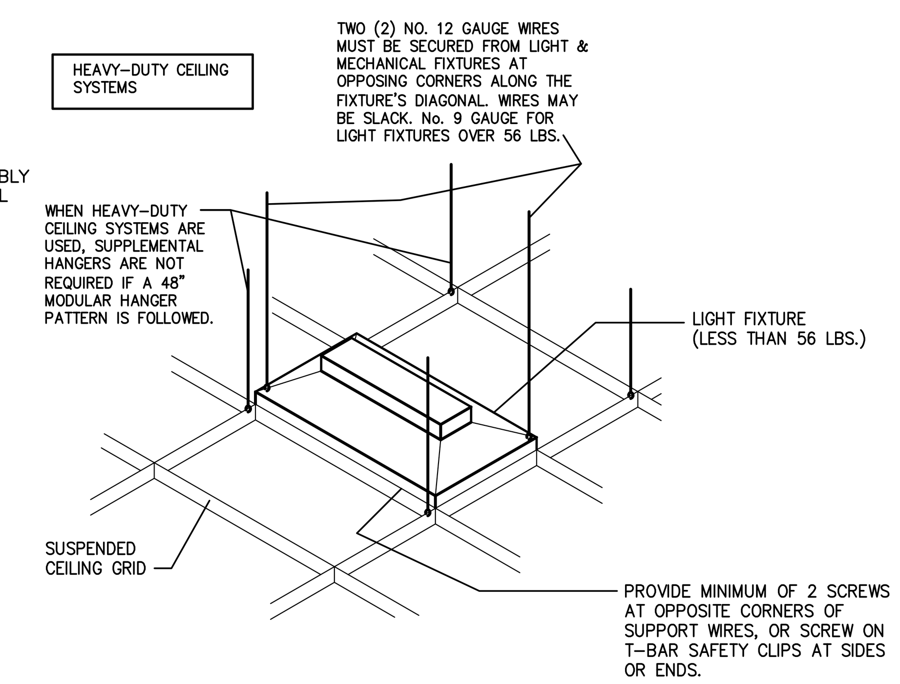
AT OPEN-WEB STEEL JOIST



AT METAL DECK WITH CONCRETE FILL

TYPICAL SUSPENDED CEILING WIRE CONNECTIONS TO STEEL FRAMING

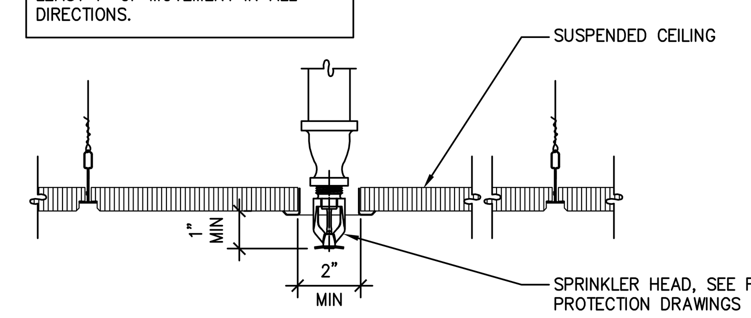
CLG122 (10)



LIGHT FIXTURE AT SUSPENDED CEILING

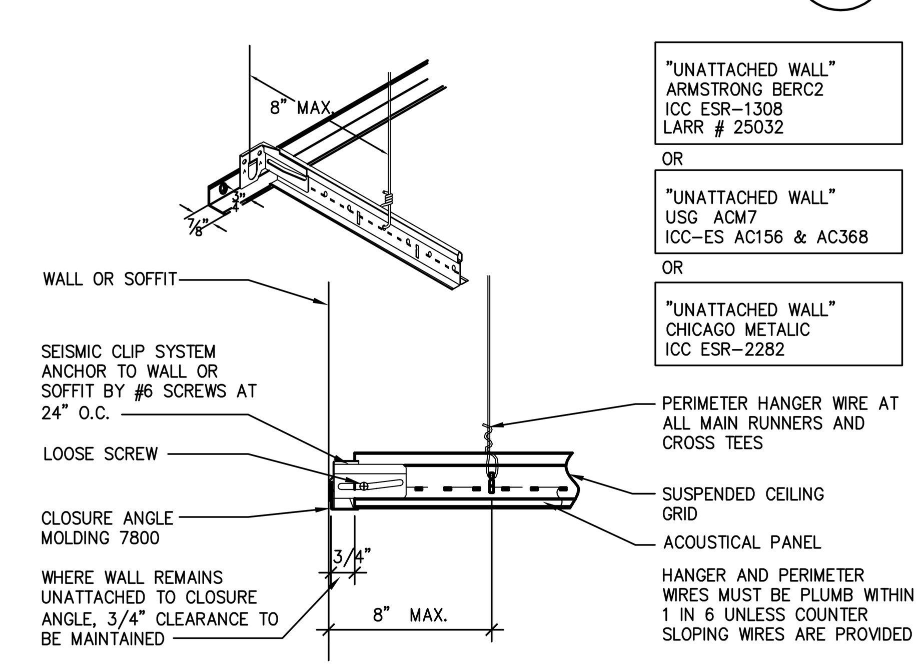
CLG103 (7)

NOTE:
PROVIDE 2 INCHES OVER SIZED TRIM RINGS FOR SPRINKLERS (AND OTHER PENETRATIONS) TO ALLOW FOR AT LEAST 1" OF MOVEMENT IN ALL DIRECTIONS.



FIRE SPRINKLER CEILING PENETRATION

CLG104 (6)



"UNATTACHED WALL"
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ICC ESR-1308
LARR # 25032

OR

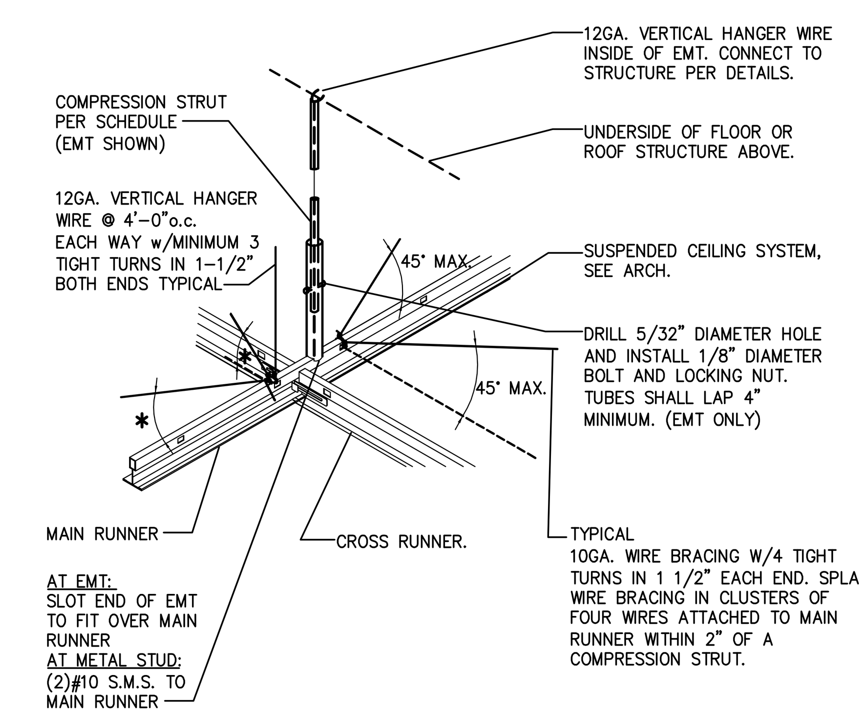
"UNATTACHED WALL"
USG ACM7
ICC-ES AC156 & AC368

OR

"UNATTACHED WALL"
CHICAGO METALIC
ICC ESR-2282

UNATTACHED CLOSURE ANGLE

C102 (3)



TYPICAL SUSPENDED CEILING DETAIL

CLG100 (1)

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

ARCHITECT
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STAMP + SIGNATURE

REGISTERED PROFESSIONAL ENGINEER
JEFF Y. CHEN
No. [illegible]699
EXP.12/31/22
STRUCTURAL
STATE OF CALIFORNIA

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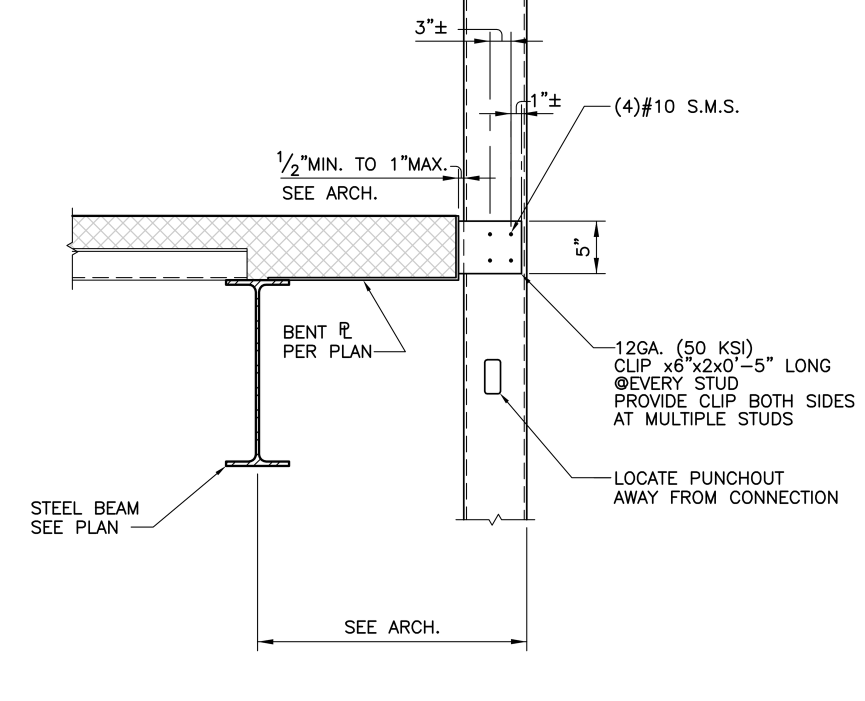
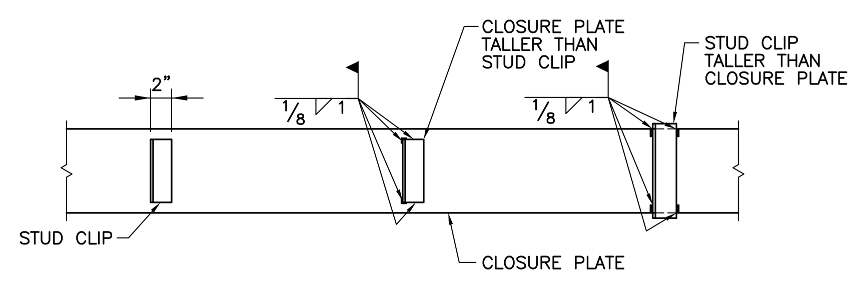
SHEET TITLE

TYPICAL CEILING DETAILS

DATE: 11/10/21	S1.10
SCALE: AS SHOWN	
DRAWN BY: RT	
PROJECT NUMBER 19-119	ACTUAL SIZE OF THIS SHEET IS 30" X 42"



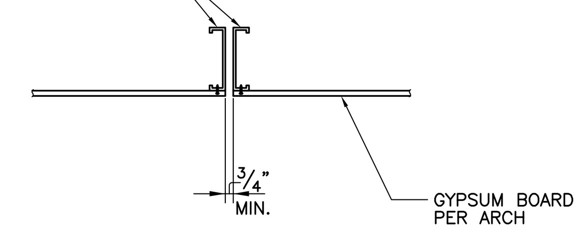
AT 6" STUDS AND SMALLER



ELEVATION OF CLIP ANGLE

TYPICAL RIGID CONNECTION DETAIL

1"=1'-0" (11)

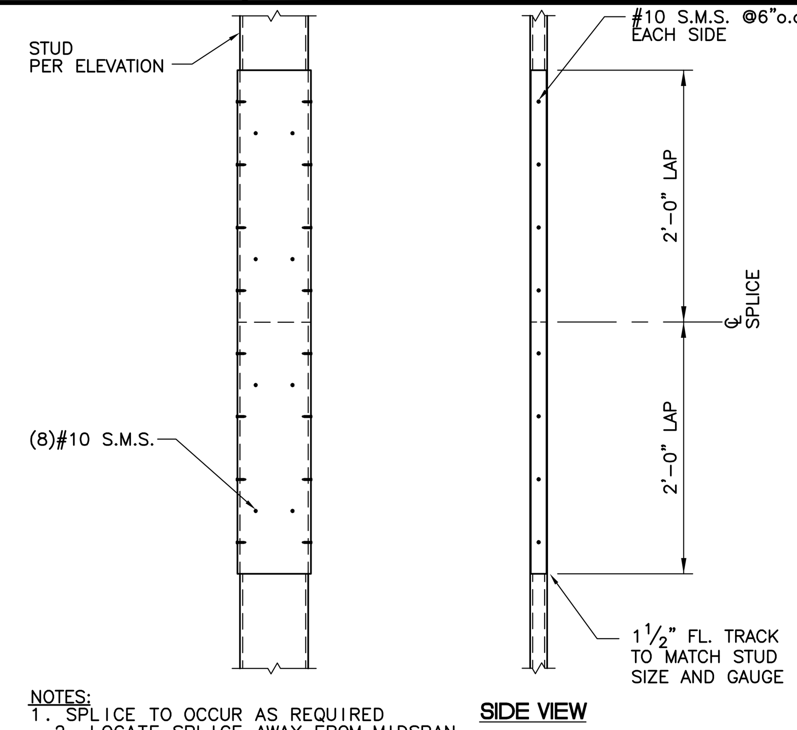


PLAN

NOTE:
SPACING OF VERTICAL EXPANSION
JOINT PER ARCH.

VERTICAL EXPANSION JOINT DETAIL

MS126 (8)

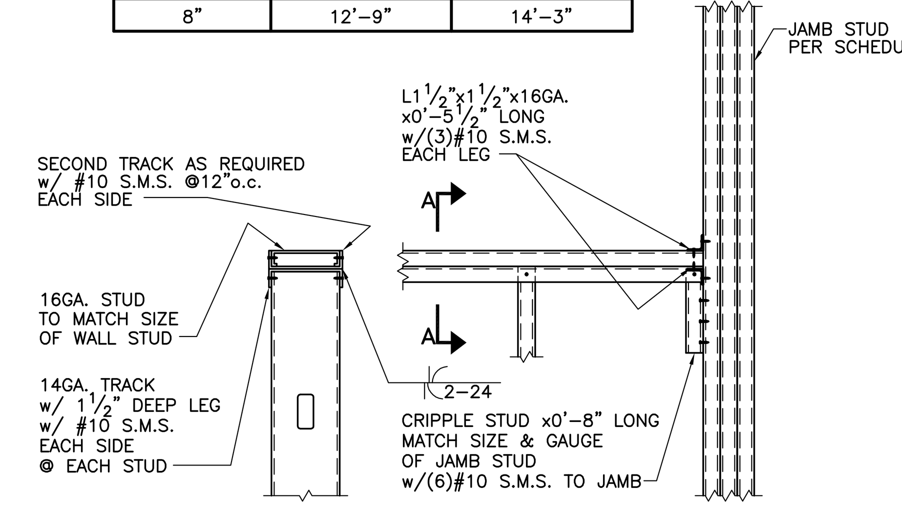


NOTES:
1. SPLICE TO OCCUR AS REQUIRED
2. LOCATE SPLICE AWAY FROM MIDSPAN

STUD SPLICE DETAIL

MS127 (6)

BUILT-UP TRACK WIDTH	MAXIMUM OPENING WIDTH	
	NO SECOND TRACK	w/ SECOND TRACK
3 5/8"	6'-9"	7'-6"
4"	7'-3"	8'-3"
6"	10'-0"	11'-3"
8"	12'-9"	14'-3"



SECTION A-A

TYPICAL BUILT-UP SILL DETAIL

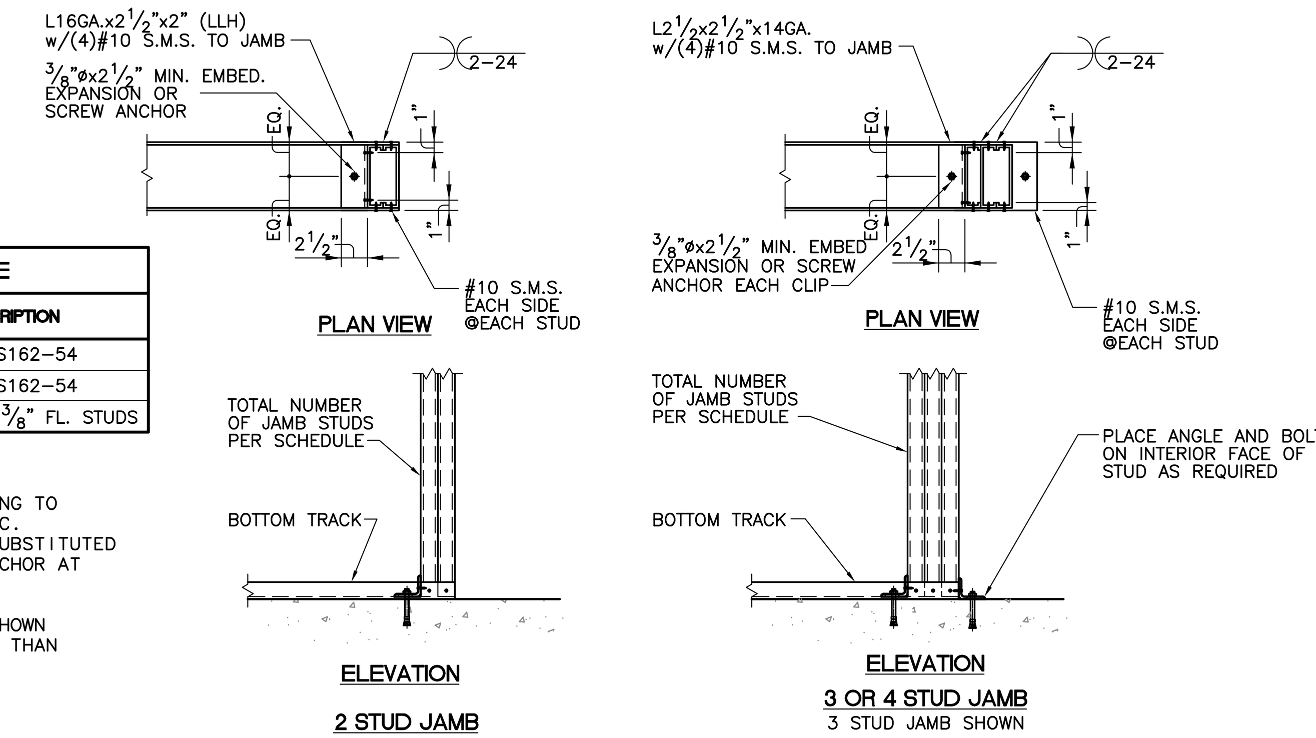
MS119 (4)

HEADER SCHEDULE		
LENGTH OF OPENING	WEB STUDS	FLANGE TRACKS
L≤4'-0"	(2)362S162-54	(2)600T150
4'-0"<L≤8'-0"	(2)600S162-54	(3)600T150
8'-0"<L≤10'-0"	(2)800S162-54	(3)600T150
10'-0"<L<14'-0"	(2)1200S162-54	(3)600T150

JAMB SCHEDULE	
LENGTH OF OPENING	DESCRIPTION
0<L<6'-0"	(2)600S162-54
6'-0"<L<10'-0"	(3)600S162-54
10'-0"<L<14'-0"	(4)6"x14GA.x1 3/8" FL. STUDS

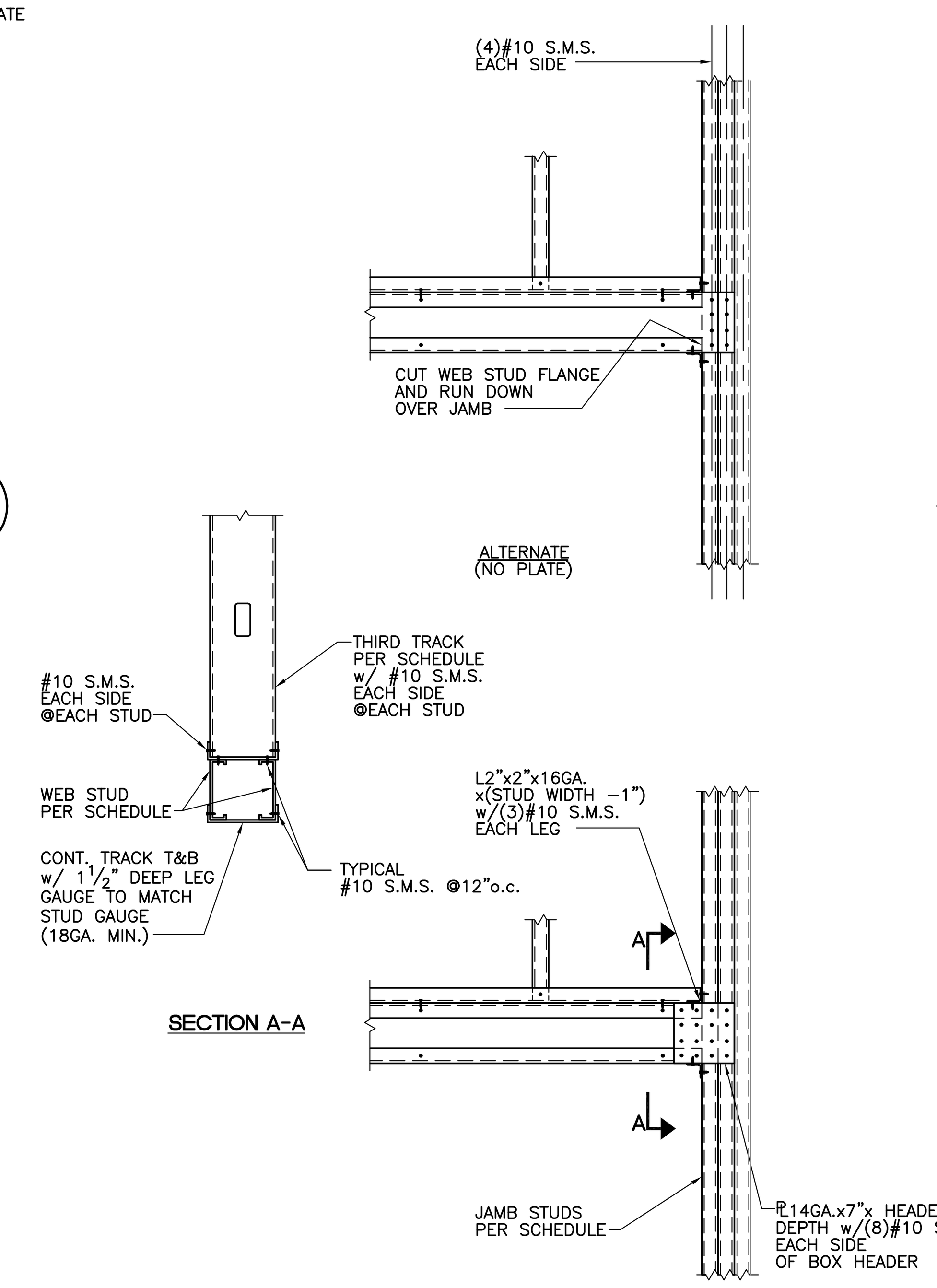
NOTES:

1. (2) SHOTPINS CONFORMING TO EDGE DISTANCE AND SPEC. REQUIREMENTS MAY BE SUBSTITUTED FOR EACH EXPANSION ANCHOR AT WINDOW OPENINGS ONLY
2. CONNECTION ANGLE AS SHOWN IS REQUIRED AT LARGER THAN 4'-6" WIDE.



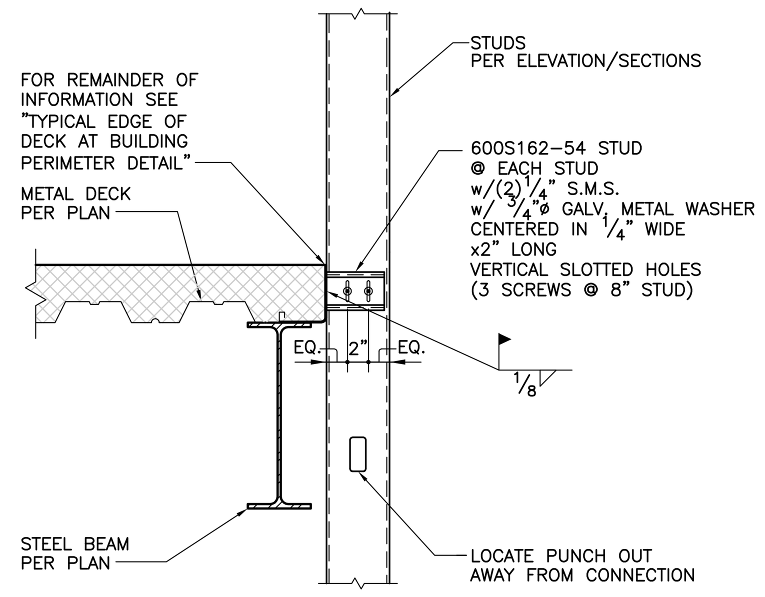
TYPICAL JAMB CONNECTION AT SLAB DETAIL

MS129 (3)



TYPICAL BOX HEADER DETAIL

MS117 (7)

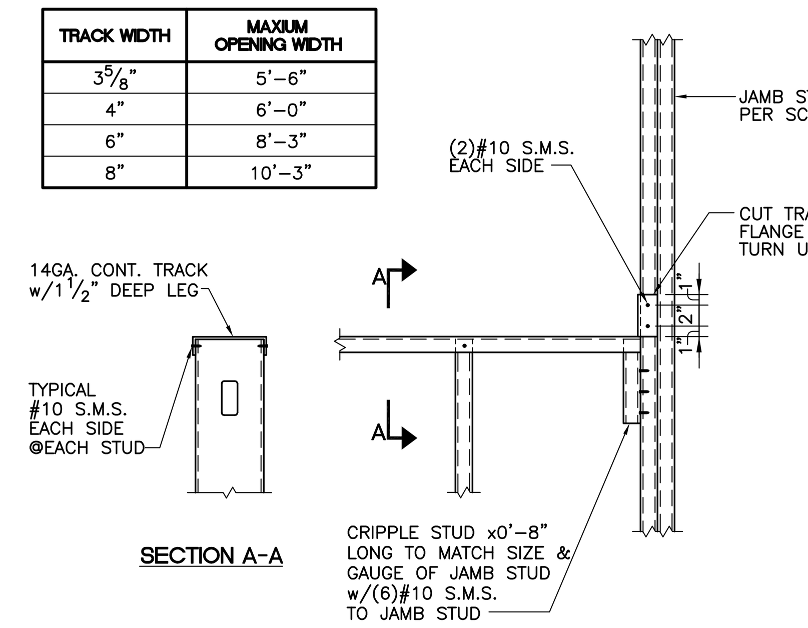


NOTES:
1. DO NOT FULLY TIGHEN SCREWS
2. PROVIDE STUD/STICKER ON BOTH SIDES AT MULTIPLE STUD CONDITION.

TYPICAL SLIP CONNECTION AT STEEL BEAM DETAIL

N.T.S. (10)

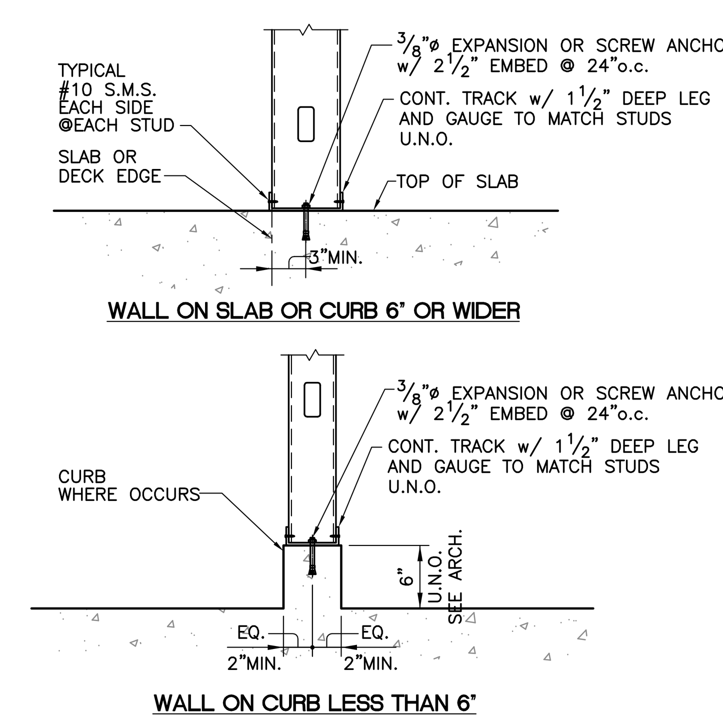
TRACK WIDTH	MAXIUM OPENING WIDTH
3 5/8"	5'-6"
4"	6'-0"
6"	8'-3"
8"	10'-3"



NOTE:
1. WHERE OPENING WIDTH EXCEEDS ALLOWABLE LIMIT SEE "TYPICAL BUILT-UP SILL DETAIL"

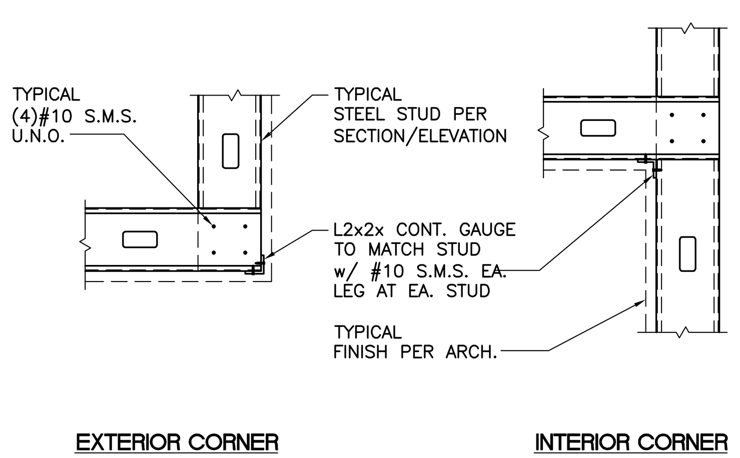
TYPICAL TRACK SILL DETAIL

MS121 (5)



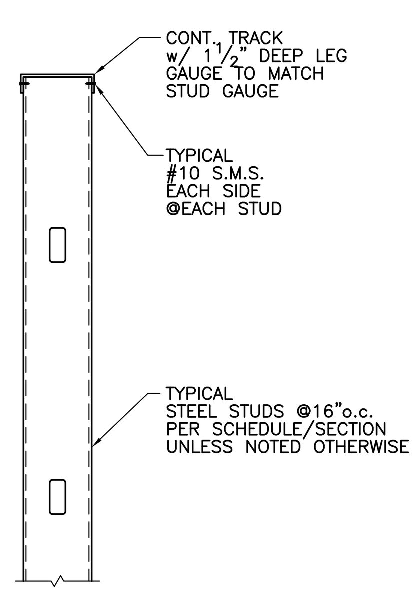
EXTERIOR STUD WALL BASE DETAIL

MS128 (2)



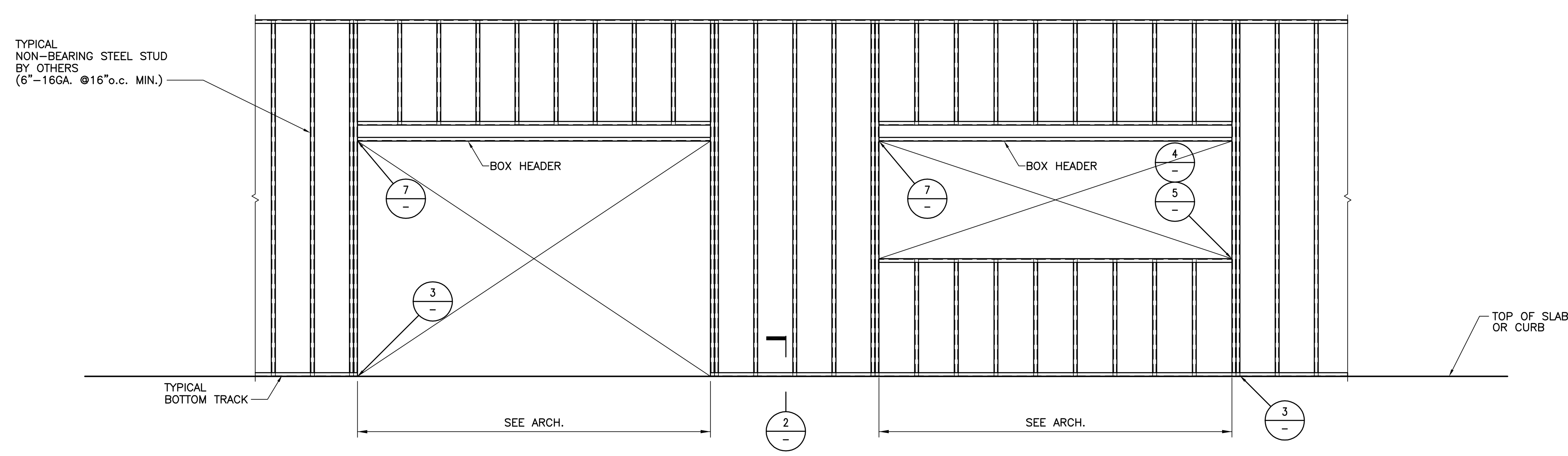
TYPICAL CORNER CLOSURE DETAIL

1"=1'-0" (12)



TYPICAL TRACK CLOSURE DETAIL

MS120 (9)



TYPICAL EXTERIOR NON-BEARING STUD WALL FRAMING ELEVATION

N.T.S. (1)

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire
Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240-4336
FAX: (866) 936-5447

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TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
FAX: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

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REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

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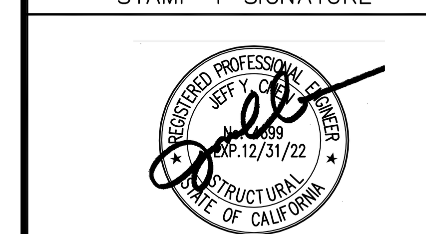

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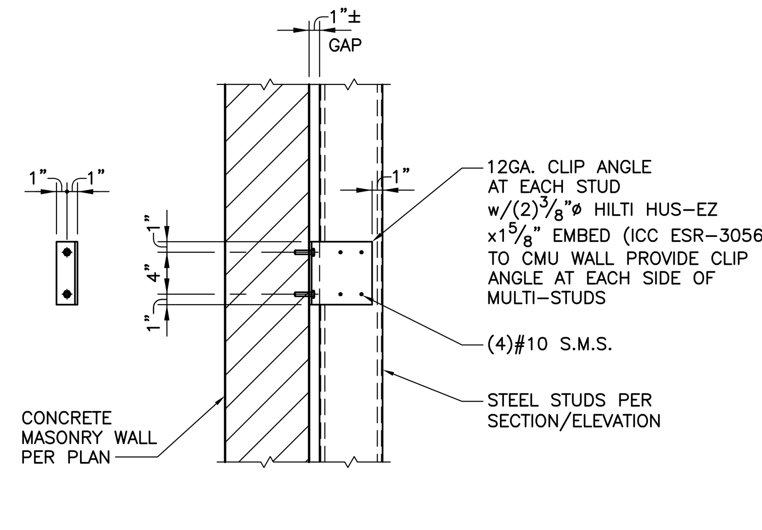
SHEET TITLE

CONCEPTUAL EXTERIOR METAL STUD DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.11

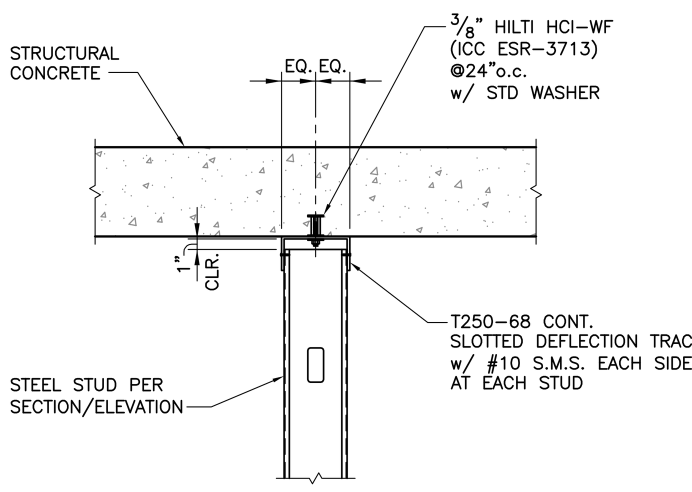
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



TYPICAL RIGID CONNCETION TO CMU WALL

4

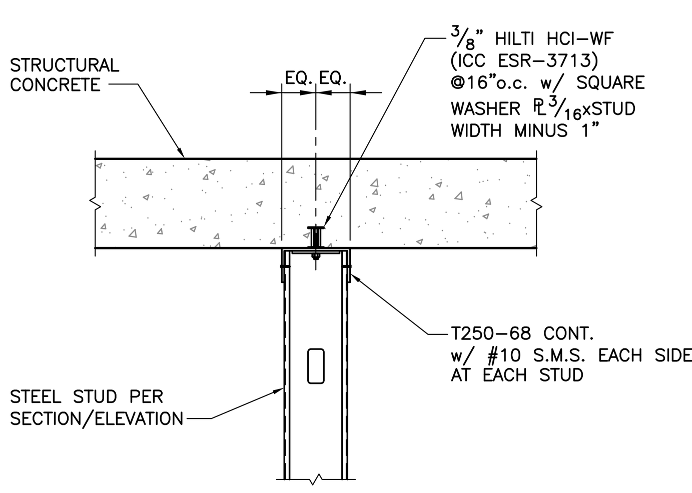
N.T.S.



TYPICAL SLIP CONNECTION TO CONCRETE FRAMING

3

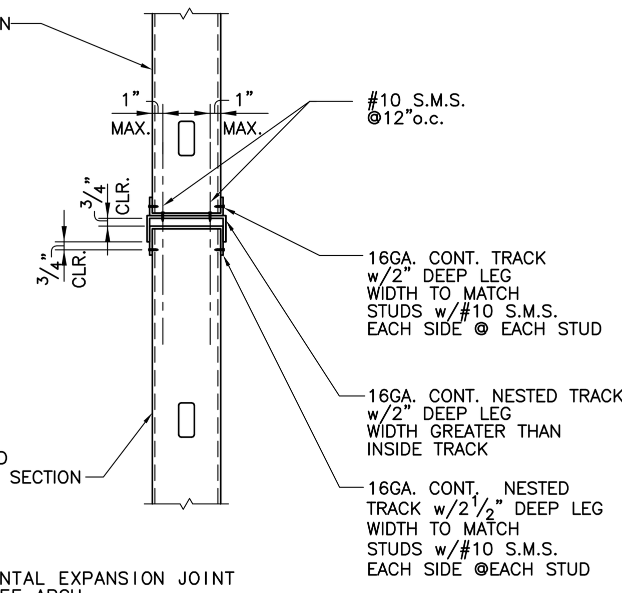
N.T.S.



TYPICAL RIGID CONNECTION TO CONCRETE FRAMING

2

N.T.S.



NOTE:
1. FOR HORIZONTAL EXPANSION JOINT LOCATION SEE ARCH.

HORIZONTAL EXPANSION JOINT DETAIL

1

MS125

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
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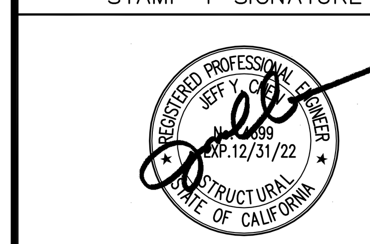

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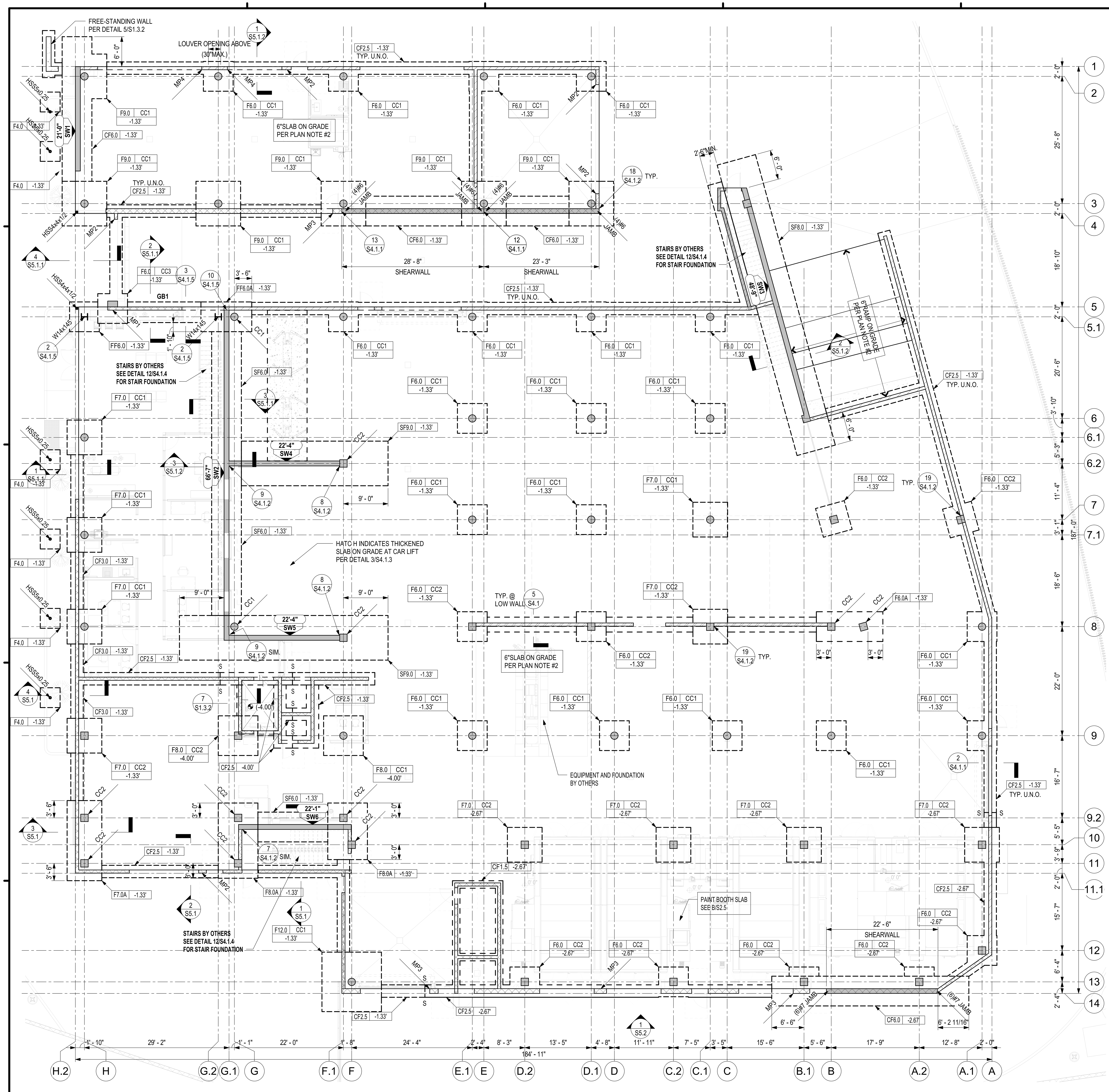
SHEET TITLE

CONCEPTUAL EXTERIOR METAL STUD DETAILS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S1.12

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



FIRST FLOOR FOUNDATION PLAN

REFERENCE NORTH

SCALE: 1/8"=1'-0"

NOTES

1. TOP OF CONCRETE SLAB ELEVATION SHALL BE DATUM +XX' = 0.00' UNLESS NOTED OTHERWISE THUS (±0.00').
2. TYPICAL SLAB ON GRADE CONSTRUCTION SHALL BE AS FOLLOWS:
   A. 6" CONCRETE SLAB WITH #4@16"o.c. CENTERED EACH WAY U.N.O.
   B. 2" SAND
   C. 10 MIL VISQUEEN CLASS A VAPOR BARRIER
   D. 2" SAND
   E. SUBGRADE PER SOILS REPORT.
3. F4.0 CC1 -2.00' — INDICATES FOOTING TYPE. SEE FOOTING SCHEDULE ON THIS SHEET FOR SIZE AND REINFORCING. INDICATES COLUMN MARK.
   A. CC INDICATES CONCRETE COLUMN MARK. SEE SHEET S1.6 FOR CONCRETE COLUMN SCHEDULE.
   INDICATES TOP OF FOOTING ELEVATION BELOW DATUM. TOP OF FOOTING SHALL BE -2.00' MINIMUM FROM LOWEST ADJACENT TOP OF CONCRETE SLAB ON GRADE OR EXTERIOR GRADE, WHICHEVER IS LOWER.
4. ALL COLUMNS SHALL BE CENTERED ON GRIDLINES UNLESS NOTED OTHERWISE.
5. ALL FOOTINGS SHALL BE CENTERED UNDER WALLS OR COLUMNS UNLESS NOTED OTHERWISE.
6. GB1 INDICATES GRADE BEAM MARK. SEE DETAIL 1/S1.3.1 FOR GRADE BEAM SCHEDULE
7. S — S INDICATES STEPPED FOOTING. SEE DETAIL 8/S1.3.
8. INDICATES 12"CONCRETE MASONRY SHEARWALL (f'm=2500 PSI) w/#6@16"o.c.(V) EACH FACE AND #5@16(H) EACH FACE, UNLESS NOTED OTHERWISE. SOLID GROUT ALL CELLS. SEE DETAILS 2/S1.8 & 3/S1.8 FOR REMAINDER OF INFORMATION.
   INDICATES 12"CONCRETE MASONRY NON-BEARING WALL (f'm=2000 PSI) w/#6@16o.c. EACH WAY CENTERED, UNLESS NOTED OTHERWISE. SOLID GROUT ALL CELLS. SEE DETAILS 2/S1.8, 3/S1.8 & 3/S1.8.1 FOR REMAINDER OF INFORMATION.
   INDICATES 8" CONCRETE MASONRY BEARING WALL (f'm = 2500 psi) w/#5@16"o.c.(V) E.F. AND #5@16" (H) CENTERED, UNLESS NOTED OTHERWISE. SOLID GROUT ALL CELLS. SEE DETAILS 1/S1.8, 3/S1.8 & 3/S1.8.1 FOR REMAINDER OF INFORMATION.
   INDICATES 8" CONCRETE MASONRY NON-BEARING WALL (f'm=2000 PSI) w/#6@16"o.c. EACH WAY CENTERED, UNLESS NOTED OTHERWISE. SOLID GROUT ALL CELLS. SEE DETAILS 1/S1.8, 3/S1.8 & 3/S1.8.1 FOR REMAINDER OF INFORMATION.
   INDICATES 8"CONCRETE MASONRY LOW WALL (f'm=2000 PSI) w/#5@16"o.c. EACH WAY CENTERED. SOLID GROUT ALL CELLS. SEE DETAILS 5/S4.1.
9. SW1 50'-0" — INDICATES CONCRETE SHEARWALL MARK. SEE S3.2.X SERIES SHEETS FOR DETAILS AND ELEVATIONS. INDICATES SHEARWALL LENGTH.
10. INDICATES SLAB ON GRADE STEP PER DETAIL 2/S1.3.
9. MP1 INDICATES MASONRY PILASTER SEE DETAIL 1/S1.8.
10. CC1 INDICATES CONCRETE COLUMN MARK, SEE SHEET S1.6 FOR CONCRETE COLUMN SCHEDULE.
11. FOR GENERAL NOTES AND TYPICAL DETAILS, SEE S1.X SERIES SHEETS.
12. SEE ARCHITECTURAL DRAWINGS FOR ELEVATION OF TOP OF CONCRETE SLAB, DEPPRESSIONS, SLOPES, OPENINGS, CURBS, DRAINS, TRENCHES, SLAB EDGE LOCATIONS, ALL OVERALL DIMENSIONS AND LOCATIONS OF OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS.
13. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND LOCATING ALL OPENINGS THROUGH THE SLAB INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, PLUMBING, SPRINKLER AND TELEPHONE. SUBMIT TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO SUMBITTAL OF REINFORCING STEEL SHOP DRAWINGS.
14. PRIOR TO CONTRACTOR REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION OR PLACEMENT OF REINFORCING, THE SOIL'S ENGINEER SHALL ADVISE THE BUILDING OFFICIAL IN WRITING THAT:
   A. THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE SOILS REPORT.
   B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED, AND
   C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE SOILS REPORT.
15. SURFACE WATER TO DRAIN AWAY FROM THE BUILDING. SEE CIVIL DRAWINGS FOR SLOPES AND DRAINAGE PATTERNS.
16. PRIOR TO REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION. THE SOIL'S ENGINEER SHALL INSPECT, AND APPROVE THE FOUNDATION EXCAVATIONS.

TYPICAL FOOTING SCHEDULE

MARK	SIZE		TOP REINFORCING		BOTTOM REINFORCING		REMARKS
	WIDTH x LENGTH	THICKNESS	LONG. REINFORCING	SHORT REINFORCING	LONG. REINFORCING	SHORT REINFORCING	
F4.0	4'-0" x 4'-0"	18"	-	-	(5)#6	(5)#6	-
F6.0A	6'-0" x PER PLAN	24"	(7)#6	#6@12	(7)#6	#6@12	-
F6.5	6'-6" x 6'-6"	24"	-	-	(8)#6	(8)#6	-
F8.0A	8'-0" x PER PLAN	42"	(10)#8	#7@12	(10)#8	#7@12	
F7.0A	7'-0" x PER PLAN	30"	(8)#6	#6@10	(8)#6	#6@10	-
F9.0	9'-0" x 9'-0"	36"			(9)#7	(9)#7	
FF6.0	6'-0" x 6'-0"	36"	(8)#6	(8)#6	(8)#6	(8)#6	90° HOOK EA. END
FF6.0A	6'-0" x PER PLAN	42"	(7)#8	#7@12	(7)#8	#7@12	-
CF2.0	2'-0" x PER PLAN	24"	(3)#6	-	(3)#6	-	-
CF2.5	2'-6" x PER PLAN	24"	(3)#6	-	(3)#6	-	-
CF6.0	6'-0" x PER PLAN	36"	(8)#7	#6@12	(8)#7	#6@12	-
SF6.0	6'-0" x PER PLAN	SEE SHEARWALL ELEVATION					
SF8.0	8'-0" x PER PLAN	SEE SHEARWALL ELEVATION					
SF9.0	9'-0" x PER PLAN	SEE SHEARWALL ELEVATION					

NOTES:

- CF1 INDICATES CONTINUOUS FOOTING DESIGNATION
- F1 INDICATES SPREAD FOOTING DESIGNATION
- FF1 INDICATES FRAME FOOTING DESIGNATION
- SF1 INDICATES SHEARWALL FOOTING DESIGNATION

PROJECT

No. 1 Collision

2750 BRISTOL ST, COSTA MESA CA, 92626

ARCHITECT

AHT ARCHITECTS INC.

2120 Wilshire Boulevard Suite 200 Santa Monica California 90403 310.453.4431

CONSULTANTS

CLIENT
Walker Group of Companies
ATTN: Robert A. Walker
11100 Cambie Road #100
Richmond, BC V6X 1K9
604.231-9614F: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
(310) 453-4431 (310) 829-5296

STRUCTURAL ENGINEER
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REVISIONS

NO.	DESCRIPTION	DATE
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2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE

REGISTERED PROFESSIONAL ENGINEER JEFF Y. CHEN No. 4699 EXP.12/31/22 STRUCTURAL STATE OF CALIFORNIA

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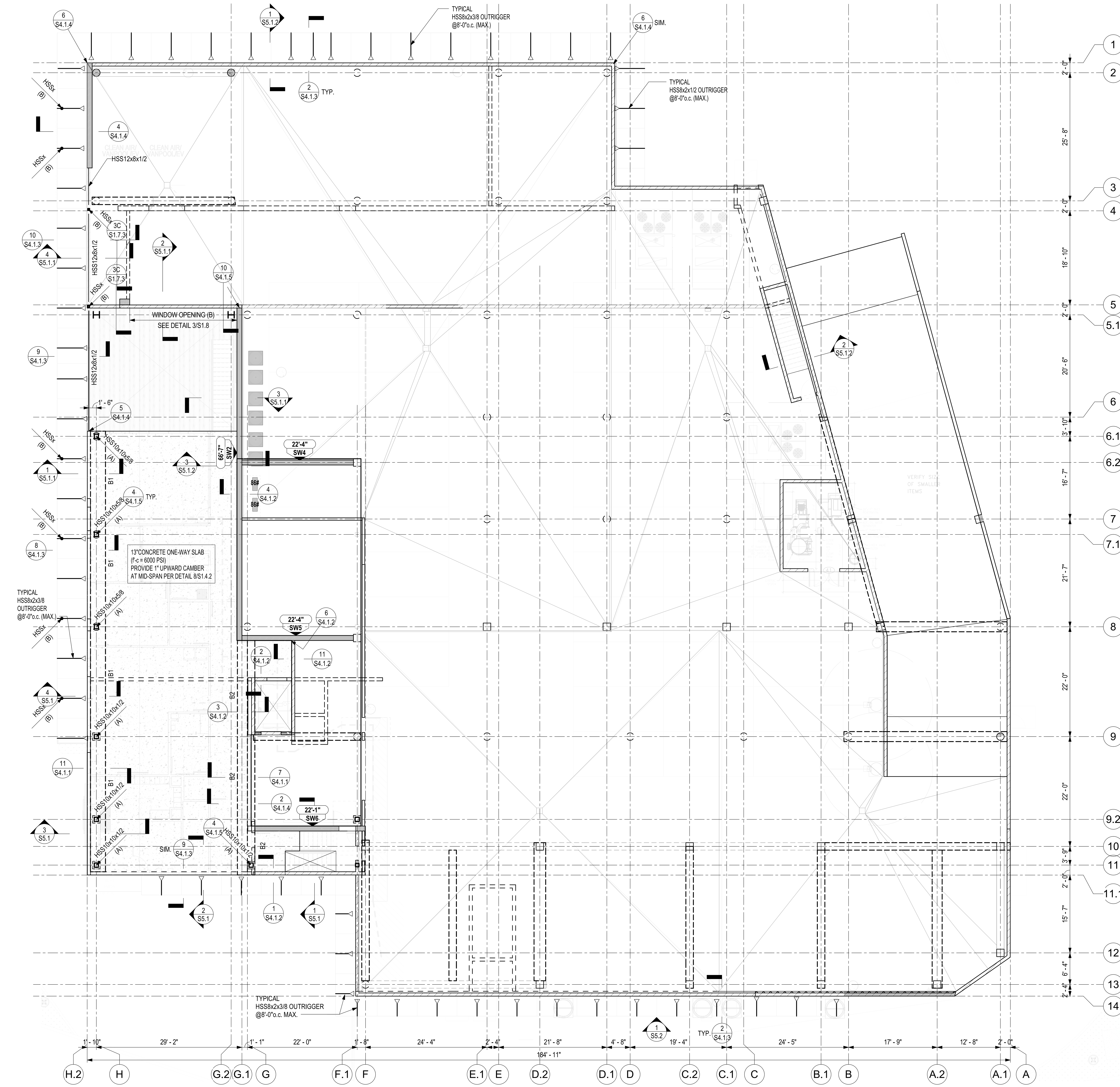
SHEET TITLE

FIRST FLOOR FOUNDATION PLAN

DATE:	11/10/21
SCALE:	AS NOTED
DRAWN BY:	RT
PROJECT NUMBER:	19-119

S2.1

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



SECOND FLOOR FRAMING PLAN

REFERENCE NORTH

NOTES

SCALE: 1/8"=1'-0"

1. TOP OF CONCRETE SLAB ELEVATION SHALL BE ABOVE DATUM AS INDICATED PER PLAN THUS VERIFY ALL TOP OF CONCRETE ELEVATIONS WITH ARCHITECT PRIOR TO CONSTRUCTION.
2. INDICATES SECOND FLOOR OFFICE AREA (LL = 100 PSF) CONCRETE SLAB TO BE 13"THICK (f'c= 6000 PSI) UNLESS NOTED OTHERWISE ON PLAN.
3. CENTER COLUMNS ON GRIDLINES UNLESS NOTED OTHERWISE.
4. FOR CONCRETE COLUMN SIZES AND NOT INDICATED, SEE FOUNDATION PLAN SHEET S2.1 AND CONCRETE COLUMN SCHEDULE ON SHEET S1.6.
5. SEE ARCHITECTURAL DRAWINGS FOR ELEVATION OF TOP OF CONCRETE SLAB. DEPPRESSIONS, SLOPES, OPENINGS, CURBS, DRAINS, TRENCHES, SLAB EDGE LOCATIONS, ALL OVERALL DIMENSIONS AND LOCATIONS OF OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS.
6. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND LOCATING ALL OPENINGS THROUGH THE ROOF INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, PLUMBING, SPRINKLER AND TELEPHONE. SUBMITTAL TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO SUBMITTAL OF REINFORCING STEEL SHOP DRAWINGS.
7. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL INSERTS FOR SUPPORT OF MECHANICAL, PLUMBING, SPRINKLERS, ETC. SEE MEP DRAWINGS FOR INSERTS TYPES AND THEIR LOCATIONS. PROVIDE EMBED PER DETAIL 4/S4.1 AND 1/S4.1.1 UNLESS NOTED OTHERWISE.
8. SW INDICATES CONCRETE SHEARWALL MARK., SEE S3.2.X SERIES SHEET FOR DETAILS AND ELEVATIONS.
9. B1 INDICATES CAST-IN-PLACE CONCRETE BEAM, SEE DETAIL 1/S1.5 FOR BEAM SCHEDULE.
10. INDICATES CONCRETE MASONRY NON-BEARING WALL (f'm=2000 PSI) w/#5@16"o.c. EACH WAY CENTERED, UNLESS NOTED OTHERWISE. SOLID GROUT ALL CELLS, SEE DETAIL 1/S1.8 & 3/S1.8 FOR REMAINDER OF INFORMATION.
11. FOR GENERAL NOTES AND TYPICAL DETAILS, SEE S1.X SERIES SHEETS.

PROJECT

No. 1 Collision

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REGISTERED PROFESSIONAL ENGINEER
JEFF Y. CHEN
EXP.12/31/22
STRUCTURAL
STATE OF CALIFORNIA

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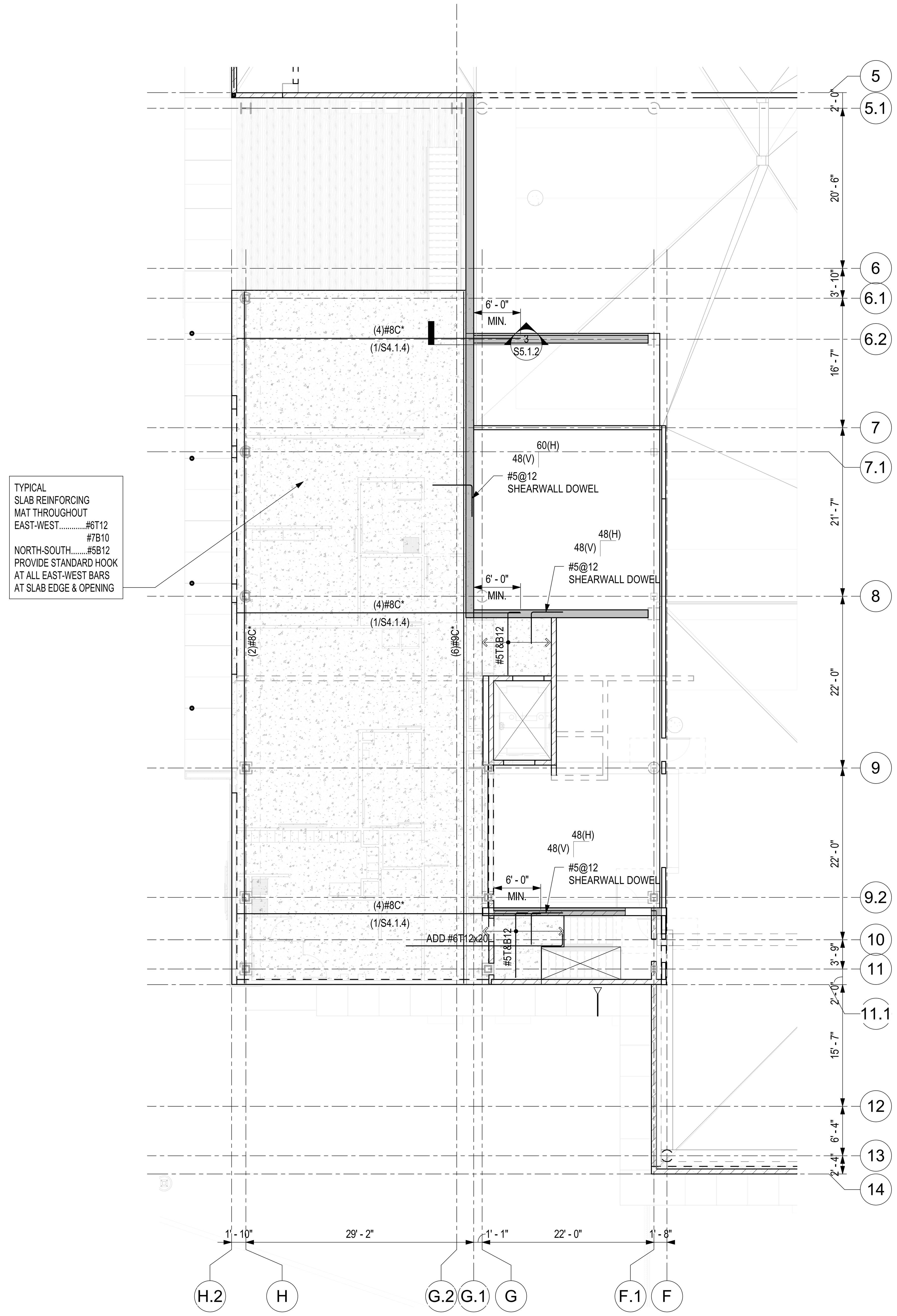
SHEET TITLE

SECOND FLOOR FRAMING PLAN

DATE:	11/10/21	
SCALE:	AS NOTED	S2.2
DRAWN BY:	Author	
PROJECT NUMBER:	19-119	ACTUAL SIZE OF THIS SHEET IS 30" X 42"



SECOND FLOOR REINFORCING PLAN

REFERENCE NORTH

NOTES — SCALE: 1/8"=1'-0"

1. TYPICAL CONCRETE SLAB THICKNESS SHALL BE AS INDICATED ON FRAMING PLAN.
2. (10)#8T18x12' (S=2')
   - INDICATES REINFORCING SIZE
   - INDICATES REINFORCING SPACING
   - INDICATES REINFORCING LENGTH
   - INDICATES REINFORCING STAGGERED LENGTH
   - INDICATES REINFORCING LOCATION
     - (T) INDICATES TOP BARS
     - (B) INDICATES BOTTOM BARS
     - (C) INDICATES CENTER BARS
   - INDICATES REINFORCING QUANTITY
3. REINFORCING AT COLUMNS SHALL BE CENTERED OVER COLUMNS AND SPACED AT 6"o.c. UNLESS NOTED OTHERWISE.
4.. INDICATES REINFORCING STEEL WITH STANDARD 90° OR 180° HOOKS PER DETAIL 2/S1.2. LENGTH INDICATED ON PLANS DOES NOT INCLUDE HOOKS.
5. SEE DETAIL 2/S1.2 FOR LAP SPLICE LENGTHS AND GENERAL NOTES FOR MINIMUM COVER TO REINFORCING.
6. EAST-WEST DIRECTION SLAB REINFORCING BARS SHALL BE PLACED ON THE OUTTER LAYER UNLESS NOTED OTHERWISE.
7. FOR REINFORCING AT OPENINGS, SEE DETAIL 2/S1.4.1, UNLESSS NOTED OTHERWISE.
8. ADDED REINFORCING SHOWN ON PLAN SHALL EXTEND 4'-0" PAST OPENINGS UNLESS NOTED OTHERWISE.
9. * INDICATES PROVIDE SEISMIC LAP SPLICE STAGGER SPLICES.

PROJECT

No. 1 Collision

2750 BRISTOL ST, COSTA MESA
CA, 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310 . 453 . 4431

CONSULTANTS

CLIENT
Walker Group of Companies
ATTN: Robert A. Walker
11100 Cambie Road #100
Richmond, BC V6X 1K9
604.231-9614/f: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
(310) 453-4431 (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING
ATTN: JEFF CHEN
17500 REDHILL AVE. SUITE 240
Irvine, CA 92614
P: (949) 250.3150 F: 949 203-0450

M.E.P. ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD. SUITE B
GLENDALE, CA 91201
P: (818) 956-8101 F: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & ASSOCIATES, INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD, SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

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REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

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REGISTERED PROFESSIONAL ENGINEER
JEFF Y. CHEN
No. 4699
EXP. 12/31/22
STRUCTURAL
STATE OF CALIFORNIA

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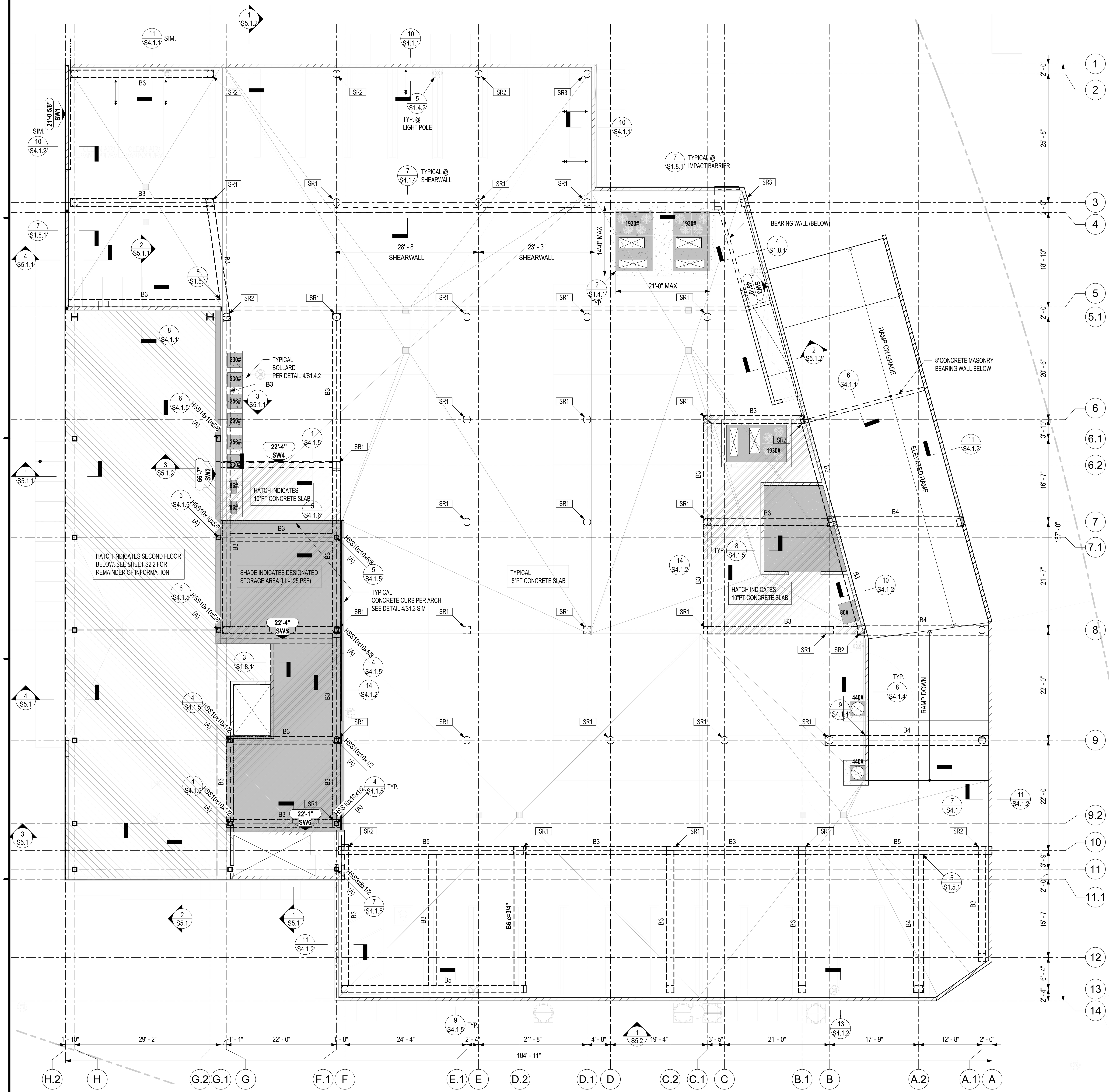
SHEET TITLE

SECOND FLOOR REINFORCING PLAN

DATE:	11/10/21
SCALE:	AS NOTED
DRAWN BY:	Author
PROJECT NUMBER:	19-119

S2.2-R

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



ROOF PARKING FRAMING PLAN

REFERENCE NORTH

NOTES

SCALE: 1/8"=1'-0"

1. TOP OF CONCRETE SLAB ELEVATION SHALL BE ABOVE DATUM AS INDICATED PER PLAN THUS (+0.00'). VERIFY ALL TOP OF CONCRETE ELEVATIONS WITH ARCHITECT PRIOR TO CONSTRUCTION.
2. TYPICAL CONCRETE SLAB THICKNESS SHALL BE 8"THCK UNLESS NOTED OTHERWISE ON PLAN.
3. FOR CONCRETE SLAB POST-TENSIONING AND MILD REINFORCING, SEE SHEETS S2.3-PT AND S2.3-R, RESPECTIVELY.
4. CENTER COLUMNS ON GRIDLINES UNLESS NOTED OTHERWISE.
5. FOR CONCRETE COLUMN SIZES AND NOT INDICATED, SEE FOUNDATION PLAN SHEET S2.1 AND CONCRETE COLUMN SCHEDULE ON SHEET S1.6.
6. SEE ARCHITECTURAL DRAWINGS FOR ELEVATION OF TOP OF CONCRETE SLAB. DEPPRESSIONS, SLOPES, OPENINGS, CURBS, DRAINS, TRENCHES, SLAB EDGE LOCATIONS, ALL OVERALL DIMENSIONS AND LOCATIONS OF OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS.
7. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND LOCATING ALL OPENINGS THROUGH THE ROOF INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, PLUMBING, SPRINKLER AND TELEPHONE. SUBMITTAL TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO SUBMITTAL OF REINFORCING STEEL SHOP DRAWINGS.
8. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL INSERTS FOR SUPPORT OF MECHANICAL, PLUBMING, SPRINKLERS, ETC. SEE MEP DRAWINGS FOR INSERT TYPES AND THEIR LOCATIONS. PROVIDE EMBED PER DETAIL 4/S4.1 UNLESS NOTED OTHERWISE.
9. SW INDICATES CONCRETE SHEARWAL MARK. SEE S3.2.X SERIES SHEETS FOR DETAILS AND ELEVATIONS.
10. B1 INDICATES CAST-IN-PLACE CONCRETE BEAM, SEE DETAIL 1/S1.5 FOR BEAM SCHEDULE..
11. INDICATES 8"CONCRETE MASONRY NON-BEARING WALL (f'm=2000 PSI) w/#5@16"o.c. EACH WAY CENTERED, UNLESS NOTED OTHERWISE. SOLID GROUT ALL CELLS, SEE DETAILS 1&2/S1.8 AND 3/S1.8 FOR REMAINDER OF INFORMATION.
12. SR1 INDICATES STUDRAIL MARK, SEE DETAIL 1/S1.4.2.
13. FOR GENERAL NOTES AND TYPICAL DETAILS, SEE S1.X SERIES SHEETS.
14. INDICATES STEEL ANGLE BRACE PER DETAIL 7/S4.1.1.
15. INDICATES CONCRETE TOPPING SLAB (6"MAX.) w/#4@16"o.c. EACH WAY PER DETAIL 9/S4.1.1
16. 1000# INDICATES MECHANICAL UNITS MAXIMUM WEIGHT. FOR SIZE AND LOCATION SEE MECHANICAL DRAWING. FOR UNIT SUPPORT FRAMING SEE DETAIL 4/S1.7.2.

PROJECT

No. 1 Collision

2750 BRISTOL ST, COSTA MESA CA, 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310 . 453 . 4431

CONSULTANTS

CLIENT
Walker Group of Companies
ATTN: Robert A. Walker
11100 Cambie Road #100
Richmond, BC V6X 1K9
604.231-9614/f: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
(310) 453-4431 (310) 829-5296

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GRIMM & CHEN STRUCTURAL ENGINEERING
ATTN: JEFF CHEN
17500 REDHILL AVE. SUITE 240
Irvine, CA 92614
P: (949) 250.3150 F: 949 203-0450

M.E.P. ENGINEER
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ATTN: RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD. SUITE B
GLENDALE, CA 91201
P: (818) 956-8101 F: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & ASSOCIATES, INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD, SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

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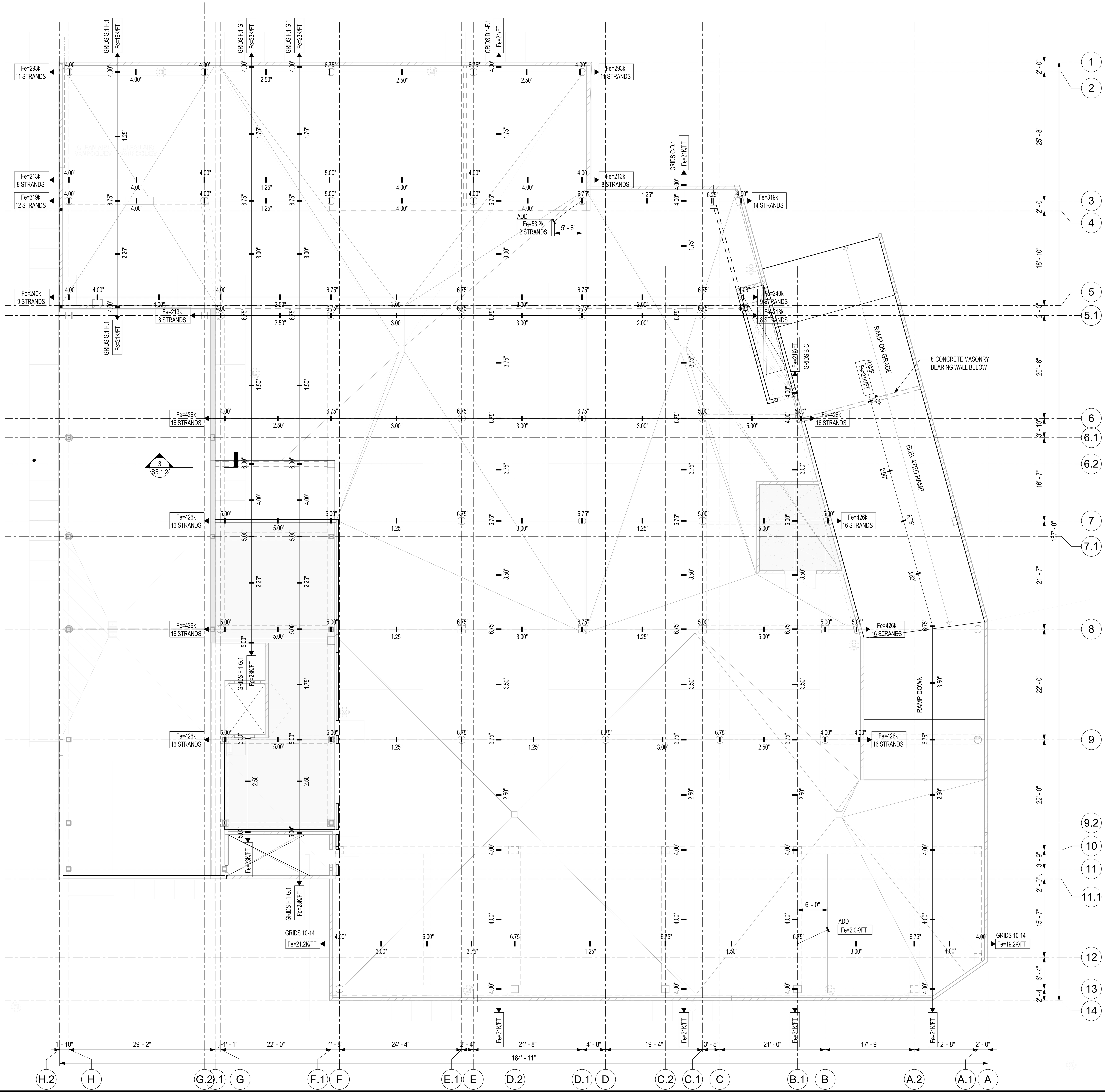
SHEET TITLE

ROOF PARKING FRAMING PLAN

DATE:	11/10/21	
SCALE:	AS NOTED	S2.3
DRAWN BY:	Author	
PROJECT NUMBER:	19-119	ACTUAL SIZE OF THIS SHEET IS 30" X 42"



ROOF PARKING POST-TENSIONED PLAN

REFERENCE NORTH

NOTES

SCALE: 1/8"=1'-0"

1. TYPICAL CONCRETE SLAB THICKNESS SHALL BE AS INDICATED ON FRAMING PLAN.
2. TYPICAL PT SLAB TENDON PROFILE SEE DETAIL 1/S1.4 AND 2/S1.4.
3. INDICATES STRAND DEAD END.
4. INDICATES STRAND STRESS END.
5. 3.50" INDICATES DISTANCE FROM BOTTOM FACE OF CONCRETE SLAB TO CENTER OF GRAVITY OF STRAND, SEE DETAILS 1/S1.4 AND 2/S1.4.
6. Fe=12.0k/FT INDICATES FINAL EFFECTIVE FORCE IN UNIFORM POST-TENSIONED TENDONS PER FOOT OF WIDTH.
7. Fe=266.0K 10 STRANDS INDICATES FINAL EFFICTIVE FORCE IN BANDED POST-TENSIONED TENDONS.
8. FOR POST-TENSIONING AT OPENINGS SEE DETAILS 6/S1.4.1 AND 12/S1.4.1.
9. PROVIDE SHAPED POCKET FORMERS WHERE SLAB EDGE IS NOT PERPENDICULAR TO TENDONS AS SHOWN.

PROJECT

No. 1 Collision

2750 BRISTOL ST, COSTA MESA CA, 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

CLIENT
Walker Group of Companies
ATTN: Robert A. Walker
11100 Cambie Road #100
Richmond, BC V6X 1K9
604.231-9614/f: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
(310) 453-4431 (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING
ATTN: JEFF CHEN
17500 REDHILL AVE. SUITE 240
Irvine, CA 92614
P: (949) 250.3150 F: 949 203-0450

M.E.P. ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD. SUITE B
GLENDALE, CA 91201
P: (818) 956-8101 F: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & ASSOCIATES, INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD, SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

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REGISTERED PROFESSIONAL ENGINEER JEFF Y. CHEN No. 4699 EXP.12/31/22 STRUCTURAL STATE OF CALIFORNIA

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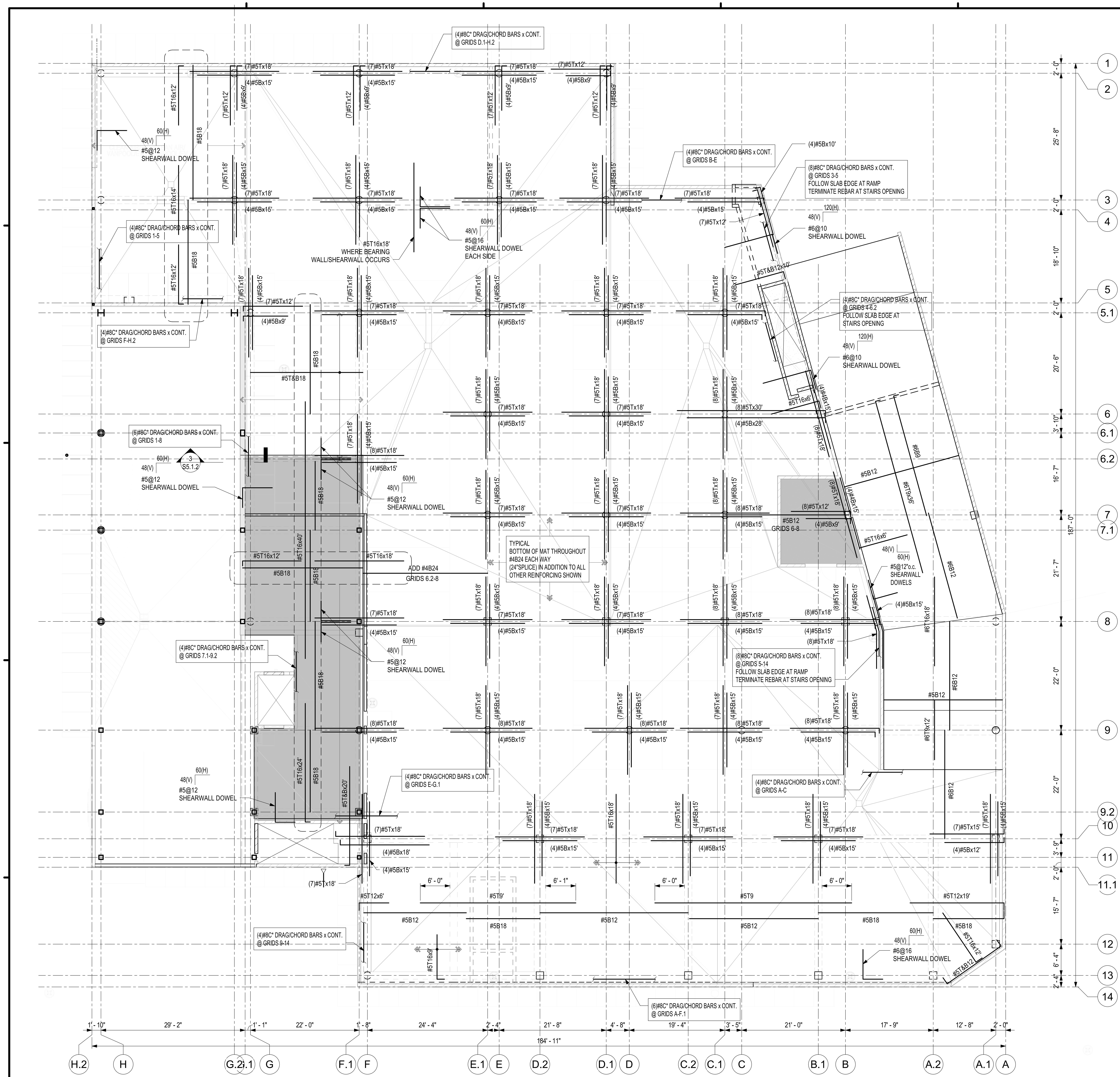
SHEET TITLE

ROOF PARKING POST TENSIONED PLAN

DATE:	11/10/21
SCALE:	AS NOTED
DRAWN BY:	Author
PROJECT NUMBER:	19-119

S2.3-PT

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



ROOF PARKING REINFORCING PLAN

REFERENCE NORTH

NOTES — SCALE: 1/8"=1'-0"

1. TYPICAL CONCRETE SLAB THICKNESS SHALL BE AS INDICATED ON FRAMING PLAN.
2. (10)#8T18x12' (S=2')
   - INDICATES REINFORCING SIZE
   - INDICATES REINFORCING SPACING
   - INDICATES REINFORCING LENGTH
   - INDICATES REINFORCING STAGGERED LENGTH
   - INDICATES REINFORCING LOCATION
     - (T) INDICATES TOP BARS
     - (B) INDICATES BOTTOM BARS
     - (C) INDICATES CENTER BARS
   - INDICATES REINFORCING QUANTITY
3. REINFORCING AT COLUMNS SHALL BE CENTERED OVER COLUMNS AND SPACED AT 6"o.c. UNLESS NOTED OTHERWISE.
4. FOR TYPICAL PT SLAB REINFORCING DIAGRAM SEE DETAIL 1/S1.4 AND 2/S1.4.
5. INDICATES REINFORCING STEEL WITH STANDARD 90° OR 180° HOOKS PER DETAIL 2/S1.2. LENGTH INDICATED ON PLANS DOES NOT INCLUDE HOOKS.
6. SEE DETAIL 1/S1.2 FOR LAP SPLICE LENGTHS AND GENERAL NOTES FOR MINIMUM COVER TO REINFORCING.
7. EAST-WEST DIRECTION SLAB REINFORCING BARS SHALL BE PLACED ON THE OUTTER LAYER UNLESS NOTED OTHERWISE.
8. FOR REINFORCING AT OPENINGS, SEE DETAIL 2/S1.4.1, UNLESSS NOTED OTHERWISE.
9. ADDED REINFORCING SHOWN ON PLAN SHALL EXTEND 4'-0" PAST OPENINGS UNLESS NOTED OTHERWISE.
10. * INDICATES PROVIDE SEISMIC LAP SPLICE STAGGER SPLICES.
11. ALL REINFORCING STEEL IS IN ADDITIONAL TO TYPICAL BOTTOM MAT.

PROJECT

No. 1 Collision

2750 BRISTOL ST, COSTA MESA CA, 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200 Santa Monica California 90403 310.453.4431

CONSULTANTS

CLIENT
Walker Group of Companies
ATTN: Robert A. Walker
11100 Cambie Road #100
Richmond, BC V6X 1K9
604.231-9614/F 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
(310) 453-4431 (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING
ATTN: JEFF CHEN
17500 REDHILL AVE. SUITE 240
Irvine, CA 92614
P: (949) 250.3150 F: 949 203-0450

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PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD. SUITE B
GLENDALE, CA 91201
P: (818) 956-8101 F: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & ASSOCIATES, INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

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REVISIONS

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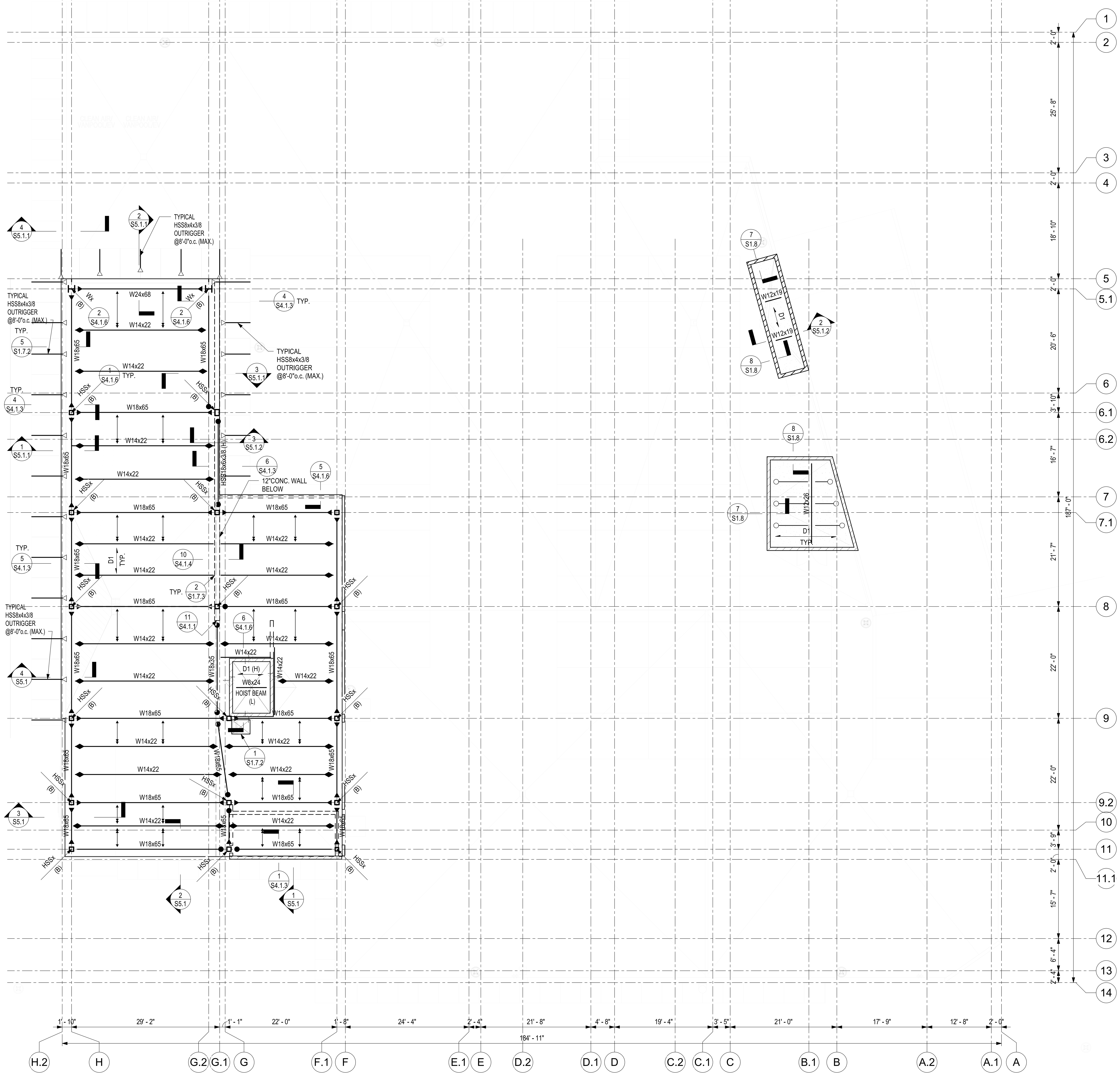
SHEET TITLE

ROOF PARKING REINFORCING PLAN

DATE:	11/10/21
SCALE:	AS NOTED
DRAWN BY:	Author
PROJECT NUMBER:	19-119

S2.3-R

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



ROOF FRAMING PLAN

REFERENCE NORTH

NOTES — SCALE: 1/8"=1'-0"

1. FOR GENERAL NOTES AND TYPICAL DETAILS, SEE S1 SERIES SHEETS.
2. ELEVATION TOP OF DECK SHALL BE COORDINATED WITH ARCHITECTURAL, UNLESS NOTED OTHERWISE. TOP OF METAL DECK ELEVATION (T.O.D.) AS INDICATED ON PLAN.
3. TOP OF STRUCTURAL STEEL ELEVATION SHALL BE 0'-1-1/2"BELOW TOP OF DECK.
4. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS BEFORE START OF WORK.
5. SEE ARCHITECTURAL DRAWINGS FOR ELEVATION OF TOP OF CONCRETE SLAB. DEPPRESSIONS, SLOPES, OPENINGS, CURBS, DRAINS, TRENCHES, SLAB EDGE LOCATIONS, ALL OVERALL DIMENSIONS AND LOCATIONS OF OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS.
6. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND LOCATING ALL OPENINGS THROUGH THE ROOF INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, PLUMBING, SPRINKLER AND TELEPHONE. SUBMITTAL TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO SUBMITTAL OF REINFORCING STEEL SHOP DRAWINGS.
7. D1 INDICATES DECK TYPE AND DIRECTION, SEE DETAIL 2/S1.7.2.
8. INDICATES MOMENT CONNECTION, SEE DETAIL 4/S1.7 UNLESS NOTED OTHERWISE.
9. INDICATES FULL HEIGHT STIFFENER, SEE DETAIL 1/S1.7.
10. INDICATES ANGLE BRACE, SEE DETAIL 1/S1.7.3.
11. INDICATES TYPICAL L4x4x1/4 OUT OF PLANE WALL TIES PER DETAIL 7/S1.8.
12. INDICATES DRAG BEAM CONNECTION, SEE DETAIL 6/S1.7.1 (SFRS).
13. c=1" INDICATES VERTICAL CAMBER UPWARDS AT BEAM MID-SPAN.
14. T.O.S. INDICATES TOP OF STEEL BEAM ELEVATION.
15. INDICATES STEEL FRAME SEE DETAIL 7/S1.7.1 FOR COLUMN TO BEAM CONNECTION, UNLESS NOTED OTHERWISE ON PLAN.
16. FOR OPENING THROUGH DECK, SEE DETAILS 4/S1.7.1 & 1/S1.7.2.
17. SEE SHEETS S2.2 AND S2.3 FOR COLUMN MARKS.
18. BEAMS SHALL BE EQUALLY SPACED BETWEEN COLUMNS OR BEARING WALLS UNLESS NOTED OTHERWISE.

PROJECT

No. 1 Collision

2750 BRISTOL ST, COSTA MESA CA, 92626

ARCHITECT

AHT ARCHITECTS INC.

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CONSULTANTS

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SANTA MONICA, CA 90403
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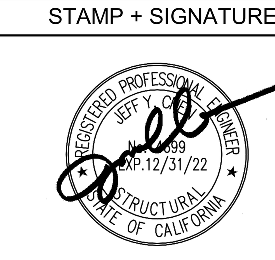

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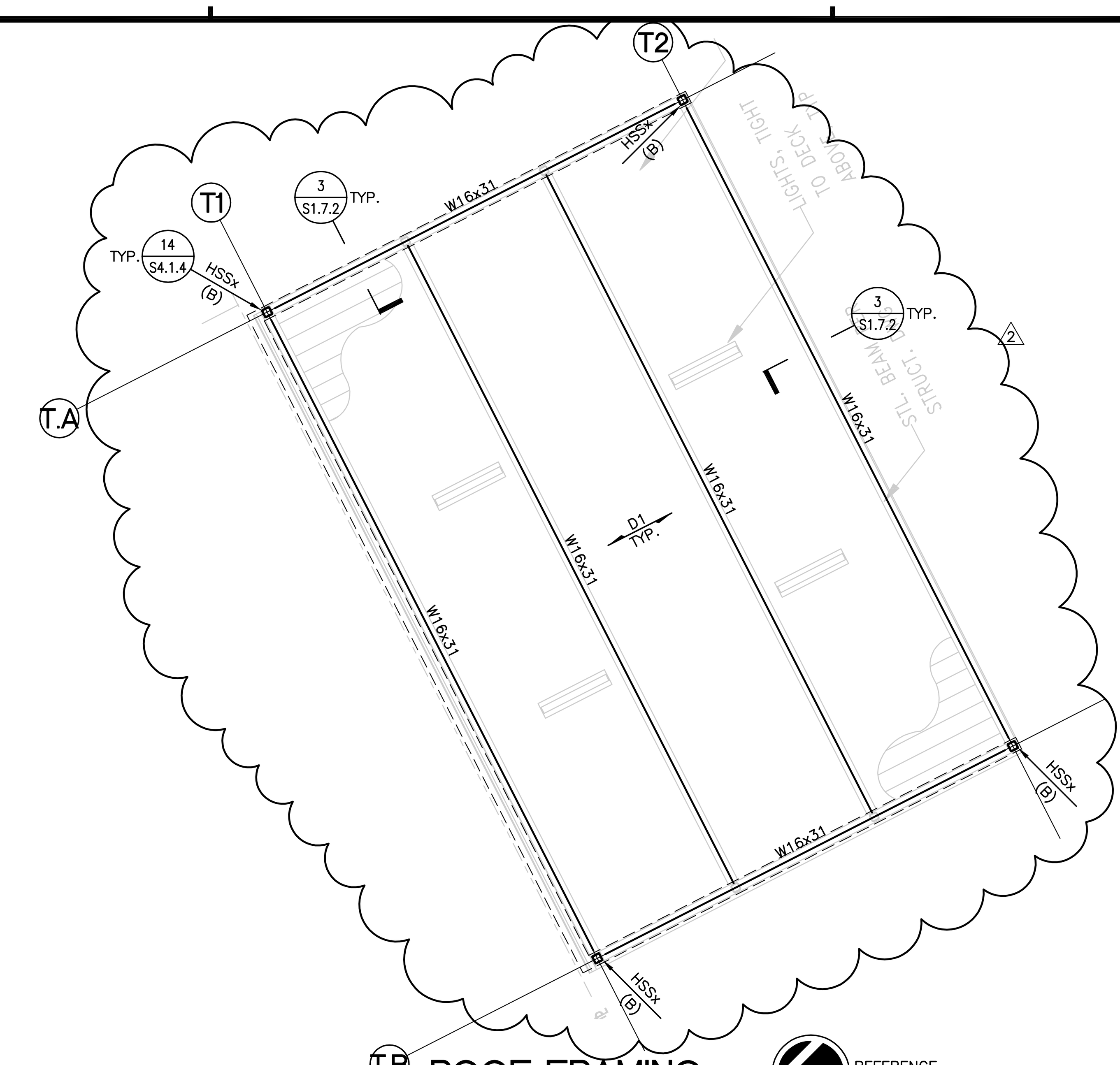
SHEET TITLE

OFFICE ROOF FRAMING PLAN

DATE:	11/10/21
SCALE:	AS NOTED
DRAWN BY:	Author
PROJECT NUMBER:	19-119

S2.4

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

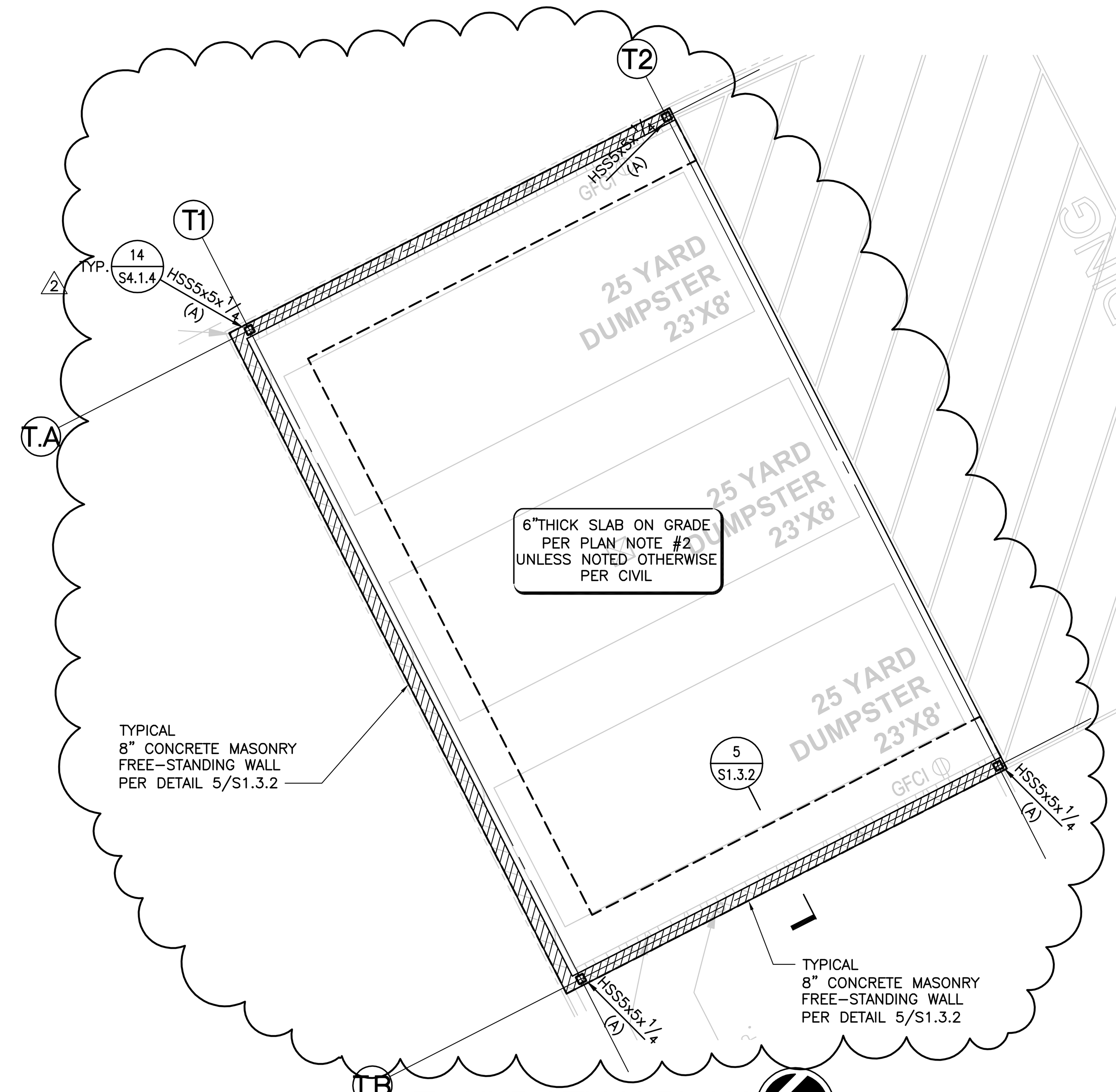


ROOF FRAMING

REFERENCE NORTH

NOTES: SCALE: 3/16"=1'-0"

1. FOR GENERAL NOTES AND TYPICAL DETAILS, SEE S1.X SERIES SHEETS.
2. TOP OF STRUCTURAL STEEL ELEVATION SHALL BE 0'-1 1/2" BELOW TOP OF DECK. U.N.O. ON PLAN
3. VERIFY ALL DIMENSIONS BEFORE START OF WORK.
4. SEE ARCHITECTURAL DRAWINGS FOR ELEVATION TOP OF CONCRETE SLAB, DEPRESSIONS, SLOPES, OPENINGS, CURBS, DRAINS, TRENCHES, SLAB EDGE LOCATIONS. ALL OVERALL DIMENSIONS AND LOCATION OF OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS.
5. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND LOCATING ALL OPENINGS THROUGH THE SLAB INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, PLUMBING, SPRINKLER, AND TELEPHONE. SUBMIT TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO SUBMITTAL OF REINFORCING STEEL SHOP DRAWINGS.
6. D1 INDICATES DECK TYPE AND DIRECTION. SEE DETAIL 1/S1.5.2.
7. BEAMS SHALL BE EQUALLY SPACED BETWEEN COLUMNS OR BEARING WALLS UNLESS NOTED OTHERWISE.



FOUNDATION PLAN

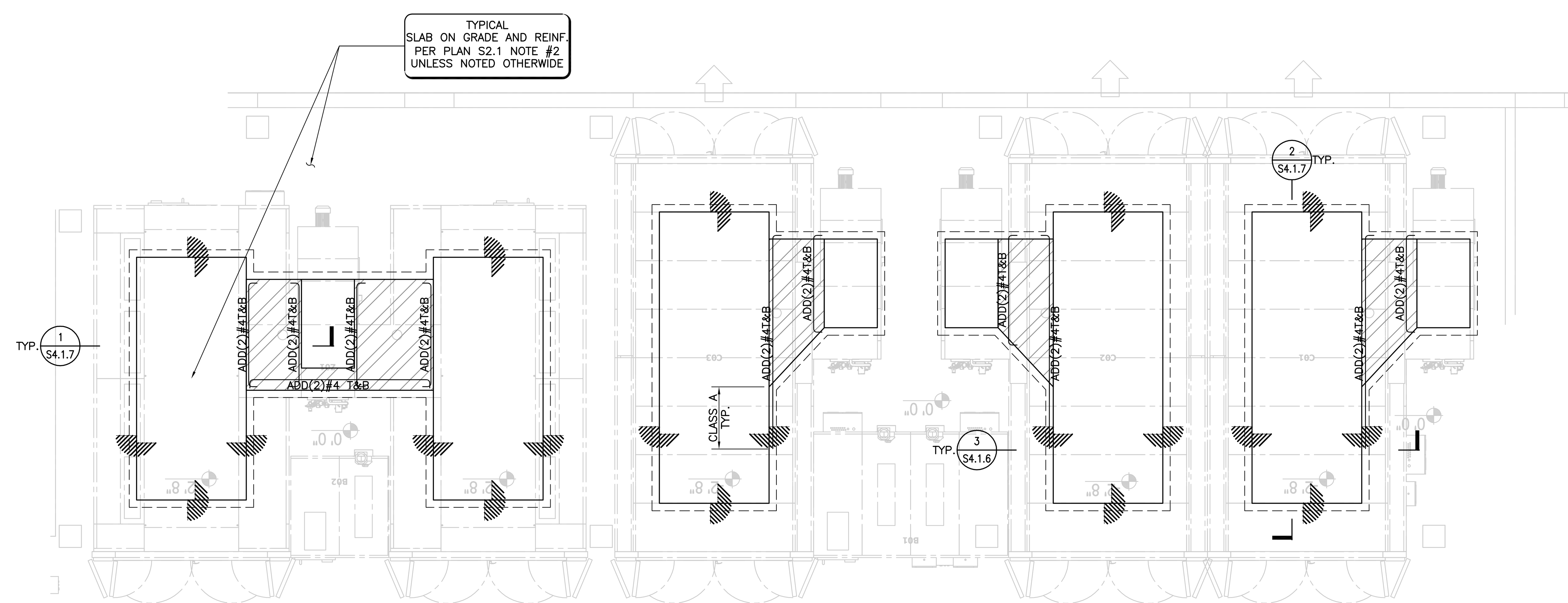
REFERENCE NORTH

NOTES: SCALE: 3/16"=1'-0"

1. TOP OF CONCRETE SLAB ELEVATION SHALL BE DATUM +984.88'= +0.00' UNLESS NOTED OTHERWISE THUS (±0.00')
2. TYPICAL SLAB ON GRADE CONSTRUCTION SHALL BE AS FOLLOWS:
   - A. 6" CONCRETE SLAB WITH #4@16 EACH WAY. U.N.O.
   - B. 2" SAND.
   - C. 10 MIL CLASS A VAPOR BARRIER.
   - D. 2" SAND.
   - E. SUBGRADE PER SOILS REPORT.
3. ALL COLUMNS SHALL BE CENTERED ON GRIDLINES UNLESS NOTED OTHERWISE.
4. ALL FOOTINGS SHALL BE CENTERED UNDER WALLS OR COLUMNS UNLESS NOTED OTHERWISE.

TRASH ENCLOSURE FRAMING PLANS

3/16"=1'-0" A



PAINT BOOTH SLAB PLAN

REFERENCE NORTH

NOTES: SCALE: 3/16"=1'-0"

1. INDICATES 8" ELEVATED SLAB OVER SLAB ON GRADE PROVIDE #4@12"o.c. T&B EACH WAY, IN ADDITIONAL TO REINFORCING SHOWN ON PLAN.
2. FOR REMAINDER OF PLAN NOTES, REFER TO SHEET S2.1.

PAINT BOOTH SLAB PLANS

3/16"=1'-0" B

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240-4336
FAX: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
FAX: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

NOT FOR CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE

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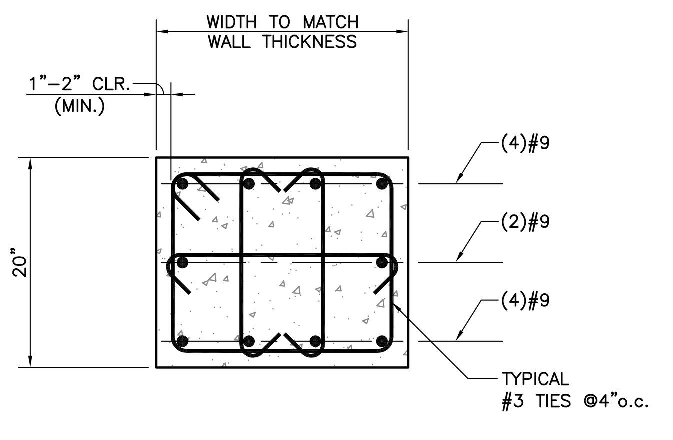
SHEET TITLE

TRASH ENCLOSURE PLANS, AND PAINT BOOTH PLAN

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

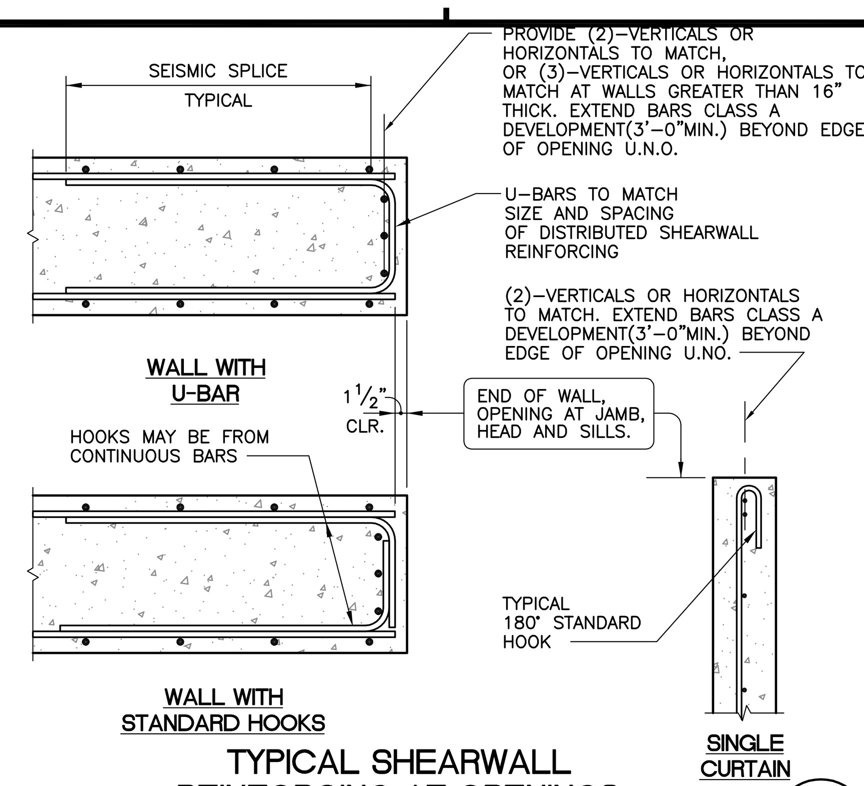
S2.5

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



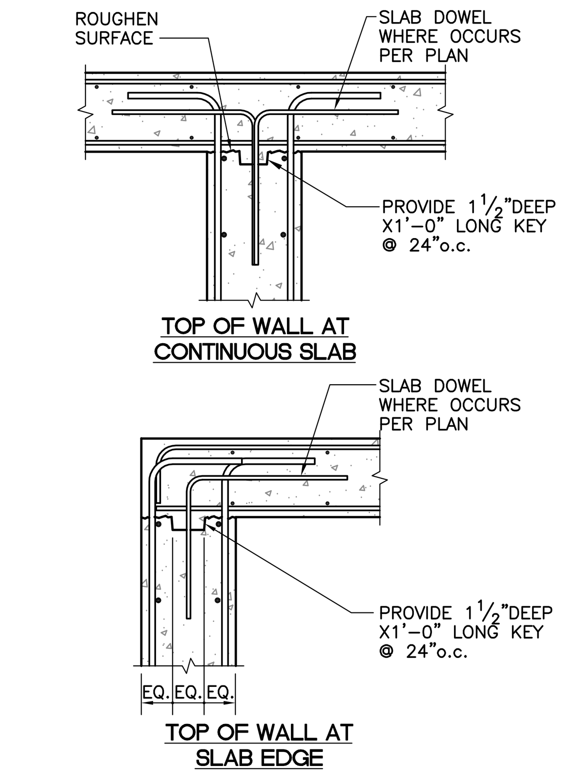
DRAG BEAM DETAIL

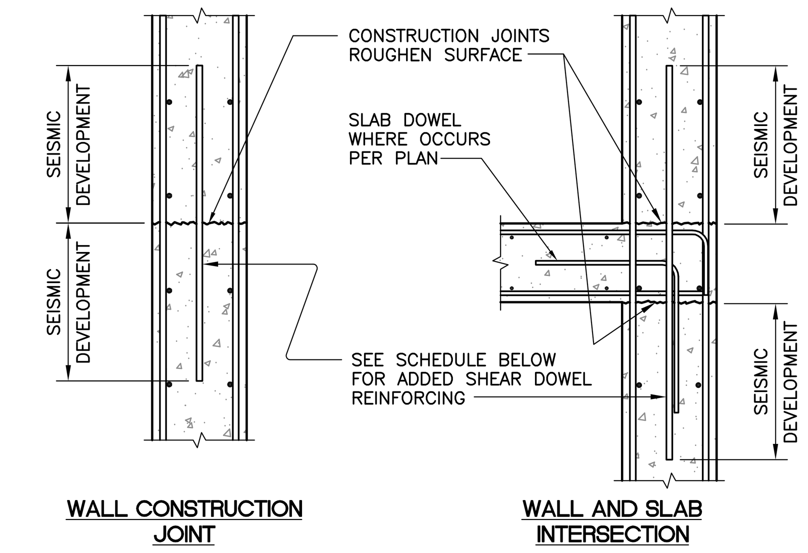
N.T.S. 5



TYPICAL SHEARWALL REINFORCING AT OPENINGS

C604 4



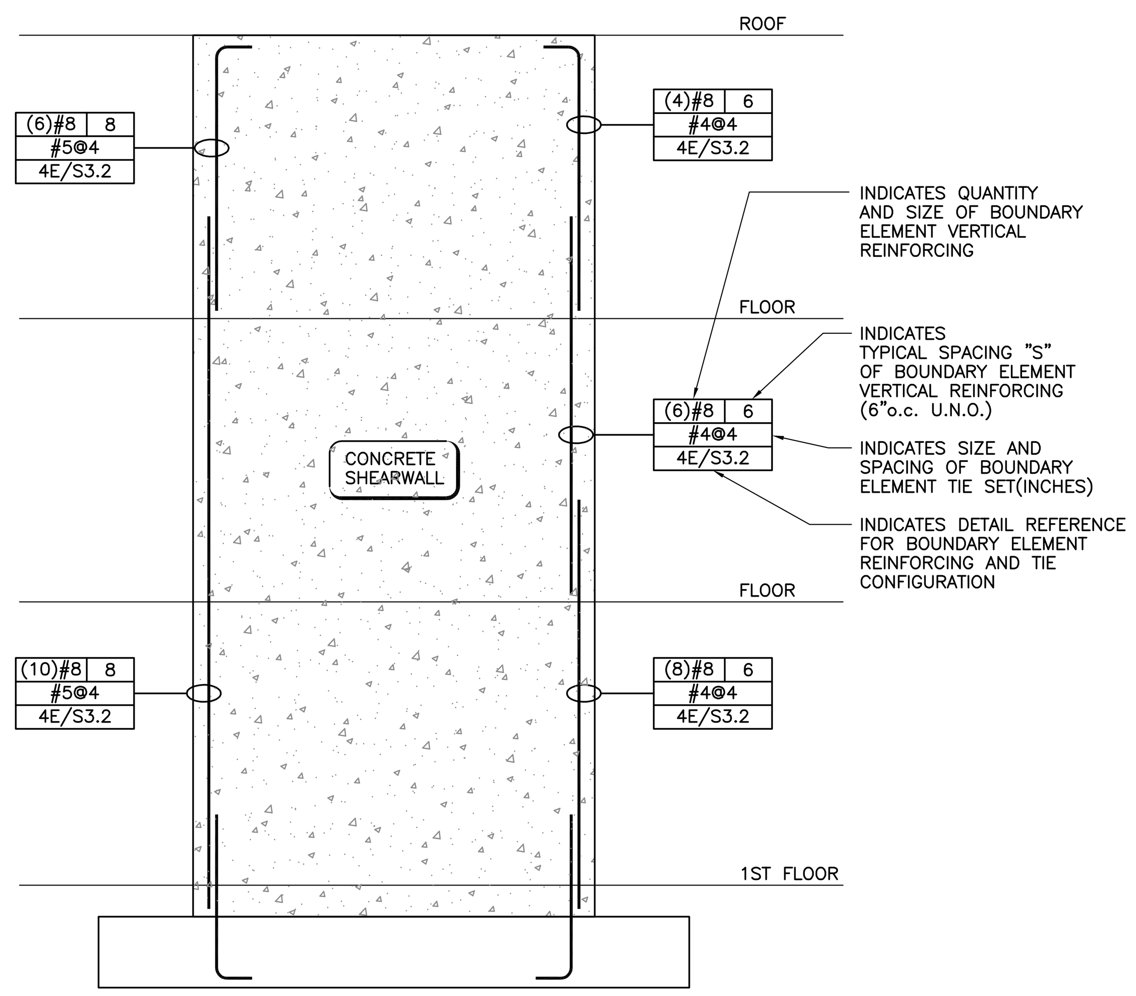


SHEAR DOWEL REINFORCING SCHEDULE
WALL THICKNESS "t"(in.)

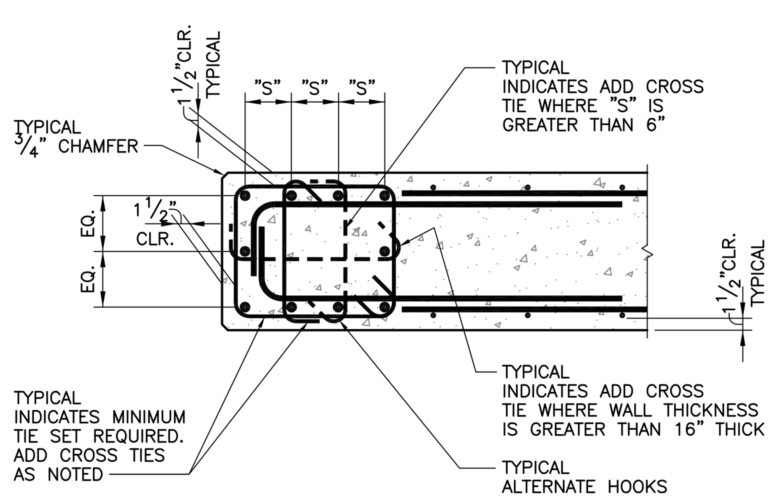
≤ 12"	>12"≤ 18"	>18"≤ 24"	>24"≤ 30"	>30"≤ 36"
#6@12	#7@12	#8@12	#9@12	#10@12

TYPICAL HORIZONTAL CONSTRUCTION JOINT IN SHEARWALL

C603 2



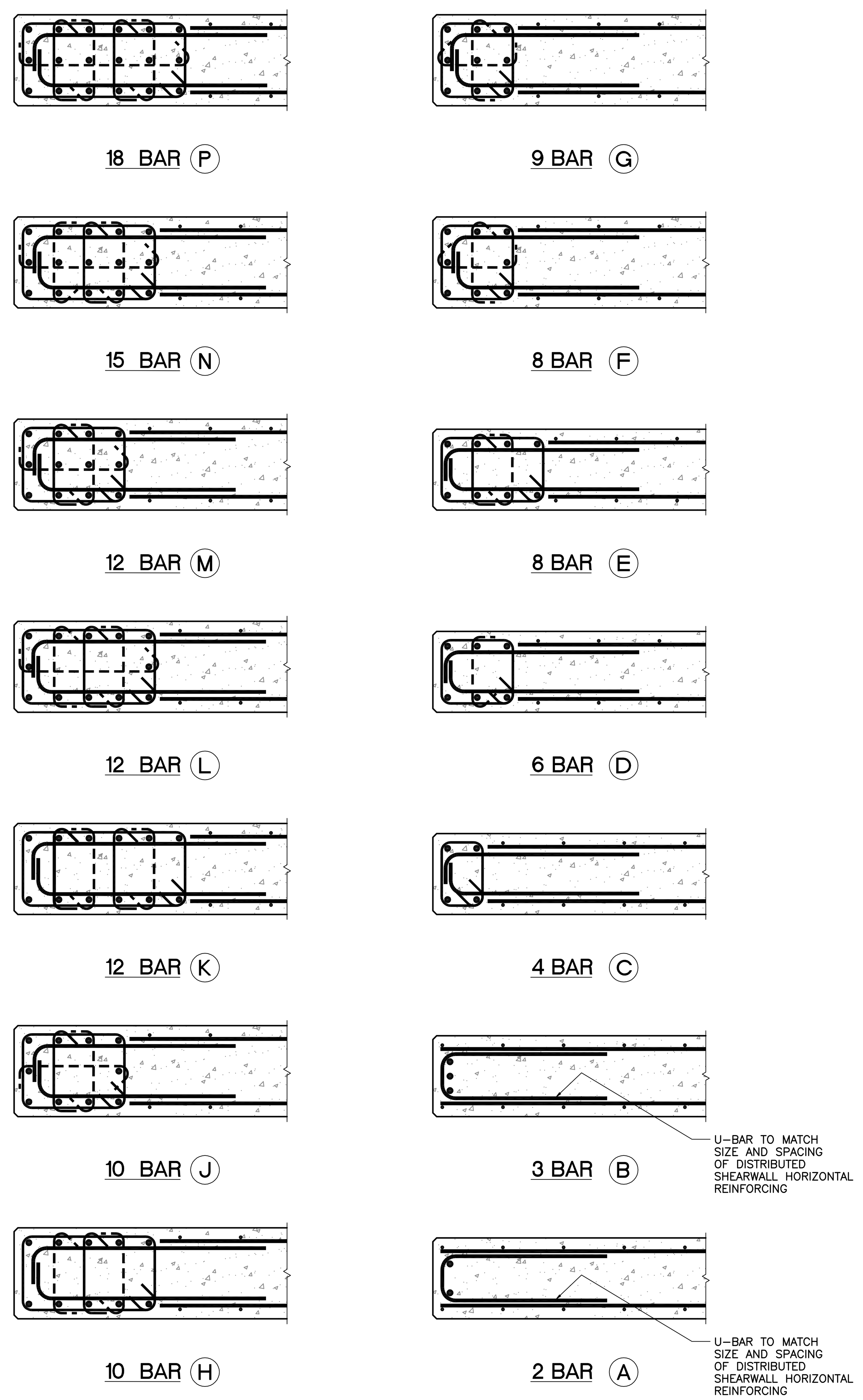
ELEVATION LEGEND



BOUNDARY ELEMENT LEGEND

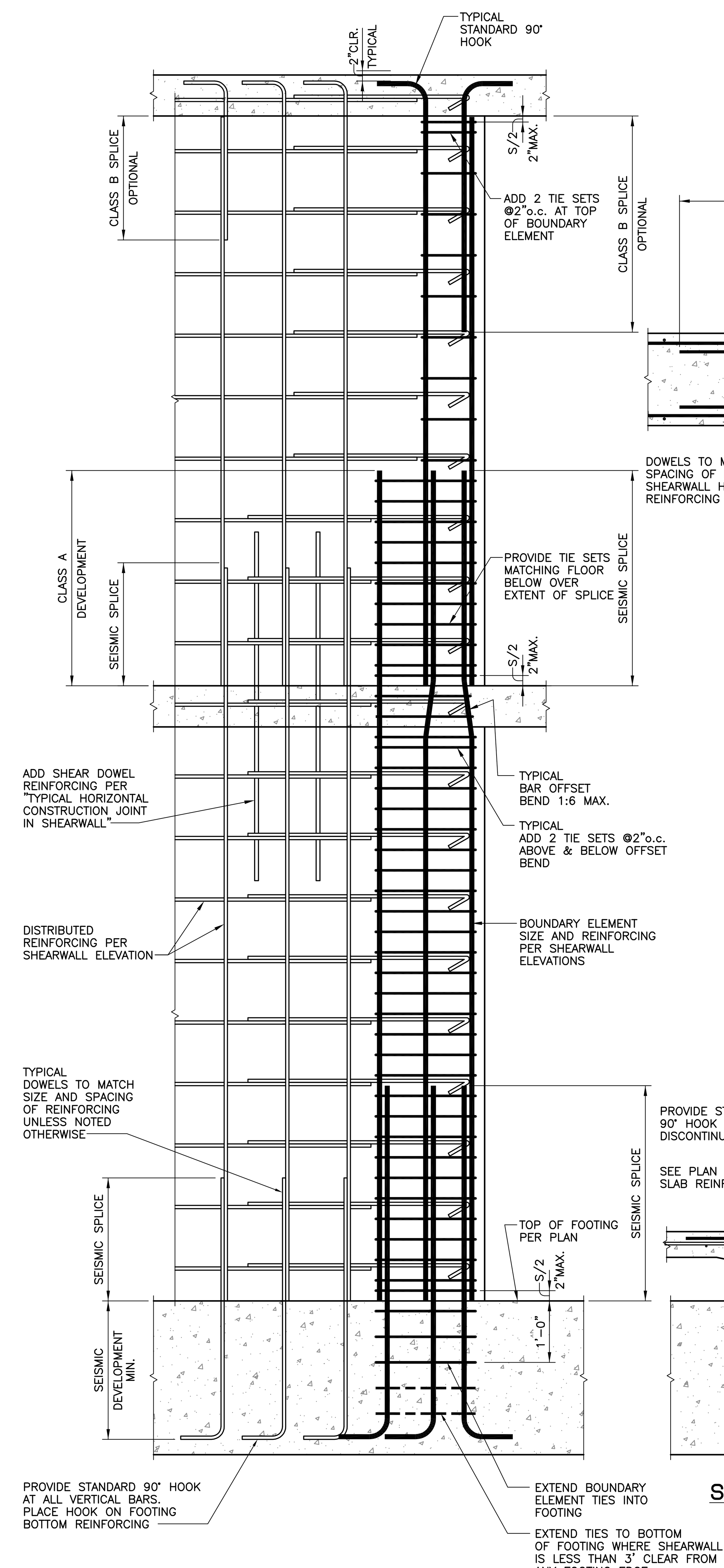
NOTES:

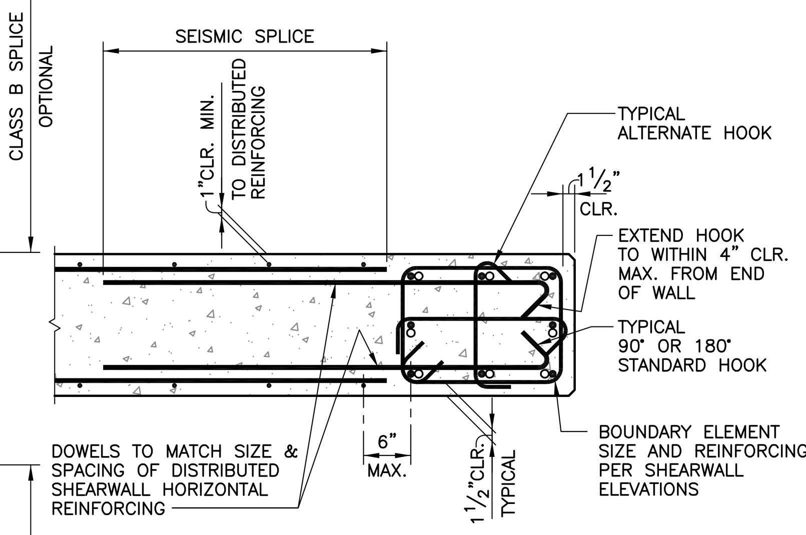
1. FOR BOUNDARY ELEMENT REINFORCING AND TIE CONFIGURATION NOT SHOWN SEE SHEARWALL ELEVATION.
2. FOR REMAINDER OF INFORMATION SEE "TYPICAL SHEARWALL BOUNDARY REINFORCING DIAGRAM".



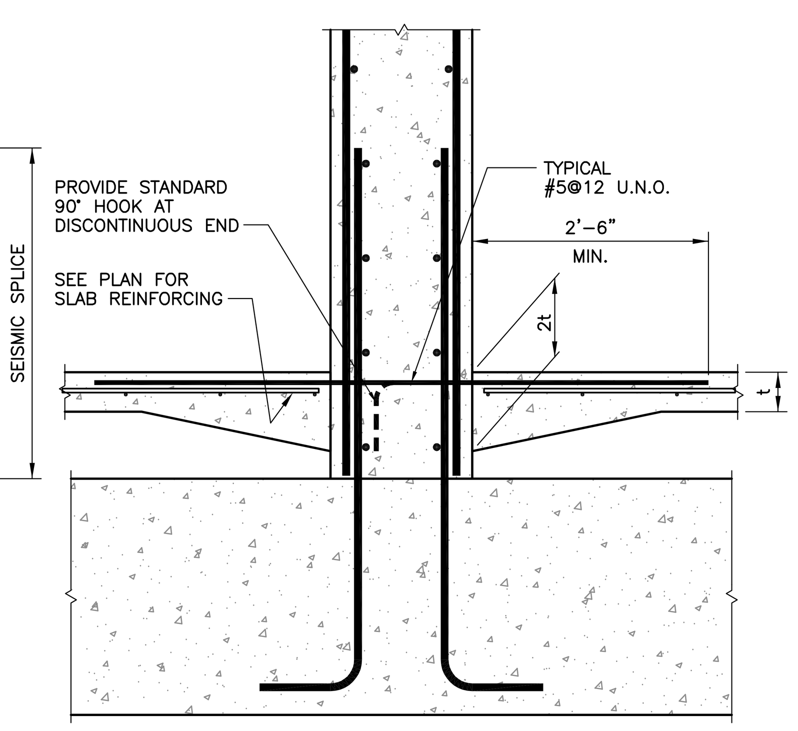
TYPICAL BOUNDARY ELEMENT REINFORCING AND TIE CONFIGURATION DETAIL

C602 3





SHEARWALL HORIZONTAL REINFORCING AT BOUNDARY



SHEARWALL DOWEL REINFORCING AT SLAB ON GRADE

TYPICAL SHEARWALL BOUNDARY REINFORCING DIAGRAM

C601 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.

2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
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ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
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ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240-4336
FAX: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
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CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
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TEL: (714) 848-0566
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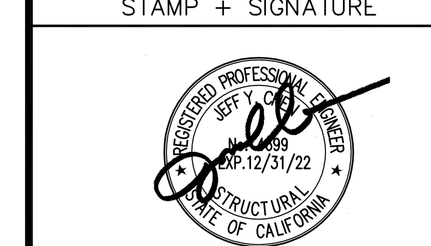
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE



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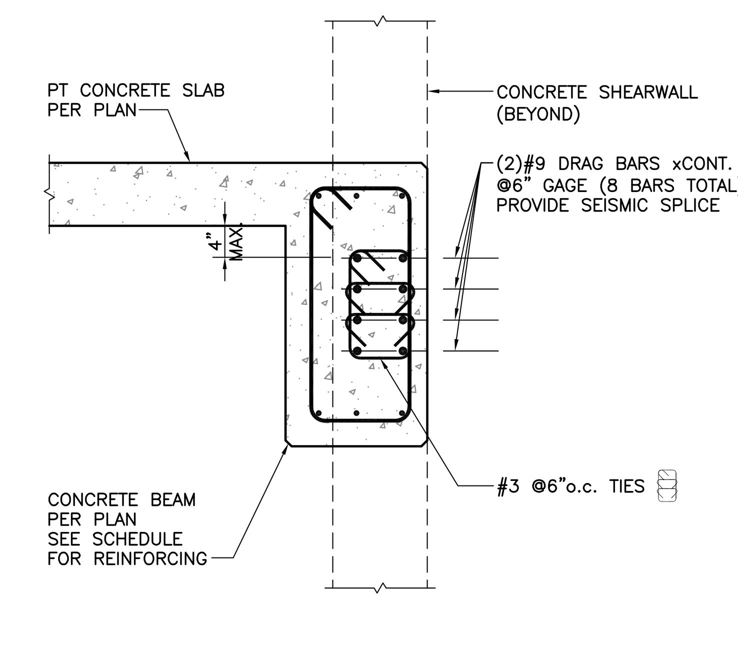
SHEET TITLE

MOMENT FRAME DETAILS (SFRS)

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

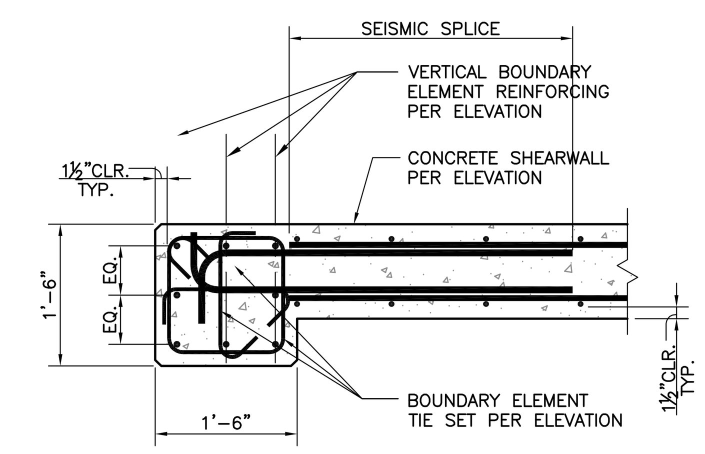
S3.1

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



DETAIL

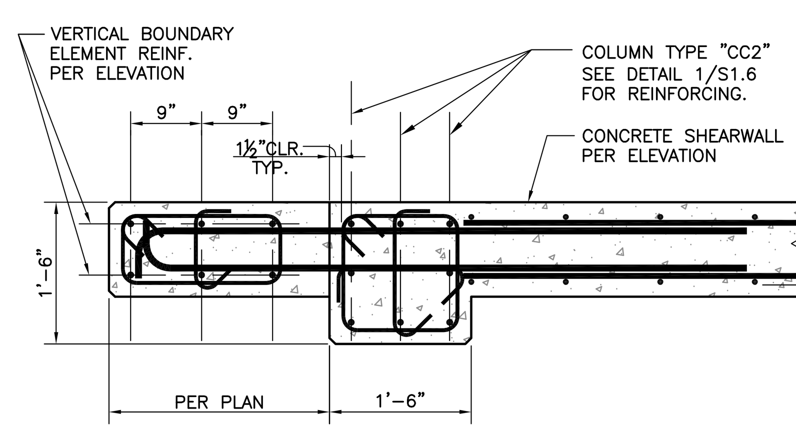
N.T.S. 3



NOTE:
FOR REMAINDER OF INFORMATION SEE DETAIL 3/S3.1.

BOUNDARY ELEMENT DETAIL

3/4"=1'-0" 2



NOTE:
FOR REMAINDER OF INFORMATION SEE DETAIL 3/S3.1.

BOUNDARY ELEMENT DETAIL

3/4"=1'-0" 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
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1057SYCAMORE
VISTA, CA 92081
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ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
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ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

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REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
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REGISTERED PROFESSIONAL ENGINEER
JEFF Y. CHEN
No. 4699
EXP.12/31/22
STRUCTURAL
STATE OF CALIFORNIA

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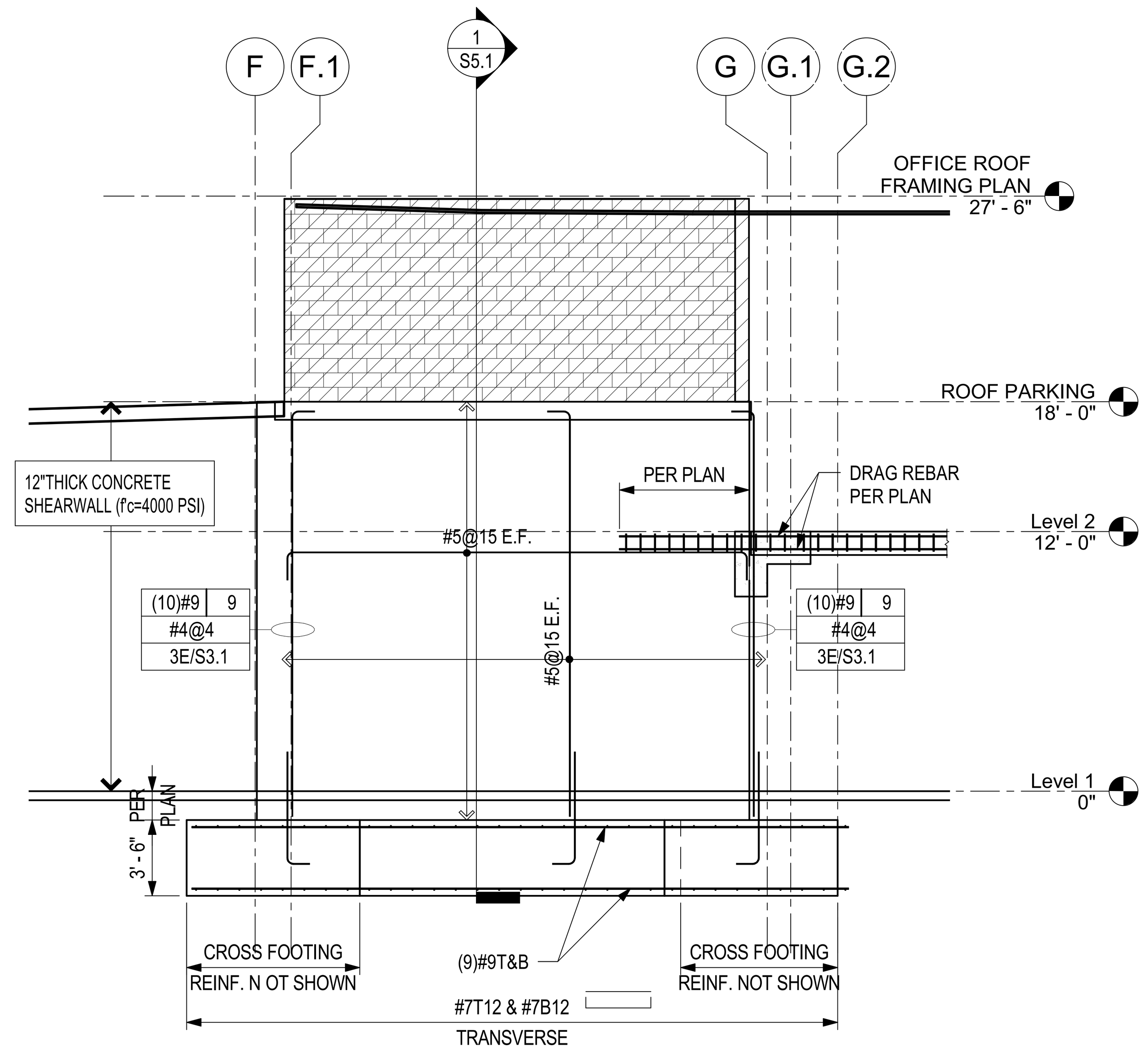
SHEET TITLE

SECTIONS AND DETAILS

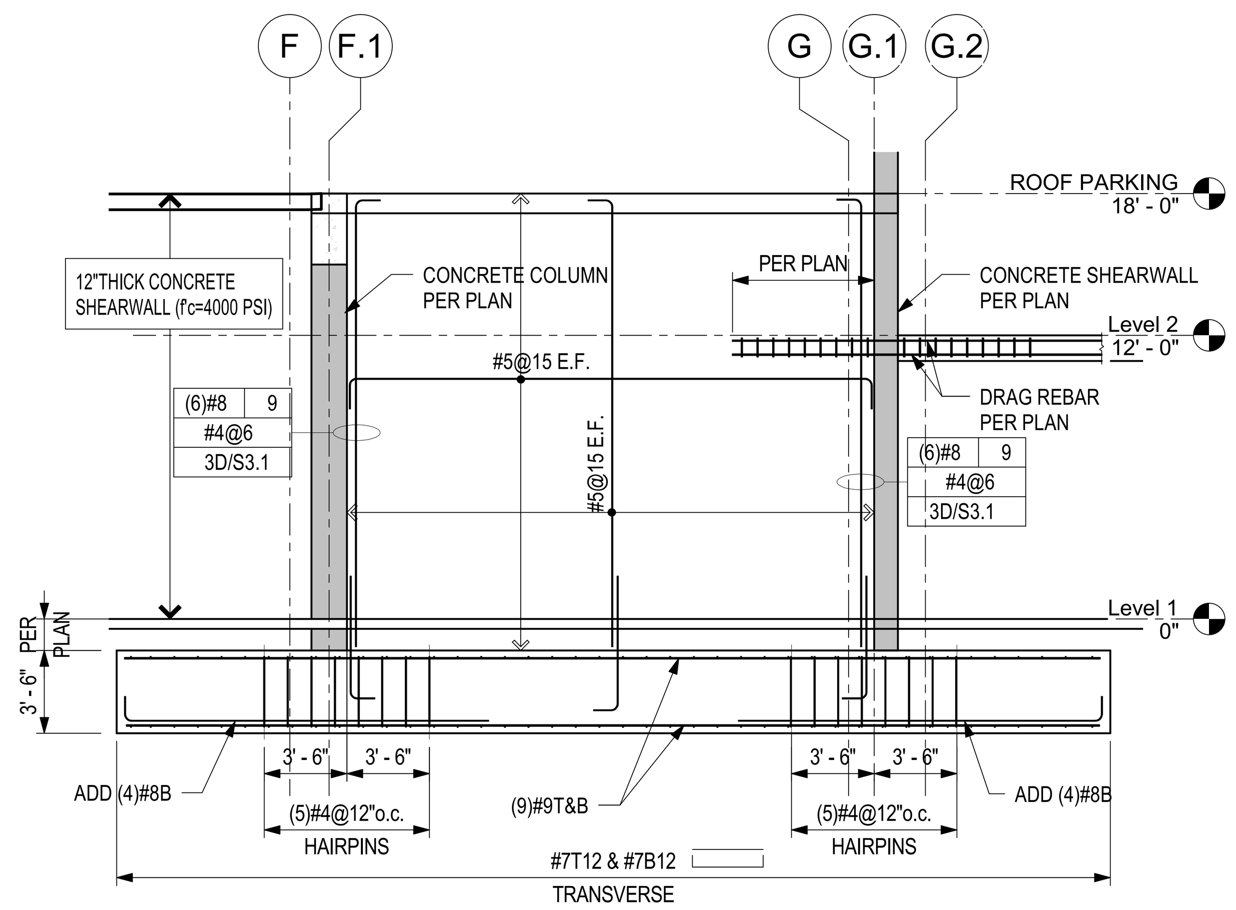
DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S3.1.1

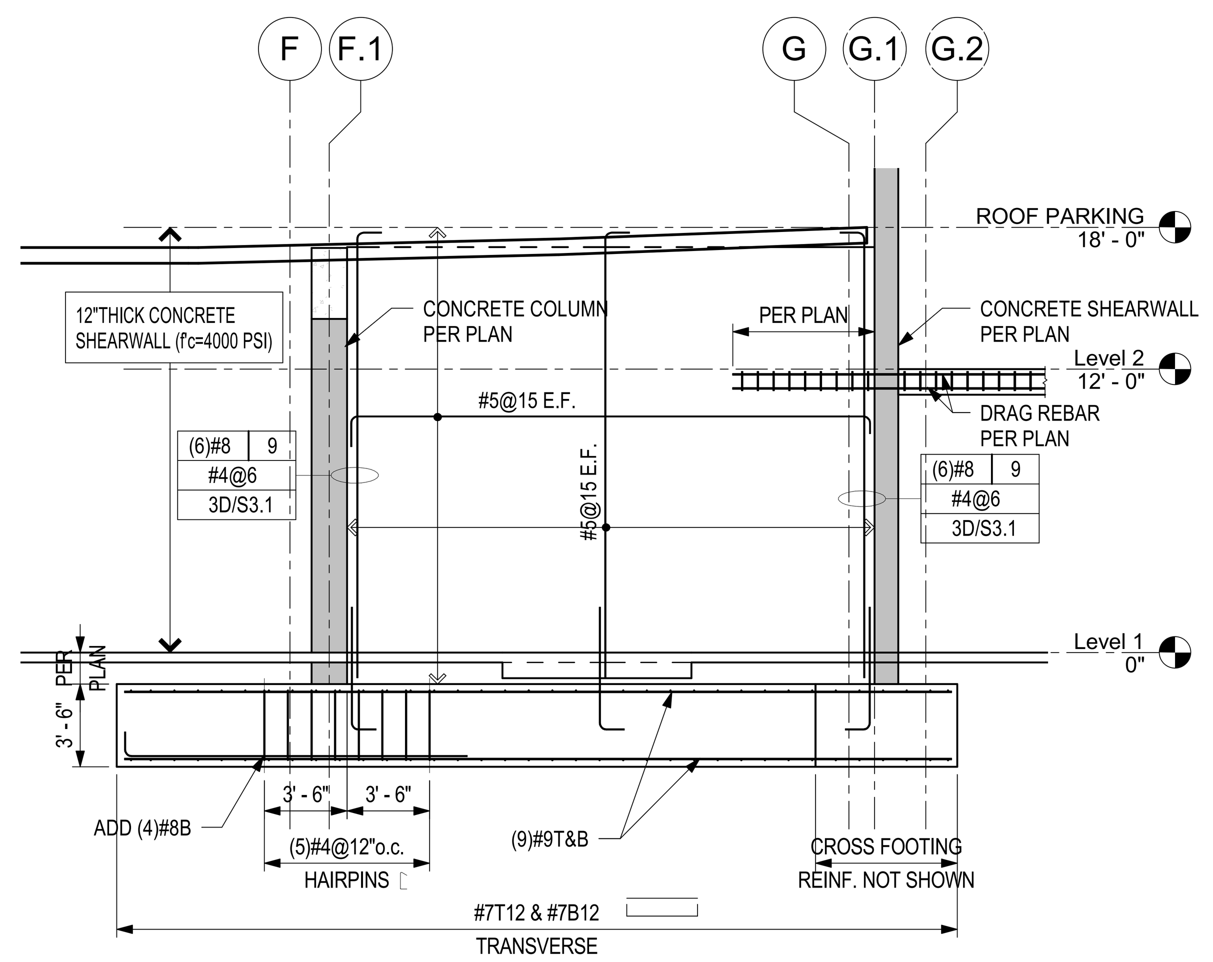
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



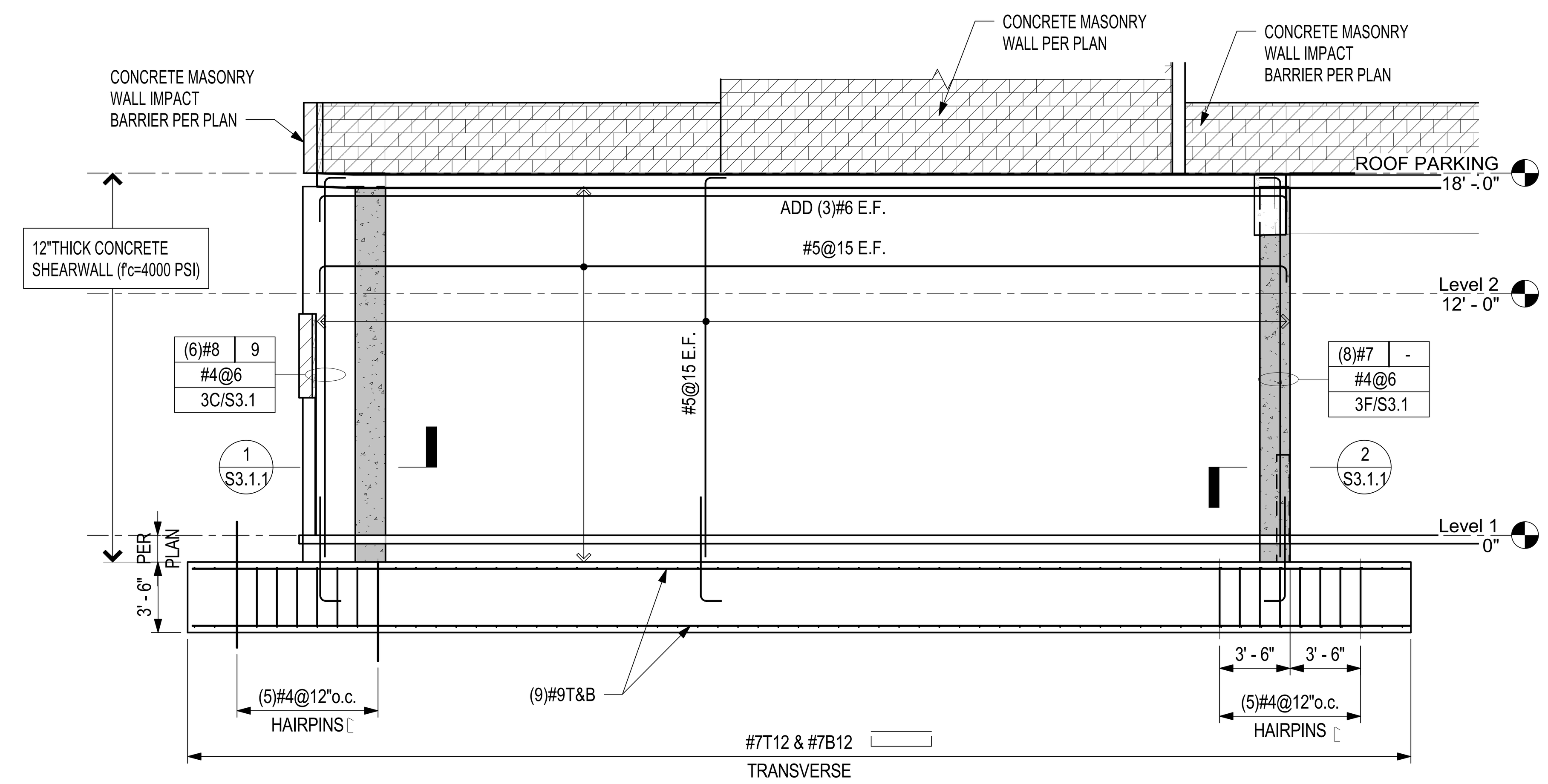
WALL ELEVATION - SW6 6
3/16" = 1'-0"



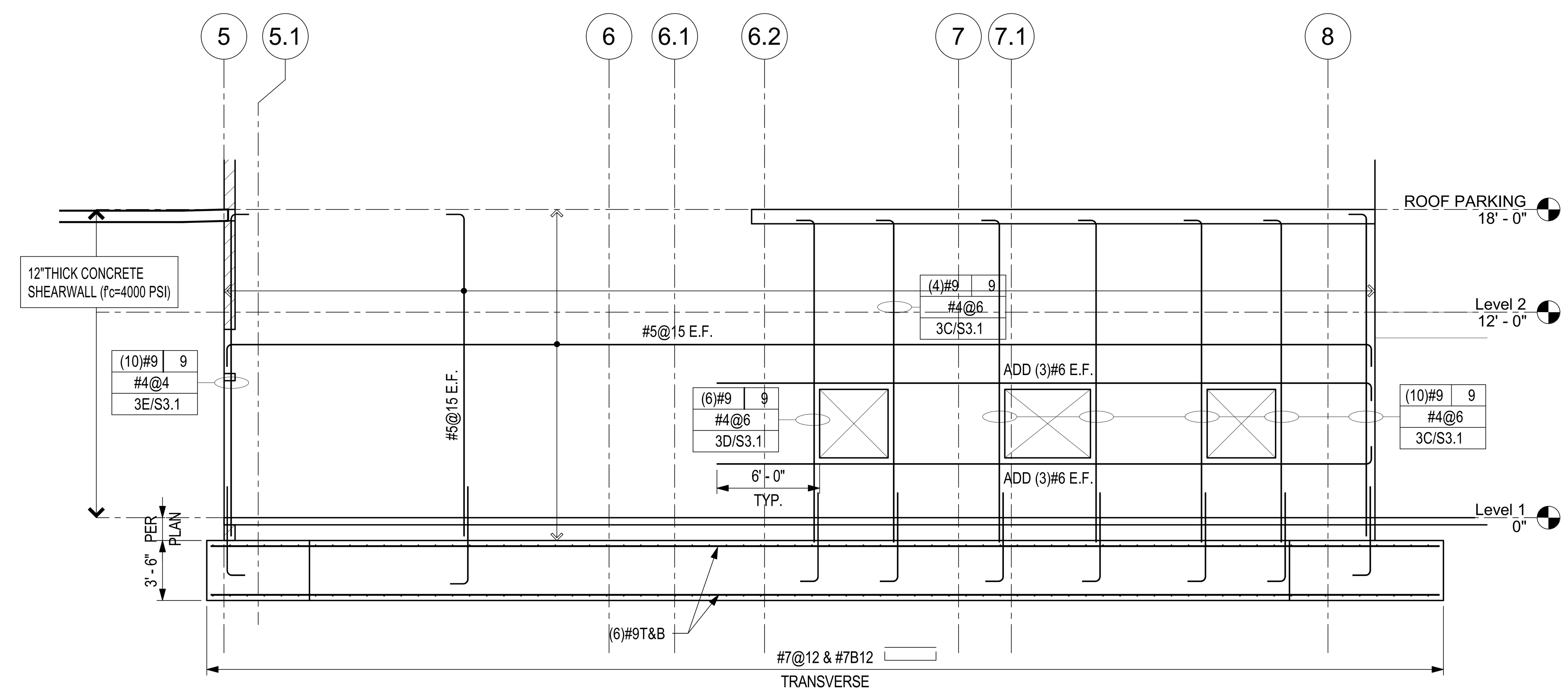
WALL ELEVATION - SW5 5
3/16" = 1'-0"



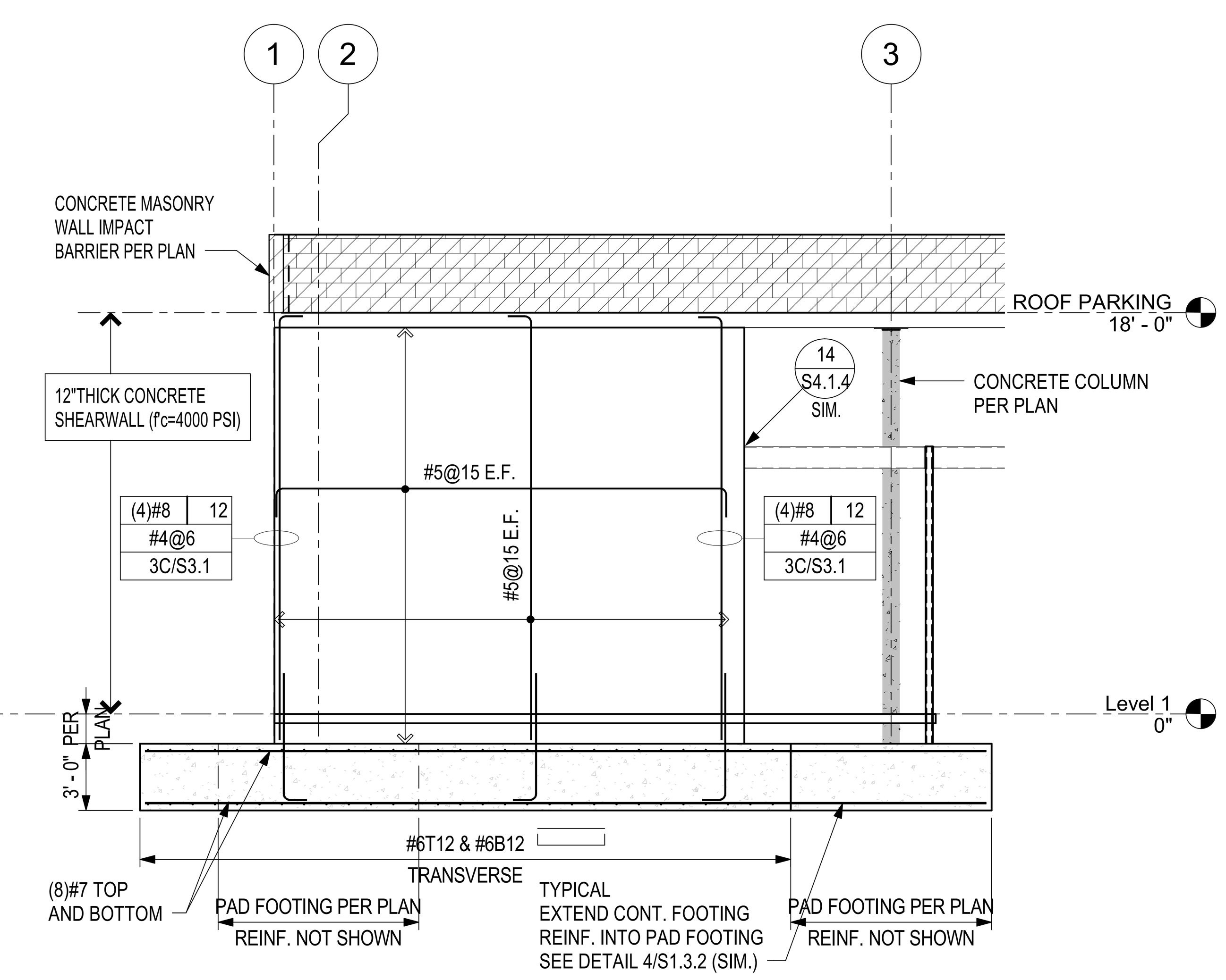
WALL ELEVATION - SW4 4
3/16" = 1'-0"



WALL ELEVATION - SW3 3
3/16" = 1'-0"



WALL ELEVATION - SW2 2
3/16" = 1'-0"



WALL ELEVATION - SW1 1
3/16" = 1'-0"

PROJECT

No. 1 Collision

2750 BRISTOL ST, COSTA MESA CA, 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200 Santa Monica California 90403 310.453.4431

CONSULTANTS

CLIENT
Walker Group of Companies
ATTN: Robert A. Walker
11100 Cambie Road #100
Richmond, BC V6X 1K9
604.231-9614/f: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
(310) 453-4431 (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING
ATTN: JEFF CHEN
17500 REDHILL AVE. SUITE 240
Irvine, CA 92614
P: (949) 250.3150 F: 949 203-0450

M.E.P. ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
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REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/10/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

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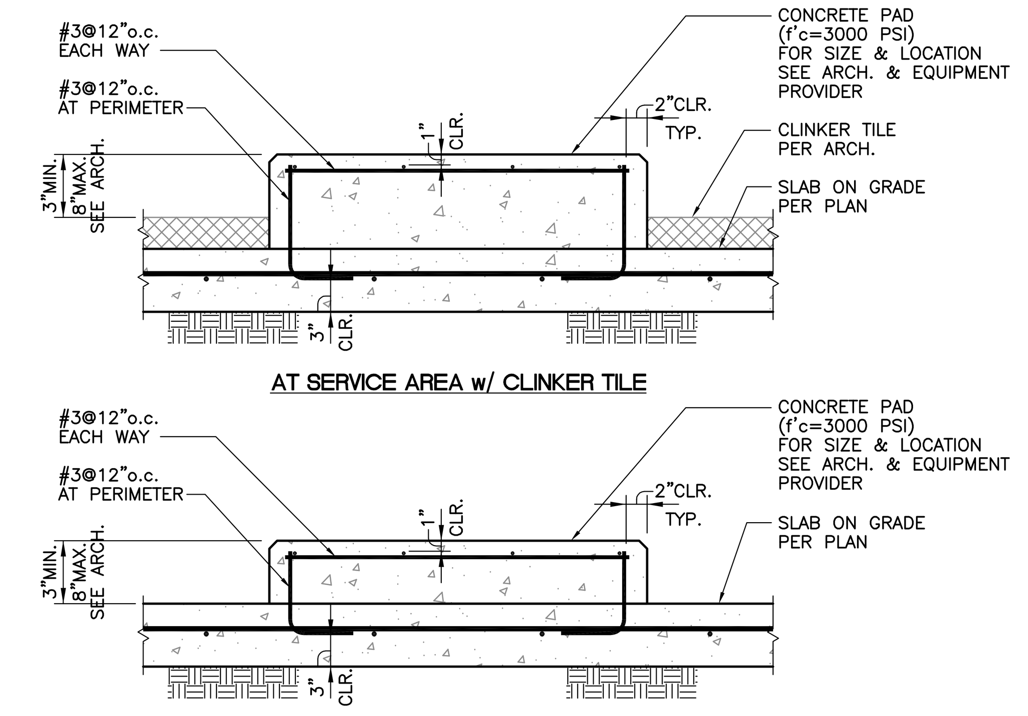
SHEET TITLE

WALL ELEVATIONS

DATE:	03/15/21
SCALE:	AS NOTED
DRAWN BY:	Author
PROJECT NUMBER:	19-119

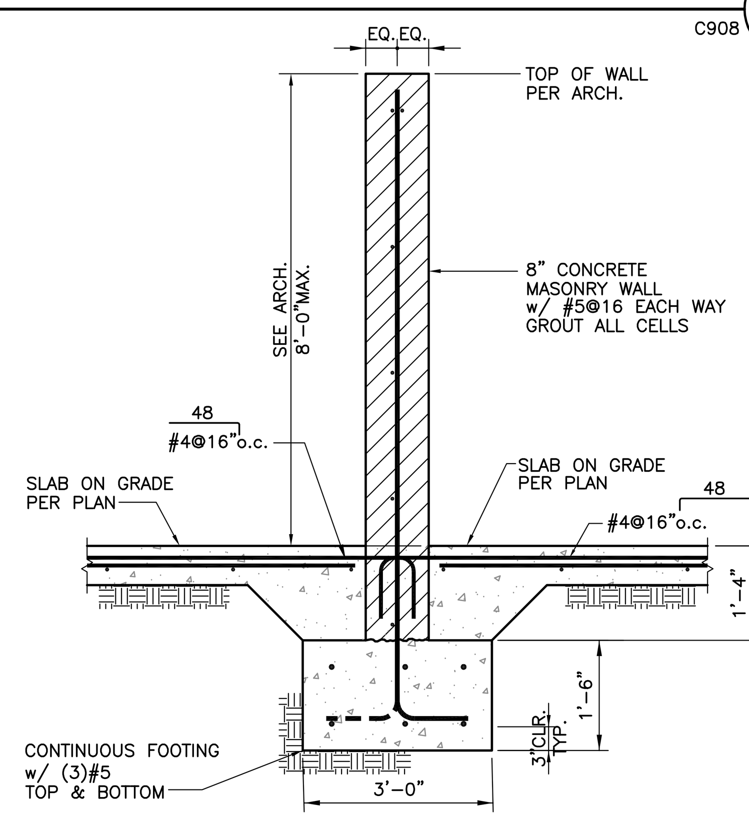
S3.2

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



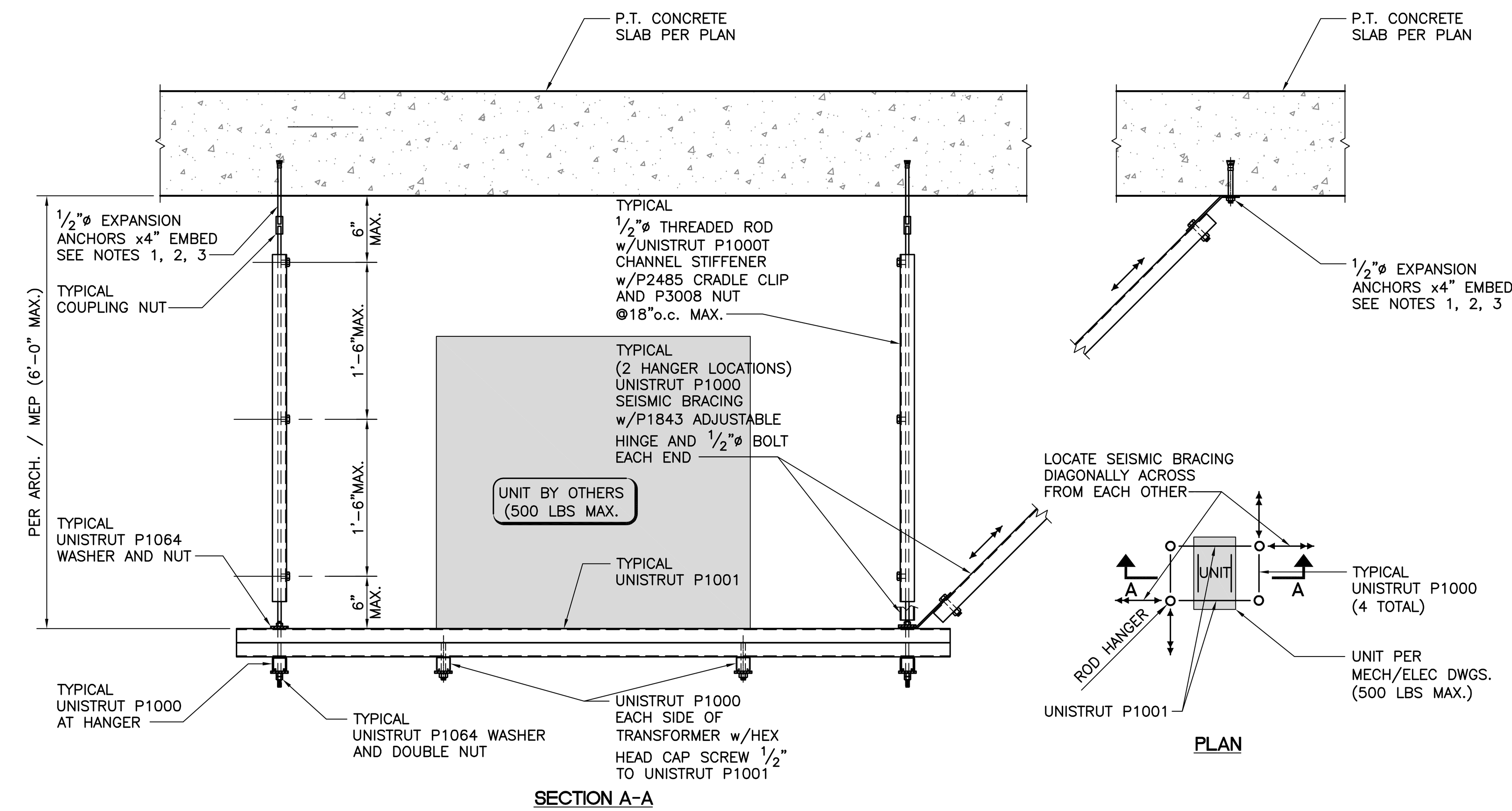
TYPICAL CONCRETE PAD DETAIL

C908 6



LOW CONCRETE MASONRY WALL DETAIL

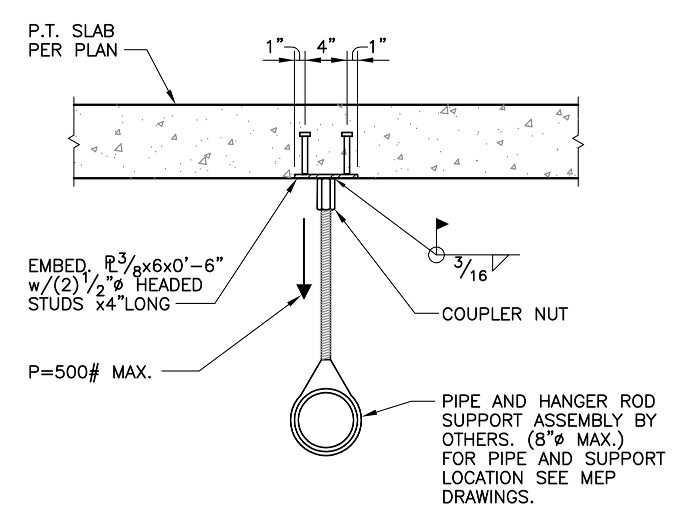
N.T.S. 5



NOTE:
1. DO NOT DAMAGE SLAB PT & REINFORCING.
2. LOCATE PT & REINFORCING PRIOR TO DRILLING.
3. ALTERNATE HANGER AND BRACE CONNECTION PER DETAIL 4/-.

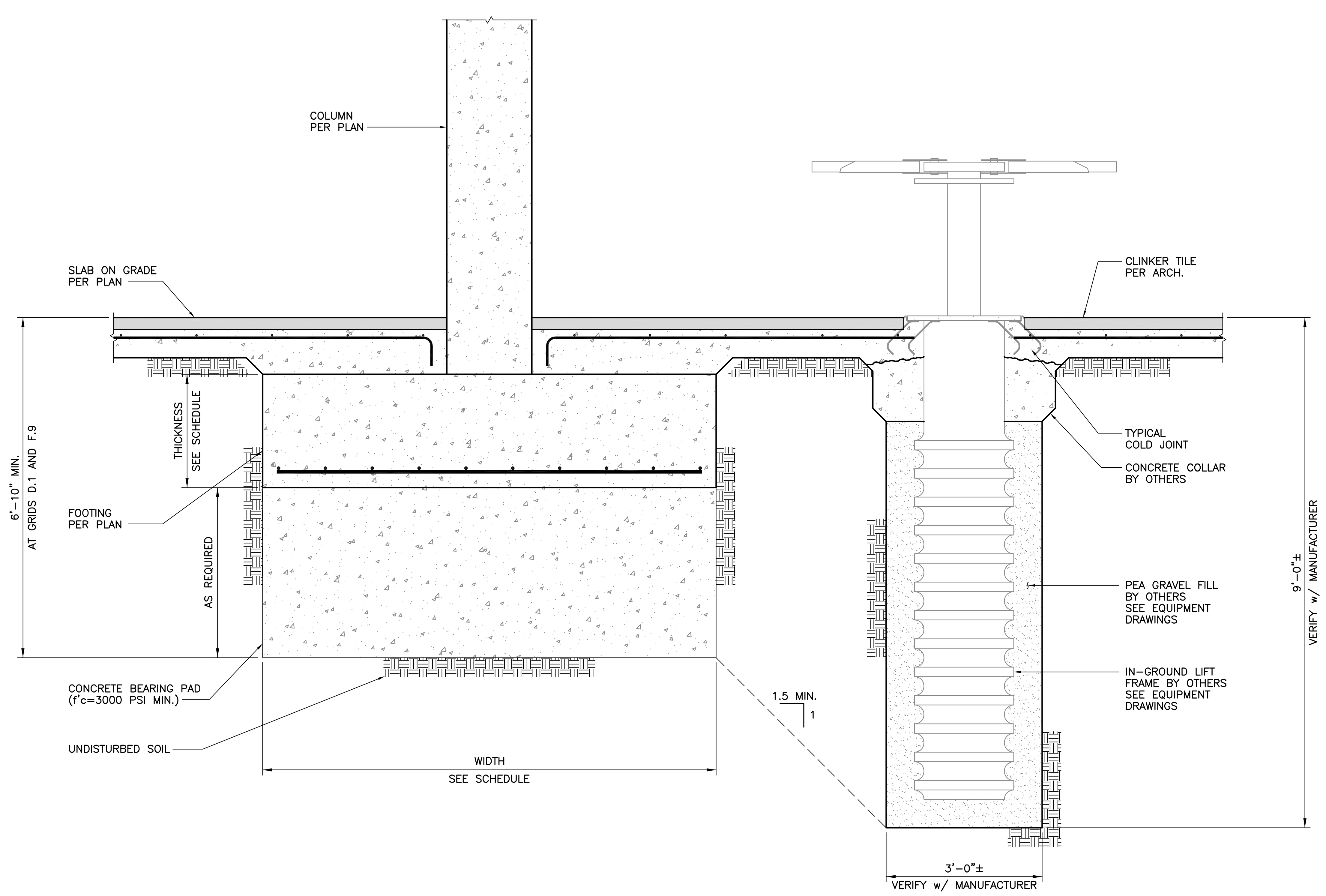
TYPICAL SUSPENDED MECHANICAL UNITS DETAIL

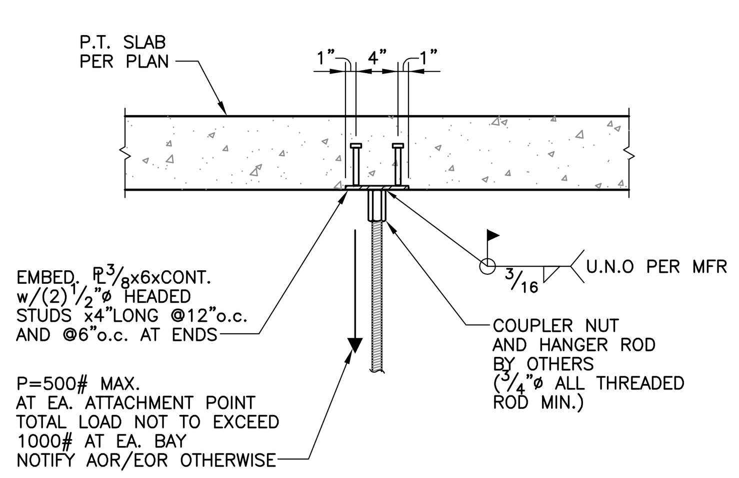
N.T.S. 2



TYPICAL MEP EMBED DETAIL

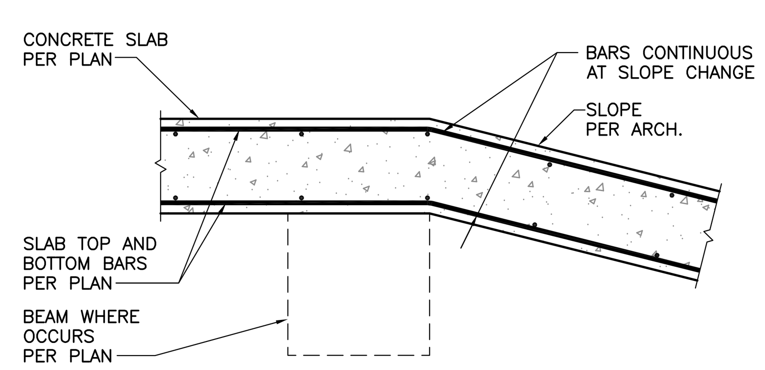
N.T.S. 4





SUSPENDED PLENUM SUPPORT DETAIL

N.T.S. 7 2



RAMP SLAB TRANSITION DETAIL

N.T.S. 3

TYPICAL FOOTING AT IN-GROUND LIFT

N.T.S. 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
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CONSULTANTS

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FAX: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

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SECTIONS AND DETAILS

DATE: 11/10/21
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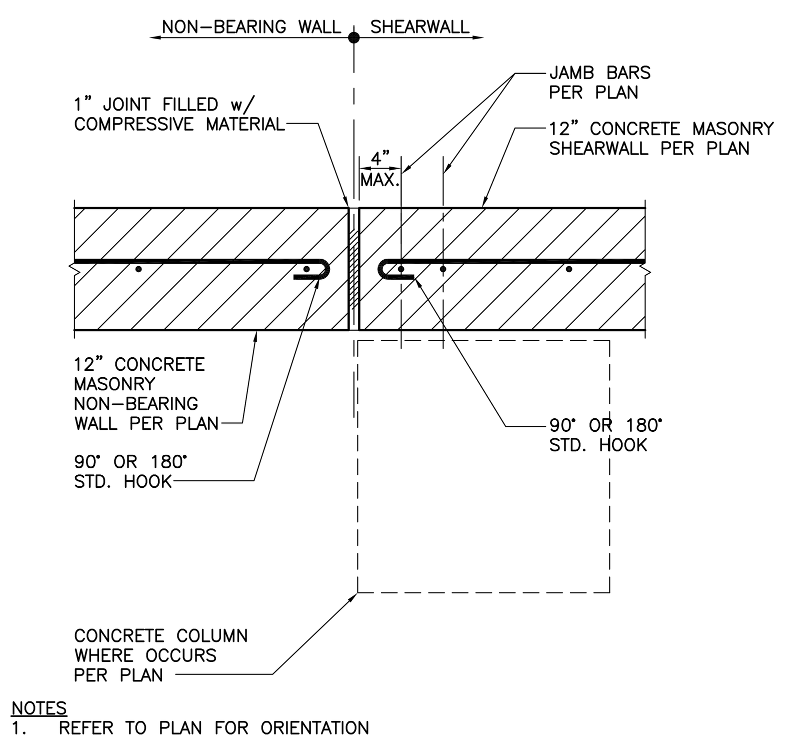
PROJECT NUMBER 19-119

S4.1

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



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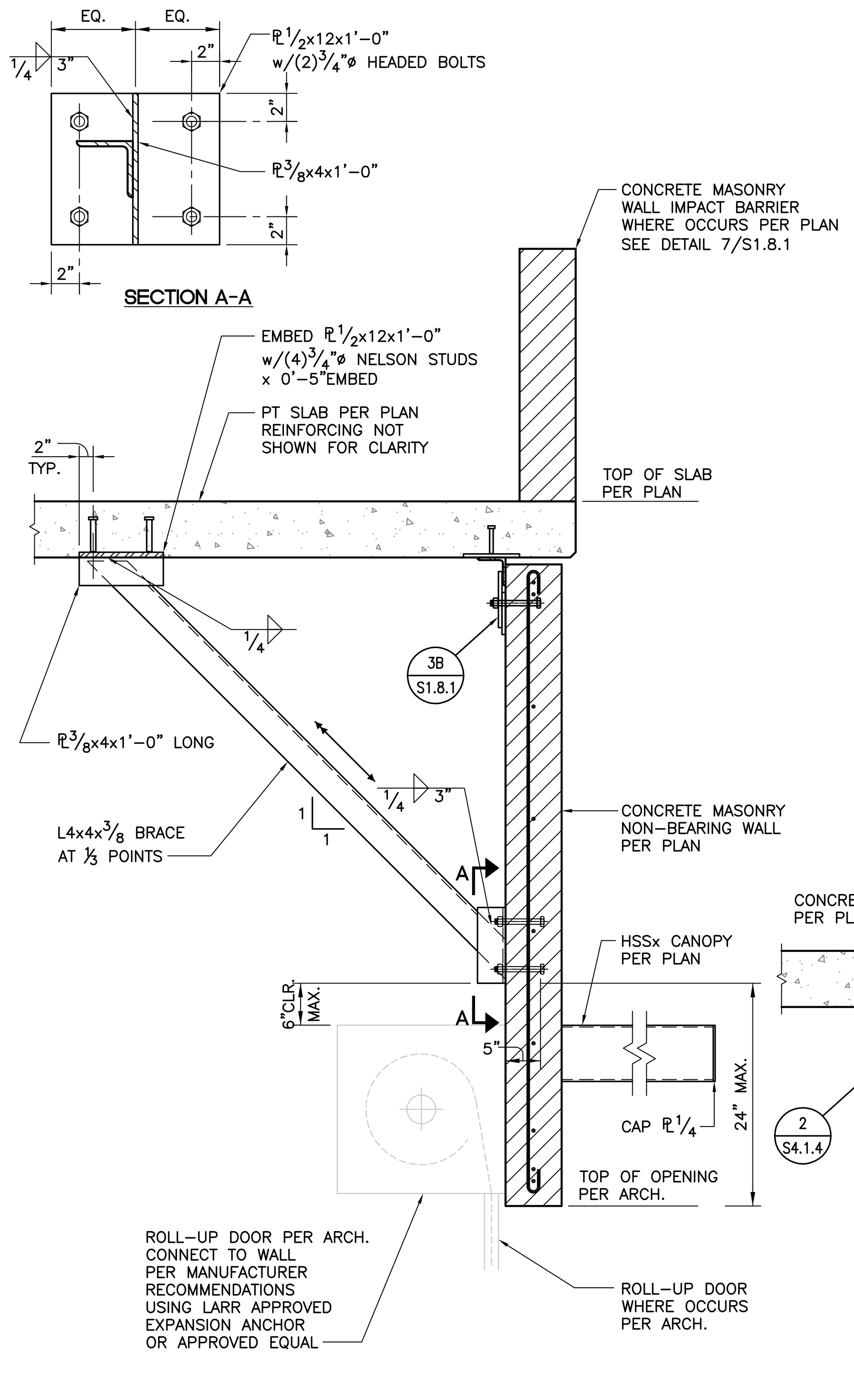

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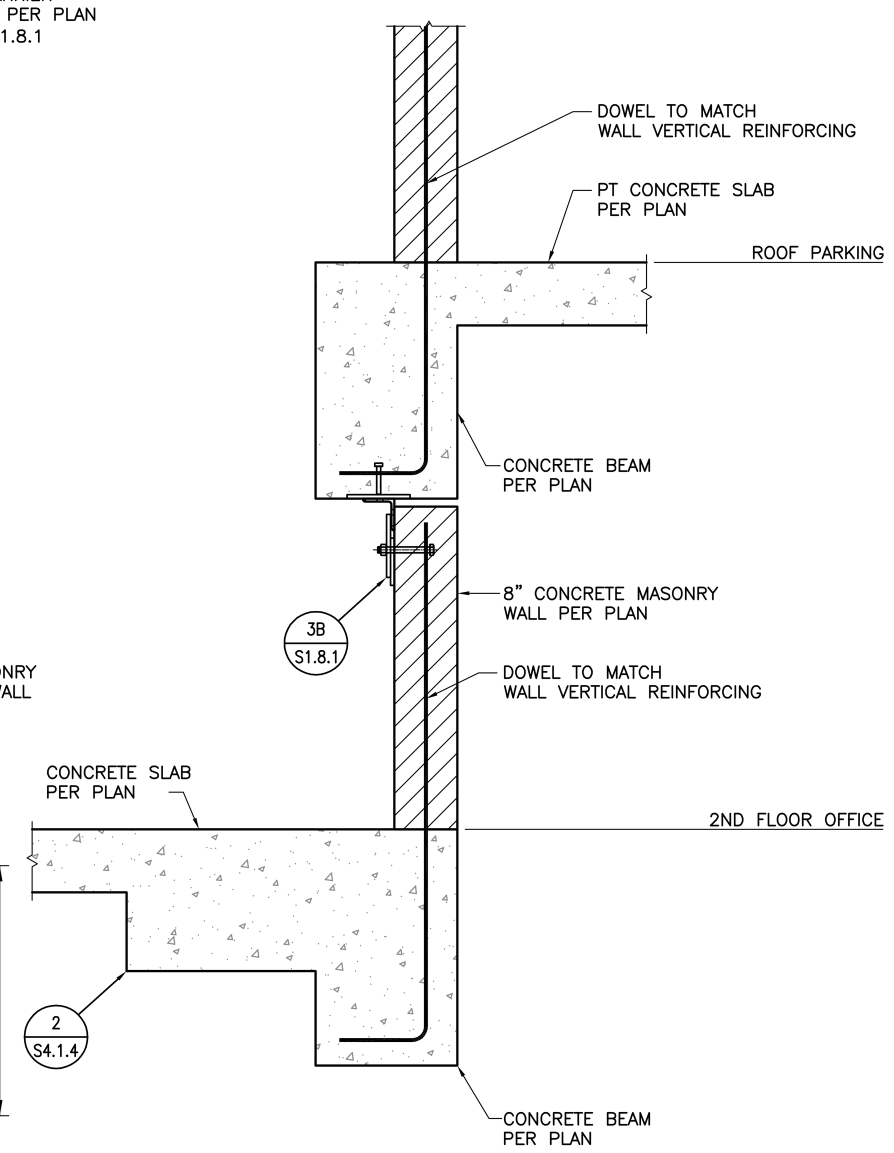

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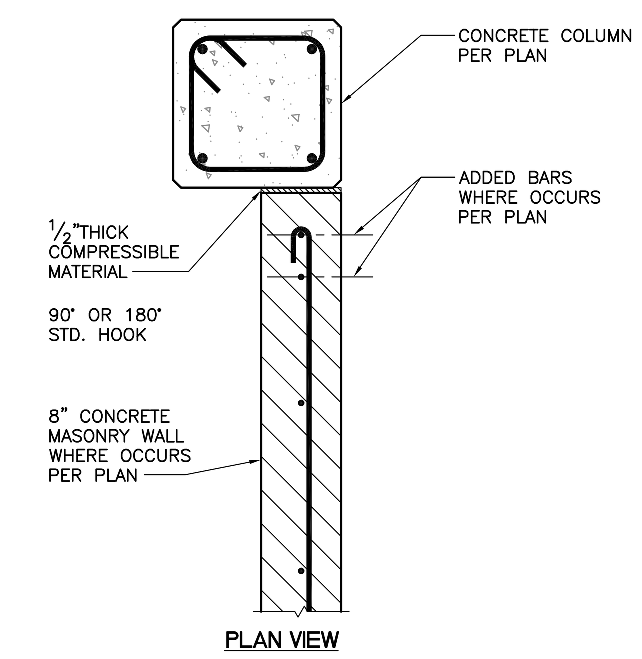

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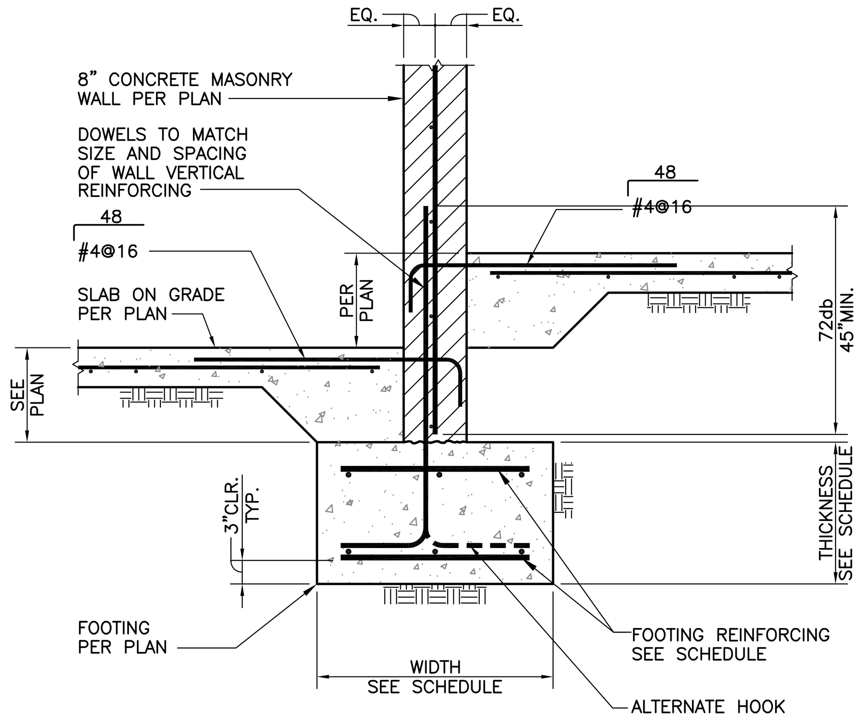

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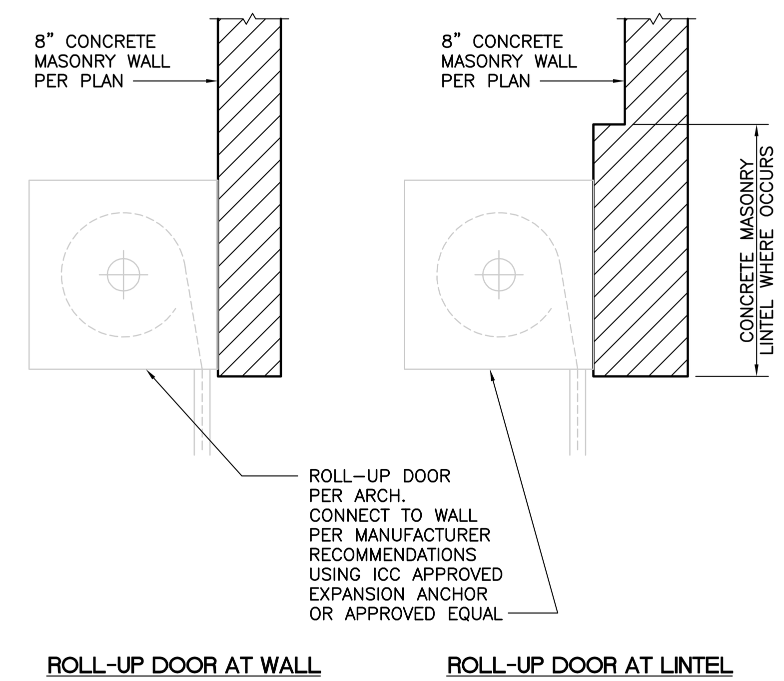

TYPICAL ROLL-UP DOOR DETAIL 4
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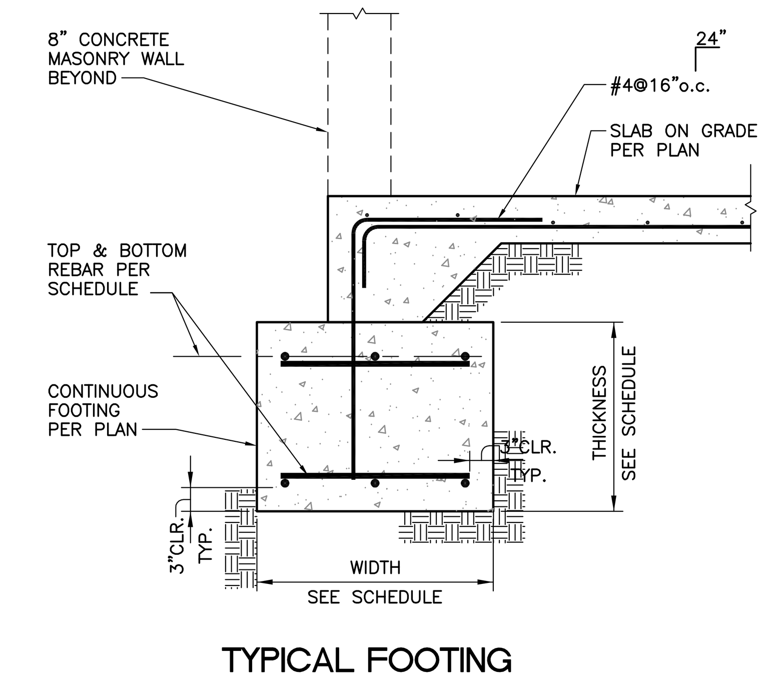

TYPICAL FOOTING AT WALL OPENING DETAIL 2
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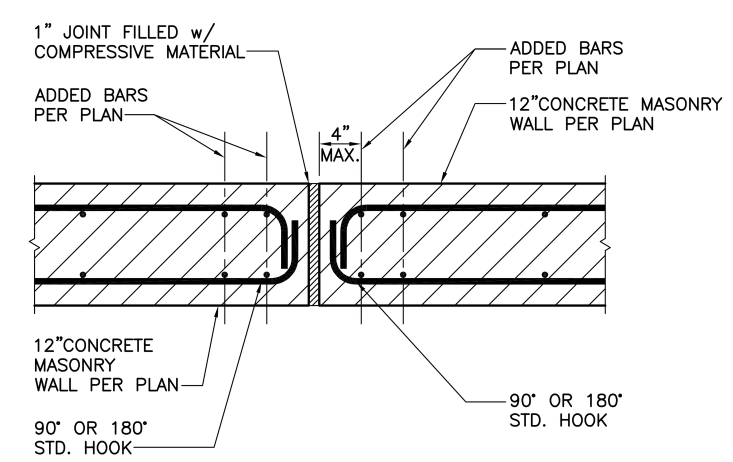

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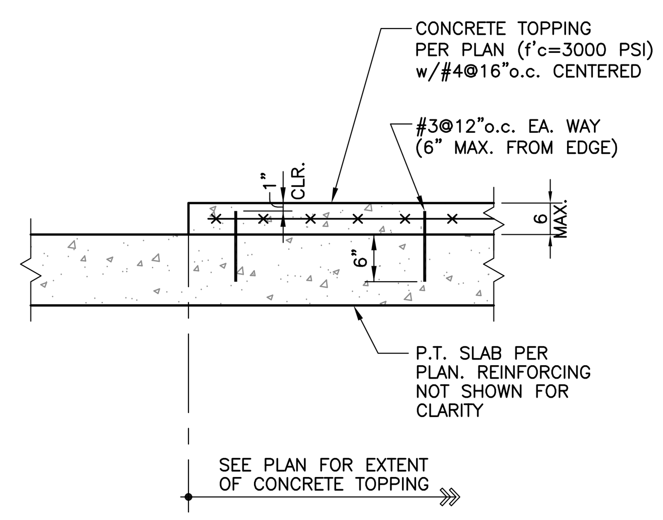

CONCRETE TOPPING DETAIL 9
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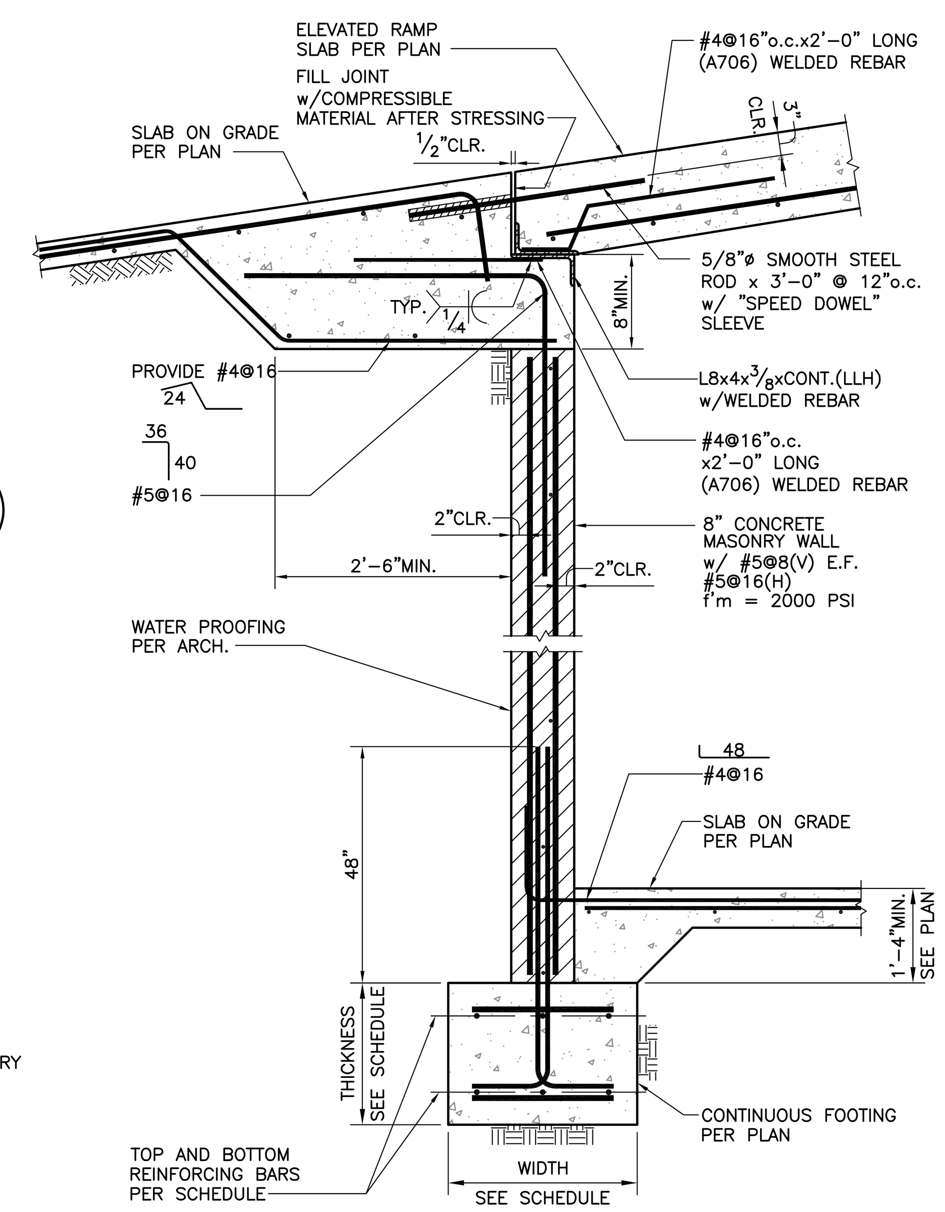

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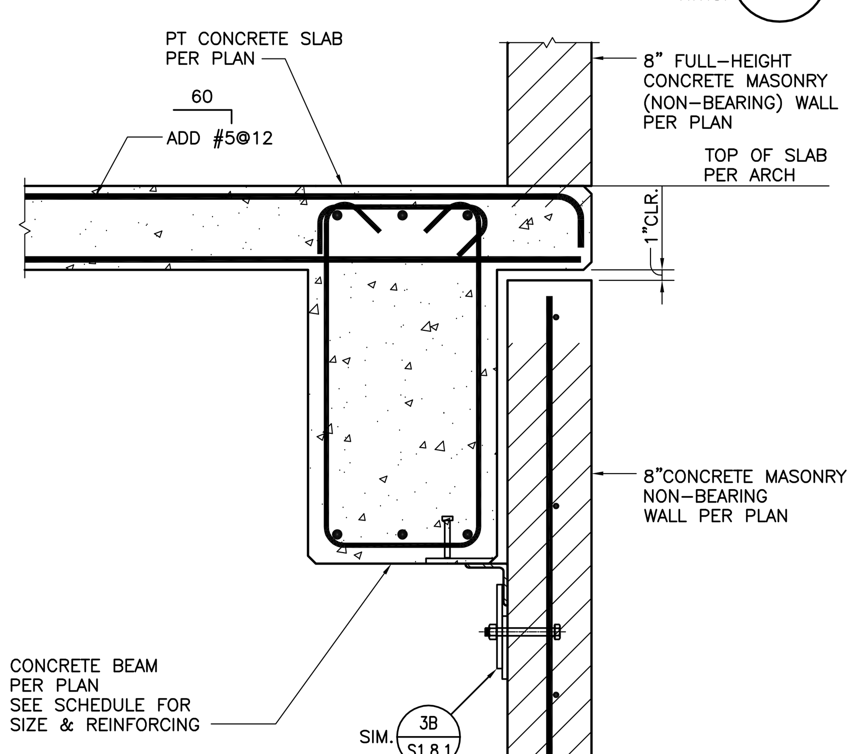

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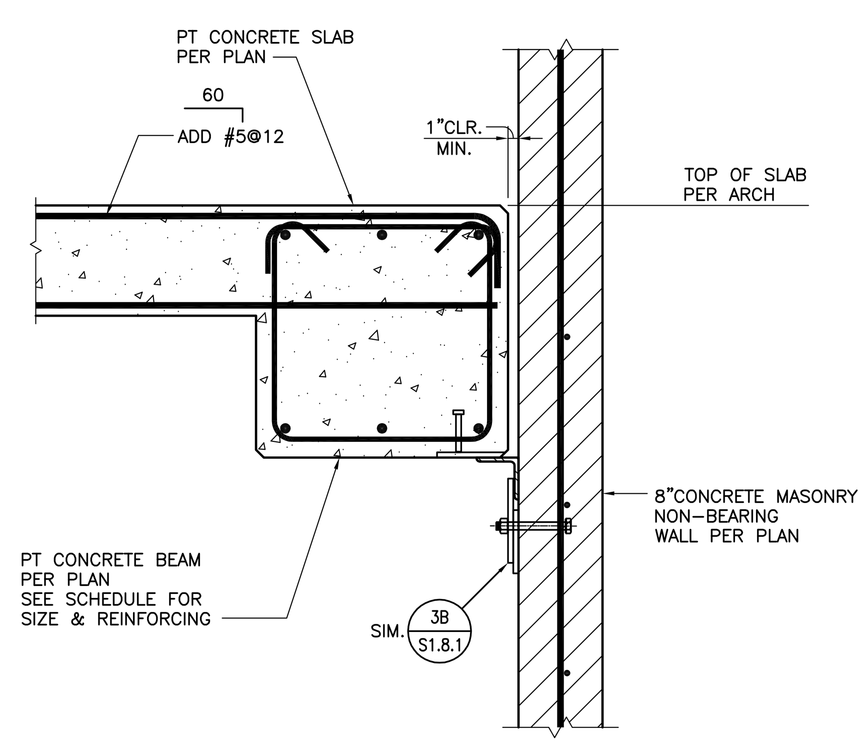

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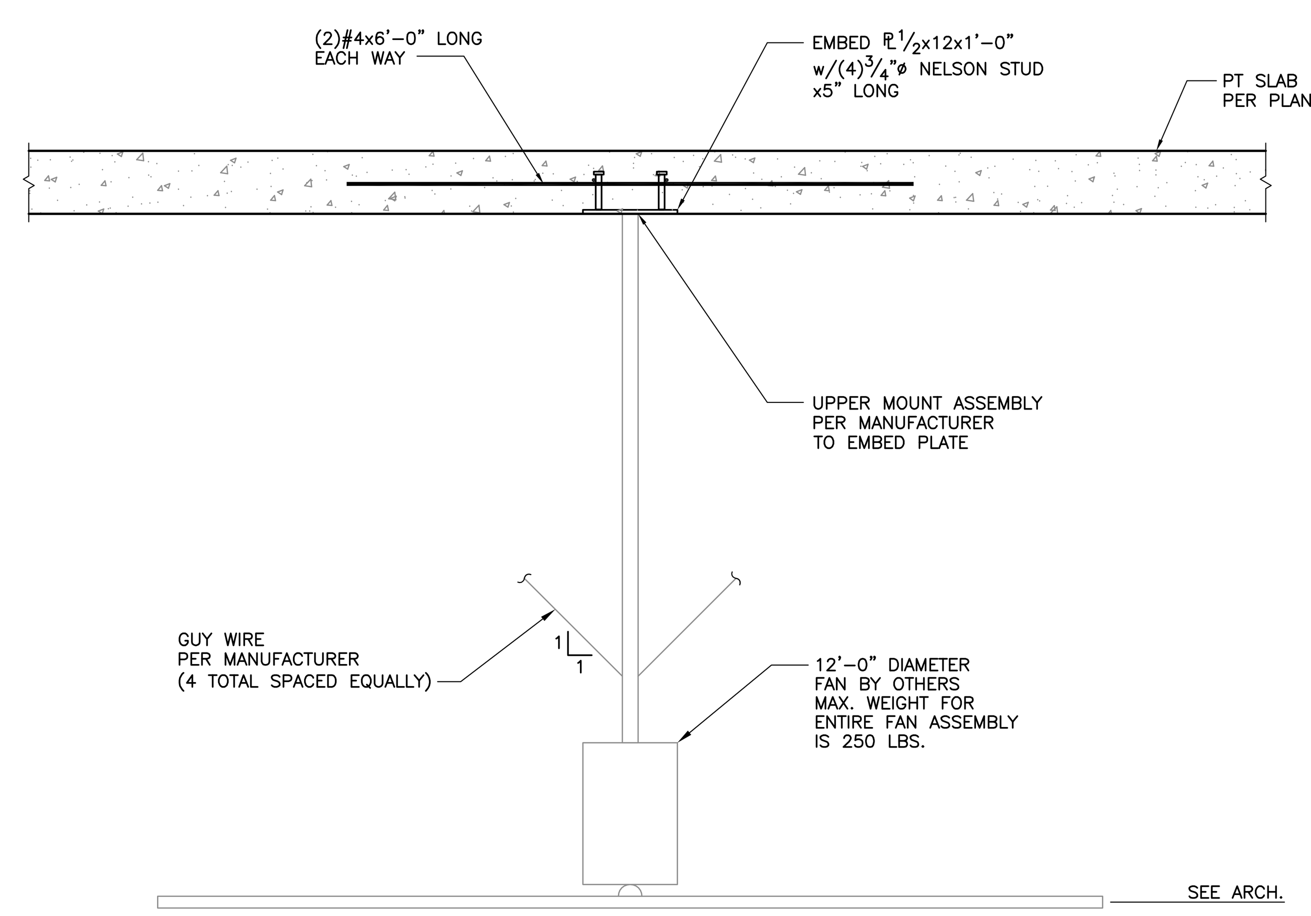

TYPICAL FAN SUPPORT DETAIL 1
N.T.S.

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
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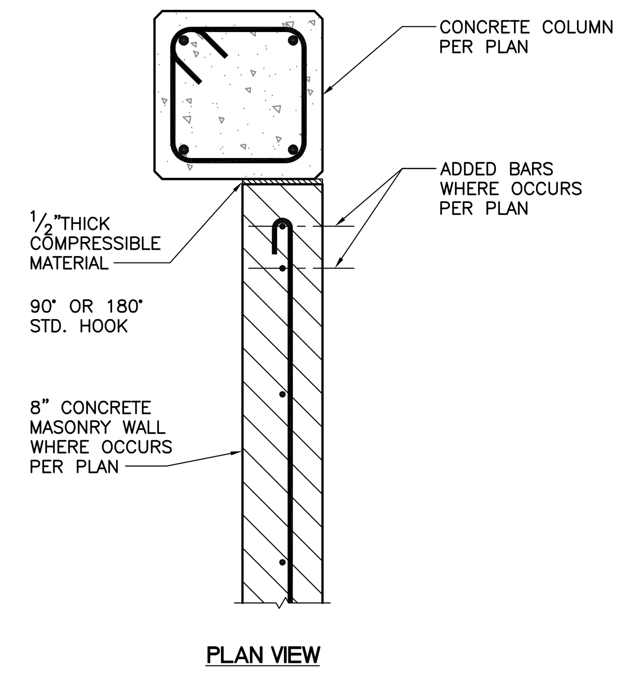

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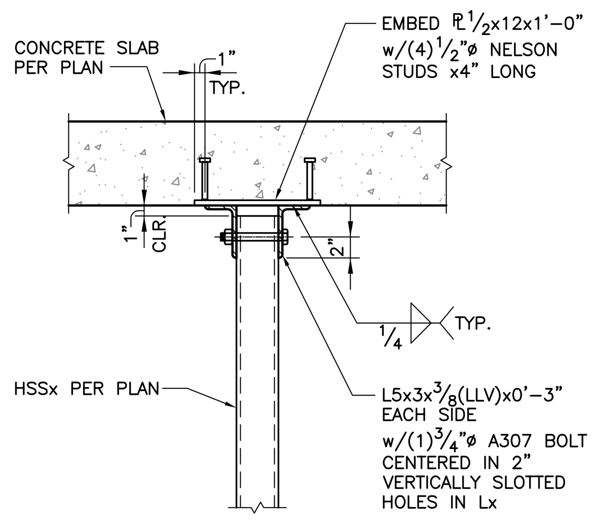
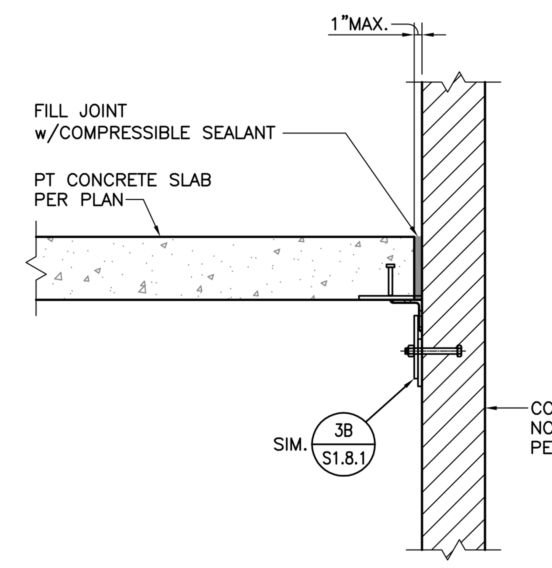


STEEL CONNCETION DETAIL 15 N.T.S.



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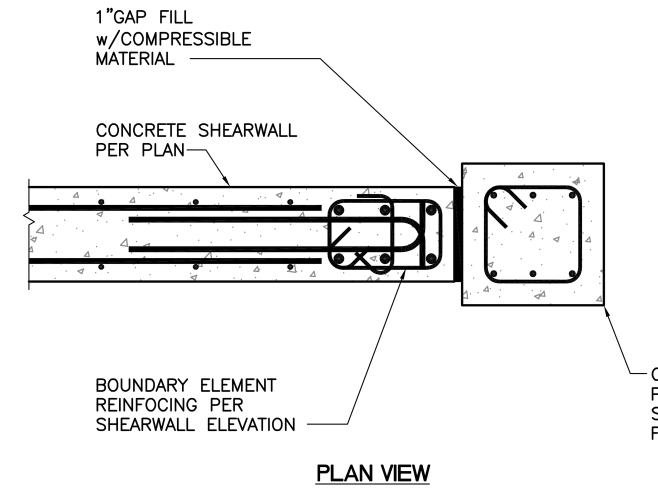

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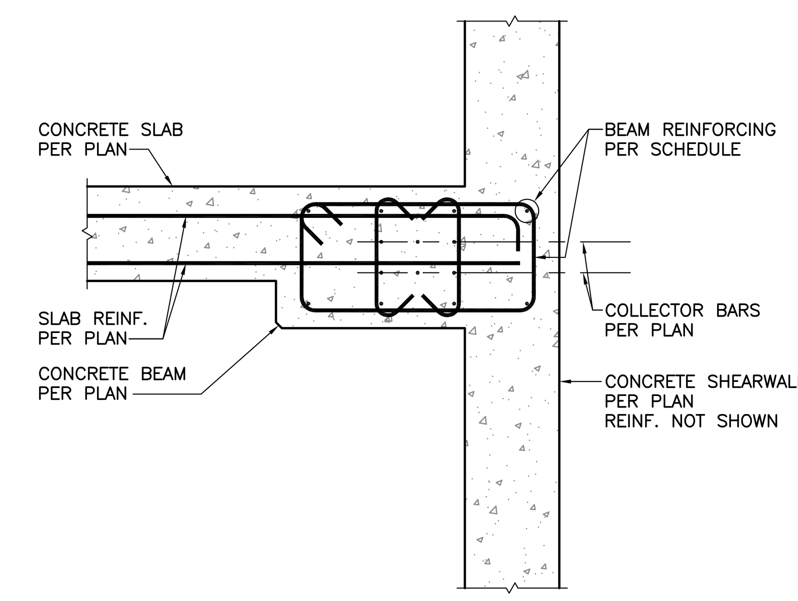

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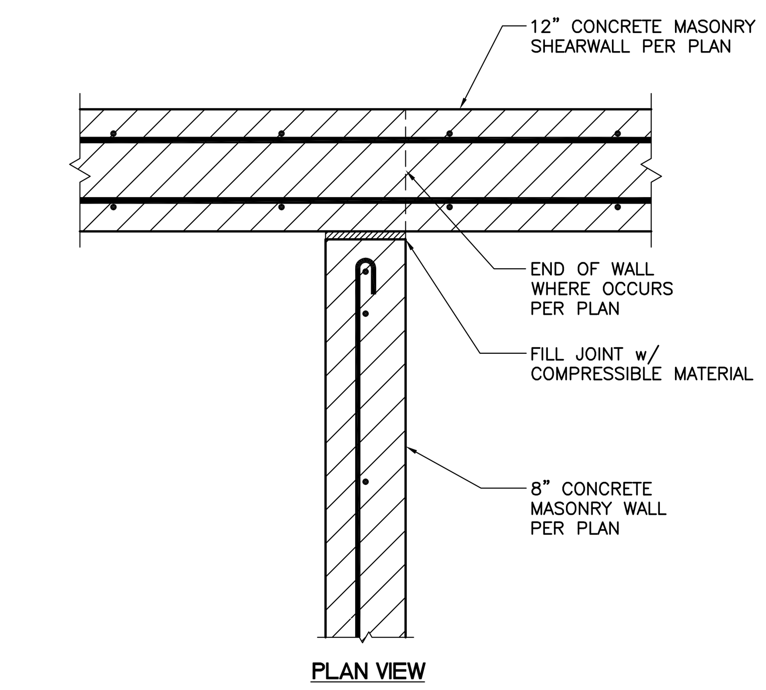
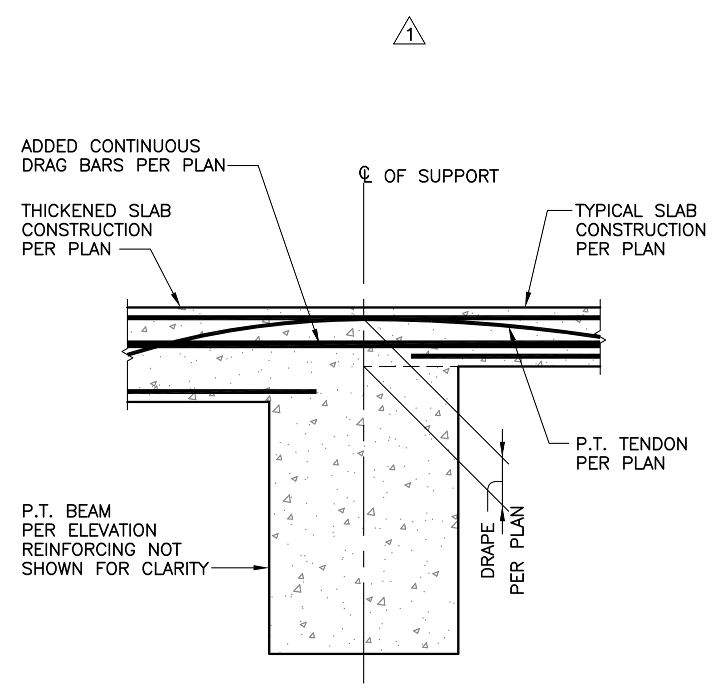
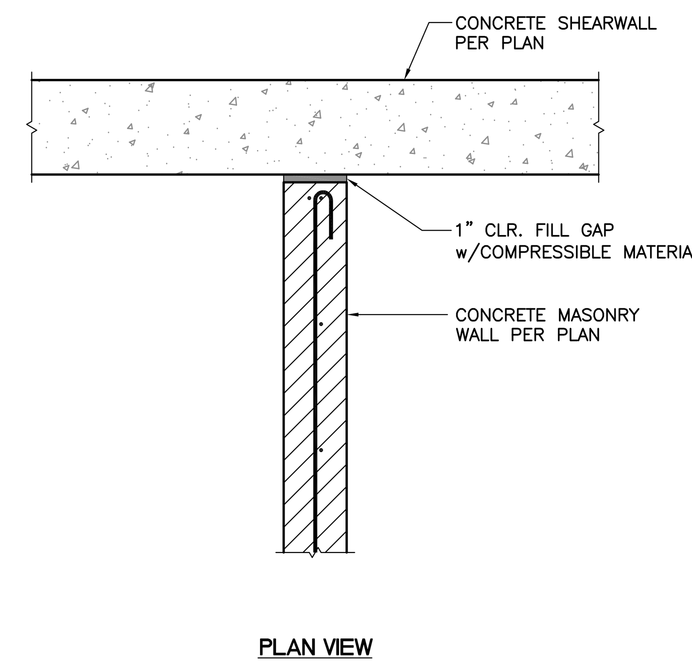


NOTES
1. REFER TO PLAN FOR ORIENTATION

DETAIL 18 N.T.S.



THICKENED SLAB TRANSITION DETAIL 14 N.T.S.



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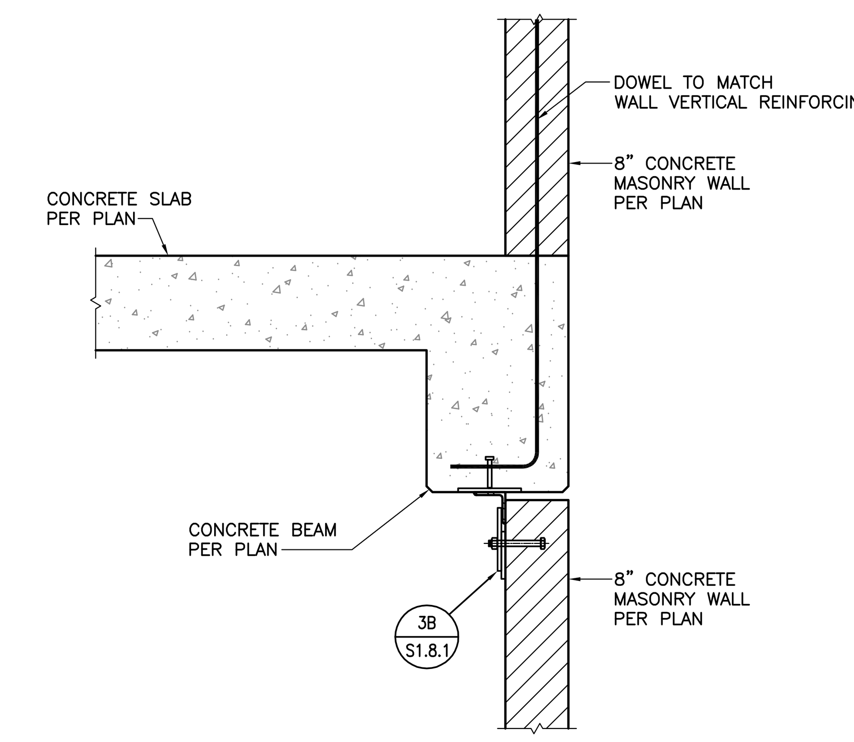

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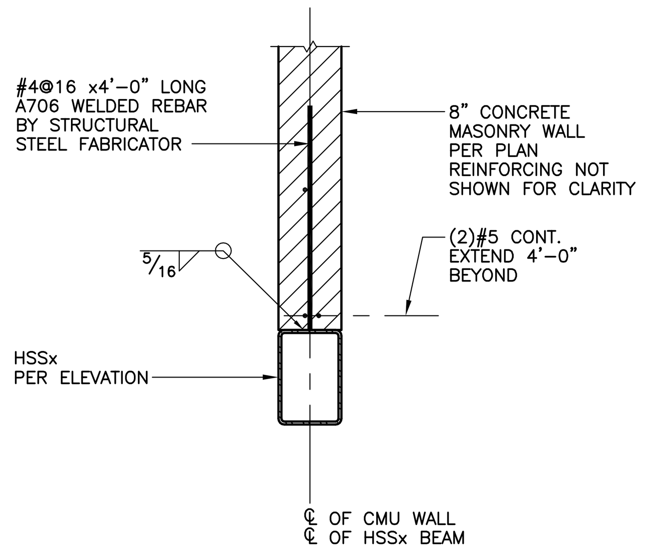

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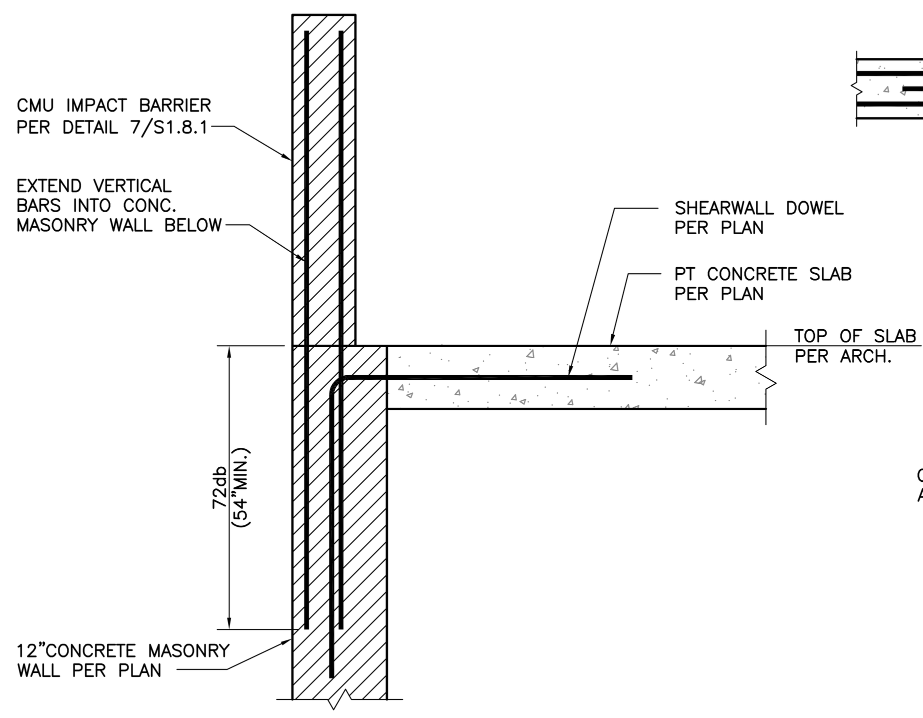

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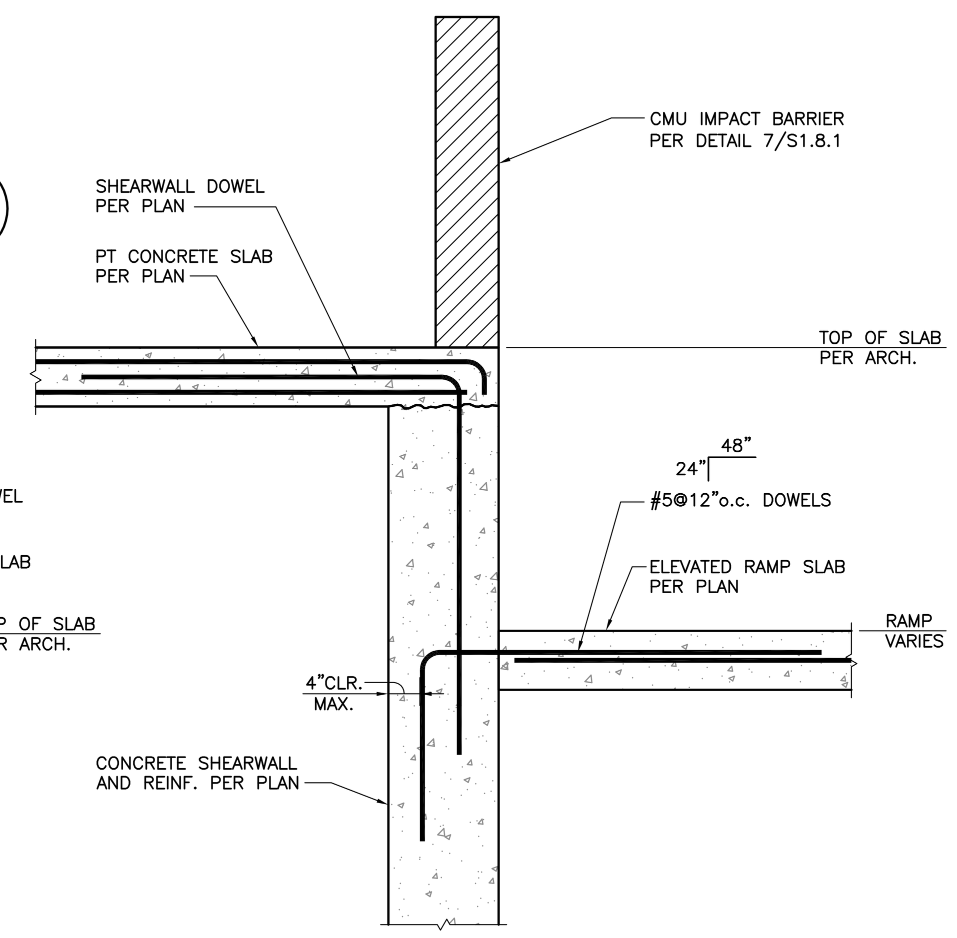

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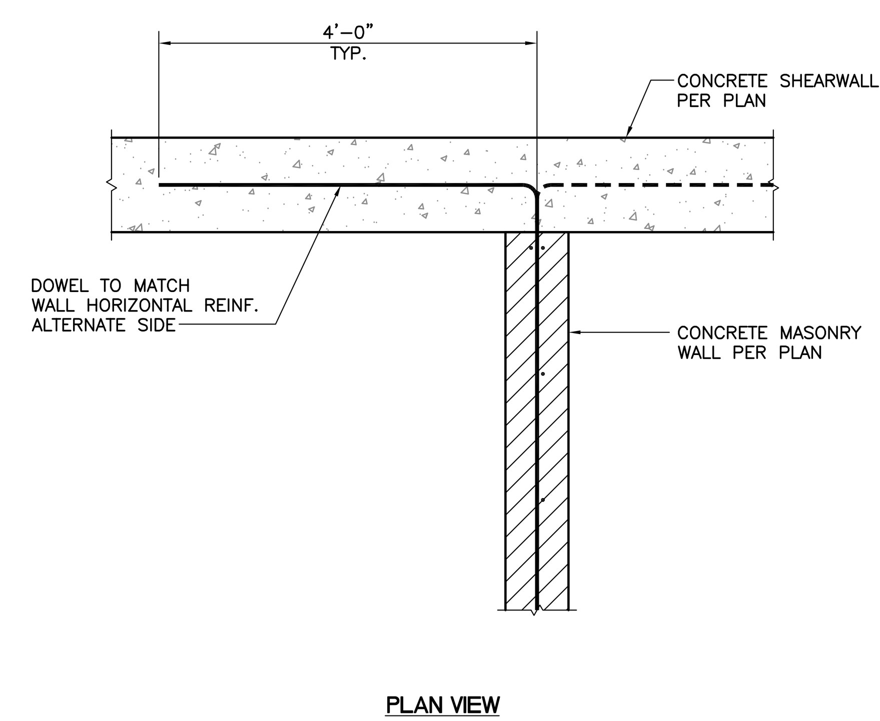

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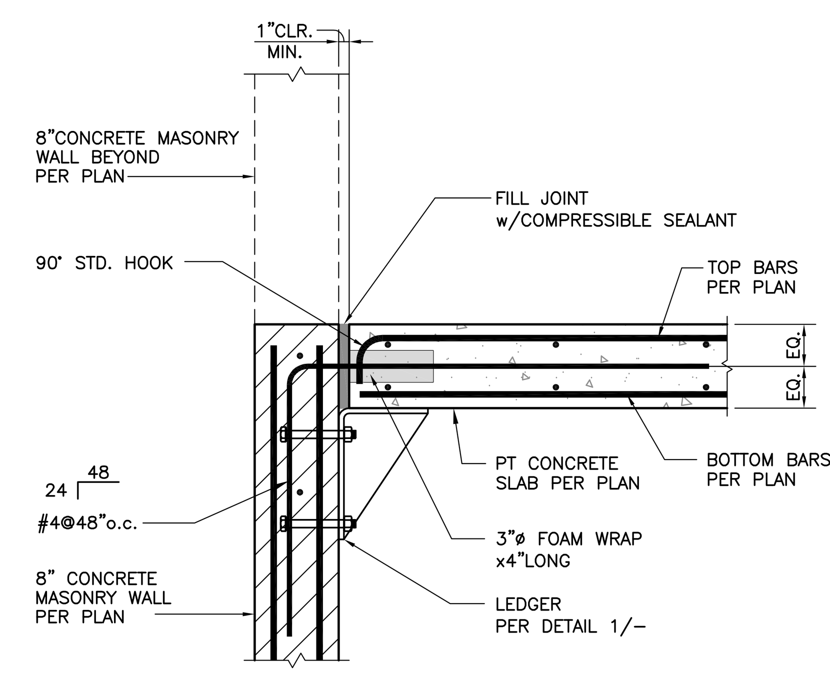

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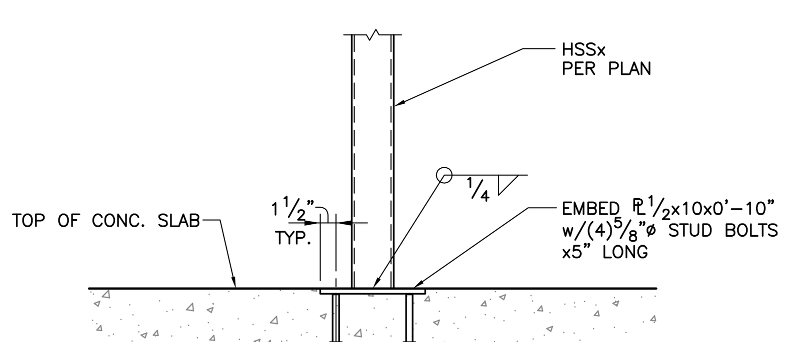

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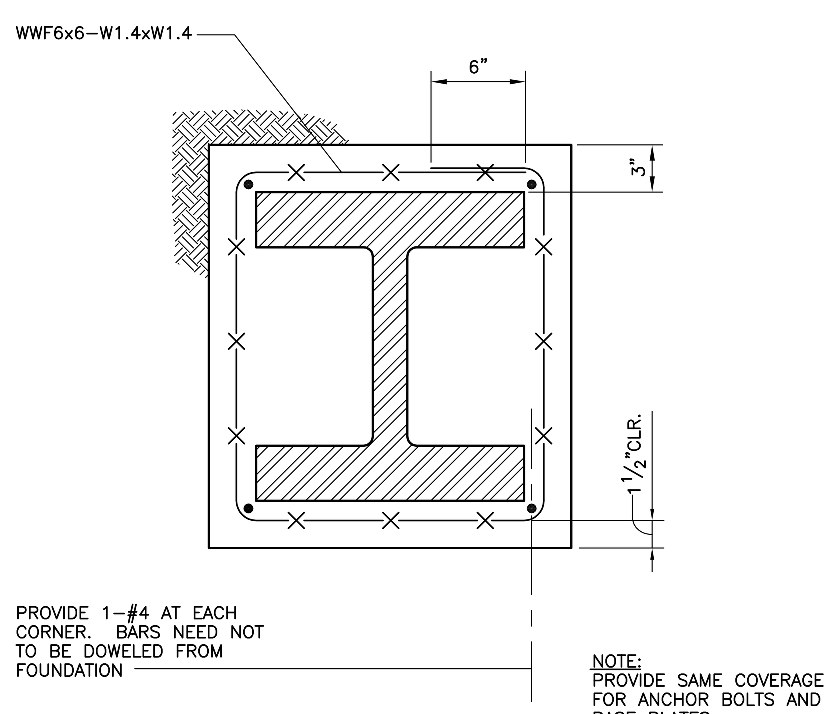
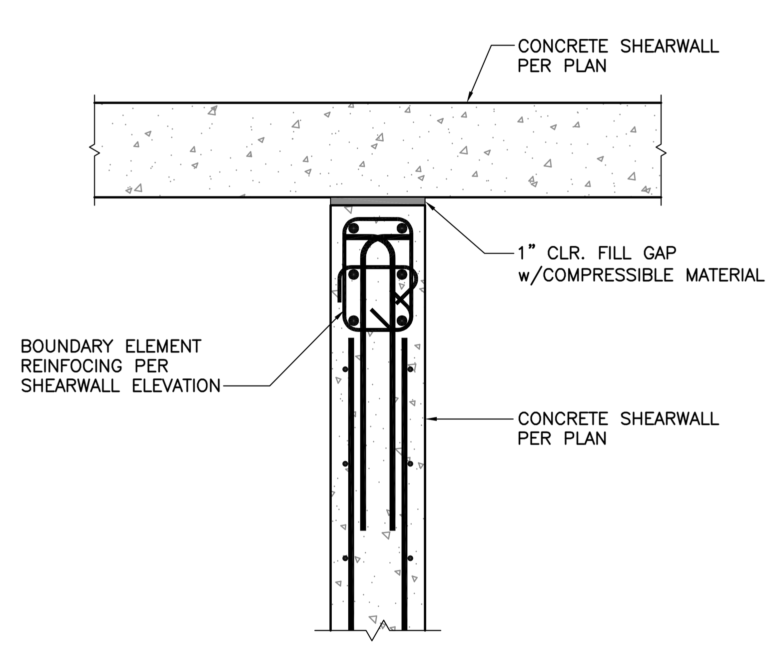


TYPICAL CONCRETE ENCASEMENT DETAIL 12 N.T.S.



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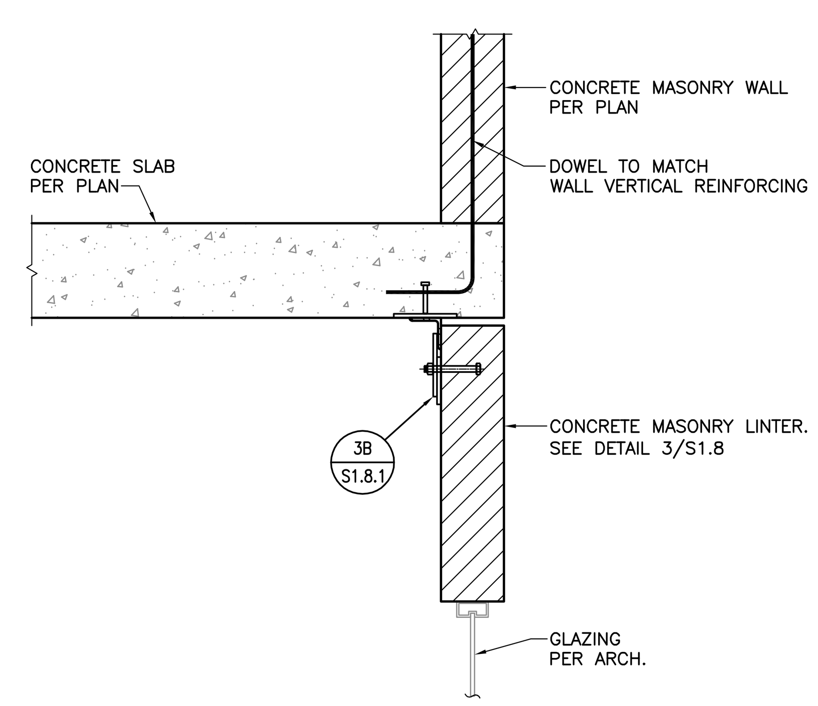

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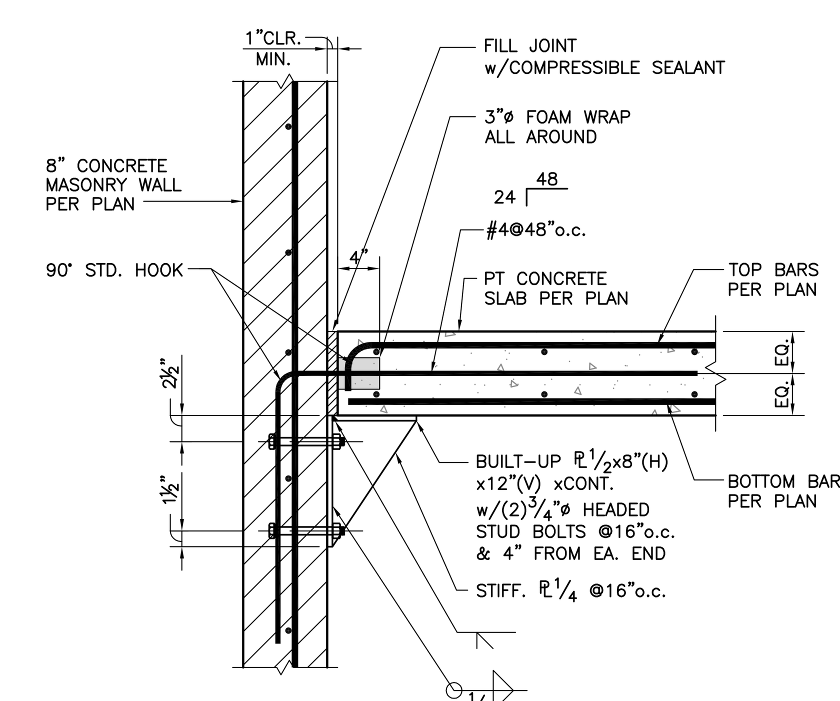

DETAIL 1 N.T.S.

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
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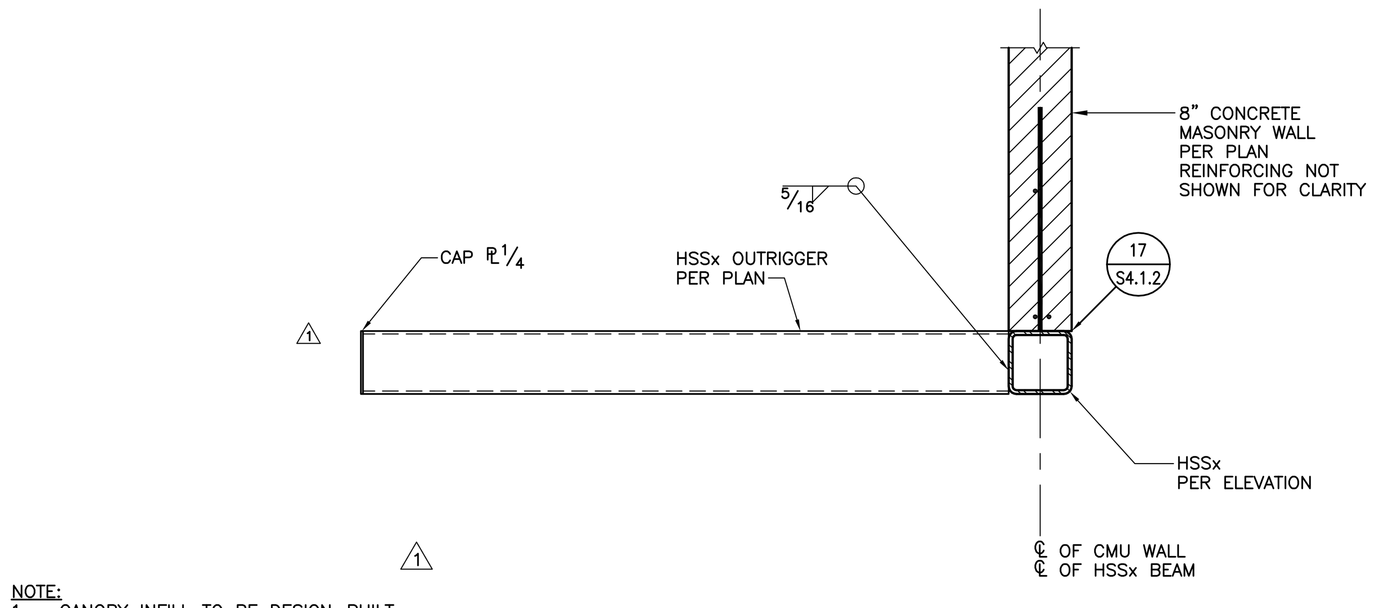

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1. CANOPY INFILL TO BE DESIGN-BUILT BY OTHERS.

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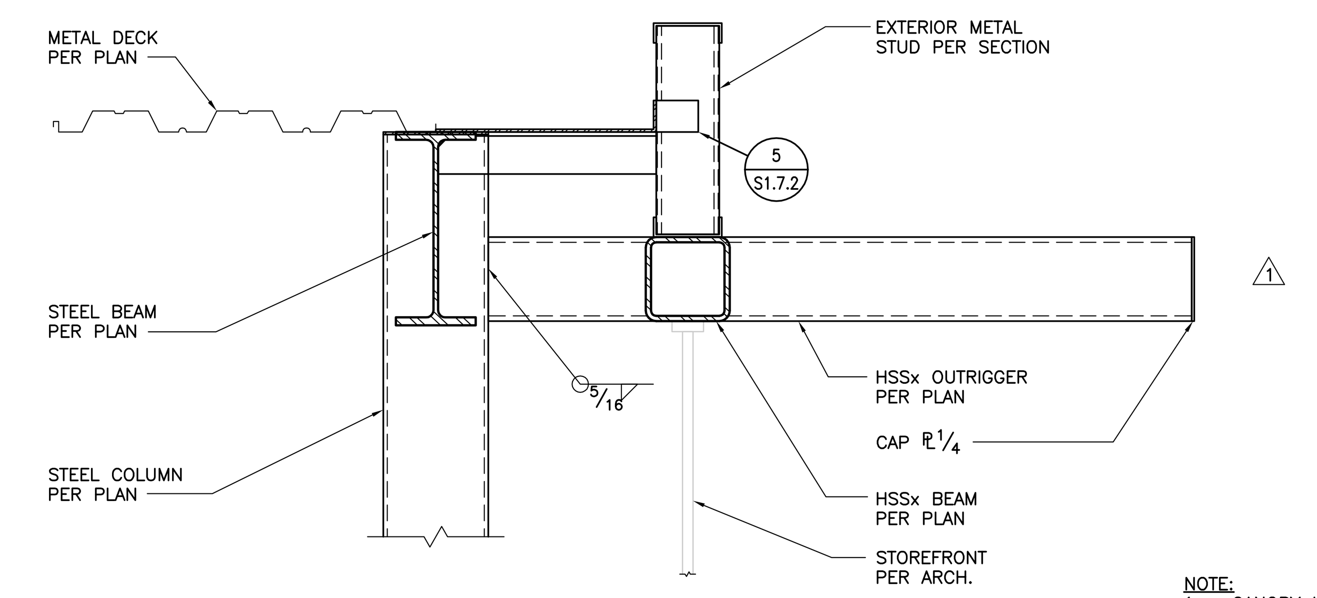

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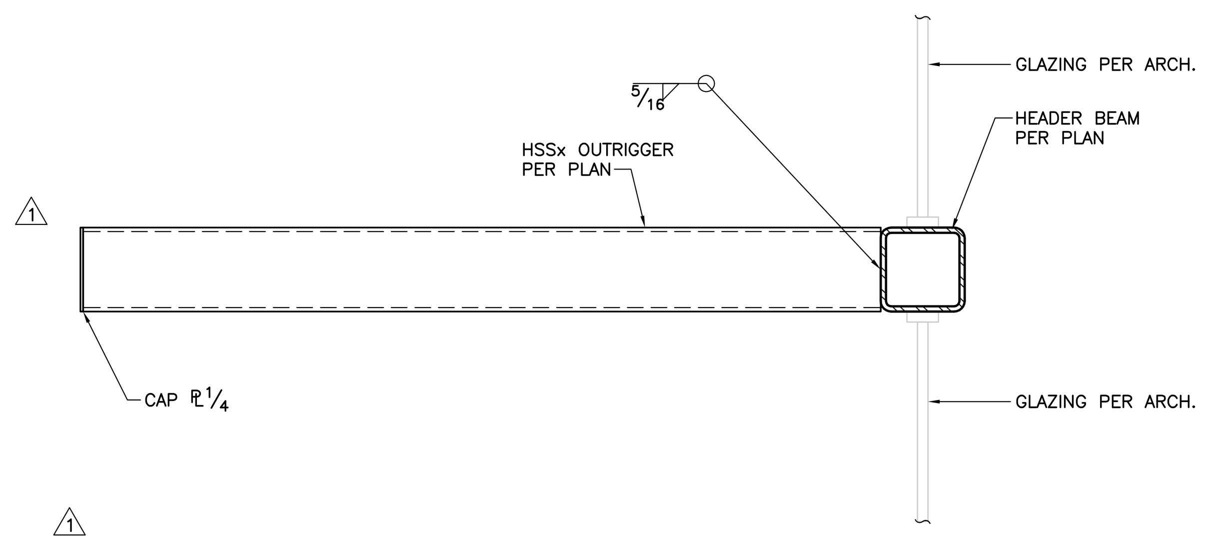

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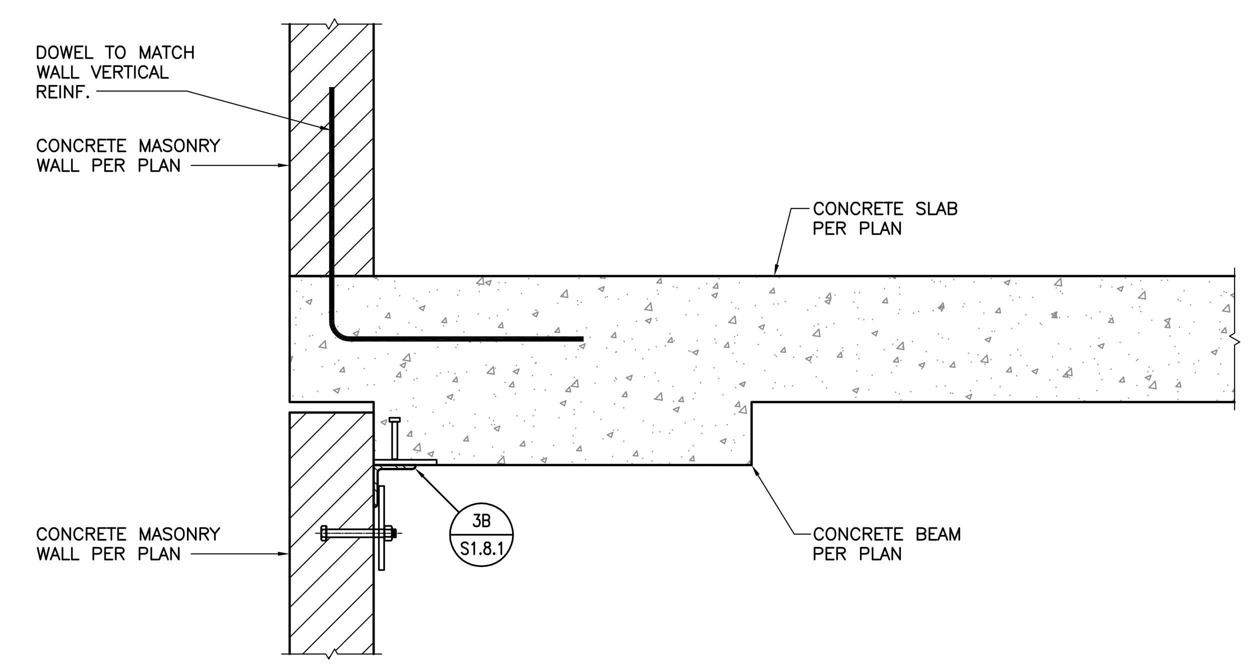

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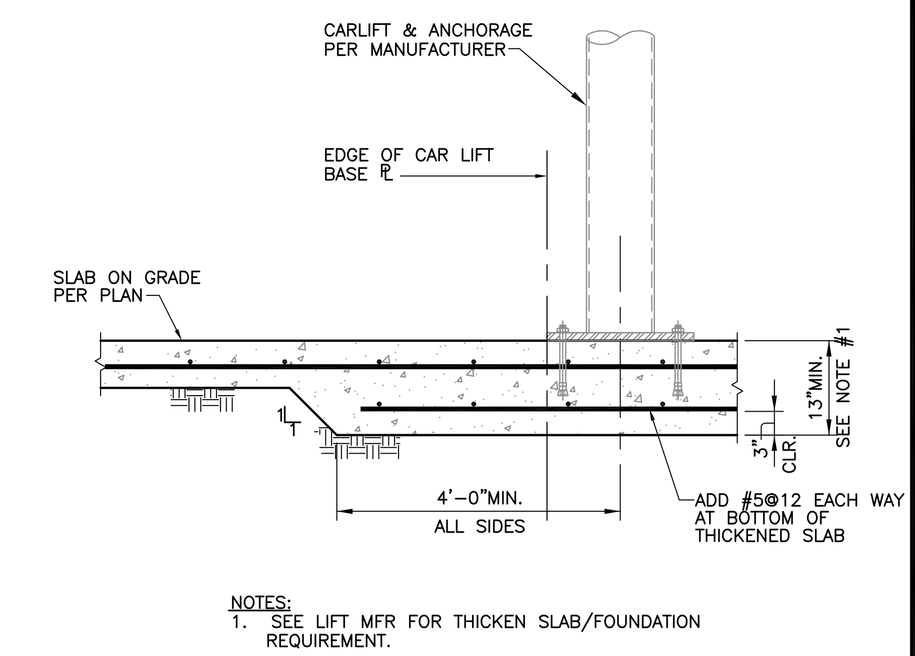
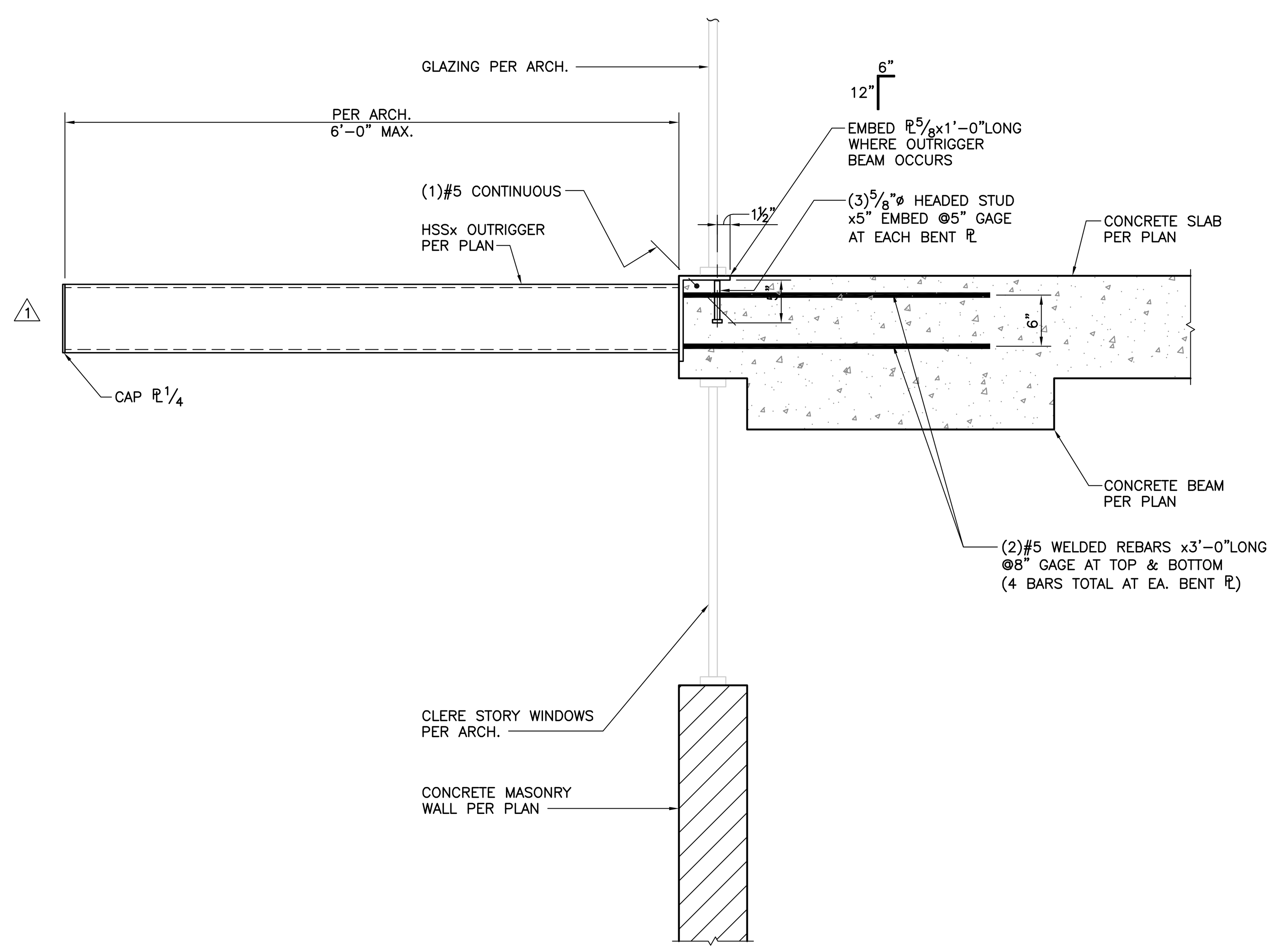


NOTES:
1. SEE LIFT MFR FOR THICKEN SLAB/FOUNDATION REQUIREMENT.

TYPICAL THICKENED SLAB ON GRADE AT CAR LIFT 3
C901-REV



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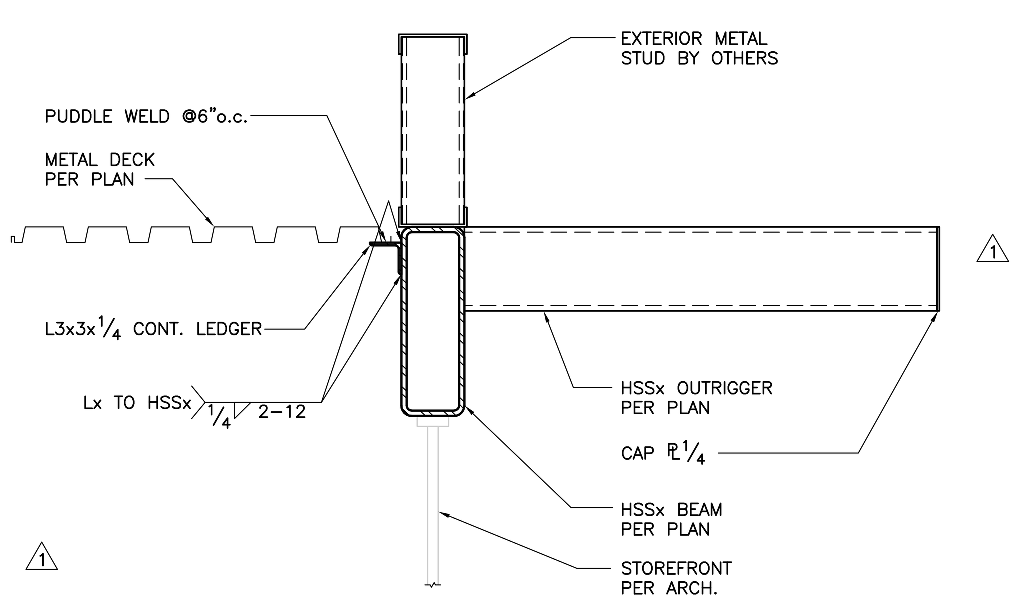

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CANOPY DETAIL 6
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NOTE:
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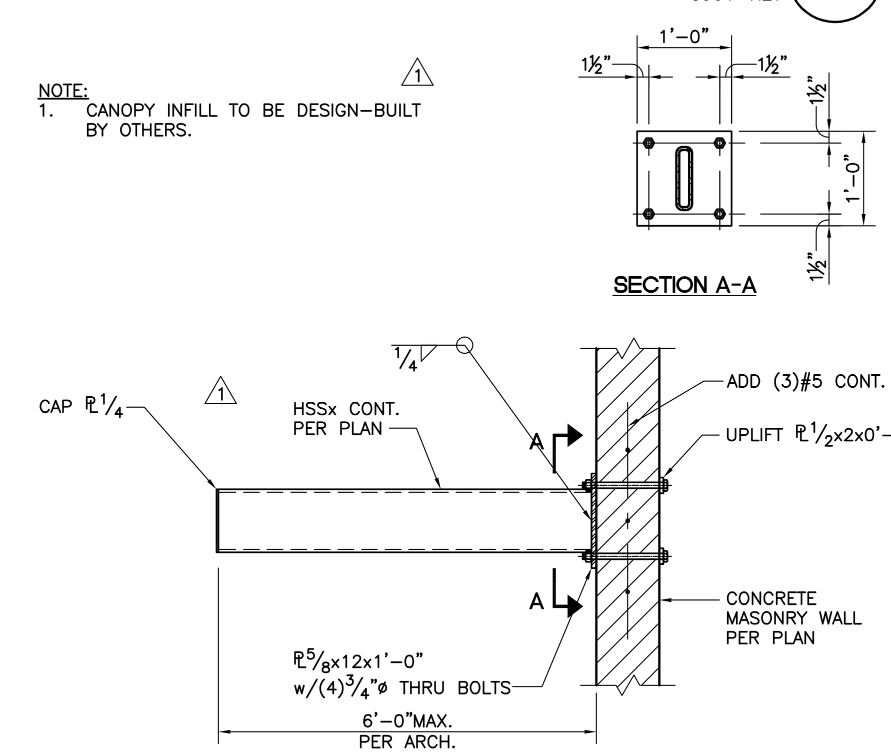

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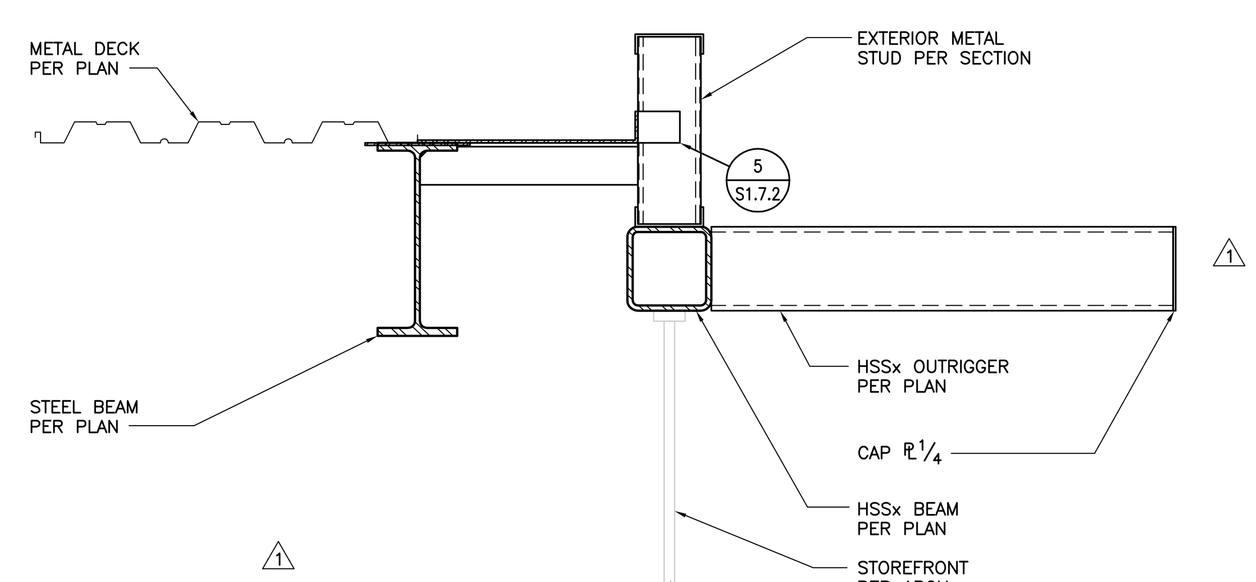

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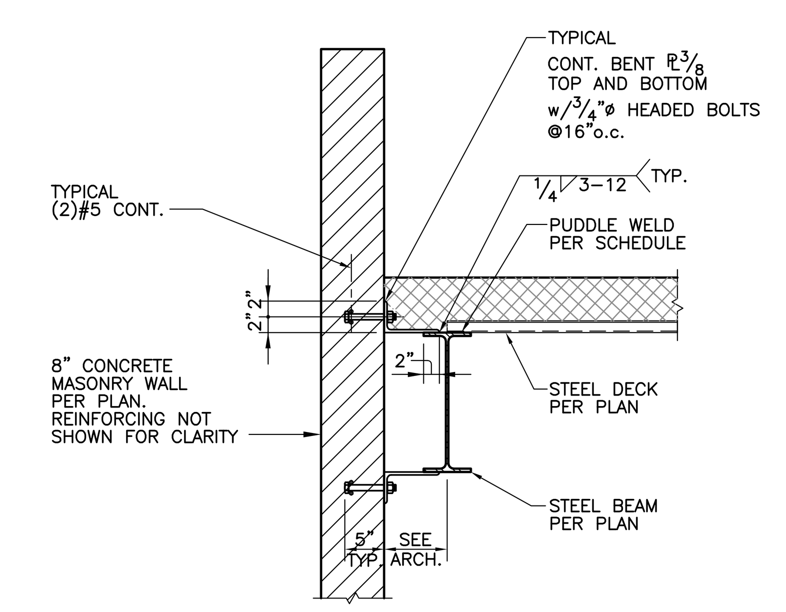

STEEL BEAM PARALLEL TO CONCRETE MASONRY WALL DETAIL 1
N.T.S.

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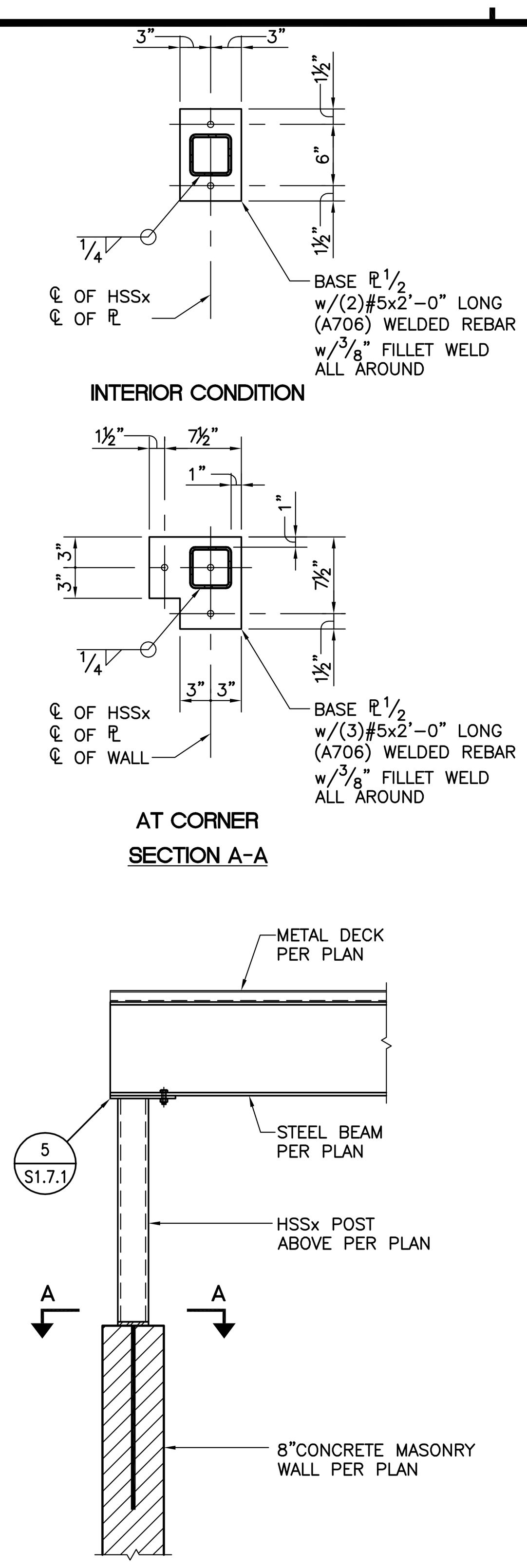
SHEET TITLE

SECTIONS AND DETAILS

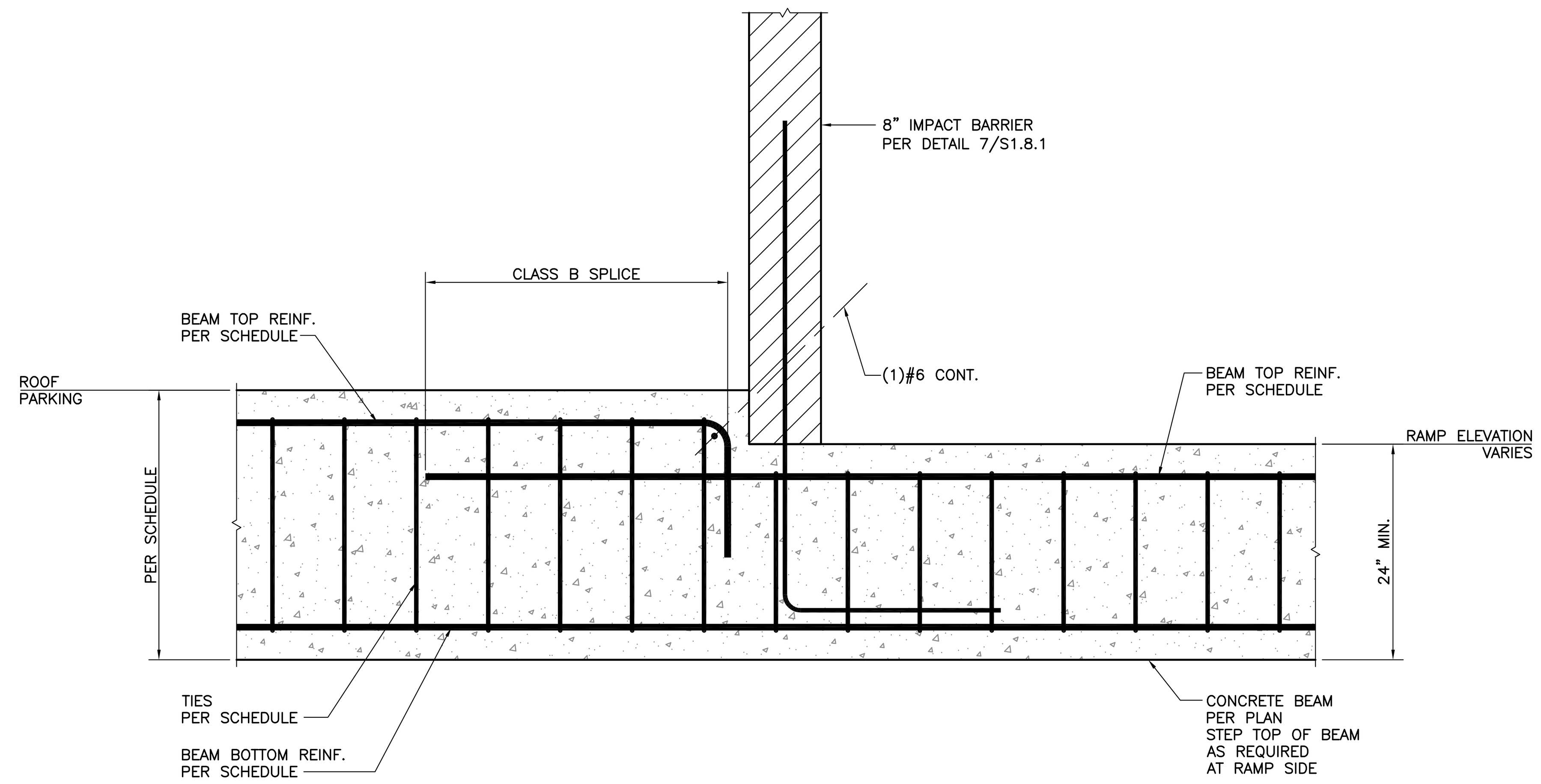
DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S4.1.3

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



DETAIL 14 N.T.S.



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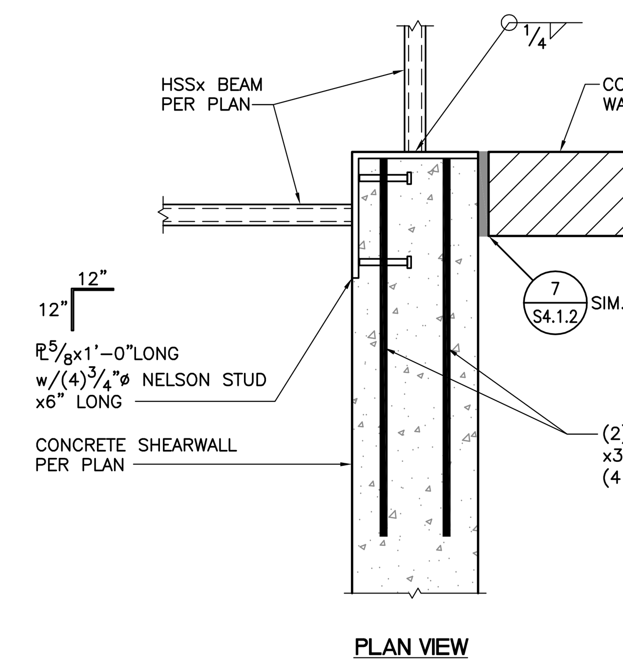

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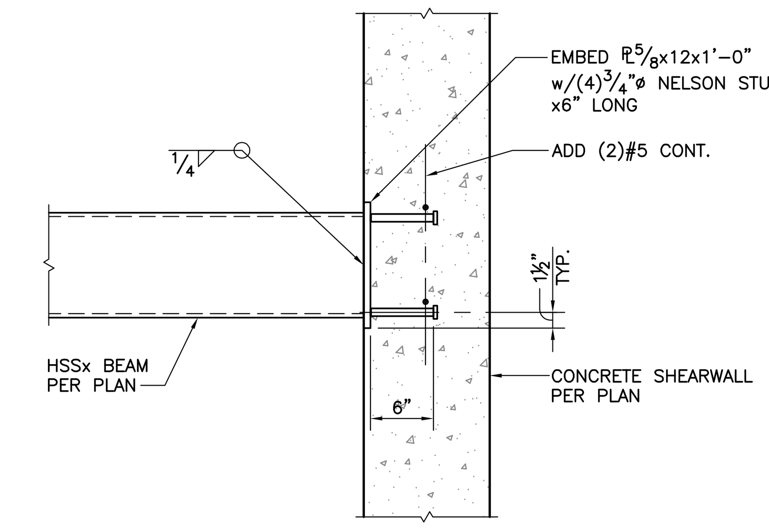

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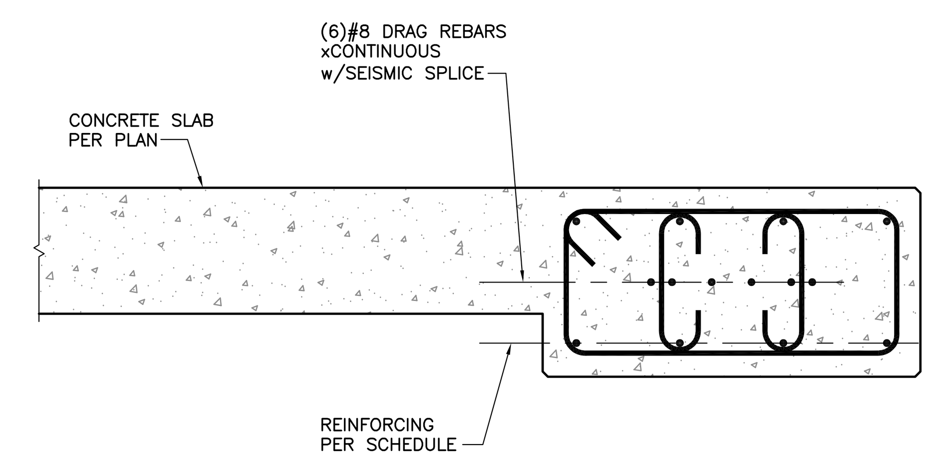
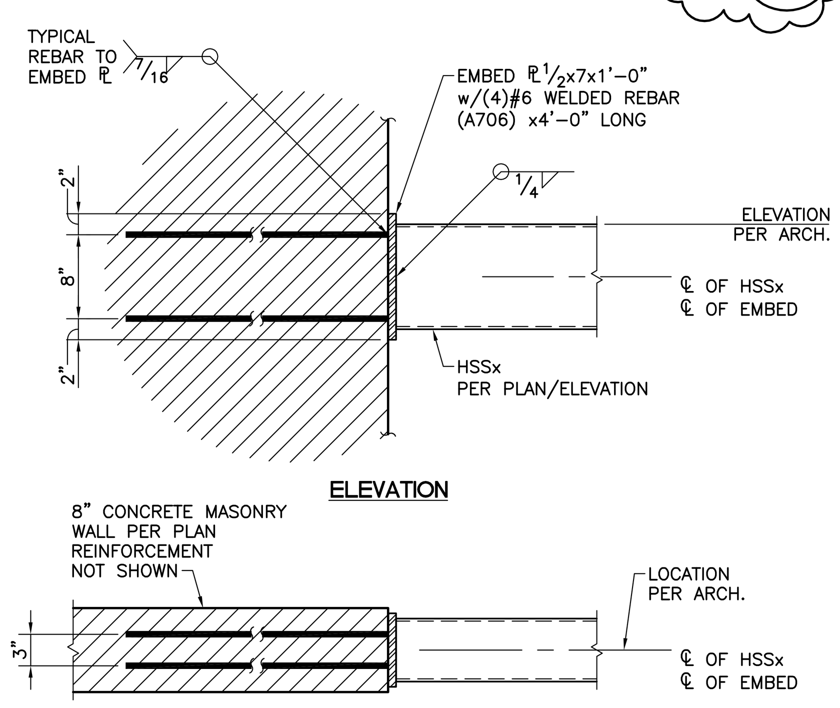
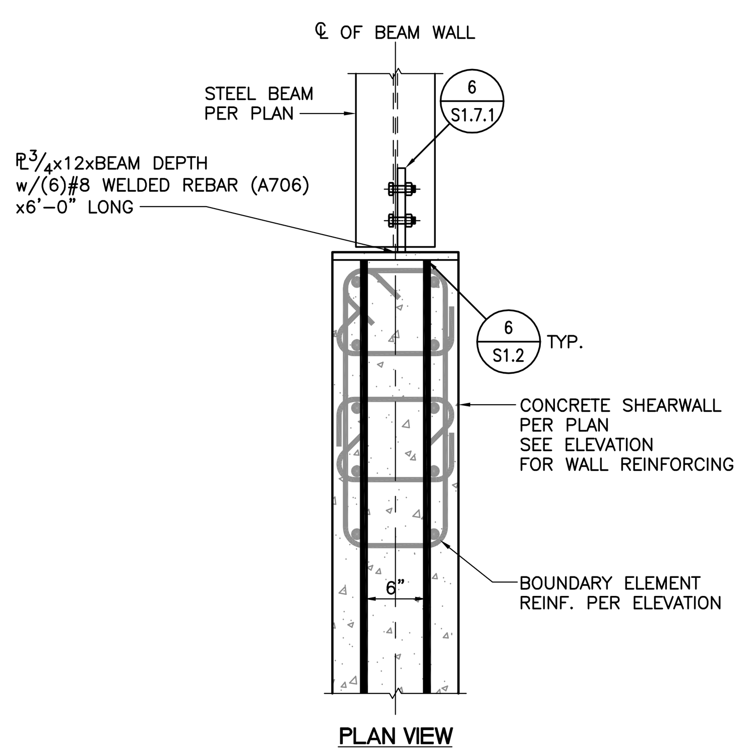


DRAG BEAM DETAIL 3 N.T.S.



TYPICAL STEEL TUBE TO CONCRETE MASONRY WALL 13 N.T.S.



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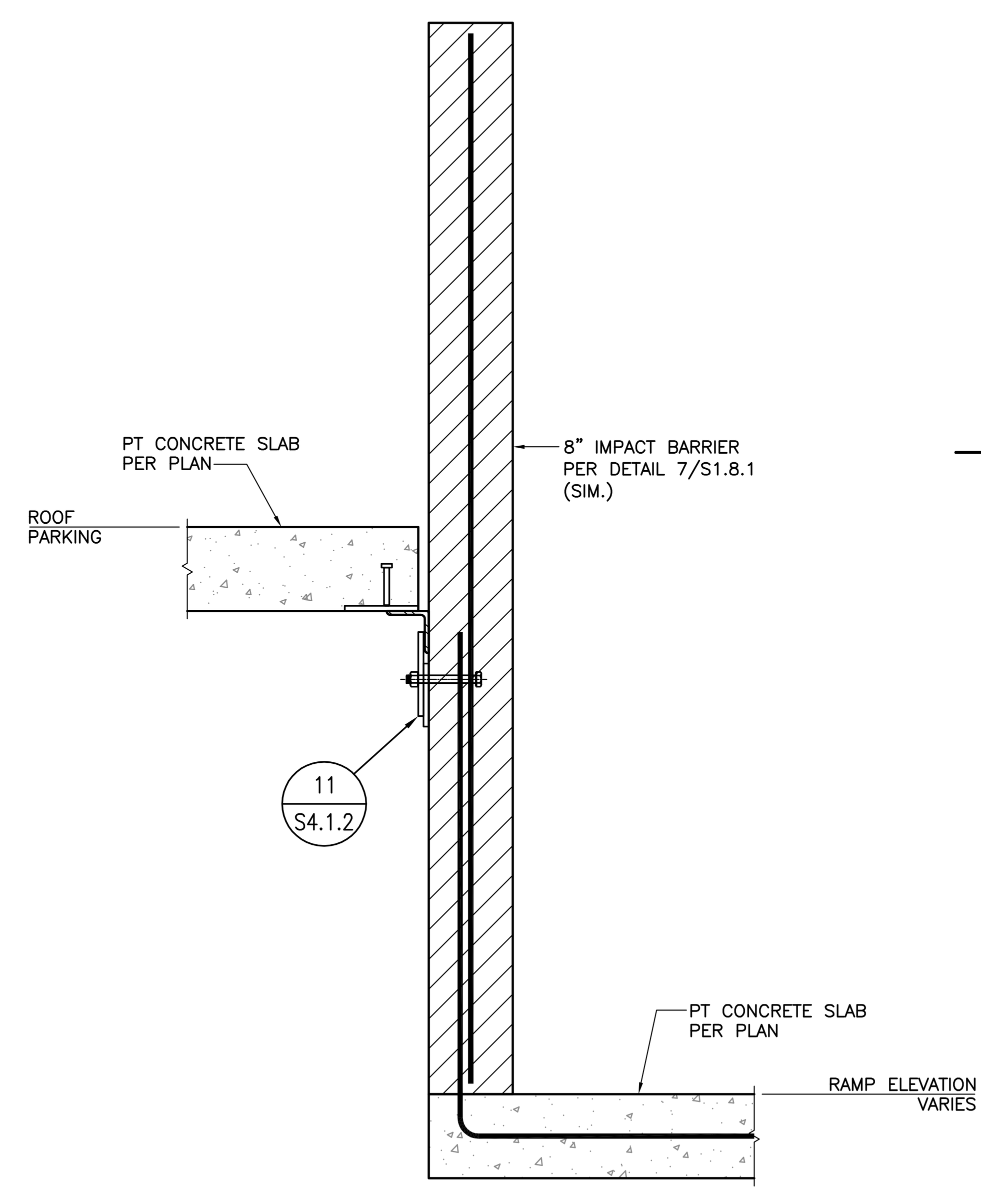

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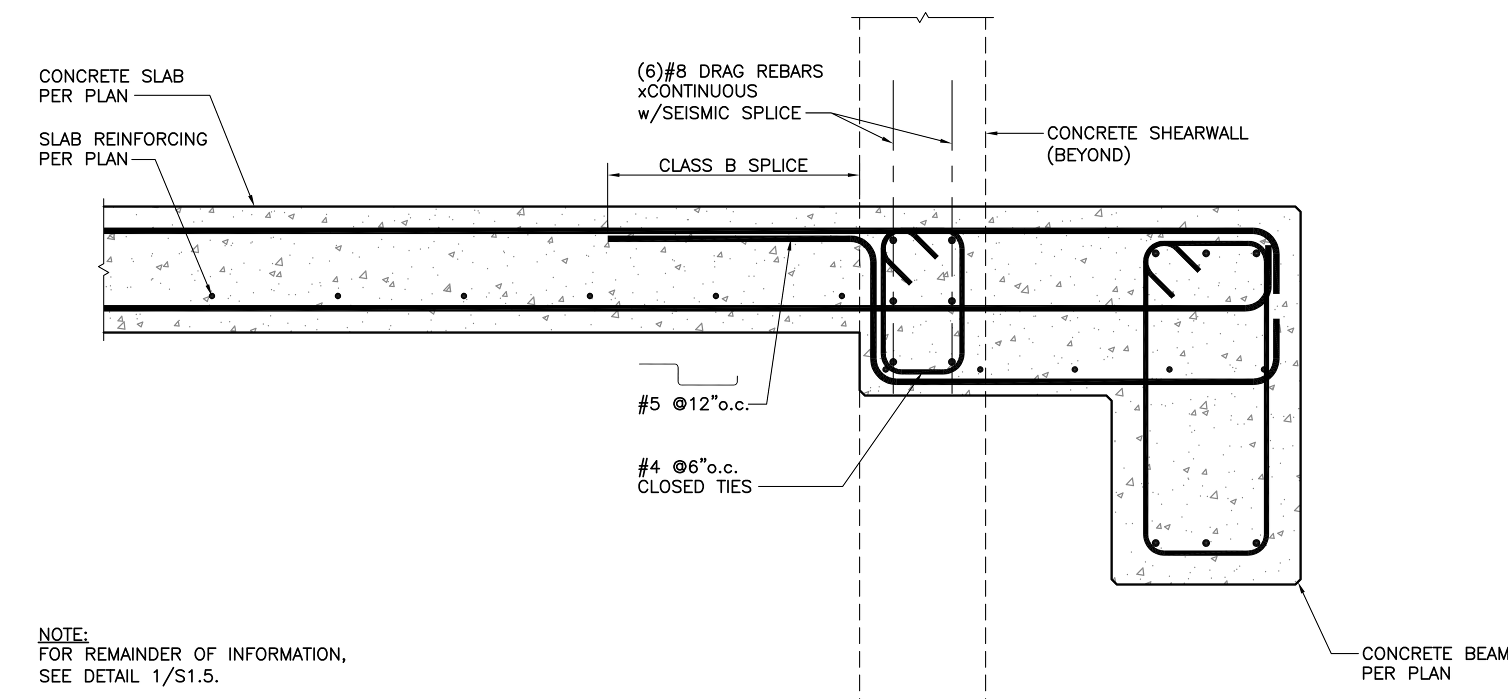

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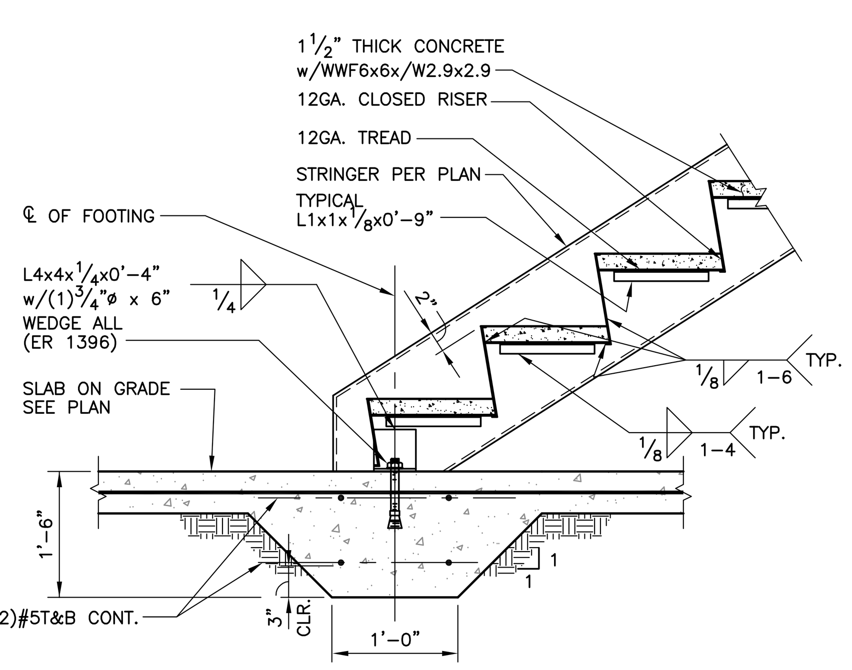
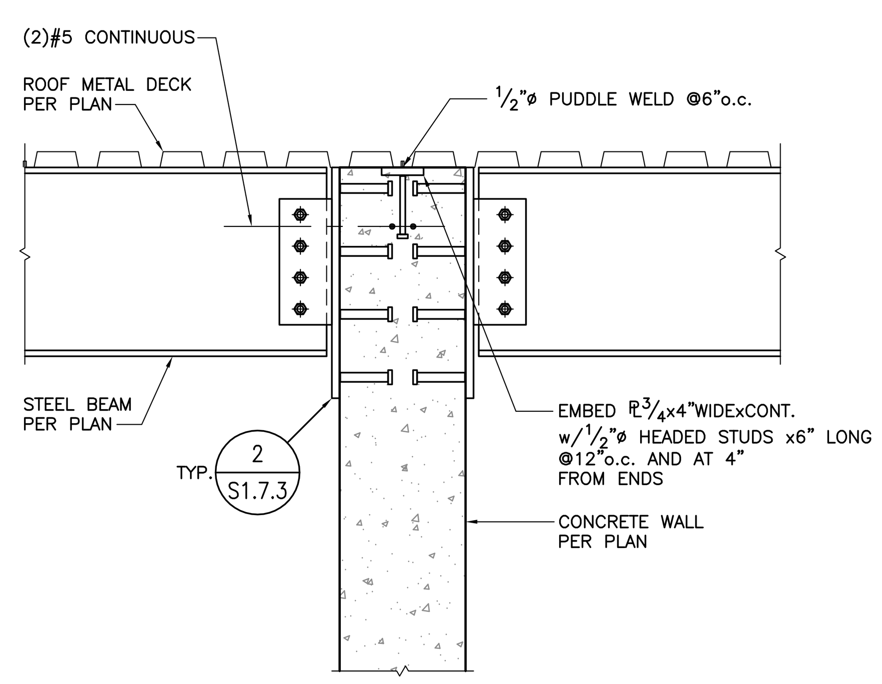


TYPICAL STEEL STAIR FOUNDATION DETAIL 12 S800



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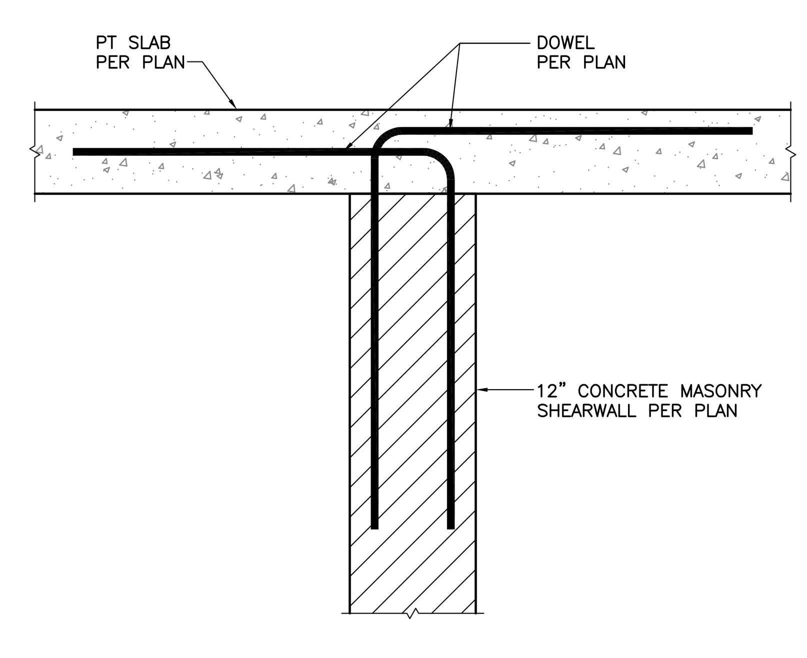

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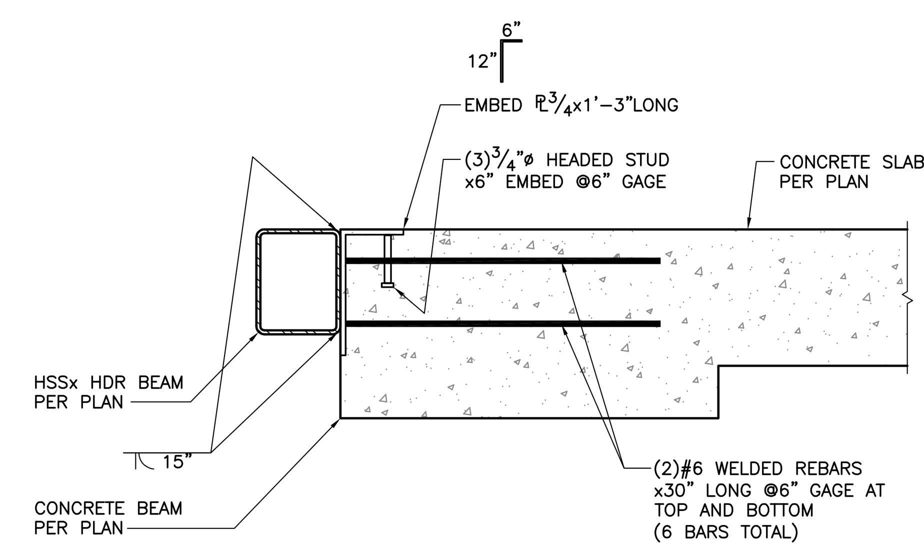

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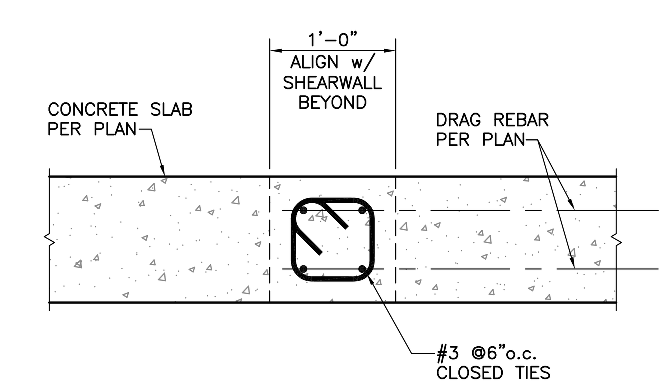

DETAIL 1 N.T.S.

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
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17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

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HUNTINGTON BEACH, CA 92648
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FAX: (714) 848-6322

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REVISIONS

NO.	DESCRIPTION	DATE
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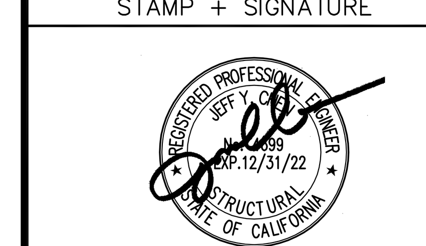
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE



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S4.1.4

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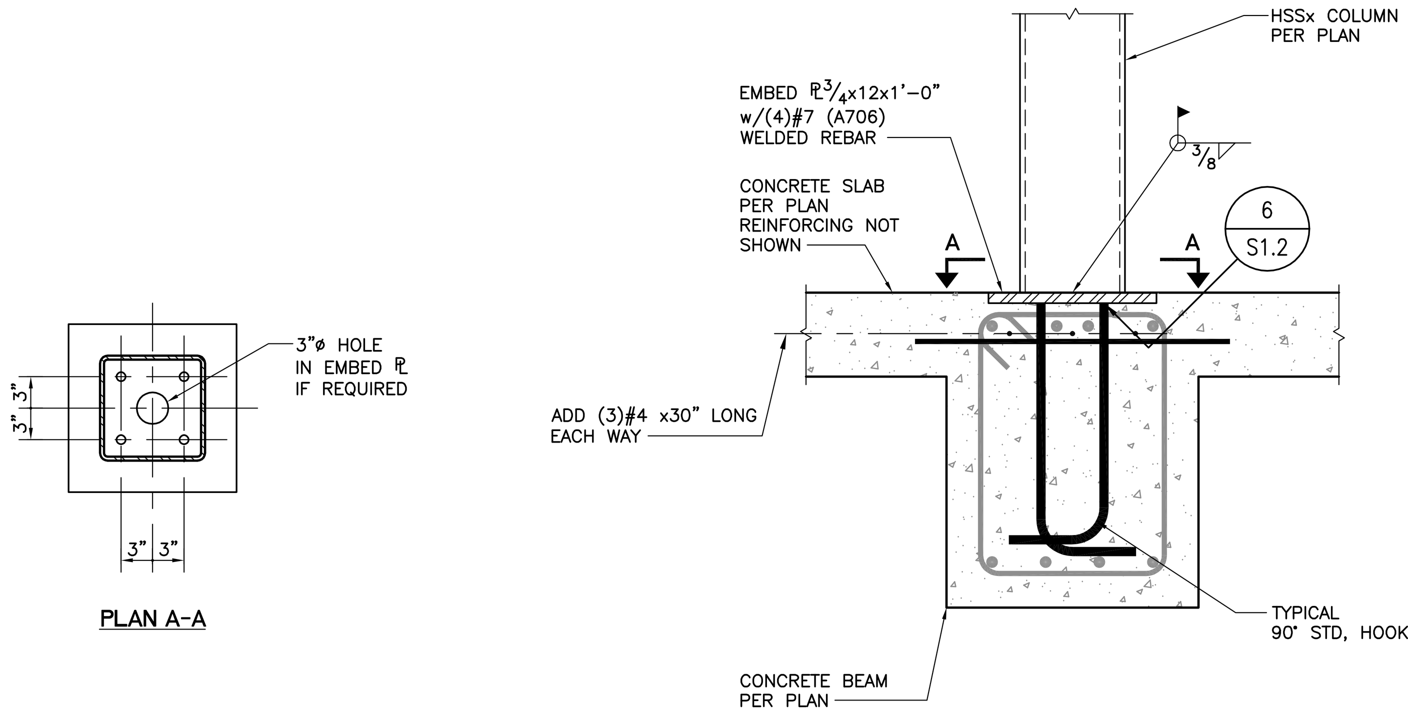
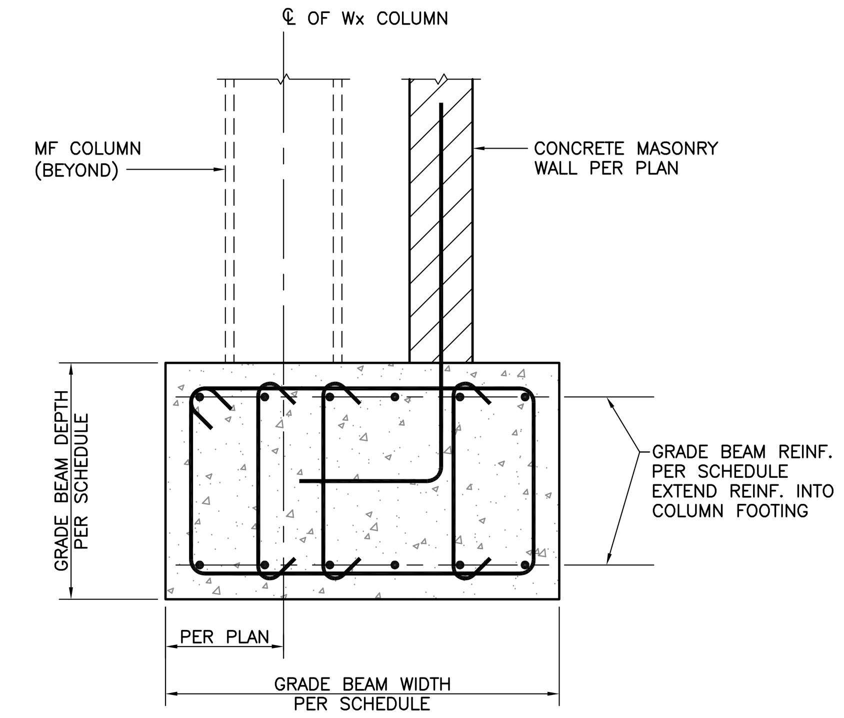


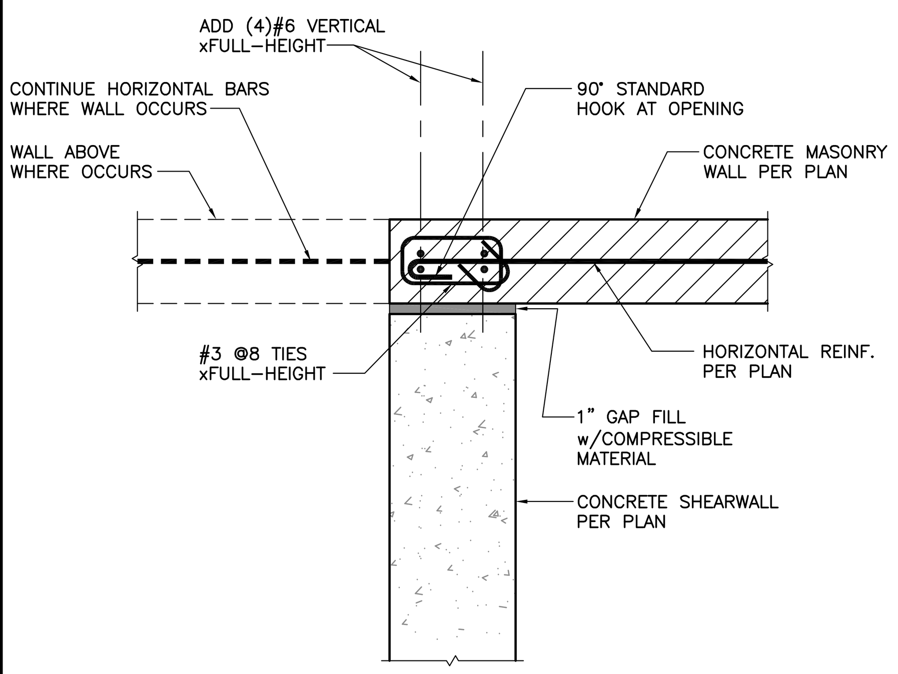
STEEL COLUMN BASE DETAIL (SFRS)

N.T.S. 5



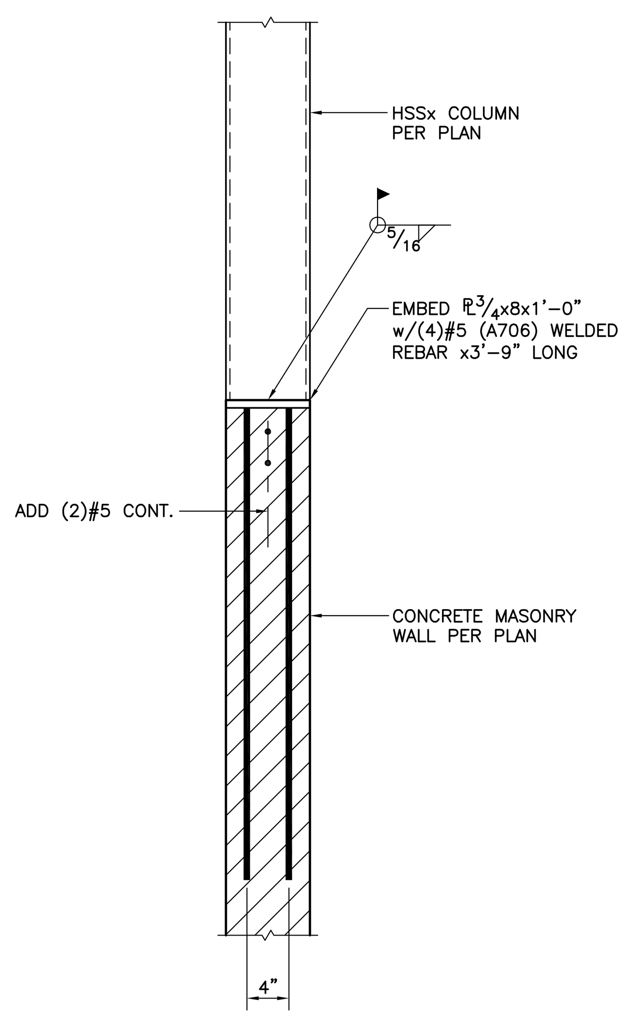
DETAIL

N.T.S. 3



DETAIL

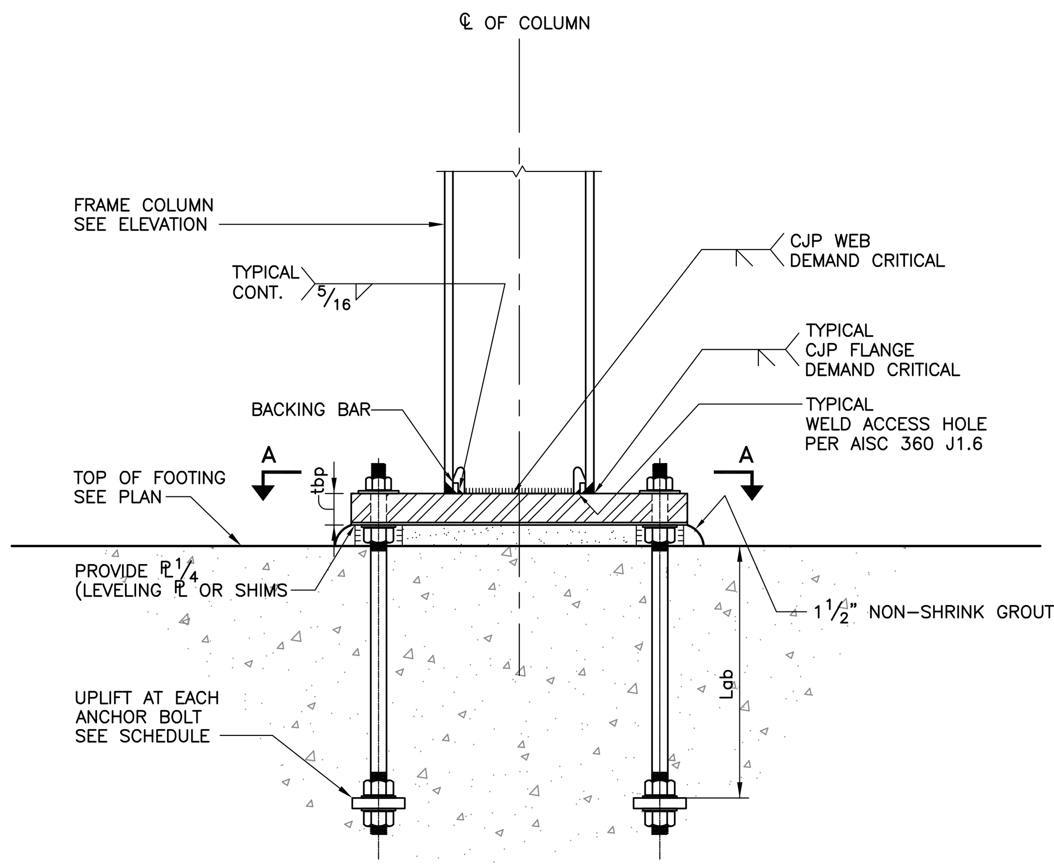
N.T.S. 10

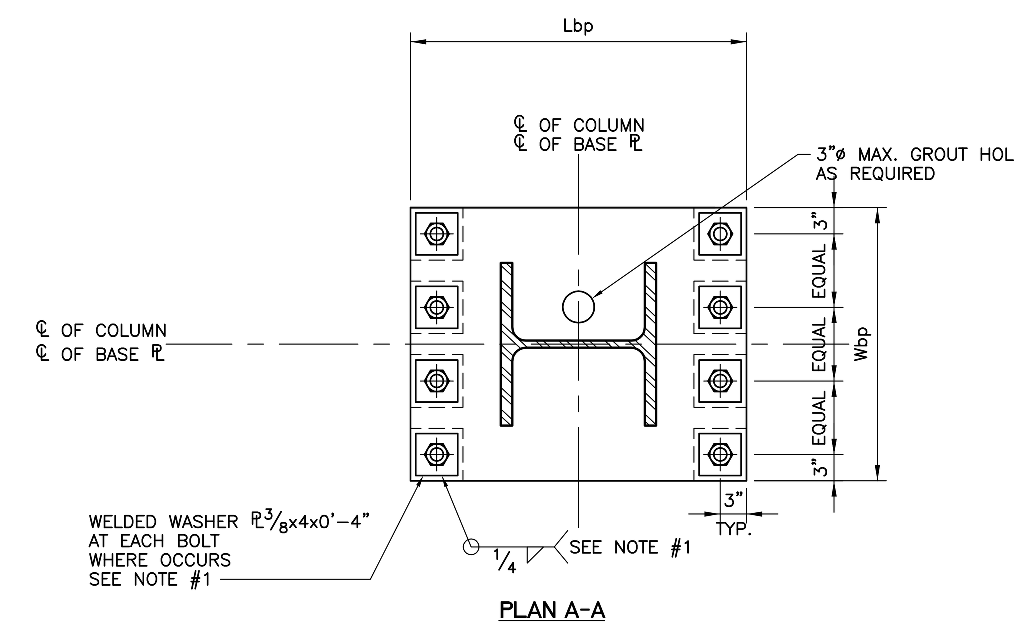


DETAIL

N.T.S. 7

BASE PLATE CONNECTION SCHEDULE								
MARK	BASE PLATE			ANCHOR BOLTS (F1554 GR.55)			UPLIFT PLATE	REMARKS
	THICKNESS	LENGTH	WIDTH					
	tbp	Lbp	Wbp	DIAMETER	QUANTITY	Lab	t x L x W	
A	1 3/4"	25"	25"	1 1/2"ø	8	18"	5/8" x 3" x 3"	–



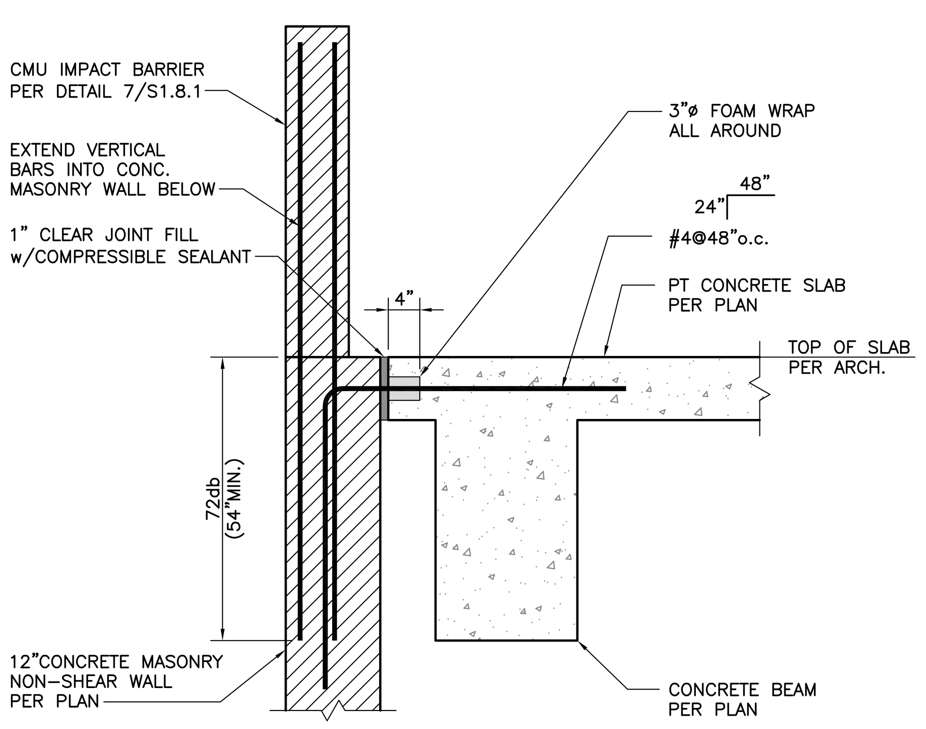


NOTES:

1. PROVIDE PLATE WASHERS FOR ANCHOR BOLT HOLES > BOLT DIAMETER + 1/8". SEE "TYPICAL WELDED PLATE WASHER DETAIL" FOR PLATE AND WELD INFORMATION.
2. ALL WELDS SHALL CONFORM TO AWS D1.8. ALL WELD INSPECTIONS SHALL FOLLOW AISC 341 CHAPTER J.
3. ALL PLATES SHALL BE A572 GR. 50 UNLESS NOTE OTHERWISE.

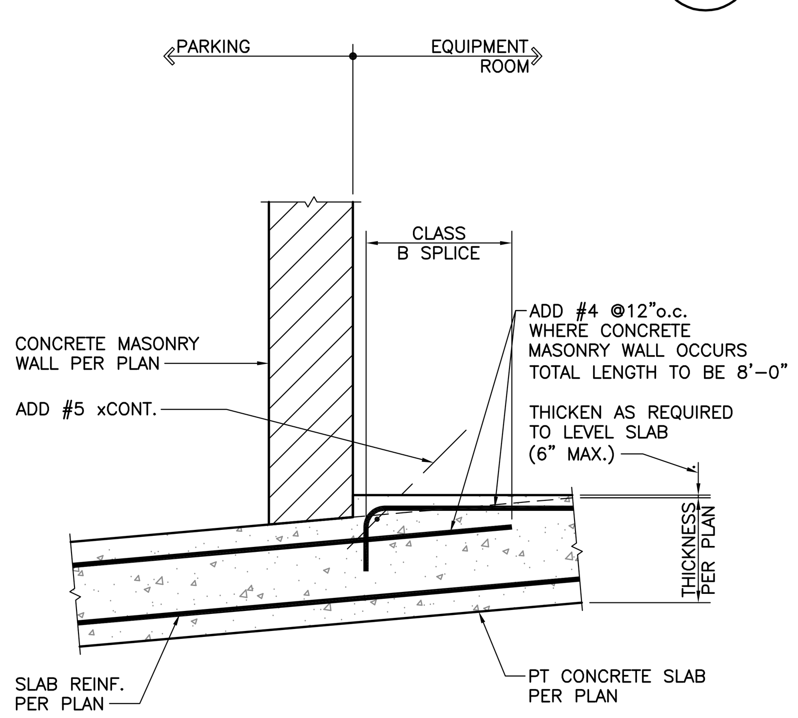
TYPICAL MOMENT FRAME Wx COLUMN BASE PLATE DETAIL (SFRS)

S520-REV 2



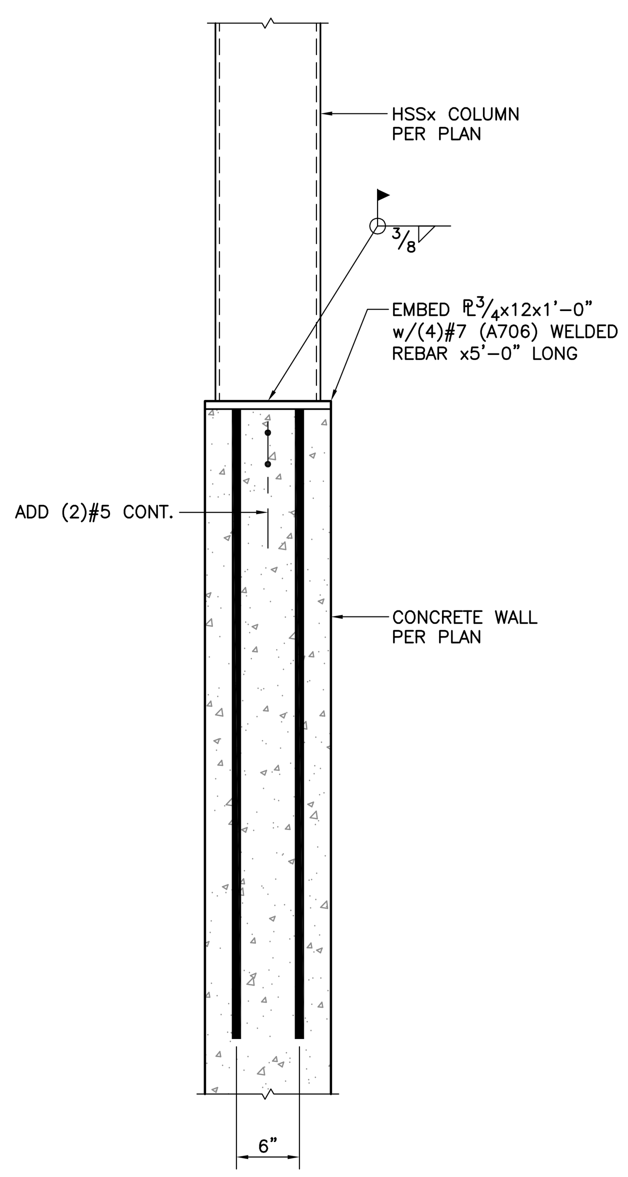
DETAIL

N.T.S. 9



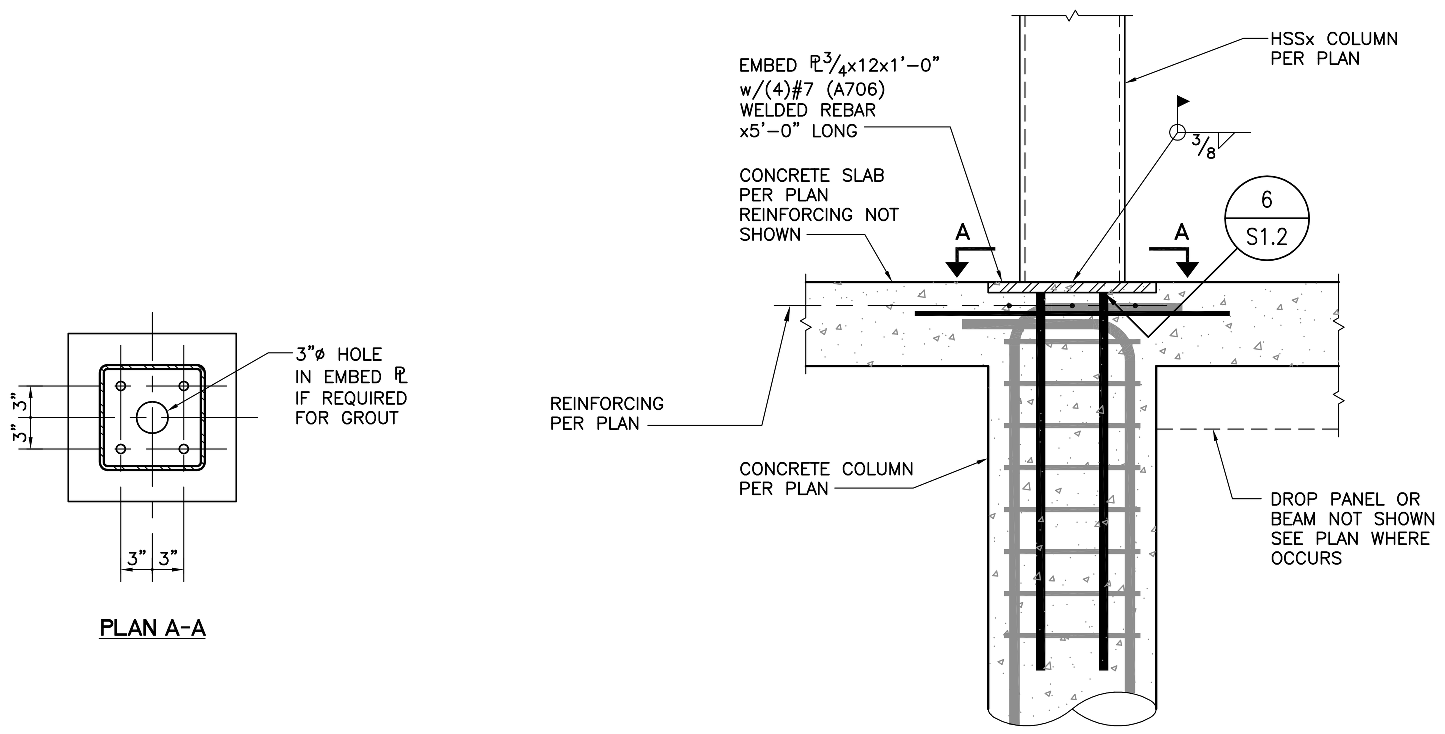
DETAIL

N.T.S. 8



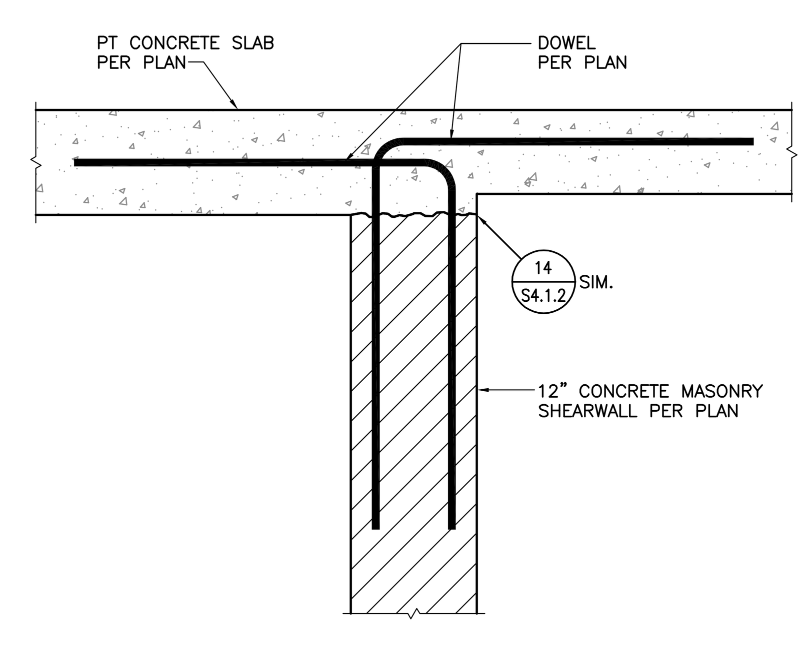
DETAIL

N.T.S. 6



STEEL COLUMN BASE DETAIL (SFRS)

N.T.S. 4



DETAIL

N.T.S. 1

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

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COSTA MESA, CA 92626

ARCHITECT

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2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

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REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE

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S4.1.5

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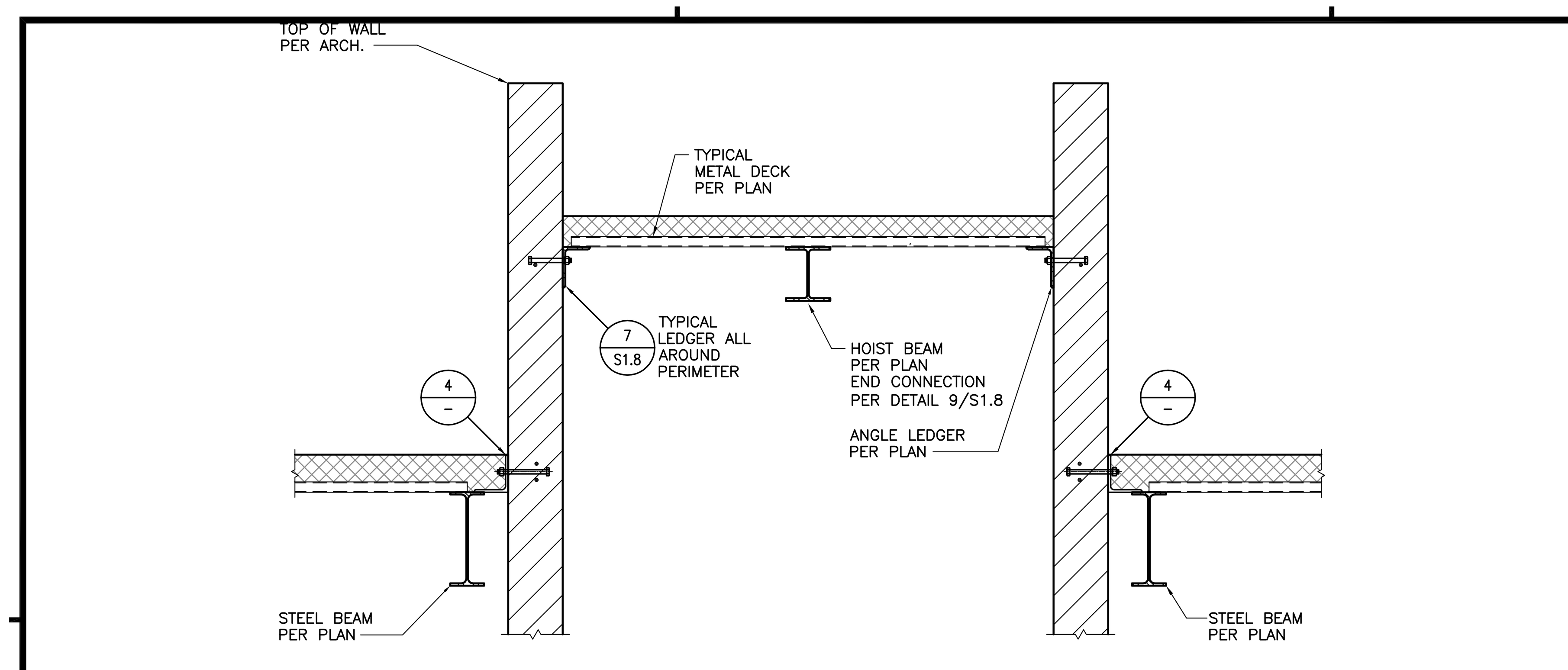
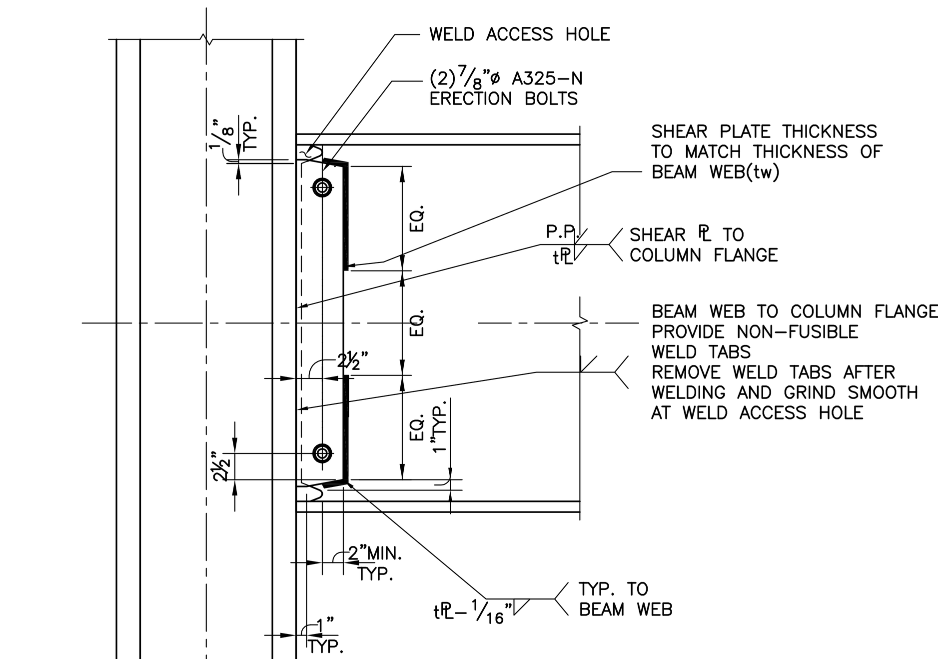
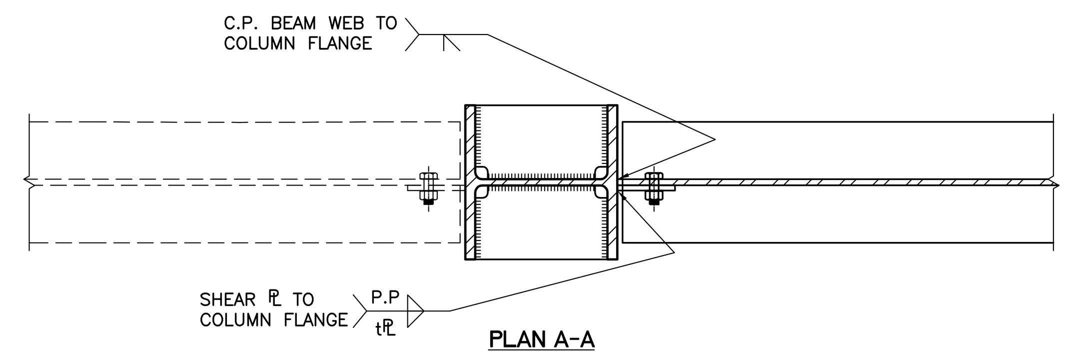
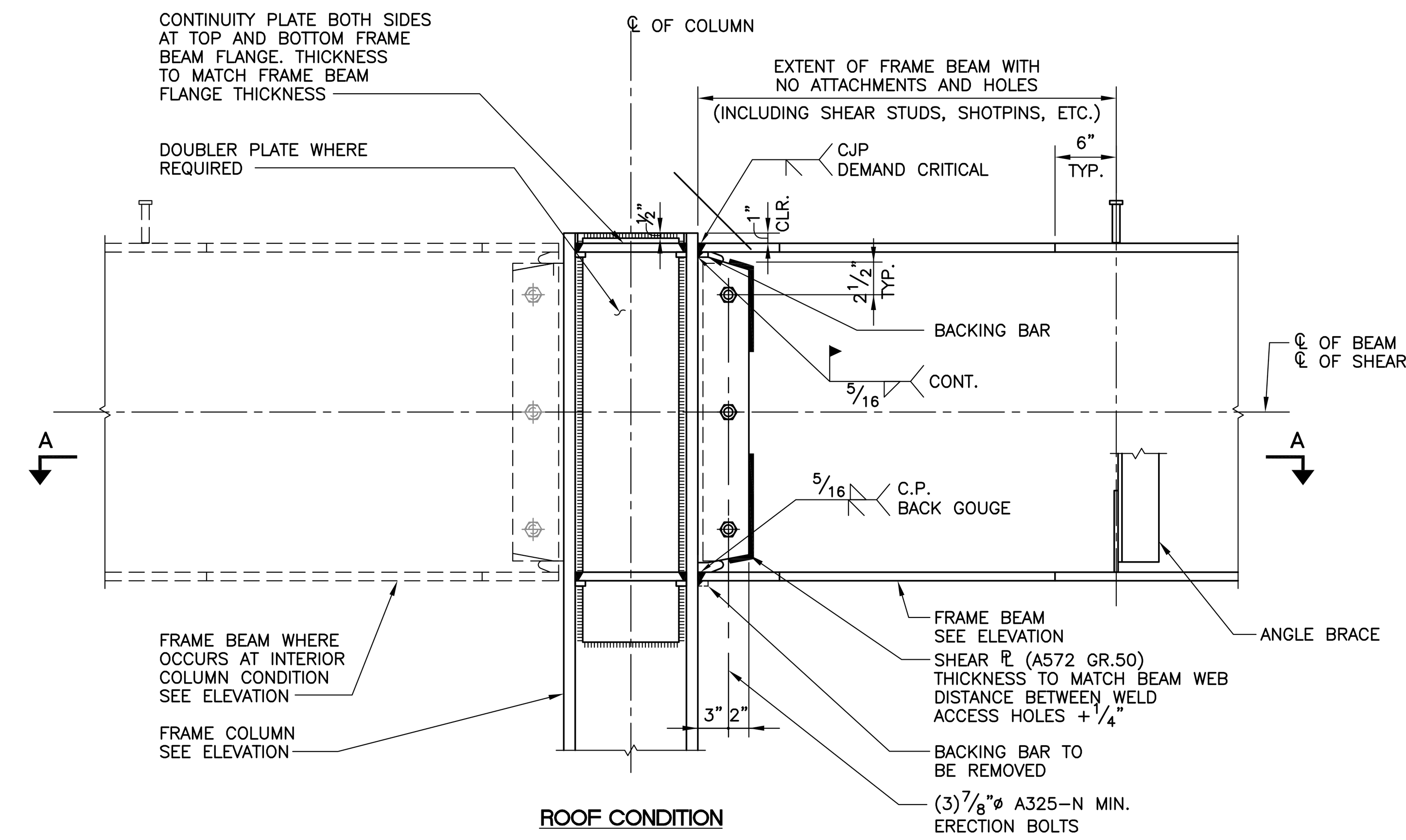


SECTION THRU ELEVATOR SHAFT ROOF

N.T.S. 6





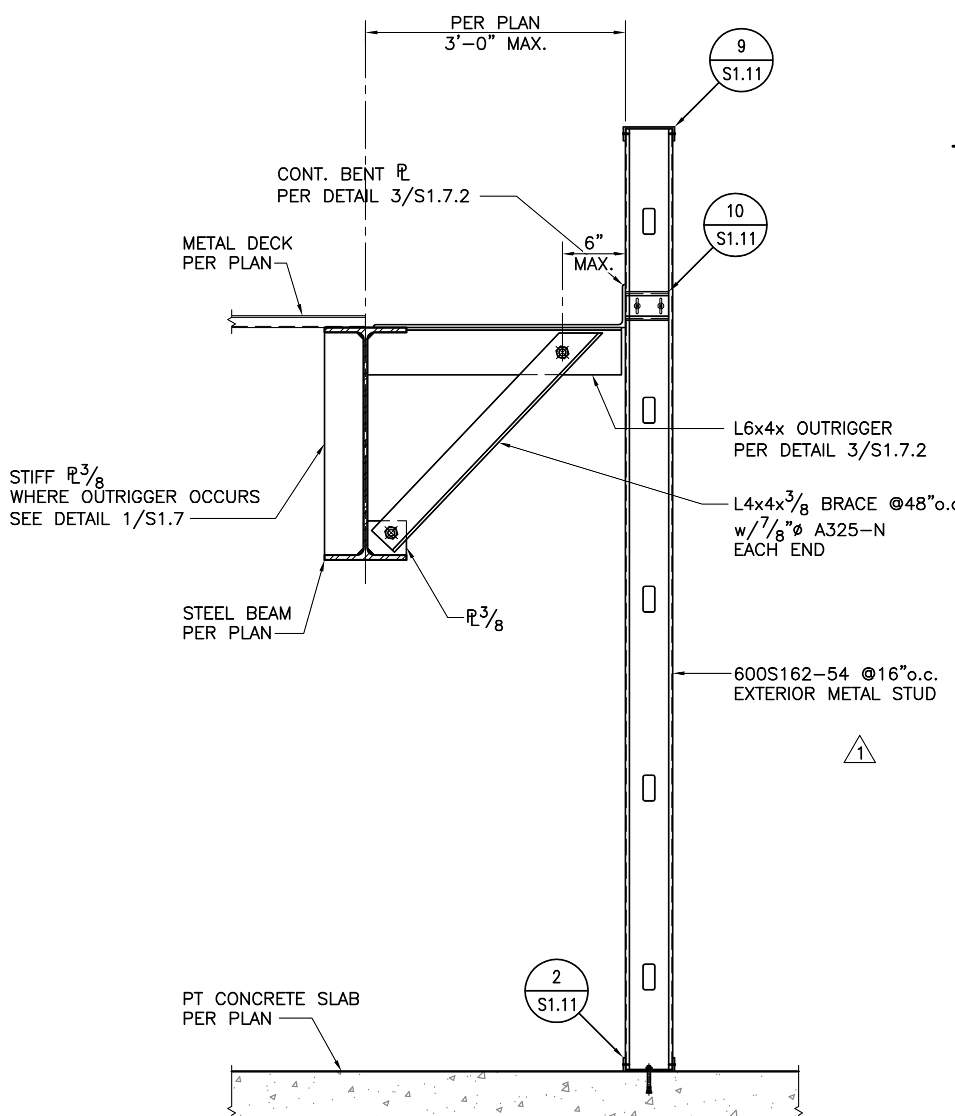


NOTES:

1. ALL WELDS SHALL CONFORM TO AWS D1.8. ALL WELD INSPECTIONS SHALL FOLLOW AISC 341 CHAPTER J.
2. WELD ACCESS HOLE PER AISC 360 J1.6.
3. REMOVE ALL WELD TABS AND GRIND SMOOTH.

TYPICAL ORDINARY MOMENT FRAME BEAM TO COLUMN CONNECTION "MF - X/X"

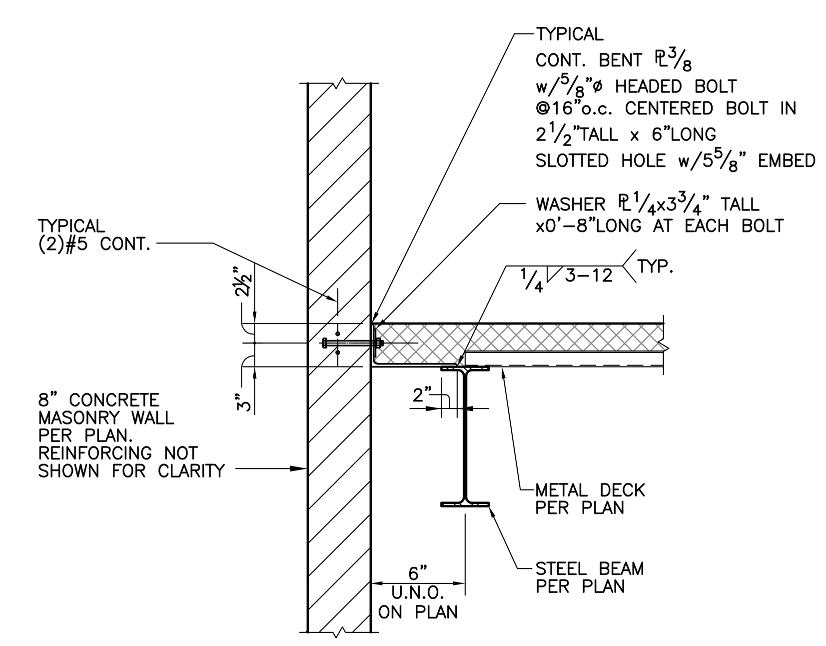
S512 2



NOTE:
FOR REMAINDER OF INFORMATION, SEE DETAIL 3/S1.7.2.

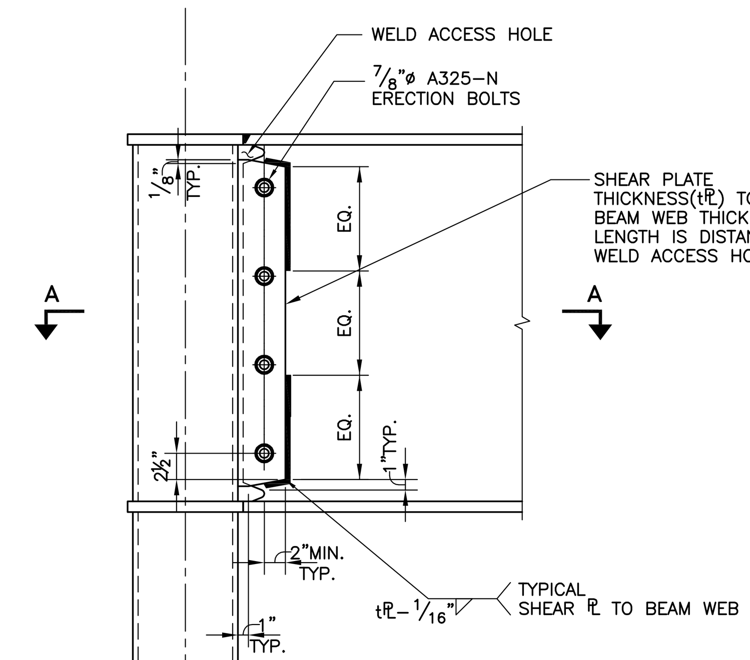
DETAIL

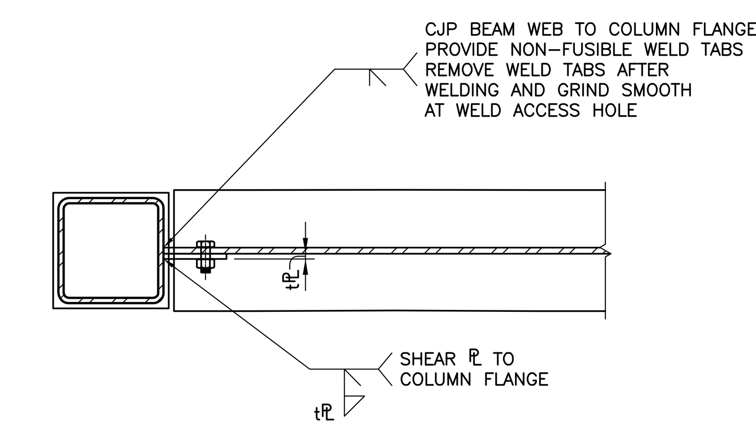
N.T.S. 5



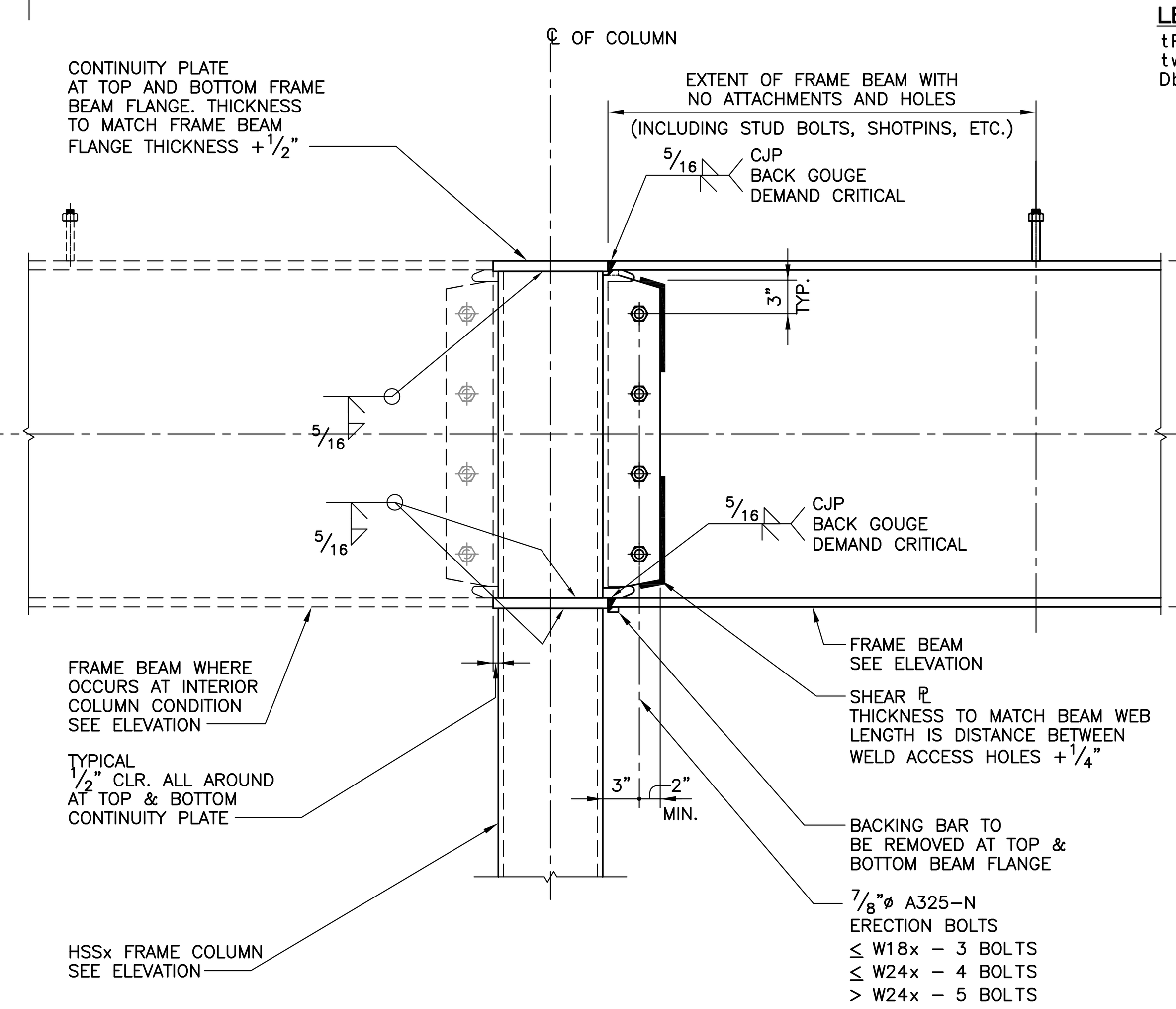
STEEL BEAM PARALLEL TO CONCRETE MASONRY WALL DETAIL

N.T.S. 4





LEGEND
t℞ = SHEAR PLATE THICKNESS
twb = BEAM WEB THICKNESS
Db = BEAM WEB DEPTH



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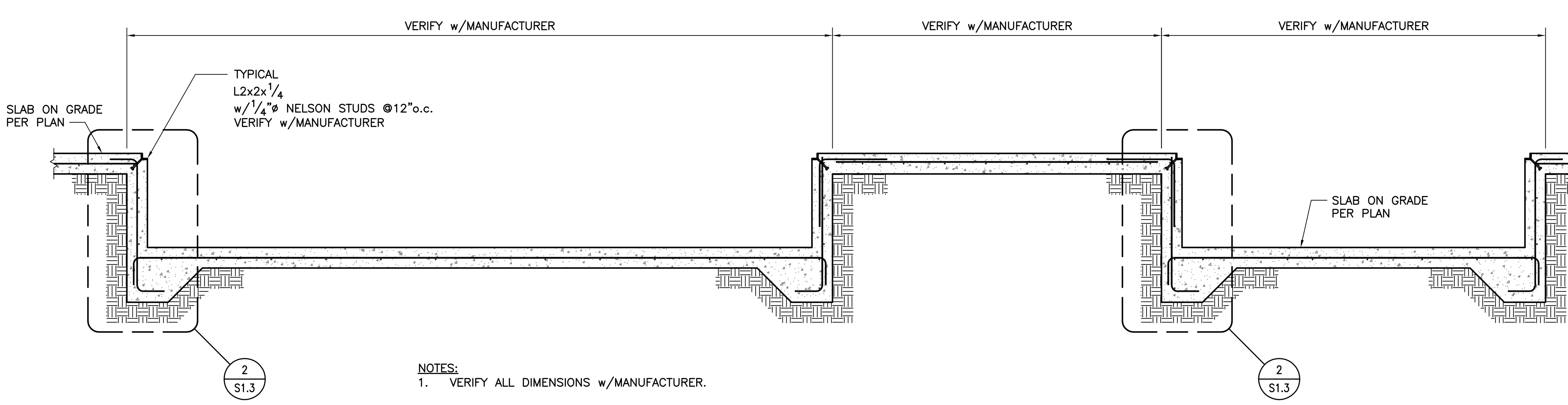
3. REMOVE ALL WELD TABS AND GRIND SMOOTH.

MOMENT FRAME BEAM TO COLUMN CONNECTION (SFRS)

S512A-REV 1



NOTES:
1. VERIFY ALL DIMENSIONS w/MANUFACTURER.

PAINT BOOTH DETAIL - TRANSVERSE

N.T.S. 3

PROJECT

No.1 COLLISION

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S4.1.6

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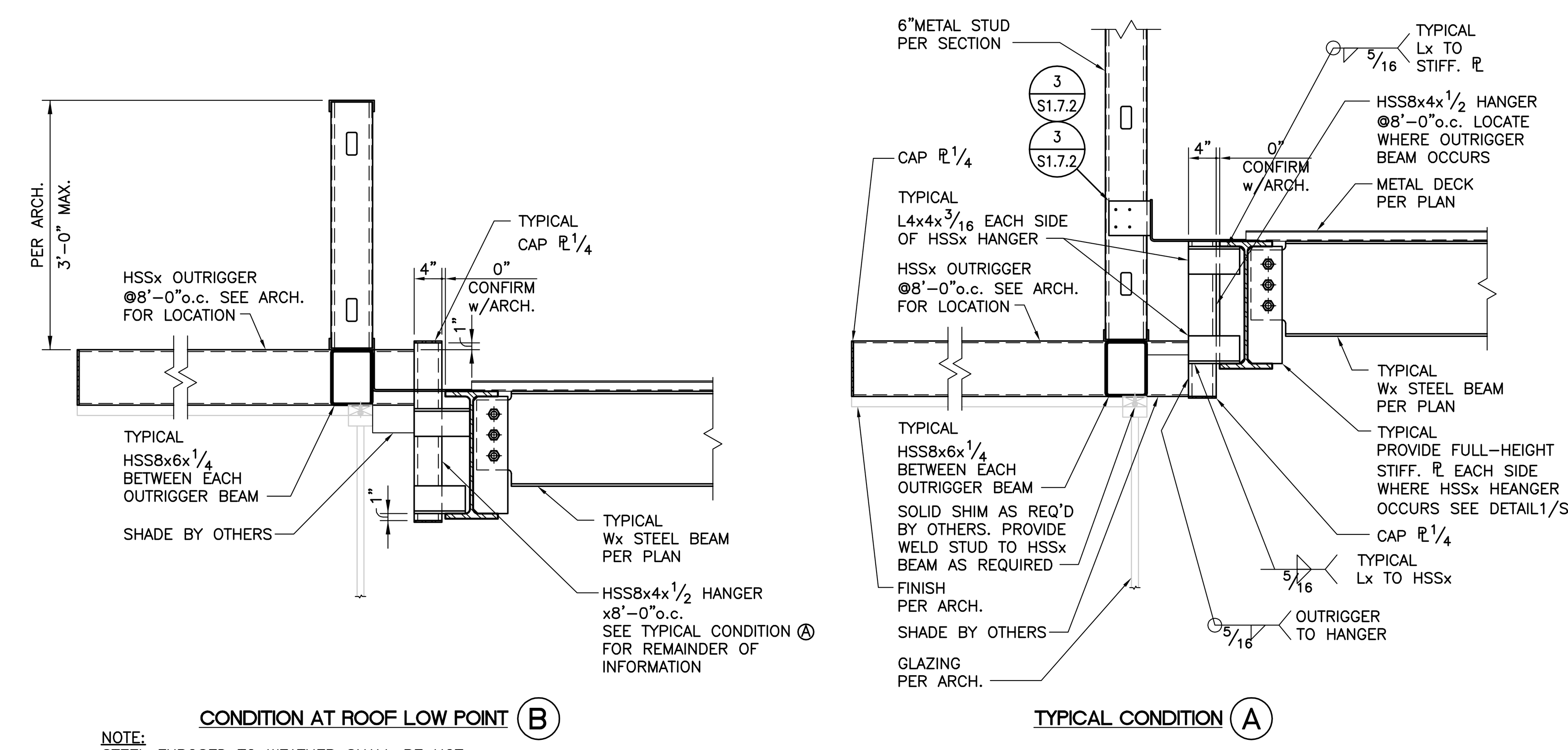
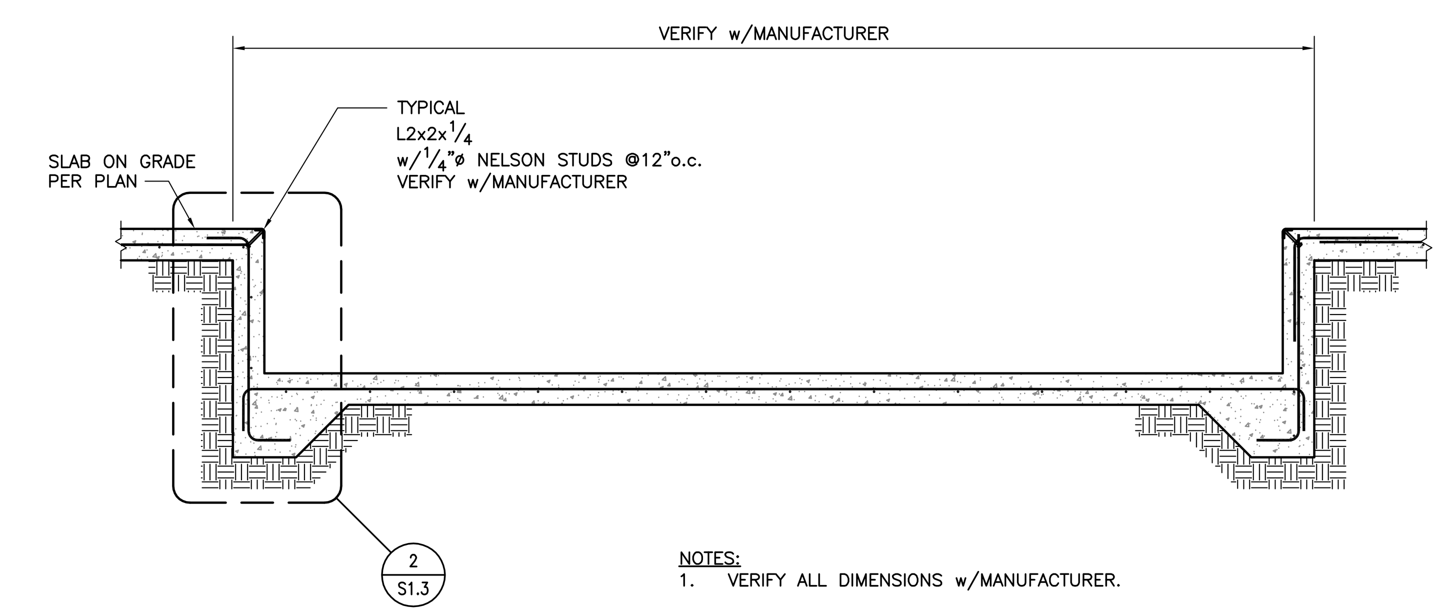


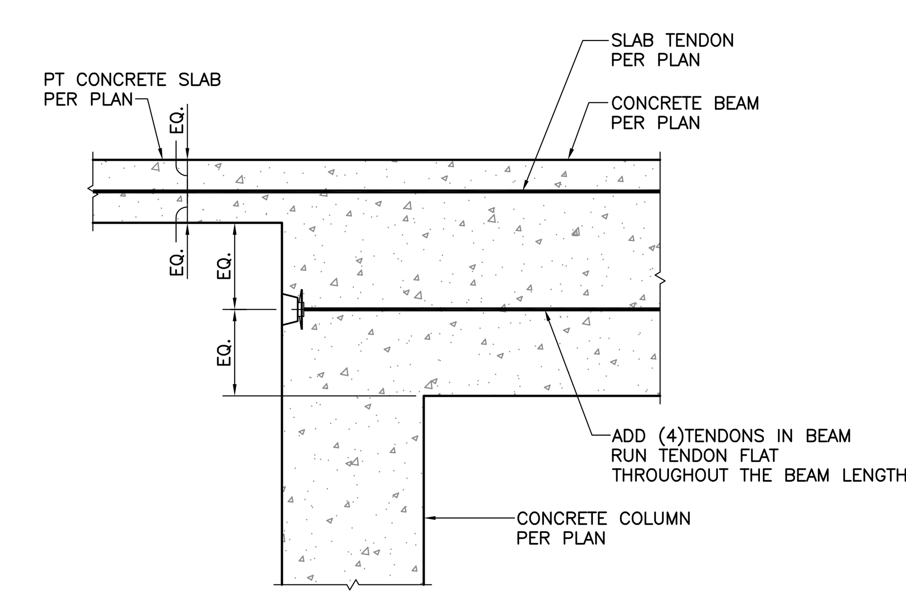
CANOPY ATTACHMENT AT HIGH ROOF — 3

N.T.S.



PAINT BOOTH DETAIL - LONGITUDINAL — 2

N.T.S.



DETAIL — 4

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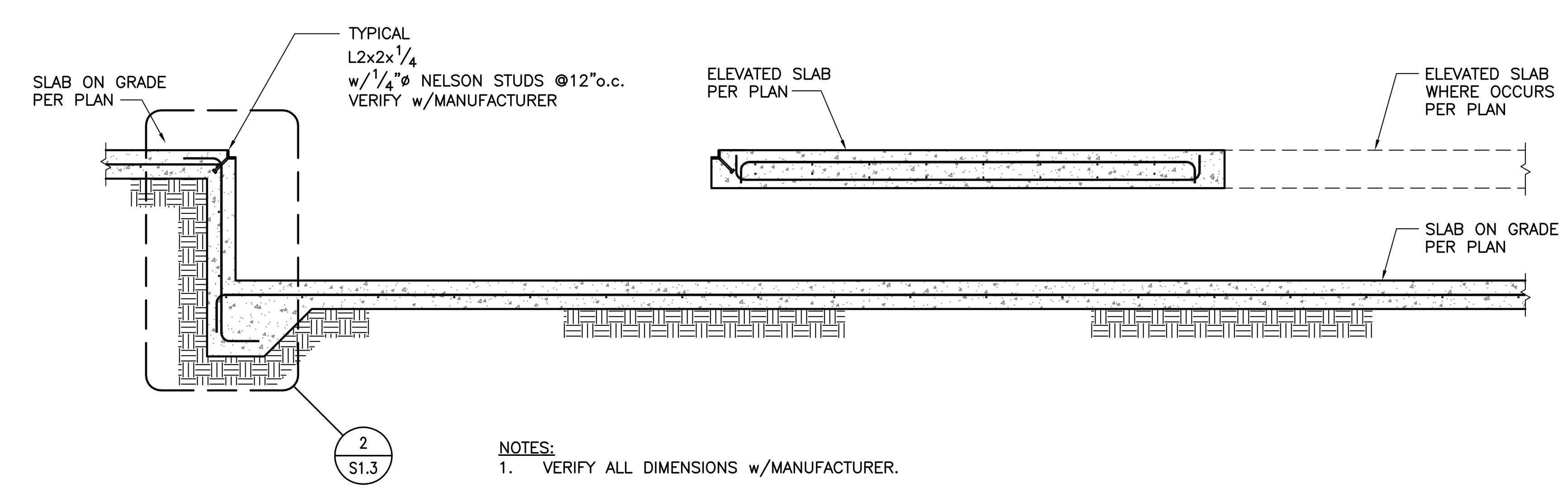

PAINT BOOTH DETAIL — 1

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ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA 92614
TEL: (949) 250-3150
FAX: (949) 203-0450

ELECTRICAL, MECHANICAL, PLUMBING ENGINEER
PRO ENGINEERING CONSULTING, INC.
ATTN: RAMIN PARSI
1057SYCAMORE
VISTA, CA 92081
TEL: (858) 240-4336
FAX: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
FAX: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & AASSOCIATES INC.
ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

NOT FOR CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE

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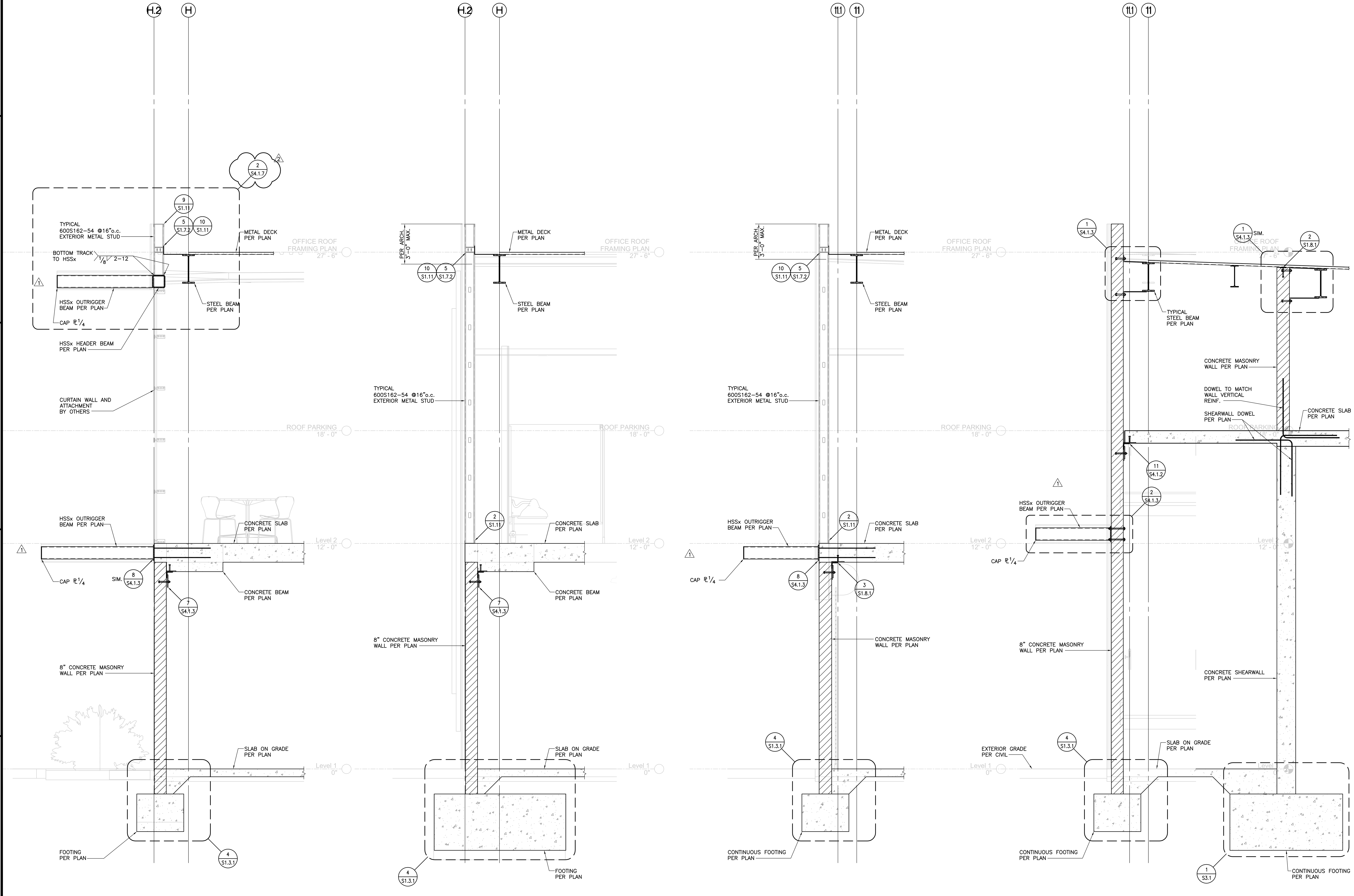
SHEET TITLE

SECTIONS AND DETAIL

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S4.1.7

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



WALL SECTION (4) 1/2"=1'-0"

WALL SECTION (3) 1/2"=1'-0"

WALL SECTION (2) 1/2"=1'-0"

WALL SECTION (1) 1/2"=1'-0"

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
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NOT FOR CONSTRUCTION

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	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE

REGISTERED PROFESSIONAL ENGINEER
JEFF Y. CHEN
EXP.12/31/22
STRUCTURAL
STATE OF CALIFORNIA

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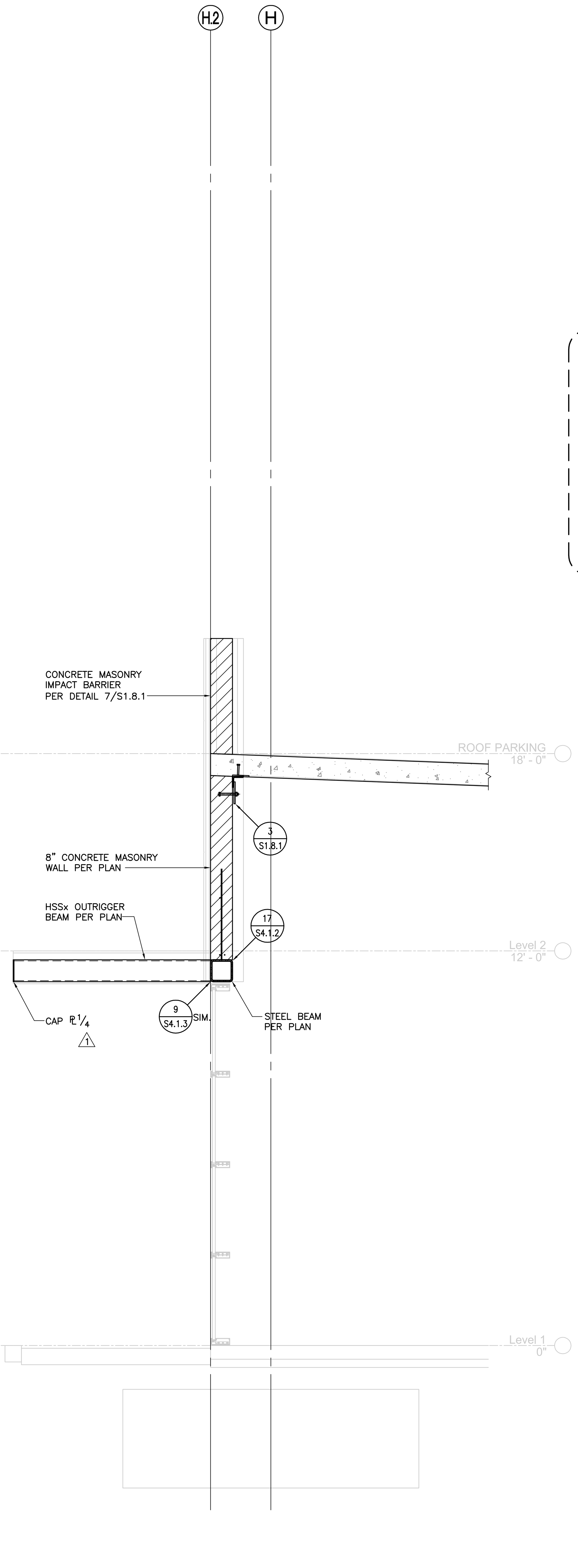
SHEET TITLE

WALL SECTIONS

DATE: 11/10/21	
SCALE: AS SHOWN	S5.1
DRAWN BY: RT	
PROJECT NUMBER	
19-119	ACTUAL SIZE OF THIS SHEET IS 30" X 42"



WALL SECTIONS 4

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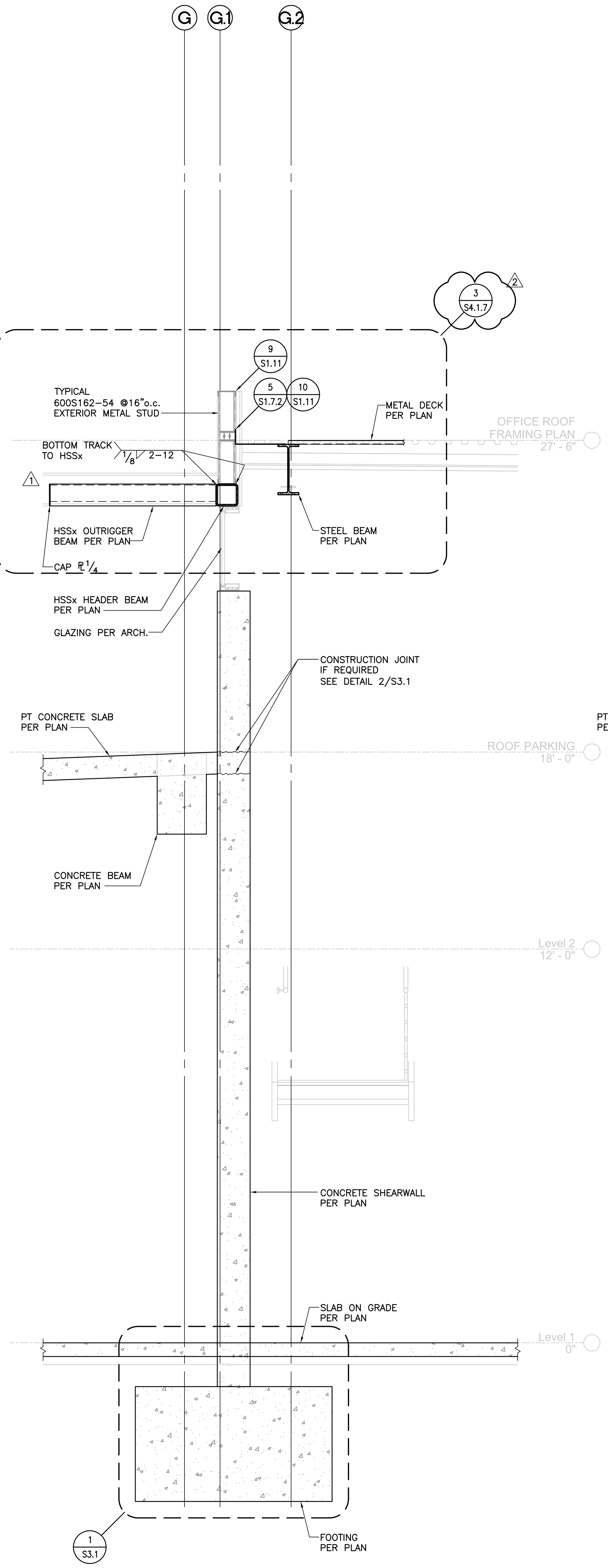

WALL SECTIONS 3

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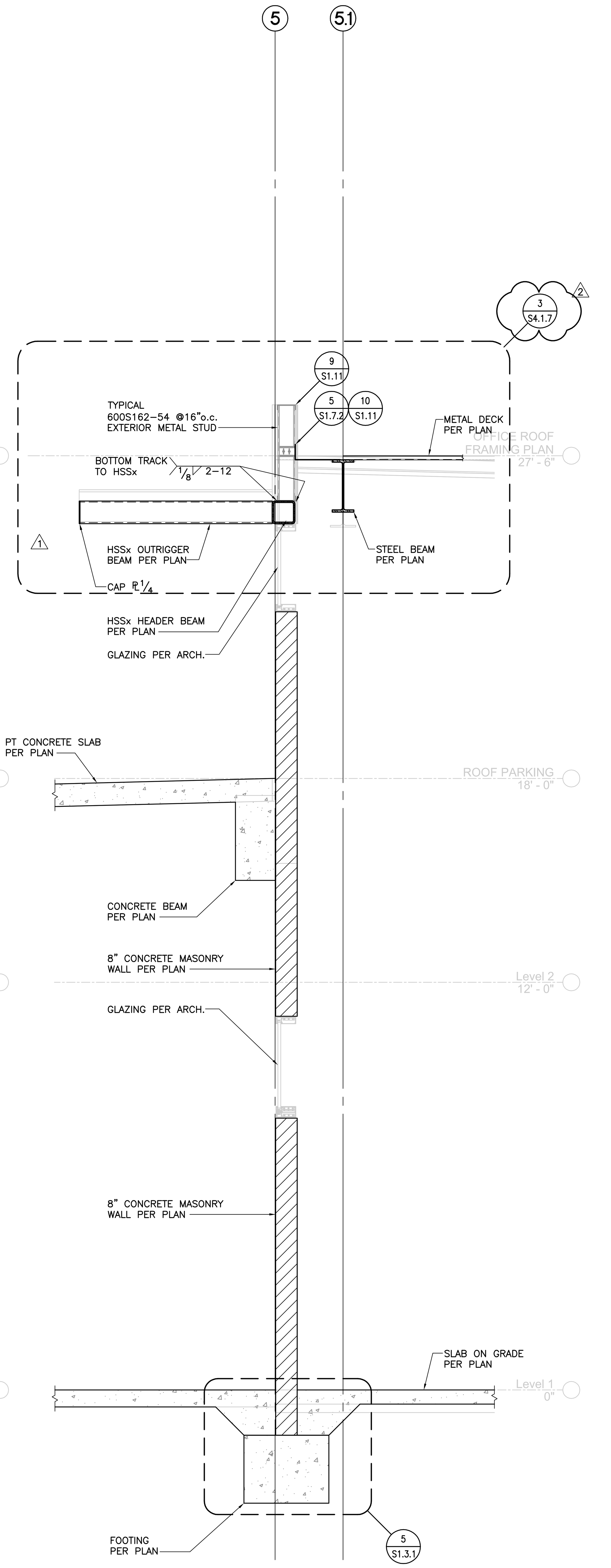
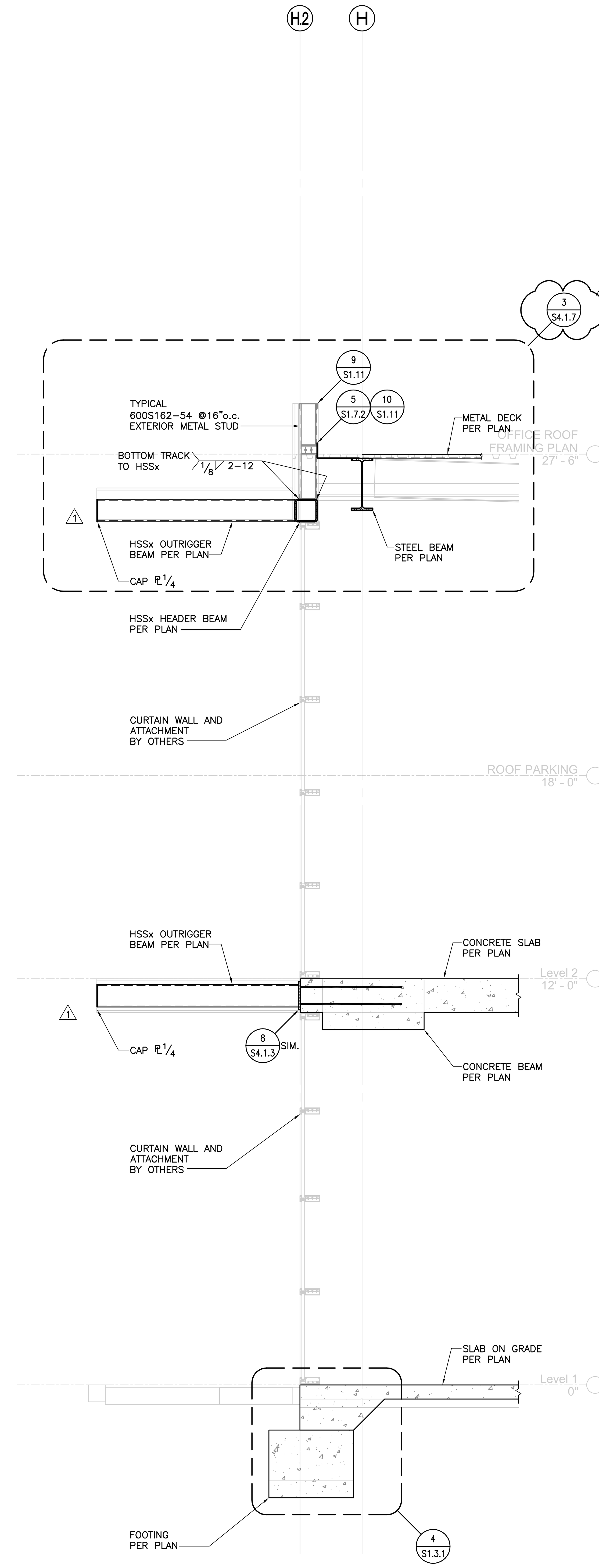


WALL SECTIONS 2

1/2"=1'-0"



WALL SECTIONS 1

1/2"=1'-0"

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.

2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

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17500 REDHILL, SUITE 240
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VISTA, CA 92081
TEL: (858) 240-4336
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ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
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ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
TEL: (714) 848-0566
FAX: (714) 848-6322

NOT FOR CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE
	PLAN CHECK SUBMITTAL	05/12/21
1	PLAN CHECK CORRECTION	07/06/21
2	PLAN CHECK RESUBMITTAL 02	02/22/22

STAMP + SIGNATURE

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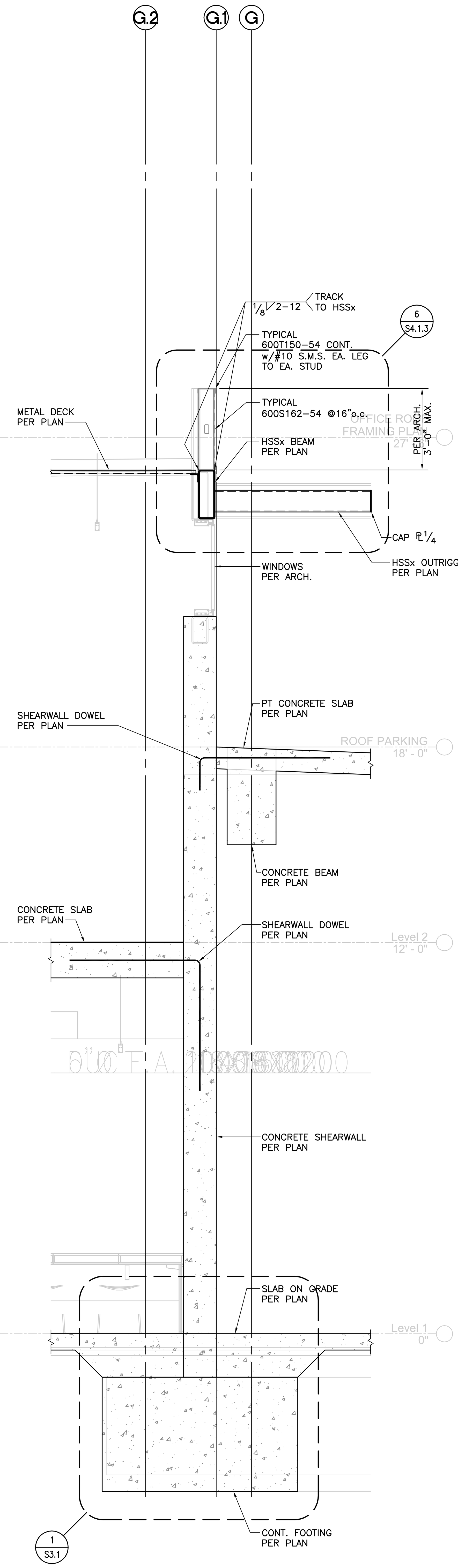
SHEET TITLE

WALL SECTIONS

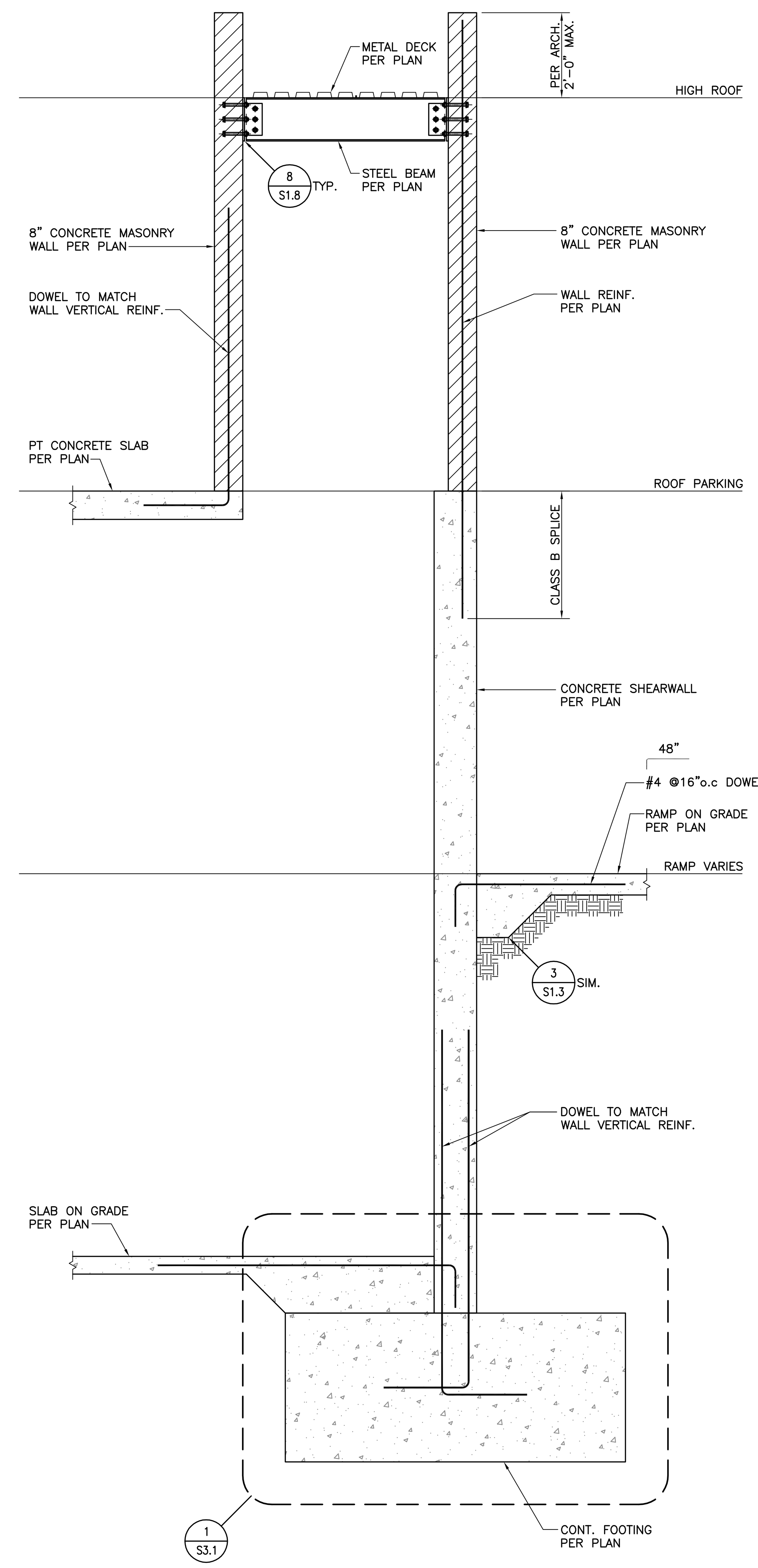
DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S5.1.1

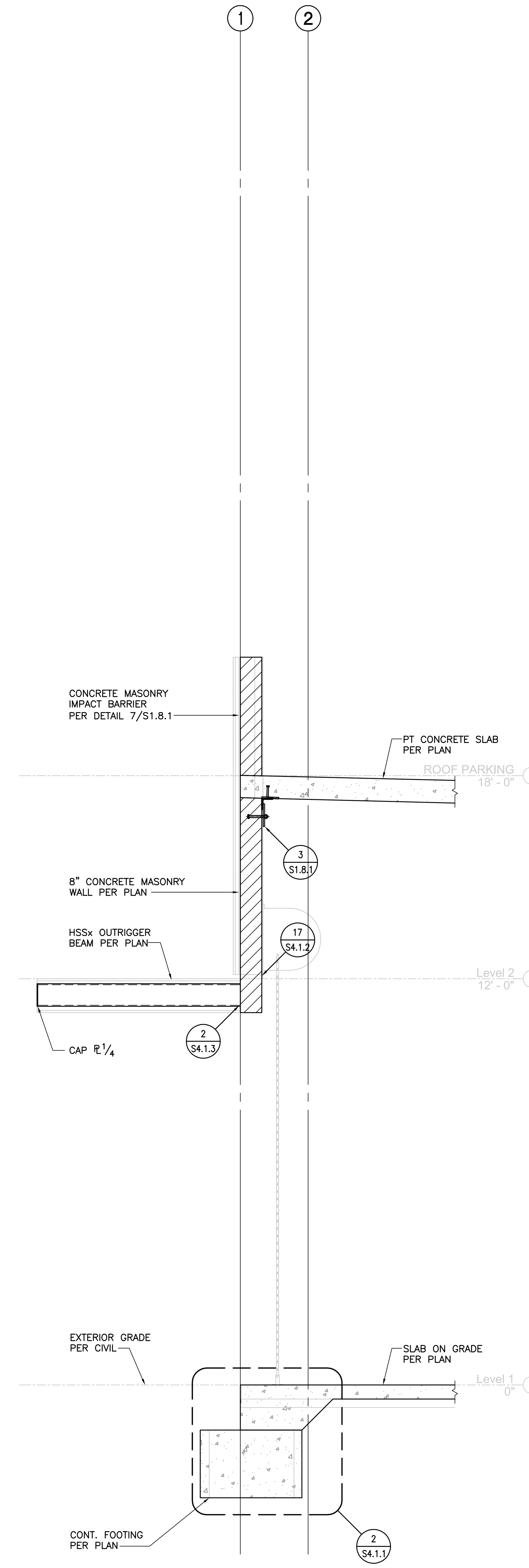
ACTUAL SIZE OF THIS SHEET IS 30" X 42"



WALL SECTION 3
1/2"=1'-0"



WALL SECTION 2
1/2"=1'-0"



WALL SECTION 1
1/2"=1'-0"

PROJECT

No.1 COLLISION

LUXURY AUTOMOTIVE REPAIR FACILITY

2750 BRISTOL ST.
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ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
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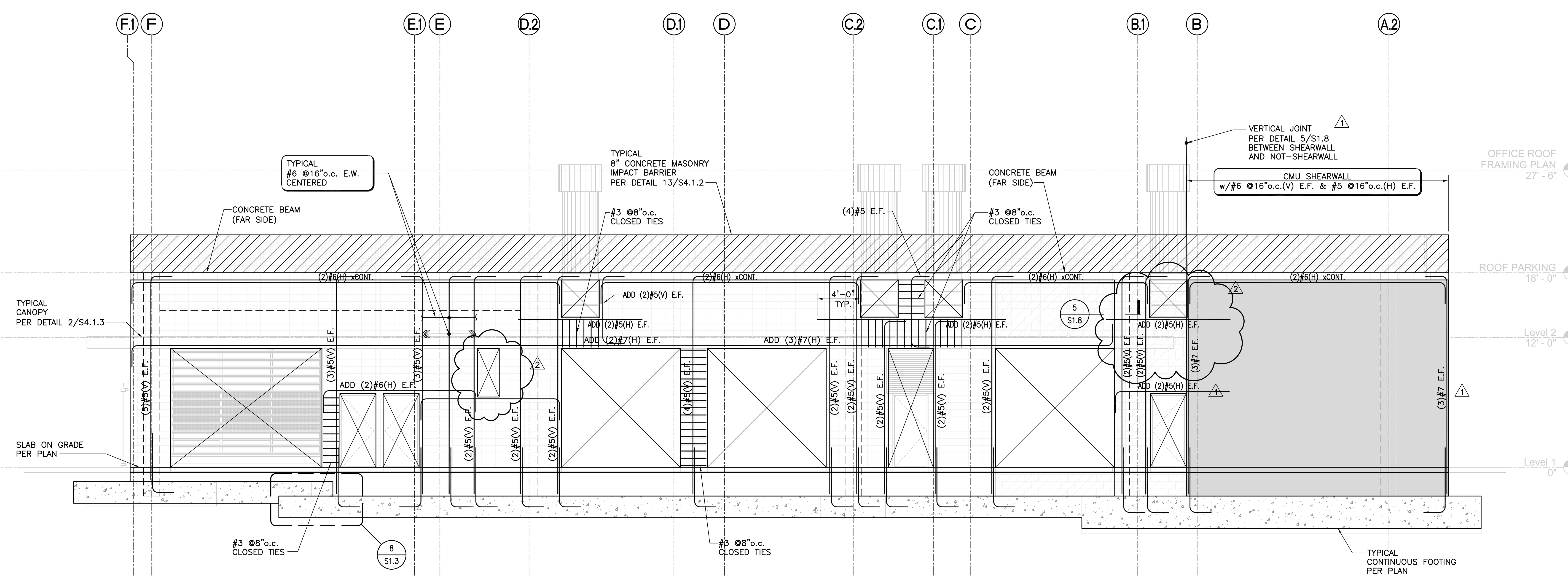
SHEET TITLE

WALL SECTIONS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S5.1.2

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



NOTE:
1. FOR REMAINDER OF INFORMATION, SEE DETAILS 1/S1.8 AND 2/S1.8.

WALL ELEVATION

$^3/_{16}$"=1'-0" 1

PROJECT

No.1
COLLISION

LUXURY AUTOMOTIVE
REPAIR FACILITY

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire
Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
TEL: (310) 453-4431
FAX: (310) 829-5296

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ATTN: JEFF CHEN
17500 REDHILL, SUITE 240
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1057SYCAMORE
VISTA, CA 92081
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ATTN: RICK MAYER
1403 KENNETH RD., SUITE B,
GLENDALE, CA 91201
TEL: (818) 956-8101
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ATTN: DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
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FAX: (714) 848-6322

NOT FOR
CONSTRUCTION

REVISIONS

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1	PLAN CHECK CORRECTION	07/06/21
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SHEET TITLE

WALL ELEVATIONS

DATE: 11/10/21
SCALE: AS SHOWN
DRAWN BY: RT
PROJECT NUMBER 19-119

S5.2

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

GRIMM / CHEN

Grimm + Chen Structural Engineering, Inc.
17500 Redhill Ave, Suite 240, Irvine, CA 92614
(949) 250-3150
gc-se.com

May 23, 2023

Project No.:	19-119
Project:	No. 1 Collision Luxury Automotive Repair Facility 2750 Bristol St. Costa Mesa, CA 92926
Subject:	Response to Plan Review. Permit #BC21-00323 Revision

Grimm & Chen Structural Engineering Inc. has provided this memo to confirm that we have reviewed Methane Gas Control System Drawings provided by Methane Specialists. From structural standpoint, it appears that there is no conflict or adverse effect on the structure, nor foundation design as verified by geotechnical engineer.

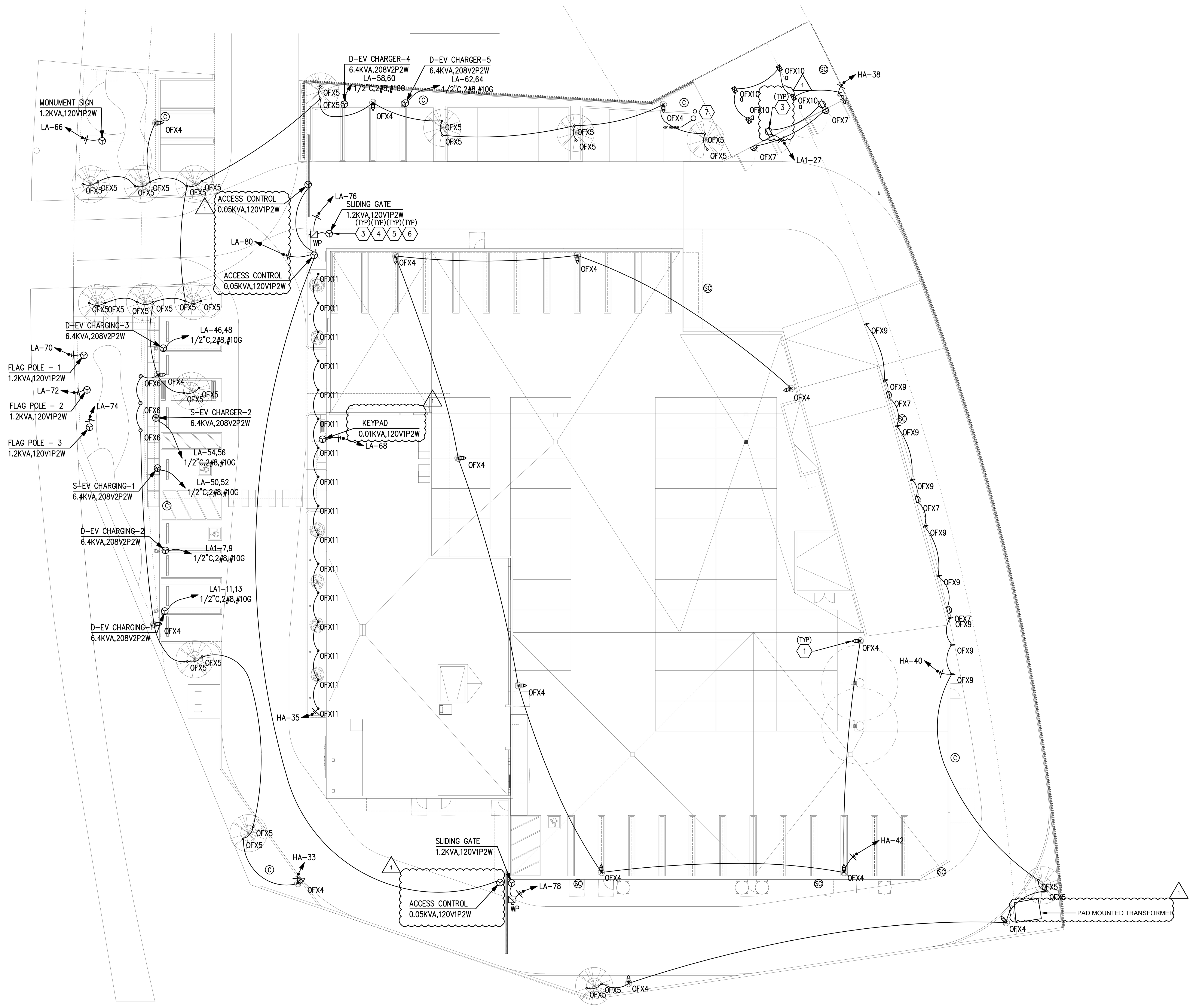
Please do not hesitate to contact us at your convenience should you like to discuss further.

Respectfully,

REGISTERED PROFESSIONAL ENGINEER
JEFF Y. CHEN
No. 4699
EXP. 12/31/24
STRUCTURAL
STATE OF CALIFORNIA

Alex Chon, P.E.
Associate Principal

Jeff Y. Chen, S.E.
Principal



ELECTRICAL SITE PLAN

SCALE: 1/16"=1'-0"

CALL-OUT NOTES

1. ALL OUTDOOR LIGHTING TO BE CONNECTED VIA AUTOMATIC TIME SWITCH IN CONJUNCTION WITH PHOTOCELL. ALL OUTDOOR LIGHTING TO ALSO BE CONNECTED VIA DIMMABLE CONTROLLER IN CONJUNCTION WITH MOTION SENSOR THAT HAS AUTO-ON FUNCTIONALITY THAT AUTOMATICALLY REDUCES LIGHTING POWER BETWEEN 40-80 PERCENT PER T-24 REQUIREMENTS (TYP). TS PC D MS
2. CONTRACTOR TO VERIFY THAT PROPER SHIELDING AND CUT-OFF IS IN PLACE TO PREVENT LIGHT SPILL ONTO NEIGHBORING PROPERTY AS WELL AS LIGHT GLARE (TYP).
3. VERIFY EQUIPMENT MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS WITH OWNER/ARCHITECT PRIOR TO COMMENCEMENT OF WORK. (TYP)
4. CONTRACTOR TO PROVIDE A LOCKABLE CIRCUIT BREAKER FOR ALL EQUIPMENT GREATER THAN 300VA AND NOT CONNECTED TO DISCONNECT SWITCH TO MEET NEC 422.31(B) REQUIREMENTS. (TYP)
5. ALL EQUIPMENT AND WIRING EXPOSED TO WATER TO BE WP AND SEALED IN A NEMA-3R ENCLOSURE. (TYP)
6. CONTRACTOR TO PROVIDE FUSE AND DISCONNECT SWITCH SIZED PER MANUFACTURER NAMEPLATE TO COMPLY WITH CMC §303.8.5. (TYP)
7. RUN 2"C ONLY BACK TO ELECTRICAL ROOM FOR FUTURE EQUIPMENT. NOT PART OF THIS PERMIT.
8. ANY PENETRATION THROUGH SLAB SHALL MEET THE DETAIL-E OF GC 5.0 ON METHANE GAS PLAN REQUIREMENTS. 2

SYMBOL LEGEND 1

C	PTZ CAMERA LOCATION -REFER TO SECURITY DRAWING
SC	SECURITY CAMERA LOCATION - REFER TO SECURITY DRAWING

PROENGINEERING
M E P CONSULTANTS

PROJECT

No.1 Collision

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

CLIENT
Walker Group of WALKER GROUP OF COMPANIES
ATTN:ROBERT A. WALKER
11100 CAMBIE ROAD #100
RICHMOND, BC V6X 1K9
P:604.231-9614 F: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
P:(310) 453-4431 F:(310) 829-5296

CONSULTING ARCHITECT
CHRISTOPHER BOZYK ARCHITECTS LTD.
ATTN:CHRIS BOZYK
Suite 414 - 611 Alexander Street
Vancouver, BC, Canada V6A 1E1
P: (604) 251-3440 F:(604) 251-3848

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN:JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA, 92614
P:(949) 250-3150 F:(949) 203-0450

M.E.P. ENGINEER
PRO ENGINEERING COSULTING, INC.
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1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

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ATTN:DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK / REVISION	7/13/21
2	PLAN CHECK	5/31/23

STAMP + SIGNATURE

REGISTERED PROFESSIONAL ENGINEER
RAMIN PARSI
E 18400
Exp.06-30-2024
Ra Parsi
ELECTRICAL
STATE OF CALIFORNIA

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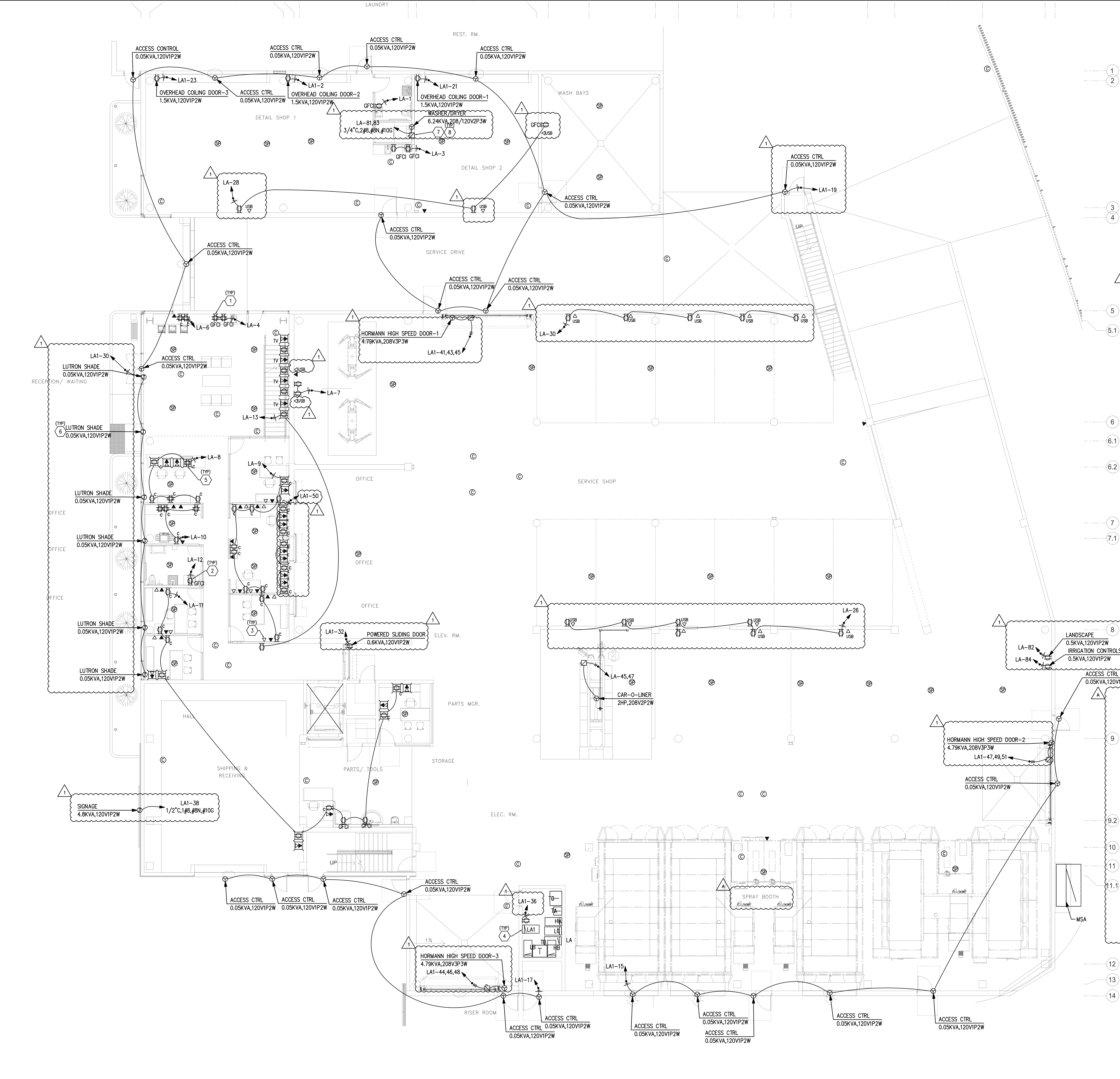
SHEET TITLE

E1.0

DATE:	5/31/2023
SCALE:	1/16"=1'-0"
DRAWN BY:	R.P
PROJECT NUMBER:	19-0370

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



CALL-OUT NOTES

1. VERIFY POWER AND DATA RECEPTACLE MOUNTING HEIGHTS AND REQUIREMENTS WITH OWNER/ARCHITECT (TYP).
2. CONTRACTOR MUST INSTALL GFCI PROTECTION FOR ALL 15A AND 20A, 120V RECEPTACLES IN DAMP AND WET LOCATIONS PER NEC 210.8. (TYP)
3. RUN 1/2" C FROM DATA/PHONE RECEPTACLE UP TO CEILING SPACE. STUB WITH LABELED PULL STRING FOR FUTURE WIRING BY OTHERS. VERIFY ROUTING REQUIREMENTS PRIOR TO COMMENCEMENT OF WORK. (TYP)
4. CONTRACTOR TO VERIFY ALL NEW SERVICE EQUIPMENT INSTALLED MEETS ALL WORKSPACE REQUIREMENTS PER NEC SECTION 110.26. (TYP)
   - THE WIDTH OF THE WORKSPACE MUST BE A MINIMUM OF 30 IN. WIDE, BUT NO LESS THAN THE WIDTH OF THE EQUIPMENT.
   - THE HEIGHT OF THE WORKSPACE IN FRONT OF EQUIPMENT MUST BE NO LESS THAN 6 1/2 FT, MEASURED FROM THE GRADE, FLOOR, OR PLATFORM.
   - YOU MUST ENSURE THE DEPTH OF THE WORKSPACE MEASURED FROM EXPOSED, LIVE PARTS OR FROM THE FRONT OF AN ENCLOSURE IS IN ACCORDANCE WITH THE MEASUREMENTS INDICATED IN TABLE 110.26(A)(1)

   ENTRANCE REQUIREMENTS: TO PROVIDE A SAFE EXIT PATH IN CASE OF A FIRE OR EXPLOSION, YOU MUST PROVIDE A CLEAR AND UNOBSTRUCTED PATH TO AND FROM THE WORKSPACE. PER 110.26(C)(1), YOU MUST PROVIDE AT LEAST ONE ENTRANCE OF A SUFFICIENT AREA TO GIVE ACCESS TO THE WORKSPACE AROUND ELECTRICAL EQUIPMENT.

   ILLUMINATION. PROPERLY ILLUMINATE THE WORKSPACE AROUND SERVICE EQUIPMENT, SWITCHBOARDS, PANELBOARDS AND MOTOR CONTROL CENTERS LOCATED INDOORS.
5. IN ALL BUILDINGS, BOTH CONTROLLED AND UNCONTROLLED 120 VOLT RECEPTACLES SHALL BE PROVIDED. WITHIN 6' OF ANY UNCONTROLLED RECEPTACLE, CONTRACTOR MUST INSTALL A CONTROLLED RECEPTACLE TO MEET THE CALIFORNIA ENERGY CODE REQUIREMENTS IN **LOBBIES, OFFICE AREAS, OFFICE SPACES**. CONNECT VIA LOW VOLTAGE LIGHTING CONTROL SYSTEM. CONTROLLED RECEPTACLE AREAS ARE NOTATED WITH THE LETTER THE "C".
6. LUTRON SHADE TO FOLLOW THE SPECIFICATION – SIVOVIA QS ROLLER 225 (TYP).
7. WASHER/DRYER COMBO EQUIPMENT CONNECTION INDICATING TIME DELAY FUSE.
8. VERIFY EQUIPMENT MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS WITH OWNER/ARCHITECT PRIOR TO COMMENCEMENT OF WORK. (TYP)
9. ANY PENETRATION THROUGH SLAB SHALL MEET THE DETAIL-E OF GC 5.0 ON METHANE GAS PLAN REQUIREMENTS.

ELECTRICAL SYMBOL LEGEND

- QUADPLEX RECEPTACLE FLUX IN FLOOR BOX WITH HINGE COVER TO MATCH
- TEL. & DATA FLUSH IN FLOOR BOX WITH HINGE OVER TO MATCH
- DUPLEX RECEPTACLE IN WALL
- DATA/USB ON WALL
- TELE. ON WALL
- QUADPLEX RECEPTACLE IN WALL

ELV SYMBOL LEGEND

- SP SPEAKER AT WALL OR CEILING – REFER SECURITY DRAWING
- © PTZ CAMERA AT WALL OR CEILING. REFER SECURITY DRAWING

NOTES : SPRAY BOOTH

(1) ALL EQUIPMENTS IN CLASS I DIV I AREAS TO MEET THE FOLLOWING REQUIREMENTS:

EXPLOSION-PROOF OR FLAME-PROOF EQUIPMENT IS SEALED AND RUGGED, SUCH THAT IT WILL NOT IGNITE A HAZARDOUS ATMOSPHERE, DESPITE ANY SPARKS OR EXPLOSION WITHIN.

EQUIPMENT SHOULD BE TESTED TO ENSURE THAT IT DOES NOT EXCEED 80%[ACCORDING TO WHOM?] OF THE AUTOIGNITION TEMPERATURE OF THE HAZARDOUS ATMOSPHERE. BOTH EXTERNAL AND INTERNAL TEMPERATURES ARE TAKEN INTO CONSIDERATION. THE AUTOIGNITION TEMPERATURE IS THE LOWEST TEMPERATURE AT WHICH THE SUBSTANCE WILL IGNITE WITHOUT AN ADDITIONAL HEAT OR IGNITION SOURCE (AT ATMOSPHERIC PRESSURE).

(2) CLASSIFICATIONS FOR THE BELOW SPACES :

(A) THE INTERIOR OF SPRAY BOOTHS AND ROOMS :CLASS I, DIVISION 1

(B) THE INTERIOR OF EXHAUST DUCTS : CLASS 1, DIVISION 1

(C) ANY AREA IN THE DIRECT PATH OF THE SPRAY OPERATIONS : CLASS 1, DIVISION 1

(D) FOR OPEN DIPPING AND COATING OPERATIONS, ALL SPACE WITHIN A 5 FEET RADIAL DISTANCE FROM THE VAPOUR SOURCES EXTENDING FROM THESE SURFACES TO THE FLOOR. THE VAPOUR SOURCE SHALL BE THE LIQUID EXPOSED IN THE PROCESS AND THE DRAIN BOARD, AND ANY DIPPED OR COATED OBJECT FROM WHICH IT IS POSSIBLE TO MEASURE CAPOUR CONCENTRATION EXCEEDING 25 PERCENT OF THE LOWER FLAMMABLE LIMIT AT A DISTANCE OF 1FOOT IN ANY DIRECTION, FROM THE OBJECT : CLASS I, DIVISION 2

(E) SUMPS, PITS OR BELOW GRADE CHANNELS WITHIN 25 FEET HORIZONTALLY OF A VAPOUR SOURCE. IF THE SUMP PIT OR CHANNEL EXTENDS BEYOND 25 FEET FROM THE VAPOUR SOURCE. IT SHALL BE PROVIDED WITH A VAPOUR STOP OR IT SHALL BE CLASSIFIED AS CLASS I, DIVISION 1 FOR ITS ENTIRE LENGTH : CLASS I, DIVISON 1

(F) ALL SPACE IN ALL DIRECTIONS OUTSIDE OF BUT WITHIN 3 FEET OF OPEN CONTAINERS, SUPPLY CONTAINERS, SPRAY GUN CLEANERS, AND SOLVENT DISTILLATION UNITS CONTAINING FLAMMABLE LIQUIDS :CLASS I, DIVISION 2

(G) FOR LIMITED FINISHING WORKSTATIONS, THE AREA INSIDE THE CURTAINS OR PARTITIONS.{516.5(C)} :CLASS I, DIVISION 2

1ST FLOOR POWER PLAN

SCALE: 1/8"=1'-0"

PROENGINEERING
M E P C O N S U L T A N T S

PROJECT

No.1 Collision

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

CLIENT
Walker Group of WALKER GROUP OF COMPANIES
ATTN:ROBERT A. WALKER
11100 CAMBIE ROAD #100
RICHMOND, BC V6X 1K9
P:604.231-9614 F: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
P:(310) 453-4431 F:(310) 829-5296

CONSULTING ARCHITECT
CHRISTOPHER BOZYK ARCHITECTS LTD.
ATTN:CHRIS BOZYK
Suite 414 - 611 Alexander Street
Vancouver, BC, Canada V6A 1E1
P: (604) 251-3440 F:(604) 251-3848

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN:JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA, 92614
P:(949) 250-3150 F:(949) 203-0450

M.E.P. ENGINEER
PRO ENGINEERING COSULTING, INC.
ATTN:RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN:RICK MAYER
1403 KENNETH RD. SUITE B
GLENDALE, CA 91201
P: (818) 956-8101 F: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & ASSOCIATES INC.
ATTN:DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK / REVISION	7/13/21
2	PLAN CHECK	5/31/23

STAMP + SIGNATURE

REGISTERED PROFESSIONAL ENGINEER
RAMIN PARSI
E 18400
Exp.06-30-2024
ELECTRICAL
STATE OF CALIFORNIA

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SHEET TITLE

E1.2

DATE:	5/31/2023
SCALE:	1/8"=1'-0"
DRAWN BY:	R.P
PROJECT NUMBER:	19-0370

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

ROOFTOP PACKAGE GAS/ELECTRIC SCHEDULE

UNIT NO.	MANUFACTURER & MODEL NO.	QTY.	NOMINAL TON	SERVICE AREA	COOLING CAPACITY (M.B.T.U. / HR) SENS.	TOTAL	AMB. TEMP. (°F.)	ENTERING AIR °F D.B.	°F W.B.	MIN. O.S.A. CFM	SUPPLY FAN CFM	E.S.P.	H.P.	E.E.R. (IEER)	HEATING CAPACITY (M.B.H.) INPUT	OUTPUT	AFUE	ELECTRICAL MCA	MOCP	VOLTAGE	OPER. WT. (LBS.)	REMARKS
RTU 1	YORK AV20	1	20.0	GARAGE	201.6	252.0	95° F	80° F	67° F	N/A	8000	0.7	1.5	11.0 (14.00)	300.0	243.0	81.0	47.4	60.0	460-3-60	1930.0	2-4-5-6 7-8-9-10-11-12
RTU 2	YORK AV20	1	20.0	GARAGE	201.6	252.0	95° F	80° F	67° F	N/A	8000	0.7	1.5	11.0	300.0	243.0	81.0	47.4	60.0	460-3-60	1930.0	2-4-5-6 7-8-9-10-11-12
RTU 3	YORK AV20	1	20.0	GARAGE	201.6	252.0	95° F	80° F	67° F	N/A	8000	0.7	1.5	11.0	300.0	243.0	81.0	47.4	60.0	460-3-60	1930.0	2-4-5-6 7-8-9-10-11-12

REMARKS

1- PROVIDE WITH DIRECT DRIVE INDOOR FAN MOTOR.
2- PROVIDE WITH BELT DRIVE INDOOR FAN MOTOR.
3- PROVIDE OA HOOD AND MANUAL DAMPER.
4- PROVIDE WITH PRE-FABRICATED ROOF CURB.
5- PROVIDE UL900 (CLASS 1 OR 2) 30% EFFICIENT MIN. MERV 13 DISPOSABLE PLEATED FILTER.
6- PROVIDE WITH NON-CFC REFRIGERANT BASED SYSTEM
7- PROVIDE FDD CONTROLLER FOR REFRIGERATION CIRCUIT.
8- FURNISH AND WIRE DUCT SMOKE DETECTOR IN UNITS 2000 CFM AND ABOVE TO SHUT DOWN THE FAN WHEN SMOKE IS DETECTED.
9- FIELD VERIFY EXACT ELECTRICAL REQUIREMENTS WITH MANUFACTURER AND COORDINATE WITH ELECTRICAL CONTRACTOR PRIOR TO START OF WORK.
10- ECONOMIZER WITH GRAVITY RELIEF DAMPER AND REFRIGERANT FAULT DETECTION. APPROVED BY THE STATE OF CALIFORNIA
11- PROVIDE AND INSTALL PROGRAMMABLE T-STAT.
12- PROVIDE WITH VFD FOR INDOOR FAN.

(GARAGE) EXHAUST FAN SCHEDULE

UNIT NO.	MANUFACTURER & MODEL NO.	LOCATION	SERVICES	CFM	TSP (IN.)	FAN R.P.M.	TYPE	ELECTRICAL HP	V./PH./Hz.	OPER. WT. (LBS.)	REMARKS
GEF 1	GREENHECK QEI-18	CEILING	GARAGE	5,970	0.25	1,478	BELT DRIVE	2.0 HP	230/3/60	407.0	1-2-3
GEF 2	GREENHECK QEI-18	CEILING	GARAGE	5,970	0.25	1,478	BELT DRIVE	2.0 HP	230/3/60	407.0	1-2-3
GEF 3	GREENHECK CSP-A3300-VG	CEILING	DETAIL SHOP/ WASH BAY	2,170	0.25	843	BELT DRIVE	324 WATTS	115/1/60	122.0	1-3

REMARKS

1- PROVIDE BACK DRAFT DAMPER FOR ALL EXHAUST FANS
2- CONTROLLED BY CO SENSOR(S)
3- PROVIDE VFD CONTROLLER

- GARAGE EXHAUST FAN SHALL OPERATE CONTINUOUSLY DURING NORMAL OPERATING CONDITIONS AND SHALL BE CAPABLE OF MODULATING TO 50% OR LESS OF DESIGN CFM BUT NEVER LESS THAN 0.15CFM/SQ/FT (T-24: 120.6(c)1-8)

EXHAUST FAN SCHEDULE

UNIT NO.	MANUFACTURER & MODEL NO.	LOCATION	SERVICES	CFM	TSP (IN.)	FAN R.P.M.	TYPE	ELECTRICAL HP	V./PH./Hz.	OPER. WT. (LBS.)	REMARKS
EF 1	BROAN XB80	CEILING	DETAIL SHOP RESTROOM #120	80	0.1	-	DIRECT DRIVE	5.8 WATTS	120/1/60	12.5	1-2
EF 2	BROAN XB80	CEILING	DETAIL SHOP LAUNDRY #119	80	0.1	-	DIRECT DRIVE	5.8 WATTS	120/1/60	12.5	1-3
EF 3	BROAN XB80	CEILING	1ST FLOOR OFFICE RESTROOM #105	80	0.25	-	DIRECT DRIVE	5.8 WATTS	120/1/60	12.5	1-3
EF 4	BROAN XB50	CEILING	FIRE RISER ROOM #122	50	0.1	-	DIRECT DRIVE	4.9 WATTS	120/1/60	12.5	1-3
EF 5	BROAN XB80	CEILING	2ND FLOOR OFFICE RESTROOM #205	80	0.1	-	DIRECT DRIVE	5.8 WATTS	120/1/60	12.5	1-3
EF 6	BROAN QTXE150	CEILING	2ND FLOOR IT ROOM #206	150	0.1	-	DIRECT DRIVE	42.8 WATTS	120/1/60	13.1	1-3
EF 7	BROAN XB80	CEILING	WOMEN'S LOCKER ROOM #208	80	0.1	-	DIRECT DRIVE	5.8 WATTS	120/1/60	12.5	1-3
EF 8	BROAN XB50	CEILING	CLOSET #210	50	0.1	-	DIRECT DRIVE	4.9 WATTS	120/1/60	12.5	1-3
EF 9	BROAN XB110	CEILING	MEN'S LOCKER ROOM #209	100	0.1	-	DIRECT DRIVE	7.7 WATTS	120/1/60	12.3	1-3
EF 10	BROAN XB80	CEILING	MEN'S LOCKER ROOM #209 (OVER URINAL)	75	0.1	-	DIRECT DRIVE	5.8 WATTS	120/1/60	12.5	1-3
EF 11	BROAN XB80	CEILING	MEN'S LOCKER ROOM #209 (OVER URINAL)	75	0.1	-	DIRECT DRIVE	5.8 WATTS	120/1/60	12.5	1-3
EF 12	BROAN XB80	CEILING	MEN'S LOCKER ROOM #209 (OVER STALL)	75	0.1	-	DIRECT DRIVE	5.8 WATTS	120/1/60	12.5	1-3
EF 13	BROAN XB80	CEILING	MEN'S LOCKER ROOM #209 (OVER STALL)	75	0.1	-	DIRECT DRIVE	5.8 WATTS	120/1/60	12.5	1-3

REMARKS

1- PROVIDE BACK DRAFT DAMPER FOR ALL EXHAUST FANS
2- CONTROLLED BY LIGHT SWITCH
3- TIME CLOCK CONTROLLED

FAN COIL SCHEDULE

UNIT NO.	MANUFACTURER & MODEL NO.	SERVICES	QUANT. REQ'D.	MIN. O.S.A. (CFM)	SUPPLY FAN CFM	ESP	H.P.	ELECTRICAL MCA	MOCP	VOLTAGE	OPER. WT. (LBS.)	REMARKS
FC 1	YORK AE36C	1ST FLOOR OFFICES	1	85	1200	0.7	1/2	4.8	15	208/230-1	114.0	1-2-3-4-5-6
FC 2	YORK AE36C	1ST FLOOR OFFICES	1	85	1200	0.7	1/2	4.8	15	208/230-1	114.0	1-2-3-4-5-6
FC 3	YORK AE60C	1ST FLOOR SHIPPING/RECEIVING	1	256	2000	0.7	3/4	6.8	15	208/230-1	146.0	1-2-3-4-5-6
FC 4	YORK AE60C	2ND FLOOR OFFICES	1	128	2000	0.7	3/4	6.8	15	208/230-1	146.0	1-2-3-4-5-6
FC 5	YORK AE60C	2ND FLOOR OFFICES	1	128	2000	0.7	3/4	6.8	15	208/230-1	146.0	1-2-3-4-5-6
FC 6	YORK AE36C	2ND FLOOR PARTS STORAGE	1	N/A	1200	0.7	1/2	4.8	15	208/230-1	114.0	1-2-3-4-5-6

REMARKS

1- FAN TO REMAIN ON DURING BUSINESS HOURS
2- ADJUST FRESH AIR PER T-24 REPORT
3- PROVIDE PROGRAMMABLE THERMOSTAT PER FAN COIL MANUFACTURES SPECIFICATIONS.
4- FURNISH AND INSTALL MATCHING COOLING COIL AT EACH FAN COIL.
5- INSTALL AND WIRE DUCT SMOKE DETECTOR AT SUPPLY DUCT PER MANUFACTURES SPECIFICATIONS. (IF AGGREGATE SUPPLY CFM'S EXCEED 2000)
6- MINIMUM 2" MERV-13 AIR FILTER REQUIRED AT ALL FAN COILS

- PROVIDE ADDITIONAL RELAY AND TRANSFORMER TO INTERRUPT THE MAIN POWER SUPPLY TO AIR HANDLER OR FAN COIL WHEN SMOKE IS DETECTED.
- IF THE EQUIVALENT LENGTH OF REFRIGERANT LINES EXCEED WHAT IS RECOMMENDED BY MANUFACTURER INSTALL LONG LINE SET ACCESSORIES PER MANUFACTURERS RECOMMENDATIONS. TOTAL REFRIGERANT EQUIVALENT LENGTH SHALL NOT EXCEED 200'.

OUTDOOR HEAT PUMP SCHEDULE

UNIT NO.	MANUFACTURER & MODEL NO.	SERVICES	QUANT. REQ'D.	COOLING CAPACITY (M.B.T.U./HR) (SENSIBLE/TOTAL)		AMB. TEMP. (°F.)	S.E.E.R. EER	HEATING CAPACITY (HIGH / LOW)	(COP) HSPF	ELECTRICAL MCA	MOCP	VOLTAGE	OPER. WT. (LBS.)	REMARKS
HP 1	YORK THE36	1ST FLOOR OFFICES	1	24.4	34.2	95F	15.25 12.50	33.4 / 19.5	(3.66) 8.55	12.58	20.0	208/230-3	230.0	1-2
HP 2	YORK THE36	1ST FLOOR OFFICES	1	24.4	34.2	95F	15.25 12.50	33.4 / 19.5	(3.66) 8.55	12.58	20.0	208/230-3	230.0	1-2
HP 3	YORK THE60	1ST FLOOR SHIPPING/RECEIVING	1	38.5	54.9	95F	14.25 12.00	57.0 / 37.8	(3.88) 9.00	21.22	35.0	208/230-3	256.0	1-2
HP 4	YORK THE60	2ND FLOOR OFFICES	1	38.5	54.9	95F	14.25 12.00	57.0 / 37.8	(3.88) 9.00	21.22	35.0	208/230-3	256.0	1-2
HP 5	YORK THE60	2ND FLOOR OFFICES	1	38.5	54.9	95F	14.25 12.00	57.0 / 37.8	(3.88) 9.00	21.22	35.0	208/230-3	256.0	1-2
HP 6	YORK THE36	2ND FLOOR PARTS STORAGE	1	24.4	34.2	95F	15.25 12.50	33.4 / 19.5	(3.66) 8.55	12.58	20.0	208/230-3	230.0	1-2

REMARKS

1- INSTALL HEAT PUMP UNIT ON ROOF, SEE SHEET M0.2 FOR ROOF MOUNTING DETAIL.
2- PROVIDE R410-A REFRIGERANT FOR SYSTEM.

FAN COIL SCHEDULE (WALL MOUNTED)

UNIT NO.	MANUFACTURER & MODEL NO.	SERVICES	QUANT. REQ'D.	MIN. O.S.A. CFM	SUPPLY FAN CFM	ESP	HP	ELECTRICAL MCA	MOCP	VOLTAGE	OPER. WT. (LBS.)	REMARKS
FC 7	FUJITSU ASU18RLB	ELEVATOR ROOM	1	N/A	600	0.5	1/10	1	15	208/1	31	CONTROLLED BY ROOM T-STAT
FC 8	FUJITSU ASU18RLB	ELECTRICAL ROOM	1	N/A	600	0.5	1/10	1	15	208/1	31	CONTROLLED BY ROOM T-STAT
FC 9	FUJITSU ASU18RLB	EQUIPMENT ROOM	1	N/A	600	0.5	1/10	1	15	208/1	31	CONTROLLED BY ROOM T-STAT

OUTDOOR HEAT PUMP SCHEDULE

UNIT NO.	MANUFACTURER & MODEL NO.	SERVICES	QUANT. REQ'D.	COOLING CAPACITY (M.B.T.U. / HR) SENSIBLE	TOTAL	AMB. TEMP. (°F.)	S.E.E.R. EER	HEATING CAPACITY (HIGH / LOW)	(COP) HSPF	ELECTRICAL MCA	MOCP	VOLTAGE	OPER. WT. (LBS.)	REMARKS
HP 7	FUJITSU AOU18RLB	ELEVATOR ROOM	1	13.0	18.0	95F	19 -	20.0 / 7.0	(4.31) 10.20	14.6	15	208/230-1	86	1-2
HP 8	FUJITSU AOU18RLB	ELECTRICAL ROOM	1	13.0	18.0	95F	19 -	20.0 / 7.0	(4.31) 10.20	14.6	15	208/230-1	86	1-2
HP 9	FUJITSU AOU18RLB	EQUIPMENT ROOM	1	13.0	18.0	95F	19 -	20.0 / 7.0	(4.31) 10.20	14.6	15	208/230-1	86	1-2

REMARKS

1- INSTALL CONDENSING UNIT ON 4" REINFORCE CONCRETE PAD 6" ABOVE ADJACENT GRADE LEVEL.
2- PROVIDE R410-A REFRIGERANT FOR SYSTEM.

DRYER EXHAUST BOOSTER FAN SCHEDULE

UNIT NO.	MANUFACTURER & MODEL NO.	LOCATION	SERVICES	QUANT. REQ'D.	CFM	T.S.P. (IN.)	FAN R.P.M.	TYPE	ELECTRICAL WATTS	V./PH./HZ.	OPER. WT. (LBS.)	REMARKS
DB 1	FANTECH DBF-110	CEILING	LAUNDRY ROOM	1	110	0.2	1169	DIRECT DRIVE	80	115/1/60	7.0	1-2

REMARKS

1- PAINT LOUVER PER ARCHITECT'S INSTRUCTIONS
2- PROVIDE 10X10 ACCESS PANEL NEAR TO BOOSTER FAN FOR MAINTENANCE.

MECHANICAL LEGEND

SYMBOL:	DESCRIPTION
	SUPPLY AIR DUCT
	RETURN AIR DUCT
	EXHAUST DUCT
14 X 10	DUCT (FIRST DIMENSION IS SIDE SHOWN)
14 X 10	LINED DUCT (SHEET METAL SIZE SHOWN)
M.V.D. A.F.D.	AUTOMATIC FIRE DAMPER, MANUAL VOLUME DAMPER, DOUBLE THICKNESS TURNING VANES
C.D.	CEILING DIFFUSER
R.A.R.	RETURN AIR REGISTER
R.G. E.G.	RELIEF GRILLE OR EXHAUST GRILLE
D.L. - U.C.	DOOR LOUVER - UNDERCUT DOOR
F.A.	FRESH AIR
S.A.	SUPPLY AIR
R.A.	RETURN AIR
E.A.	EXHAUST AIR
O.S.A.	OUTSIDE AIR
U.T.R.	UP THROUGH ROOF
RF. JK.	ROOF JACK
(TYP.)	TYPICAL
SFD	SMOKE/FIRE DAMPER
SD	DUCT SMOKE DETECTOR IN SUPPLY DUCT
T	THERMOSTAT (MOUNT 4'-0" ABOVE FINISH FLOOR)
S T	TIMER SWITCH
M	MECHANICAL CONTRACTOR
E	ELECTRICAL CONTRACTOR
ME	EQUIPMENT FURNISHED BY MECHANICAL CONTRACTOR & INSTALLED BY ELECTRICAL CONTRACTOR
C CO2	CO2 SENSOR (MOUNT 4'-0" ABOVE FINISHED FLOOR)
CO	CO SENSOR (MOUNT 4'-0" ABOVE FINISHED FLOOR))
E	COMBINATION FIRE & SMOKE DAMPER
E	FIRE DAMPER
	POINT OF CONNECTION

1- SMOKE DETECTORS SHALL BE LABELED BY AN APPROVED AGENCY, APPROVED AND LISTED BY THE CALIFORNIA STATE FIRE MARSHAL FOR AIR DUCT INSTALLATION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S APPROVED INSTALLATION INSTRUCTIONS ALSO IN ACCORDANCE WITH 608.1

2- AN AIR BALANCE TEST WILL BE REQUIRED TO VERIFY THE PROPER AMOUNT OF OUTSIDE AIR TO COMPLY WITH THE T-24 CALCULATIONS, BEFORE THE FINAL APPROVAL OF THE PROJECT.

3- PRIOR TO FINAL APPROVAL OF THE MECHANICAL PERMIT, A SMOKE DETECTOR SHUT-OFF TEST SHALL BE REQUIRED.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH
GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

ADDITIONAL NOTES

ANY PENETRATION THROUGH SLAB SHALL MEET THE REQUIREMENTS FOR DETAIL GC-5.0 ON METHANE GAS PLAN.

2

AIR CONDITIONING & VENTILATING SPECIFICATIONS

1. FURNISH AND INSTALL HEATING, VENTILATING AND AIR CONDITIONING SYSTEM AND EQUIPMENT AS SHOWN ON DRAWINGS. OBTAIN STRUCTURAL ENGINEER'S APPROVAL PRIOR TO INSTALLATION
2. WHERE SOUND INSULATION IS INDICATED , DUCT DIMENSIONS ARE NET CLEAR – e.g. AFTER INSULATION HAS BEEN INSTALLED .
3. ALL AIR HANDLING DUCTS AND PLENUMS SHALL BE CONSTRUCTED, INSTALLED, AND SEALED AS PROVIDED IN CHAPTER 6 OF THE 2019 CMC AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS. NO FLEX DUCT ALLOWED ON THIS PROJECT BEYOND 5'. PER COMPLIANCE WITH CMC 603.4.1.
4. ALL WORK SHALL BE IN ACCORDANCE WITH CITY CODES , STATE OF CALIFORNIA ENERGY CONSERVATION STANDARDS AND ALL OTHER APPLICABLE CODES. COMPLYING CODES SHALL BE:
   2019 CALIFORNIA BUILDING CODE
   2019 CALIFORNIA MECHANICAL CODE
   2019 CALIFORNIA PLUMBING CODE
   2019 CALIFORNIA ELECTRICAL CODE
   2019 CALIFORNIA FIRE CODE
   2019 CALIFORNIA ENERGY CODE
   2019 CALIFORNIA GREEN BUILDING CODE ALONG WITH ANY OTHER APPLICABLE LOCAL AND STATE LAWS AND REGULATIONS
5. WHEN DUCTWORK IS INSTALLED IN ATTIC OR IN A NON CONDITIONED SPACE:
   EXTERNALLY INSULATE ALL SUPPLY & RETURN AIR DUCTWORK IN UNCONDITIONED SPACES WITH JOHNS MANVILLE FIBERGLASS MICROLITE FIBER GLASS DUCT WRAP WITH VAPOR BARRIER AND AN AVERAGE INSTALLER 'R' VALUE OF 8 OR PER CHAPTER 6 OF THE 2019 CMC AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS. WRAP INSULATION SHALL MEET NFPA 90A AND 90B, AND TO SHALL HAVE FLAME SPREAD NOT MORE THAN 25 AND SMOKE DENSITY INDEX NOT TO EXCEED 50 WHEN TESTED AS COMPOSITE INSTALLATION. INSULATION MATERIAL SHALL BE RESISTANT TO MICROBIAL GROWTH.
6. LINE ALL DUCTS WHERE INDICATED. LINING MATERIAL SHALL BE EQUAL TO JOHNS MANSVILLE PERMACOTE LINACOUSTIC STANDARD WITH R VALUE OF 5 OR AS PER CHAPTER 6 OF THE 2019 CMC AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS. SHALL MEET NFPA 90A AND 90B AND SHALL HAVE FLAME SPREAD NOT MORE THAN 25 AND SMOKE DENSITY INDEX NOT MORE THAN 50 WHEN TESTED AS A COMPOSITE INSTALLATION. ALL A MATERIAL EXPOSED WITHIN THE PLENUM SPACE SHALL HAVE A MOULD, HUMIDITY AND EROSION RESISTANT FACE THAT MEETS THE REQUIREMENTS OF UL 181.
7. AIR MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2000 CFM SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF ACTIVATED BY A SMOKE DETECTOR LOCATED IN THE MAIN SUPPLY AIR DUCT. A SYSTEM MY INCLUDE MORE THAN ONE PIECE OF AC UNIT WHICH SERVES A COMMON SPACE WITH AGGREGATE SUPPLY AIR OF MORE THAN 2000 CFM.
8. WHEN FIRE DETECTION OF ALARM SYSTEMS ARE PROVIDED FOR BUILDING, ANY REQUIRED SMOKE DETECTORS SHALL BE SUPERVISED BY SUCH SYSTEMS AND SHALL BE CAPABLE OF ACTIVATING THE FIRE ALARM SYSTEM.
9. CONTRACTOR SHALL COORDINATE ALL DUCT , PIPE AND EQUIPMENT LOCATIONS WITH ELECTRICAL , STRUCTURAL , PLUMBING AND ALL OTHER TRADES .
10. ALL FACTORY MADE AIR DUCTS SHALL BE CLASS 1 OR 0.
11. MINIMUM OUTDOOR AIR REQUIREMENTS : 15 C.F.M. / PERSON .
12. ALL DUCTS SHALL BE SUPPORTED PER MIN. REQUIREMENT OF 2019 CMC AND SHALL BE BRACED AND GUYED TO PREVENT LATERAL OR HORIZONTAL SWING.
13. ALL EQUIPMENT SHALL BE NEW AND OF THE MANUFACTURER AS SCHEDULED. ANY REQUEST FOR SUBSTITUTE SHALL BE SUBMITTED IN WRITING WITH COMPLETE MANUFACTURER'S LITERATURE, PERFORMANCE AND SHOP DRAWINGS. EQUIPMENT SHALL BE ORDERED WITH AMPLE TIME TO MAKE THE CONSTRUCTION SCHEDULE WITHOUT EXTRA COST TO OWNER.
14. ALL HVAC EQUIPMENT SHALL BE INSTALLED PER SMACNA SEISMIC RESTRAINT METHODS.
15. LABEL ALL ROOFTOP EQUIPMENT AND OTHER REMOTE EQUIPMENT WITH THE NAME OF THE AREA SERVED. USE PERMANENT MARKINGS SUCH AS PAINT OR ENGRAVED LABELS.
16. ALL DRAWINGS ARE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS . THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW & COORDINATION OF ALL DRAWINGS PRIOR TO ANY CONSTRUCTION , INCLUDING ARCHITECTURAL , STRUCTURAL , AIR CONDITIONING , PLUMBING AND ELECTRICAL . ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF ENGINEER PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION MAY BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENT SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE , AND AT NO EXPENSE TO THE OWNER.
17. DO NOT SCALE DRAWINGS – ALL DIMENSIONS & JOB SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO BID SUBMITTAL , START OF CONSTRUCTION AND / OR FABRICATION OF MATERIALS . IF DISCREPANCIES ARE ENCOUNTERED , THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION. SUBMIT 4 SETS AIR BALANCE REPORTS TO ENGINEER UPON COMPLETION OF AIR BALANCE.
18. THE CONTRACTOR SHALL FURNISH ALL MATERIALS , LABOR , EQUIPMENT , TRANSPORTATION & SERVICES NECESSARY FOR COMPLETION OF THE WORK . ALL MATERIALS & WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES & GOVERNING REGULATIONS AND SHALL MEET WITH THE APPROVAL OF THE CITY & STATE FIRE MARSHAL.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION & PROVIDE REPAIR OF ADJACENT EXISTING SURFACES , AREAS & PROPERTY THAT MAY BE DAMAGED AS A RESULT OF ANY DEMOLITION AND / OR NEW WORK .
20. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF CEILING DIFFUSERS, IF APPLICABLE.
21. SEE ARCHITECTURAL DRAWINGS FOR ROOF ACCESS & ADDITIONAL ENERGY CONSERVATION NOTES .
22. ALL ENCLOSED SPACES IN A BUILDING THAT ARE NORMALLY USED BY HUMANS SHALL BE VENTILATED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 121 OF ENERGY STANDARDS.
23. SEE PLUMBING DRAWINGS FOR PRIMARY & SECONDARY CONDENSATE DRAINS .
24. ALL OUTLETS FOR FUTURE CONNECTIONS SHALL BE INSTALLED SO AS TO PERMIT EASY CONNECTION. COORDINATE DUCTWORK , STRUCTURAL CONDITIONS AND ARCHITECTURAL LAYOUT.
25. ALL CONDENSATE DRAIN PIPE SHALL BE TYPE 'M' COPPER TUBING, WITH 50-50 SOLDER FITTINGS. ALL INTERIOR CONDENSATE DRAIN PIPING SHALL BE INSULATED.
26. BALANCE ALL AIR AS INDICATED USING APPROPRIATE INSTRUMENTS AND FURNISH A BALANCE REPORT TO THE OWNER OF OWNER'S REPRESENTATIVE PRIOR TO THE CALL FOR FINAL INSPECTION. THE REPORT SHALL INCLUDE THE FOLLOWING: PERSONS, TIME, DATED, INSTRUMENTS USED, AIR OUTLETS WITH DESIGN AND ACTUAL AIR QUANTITIES, TOTAL AIR, SUPPLY, AND OUTSIDE AIR AND THE METHOD OF DETERMINING THESE VALUES, FAN RPM, TOTAL FAN MOTOR, NAMEPLATE F.L.A. AND NAMEPLATE AMPS. AFTER COMPLETION OF TESTING, ADJUSTMENT AND BALANCING, PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.
27. INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT SHALL BE PROVIDED TO FIELD INSPECTOR AT TIME OF INSPECTION.
28. ALL APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE PER BUILDING CODE REQUIREMENTS.
29. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST 10' IN A HORIZONTAL DIRECTION OR 3' ABOVE THE OUTSIDE AIR INTAKES FOR HVAC UNITS.
30. COMBUSTION AIR OPENINGS SHALL BE COVERED WITH CORROSION RESISTANT SCREEN OF 1/4" MESH, AS PROVIDED IN SECTION 704.3 OF 2019 CMC.
31. ALL DUCT DIMENSIONS SHOWN ON PLANS ARE NET INSIDE DIMENSIONS.

ADDITIONAL ENERGY NOTES

1. ALL PIPING AND DUCT WORK SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENT OF SECTIONS 120.3, 120.4 AND 120.7 TITLE 24 ENERGY STANDARDS AND CHAPTER 6 OF CMC."

2. ALL HVAC SYSTEM SHALL MEET THE CONTROL REQUIREMENTS PER SECTION 110.2 AND 120.2 E.E.S."

3. ALL HVAC EQUIPMENT AND APPLIANCES SHALL MEET THE REQUIREMENTS PER SECTION 110.1-110.3, 110.5, 120.1-120.4 TITLE 24 ENERGY STANDARDS."

DUCT INSULATION REQUIREMENTS

DUCT LOCATIONS	INSULATION R-VALUE	INSTALLED INSULATION THICKNESS
OUTDOORS SPACE BETWEEN ROOF AND INSULATED CEILING IN VENTED ATTIC SPACES IN UNCONDITIONED SPACES	R-8	2.5"
IN RETURN AIR PLENUM INDIRECTLY CONDITIONED SPACES	R-4.2	1.25"
ENCLOSED IN DIRECTLY CONDITIONED SPACE	NONE REQUIRED	-

LOUVER AND DAMPER SCHEDULE

UNIT NO.	MANUFACTURER & MODEL NO.	DESCRIPTION	SIZE	FINISH	MATERIAL	USAGE	REMARKS
WL 1	RUSKIN L811	4" DEEP, 18 GA. GALVANIZED	SEE DWGS.	PER ARCH.	STEEL	INTAKE	1
DG 1	TITUS 23RL	45 DEGREE DEFLECTION, 3/4" BLADE	SEE DWGS.	PER ARCH.	STEEL	INTAKE	1

REMARKS

1- PAINT LOUVER PER ARCHITECT'S INSTRUCTIONS

MECHANICAL SCHEDULES & NOTES

SCALE: NONE

PROENGINEERING
MEP CONSULTANTS

PROJECT

No.1 Collision

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

CLIENT
Walker Group of WALKER GROUP OF COMPANIES
ATTN:ROBERT A. WALKER
11100 CAMBIE ROAD #100
RICHMOND, BC V6X 1K9
P:604.231-9614 F: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
P:(310) 453-4431 F:(310) 829-5296

CONSULTING ARCHITECT
CHRISTOPHER BOZYK ARCHITECTS LTD.
ATTN:CHRIS BOZYK
Suite 414 - 611 Alexander Street
Vancouver, BC, Canada V6A 1E1
P: (604) 251-3440 F:(604) 251-3848

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN:JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA, 92614
P:(949) 250-3150 F:(949) 203-0450

M.E.P. ENGINEER
PRO ENGINEERING COSULTING, INC.
ATTN:RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN:RICK MAYER
1403 KENNETH RD. SUITE B
GLENDALE, CA 91201
P: (818) 956-8101 F: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & ASSOCIATES INC.
ATTN:DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK / REVISION	7/13/21
2	PLAN CHECK	5/31/23

STAMP + SIGNATURE

REGISTERD PROFESSIONAL ENGINEER
RASHID PARSI
M 26481
Exp.12-31-23
MECHANICAL
STATE OF CALIFORNIA

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SHEET TITLE

M0.1

DATE:	5/31/2023
SCALE:	NONE
DRAWN BY:	R.P
PROJECT NUMBER:	19-0370

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

PROJECT

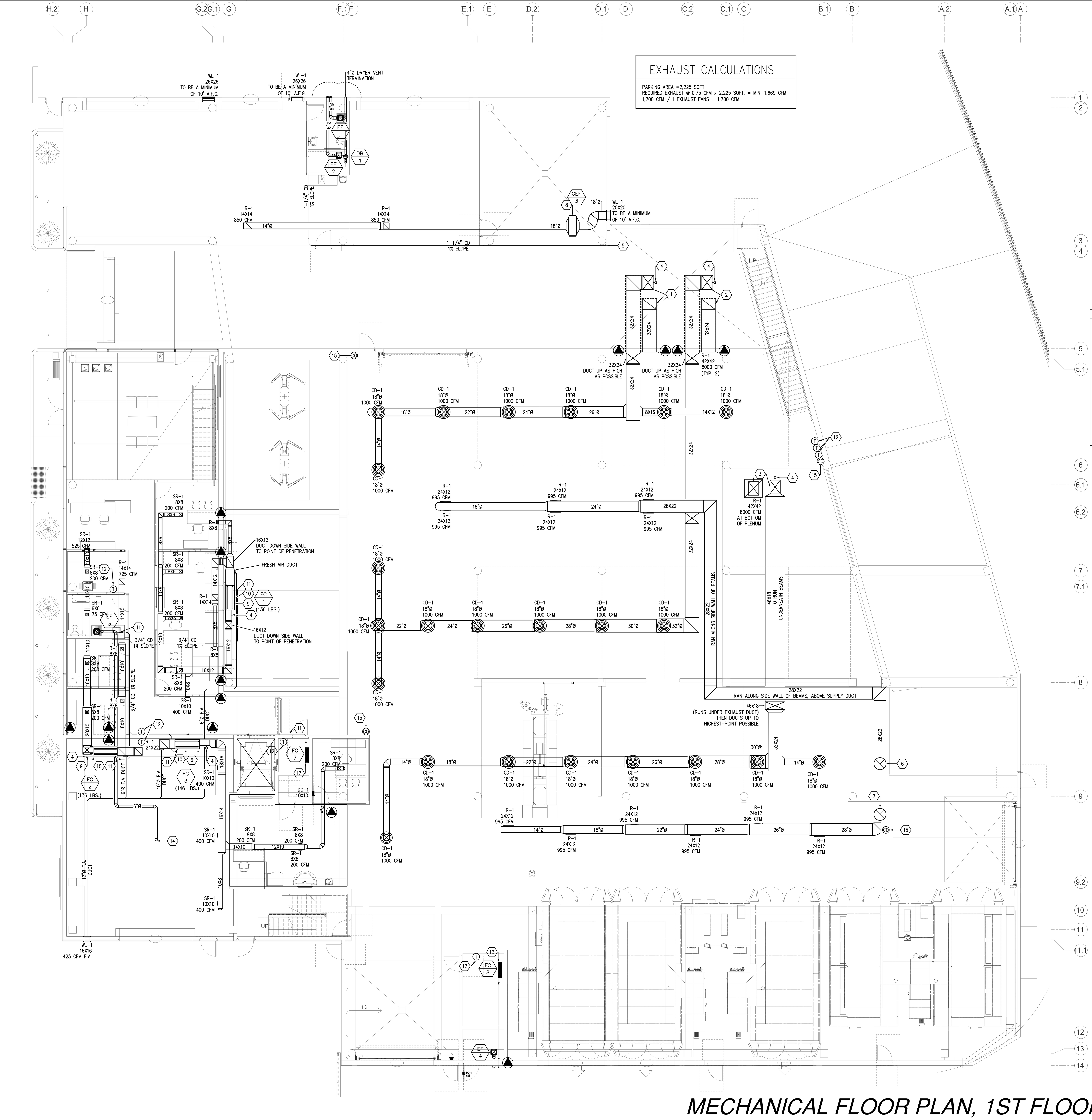
No.1 Collision

2750 BRISTOL ST.
COSTA MESA, CA 92626

PROENGINEERING
M E P CONSULTANTS

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431



MECHANICAL FLOOR PLAN, 1ST FLOOR

SCALE: 3/32"=1'-0"

SHEET NOTES

1. 32X24 SUPPLY AND RETURN PLENUM FROM RTU–1, LOCATED ON PARKING LEVEL ABOVE. (SEE SHEET M1.2 FOR LOCATION).
2. 32X24 SUPPLY AND RETURN PLENUM FROM RTU–2, LOCATED ON PARKING LEVEL ABOVE. (SEE SHEET M1.2 FOR LOCATION).
3. 32X24 SUPPLY AND RETURN PLENUM FROM RTU–3, LOCATED ON PARKING LEVEL ABOVE. (SEE SHEET M1.2 FOR LOCATION).
4. INSTALL DUCT SMOKE DETECTOR AND TIE DUCT SMOKE DETECTOR INTO BUILDING FIRE ALARM SYSTEM, IF ONE EXIST. (2019 NFPA 72 & 2019 CMC).
5. 1–1/4"Ø CONDENSATE DRAIN FROM COMBINED RTU CONDENSATE LINES AT 1% SLOPE TO TAIL PIECE OF LAVATORY SINK.
6. 28"Ø EXHAUST DUCT WITH BACK DRAFT DAMPER UP TO GEF–1, LOCATED ON PARKING LEVEL ABOVE.
7. 28"Ø EXHAUST DUCT WITH BACK DRAFT DAMPER UP TO GEF–2, LOCATED ON PARKING LEVEL ABOVE.
8. INSTALL GEF–3 PER MANUFACTURERS SPECIFICATIONS.
9. INSTALL FC–1, FC–2, & FC–3 PER MANUFACTURERS SPECIFICATIONS. (TO INSTALL ALL UNITS AS HIGH AS POSSIBLE.)
10. 3/4"Ø CONDENSATE OVERFLOW DRAIN AND PAN TERMINATE AT CEILING IN VISIBLE LOCATION ABOVE PLUMBING FIXTURE.
11. 3/4"Ø CONDENSATE DRAIN AT 1% SLOPE TO TAIL PIECE OF LAVATORY SINK.
12. INSTALL THERMOSTAT AT 42" ABOVE FINISHED FLOOR. WITH LOCK BOX IF ACCESSIBLE TO THE PUBLIC.
13. INSTALL FAN COIL PER MANUFACTURES SPECIFICATIONS. BOTTOM OF THE FAN COIL NEEDS TO BE MIN 7' A.F.F. DO NOT INSTALL FAN COIL OVER EQUIPMENT AND CONTROLLERS.
14. 6"Ø EXHAUST DUCT WITH BACK DRAFT DAMPER, UTILIZE SHAFT AND RUN THROUGH 2ND FLOOR UP TO ROOF. INSTALL AS HIGH AS POSSIBLE. AS TO ENSURE DUCT DOES NOT CONFLICT WITH "BIG ASS FAN".
15. REMOTE CO SENSOR TO CONTROL GEF–1 AND GEF–2.

ADDITIONAL NOTE

ANY PENETRATION THROUGH SLAB SHALL MEET THE REQUIREMENTS FOR DETAIL GC–5.0 ON METHANE GAS PLAN.

2

AIR BALANCE TABLE
(SERVICE SHOP #110)

EXHAUST FROM GEF–1 = 5,970 CFM EXHAUST FROM GEF–2 = 5,970 CFM	
TOTAL EXHAUST FROM KITCHEN:	11,940 CFM
SUPPLY AIR FROM RTU–1: 8,000 CFM SUPPLY AIR FROM RTU–2: 8,000 CFM SUPPLY AIR FROM RTU–3: 8,000 CFM	
TOTAL SUPPLY & RETURN AIR FROM RTU'S:	24,000 CFM
PROVIDE ELECTRICAL INTERLOCK BETWEEN RTU'S #1–3 WITH EXHAUST FANS GEF–1 AND GEF–2.	

AIR BALANCE TABLE
(OFFICES AND RESTROOMS)

EXHAUST FROM EF–2 = 80 CFM	
TOTAL EXHAUST:	80 CFM
SUPPLY AIR FROM FC–1: 1,200 CFM SUPPLY AIR FROM FC–2: 1,200 CFM	
TOTAL SUPPLY FROM FC–1 AND FC–2:	2,400 CFM
RETURN AIR FROM FC–1: 1,200 CFM RETURN AIR FROM FC–2: 1,120 CFM	
TOTAL RETURN FROM FC–1 AND FC–2:	2,320 CFM

AIR BALANCE TABLE
(SHIPPING & RECEIVING #115 / PARTS & TOOLS #113)

SUPPLY AIR FROM FC–3: 2,000 CFM	
TOTAL SUPPLY & RETURN AIR FROM FC–3:	2,000 CFM

EXHAUST CALCULATIONS

PARKING AREA = 15,917 SQFT
REQUIRED EXHAUST @ 0.75 CFM x 15,920 SQFT. =11,940 CFM
11,940 CFM / 2 EXHAUST FANS = 5,970 CFM / EHXAUST FAN

SPRAY BOOTH

SPRAY BOOTH IS NOT PART OF SCOPE OF WORK.
THIS WILL BE PROVIDED BY ANOTHER CONTRACTOR.

BUILDING ORIENTATION

N

CONSULTANTS

CLIENT
Walker Group of WALKER GROUP OF COMPANIES
ATTN:ROBERT A. WALKER
11100 CAMBIE ROAD #100
RICHMOND, BC V6X 1K9
P:604.231-9614 F: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
P:(310) 453-4431 F:(310) 829-5296

CONSULTING ARCHITECT
CHRISTOPHER BOZYK ARCHITECTS LTD.
ATTN:CHRIS BOZYK
Suite 414 - 611 Alexander Street
Vancouver, BC, Canada V6A 1E1
P: (604) 251-3440 F:(604) 251-3848

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN:JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA, 92614
P:(949) 250-3150 F:(949) 203-0450

M.E.P. ENGINEER
PRO ENGINEERING COSULTING, INC.
ATTN:RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN:RICK MAYER
1403 KENNETH RD. SUITE B
GLENDALE, CA 91201
P: (818) 956-8101 F: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & ASSOCIATES INC.
ATTN:DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK / REVISION	7/13/21
2	PLAN CHECK	5/31/23

STAMP + SIGNATURE

REGISTERD PROFESSIONAL ENGINEER
RASHID PARSI
M 26481
Exp.12–31–23
R. Parsi
MECHANICAL
STATE OF CALIFORNIA

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SHEET TITLE

M1.1

DATE:	5/31/2023
SCALE:	3/32"=1'-0"
DRAWN BY:	R.P
PROJECT NUMBER:	19-0370

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	ROUGH-INS WASTE	ROUGH-INS VENT	ROUGH-INS H.W.	ROUGH-INS C.W.
WC-1	WALL MOUNTED 1.28 GPF FLUSHOMETER TOILET SYSTEM, TOTO MODEL CT705EN(G) , #01 COTTON COLOR, ELONGATED BOWL, FLUSHOMETER VALVE TET1LN32CP, SEAT SC534 #01.	4"	2"	–	1 1/2"
WC-2 ADA	ADA WALL MOUNTED 1.28 GPF FLUSHOMETER TOILET SYSTEM, TOTO MODEL CT705EN(G) , #01 COTTON COLOR, ELONGATED BOWL, FLUSHOMETER VALVE TET1LN32CP, SEAT SC534 #01.	4"	2"	–	1 1/2"
UR-1	WALL MOUNT URINAL, TOTO MODEL UT105UV, COTTON COLOR, WITH FLUSH VALVE TOTO MODEL TEU1UN12CP, .125 GPF, ADA COMPLIANT.	2"	2"	–	3/4"
L-1	UNDERCOUNTER LAVATORY, KOHLER LADENA MODEL K-2214-G, #1 COTTON COLOR, FAUCET KOHLER 13473 0.5 GPM. INSTALL PER ADA	1 1/2"	1 1/2"	1/2"	1/2"
FD-1	FLOOR DRAIN BY ZURN MODEL Z415B, DURA COATED CAST IRON WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND "TYPE B" POLISHED BRONZE. 6" LIGHT DUTY STRAINER.	2"	2"	–	1/2"
HS-1	1 COMPARTMENT SINK , KOHLER K3330, FAUCET MODEL K-13473 WITH GOOSENECK (TOUCHLESS). 1.5 GPM.	2"	2"	1/2"	1/2"
MB	WASHER BOX MAYTAG MODEL MGT3800X WITH 2-1/2" HOSE VALVE.	2"	1-1/2"	1/2"	1/2"
RD-1	ROOF DRAIN, J.R.SMITH SERIES 1010, 16" DIAMETER LOW PROFILE DOME, DUCO CAST IRON BODY WITH POLYETHYLENE DOME AND 4" OUTLET.	4"	–	–	–
ROD-1	ROOF OVERFLOW DRAIN, J.R.SMITH SERIES 1070, 16" DIAMETER LOW PROFILE DOME, DUCO CAST IRON BODY WITH POLYETHYLENE DOME AND 4" OUTLET.	4"	–	–	–
HB-1	WAATS MODEL #HXP7 WALL HYDRANT TYPE	–	–	–	1/2"
HB-2	WAATS MODEL #HY700 DUAL TEMPERATURE WALL HYDRANT	–	–	–	1/2"
FS-1	JR SMITH MODEL 3440, CAST IRON BODY AND GRATE WITH ENAMELED PORCELAIN COATING, INSTALL WITH TRAP PRIMER.	2"	2"	–	1/2"
MB-1	FLORESTONE MODEL MSR-2424, MOLDED ONE PIECE, WITH MR-370 5' LONG HOSE, MR-371 FAUCET WITH VACUUM BREAKER DOUBLE STOPS AND BUCKET HOOK.	2"	2"	3/4"	3/4"
DF-1	SINGLE LEVEL WALL MOUNT ADA DRINKING FOUNTAIN ELKAY MODEL LZS8L, LEAD FREE, EASY TOUCH CONTROL, 8 GPH CAPACITY, 120V, 5 AMPS, 575 WATTS, 89 LBS.	2"	2"	–	1/2"

NOTE:
- LAVATORY FAUCETS IN RESTROOMS IN COMMERCIAL AND INDUSTRIAL BUILDINGS SHALL BE SELF-CLOSING TYPE.
- EACH SELF-CLOSING LAVATORY FAUCET SHALL NOT EXCEED A WATER FLOW OF 0.20 GALLONS/CYCLE.
- PLUMBING FIXTURES AND FITTINGS SHALL COMPLY WITH ALL THE REQUIREMENT IN SECTION 5.303 OF 2019 CALIFORNIA GREEN BUILDING CODE.
- ALL FLOOR DRAINS SHALL HAVE A SEAL PROTECTION PER CPC SECTION 1007.0
- INSTALL BFP FOR DISH WASHER PER CPC 2019, SECTION 603.
- PLUMBING FIXTURES AS SPECIFIED ABOVE OR EQUAL.
- OBTAIN OWNER'S APPROVAL PRIOR TO ORDERING PRODUCTS.

EQUIPMENT FIXTURE SCHEDULE

MARK	DESCRIPTION
WH-1	TANKLESS WATER HEATER NORITZ MODEL NCC199CDV, 200,000 BTU/HR INPUT, 6.5 GPM AT 60° TEMPERATURE RISE, 98% EFFICIENCY, .96 UNIFORM ENERGY FACTOR.
ET-1	2.10 GALLON EXPANSION TANK, AO SMITH MODEL TW-5

PIPE SCHEDULE AND MATERIAL

SERVICE	LOCATION	TYPE 'L' COPPER	TYPE 'M' COPPER	NO-HUB CAST IRON	SCH 40 BLACK STEEL	SCH 40 GALV. STEEL	POLYETHYLENE	SCH 40 PVC	ABS SCHEDULE 40	TYPE 'K' COPPER	SCHEDULE 80 PVC	SCHEDULE 40 PVC	REMARKS
WATER	INSIDE	●											LEAD FREE SOLDER JOINTS
	BEL. GRADE									●	●		SCHEDULE 80 PVC EXTERNAL TO BUILDING IF PERMITTED
WASTE	ABV. FLR.			●									NO-HUB CAST IRON WHERE SOIL ANALYSIS ALLOWS TO USE IT
	BEL. FLR.					●							NO HUB WITH SS BAND FOR CAST IRON
ROOF DRAIN	ABV. FLR.			●									ABS SCHEDULE 40 WHERE PERMITTED
	BEL. FLR.			●									NO HUB WITH SS BAND FOR CAST IRON
VENT	ABV. FLR.			●		●							NO HUB WITH SS BAND FOR CAST IRON
	BEL. FLR.			●									NO HUB WITH SS BAND FOR CAST IRON
INDIRECT WASTE	INSIDE		●										95-5 SOLDERED FITTINGS
	OUTSIDE		●										USE DWV COPPER FOR PLUMBING FIXTURE IN KITCHENS.
CONDENSATE DRAIN	INSIDE		●										95-5 SOLDERED FITTINGS
	OUTSIDE		●										95-5 SOLDERED FITTINGS
GAS	INSIDE				●								SCH. 40 THREADED FITTINGS
	OUTSIDE					●							SCH. 40 THREADED FITTINGS
	OUTSIDE BEL. GRADE						●						SOLVENT WELD FITTINGS
COMPRESSED AIR										●			

FOR WASTE & VENT, USE DWV GRADE FOR PVC/ABS, IF PERMITTED. SCHEDULE 40 ABS FOR WASTE LINE NOT ALLOWED IF EXPOSED TO MECHANICAL DAMAGE. DEPENDING ON SOIL TEST REPORT UNDER GRADE CAST IRON INSTALLATION MIGHT NEED TO BE SLEEVED WITH A MINIMUM OF 8 MIL POLYETHYLENE AND SURROUNDED BY A MINIMUM OF 6" OF SAND. ALL POTABLE WATER PIPING SHALL BE LEAD FREE SOLDER JOINTS. ALL PIPE, FITTINGS, FIXTURES, ETC. THAT CONTACT POTABLE WATER FOR HUMAN CONSUMPTION SHALL SHOW APPROVAL TO NSF 61, ANNEX G (AB 1953). REFERENCE SECTION 604.10, CALIFORNIA PLUMBING CODE 2019 EDITION, AND HEALTH AND SAFETY CODE SECTION 116875.

2019 NON-RESIDENTIAL MANDATORY MEASURES

TABLE 5.303.2.3

FIXTURE FLOW RATE

FIXTURE TYPE	MAXIMUM FLOW RATE AT 20 PERCENT REDUCTION
Shower heads	1.8 gpm @ 80 psi
Lavatory faucets-nonresidential	0.5 gpm @ 60 psi
Kitchen faucets	1.8 gpm @ 60 psi
Wash fountains	1.8 [rim space (in.)/20 gpm @ 60 psi]
Metering faucets	0.2 gallons/cycle
Metering faucets for wash fountains	0.20 [rim space (in.)/20 gpm @60 psi]
Gravity tank type water closets	1.28 gallons/flush (See note 1)
Flushometer tank water closets	1.28 gallons/flush (See note 1)
Flushometer valve water closets	1.28 gallons/flush (See note 1)
Electromechanical lydraulic water closets	1.28 gallons/flush (See note 1)
Wall Mounted Urinals	.125 gallons/flush
Floor Mounted Urinals	.5 gallons/flush

1. includes single and dual flush water closets with an effective flush of 1.28 gallons or less: Single Flush toilets-The effective flush volume shall not exceed 1.25 gallons (4.8 liters). The effective flush volume is the average flush volume when tested in accordance with ASME A 112.19.233.2. Dual flush toilets- the effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is defined as the composite, average flush volume of two reduced flushes and one full flush. Flush volumes will be tested in accordance with ASME A 112.19.2 and ASME A 112.19.14

PLUMBING LEGEND

SYMBOL	ABBREV.	DESCRIPTION
— GW — GW —	GW	GREASE WASTE
— — — — —	W	SEWER WASTE BELOW GRADE/FLOOR
— — — — —	(E)W	EXISTING SEWER MAIN
▬ ▬ ▬ ▬ ▬		INDIRECT WASTE
— — — — —	V.	VENT
— · — · — · —	C.W.	COLD WATER PIPE
— ·· — ·· — ·· —	H.W.	HOT WATER PIPE
—·—·—·—·—	H.W.R.	HOT WATER RETURN PIPE
—— CD ——	CD.	CONDENSATE DRAIN PIPE
—— G ——	G	LOW PRESSURE GAS
—— MPG ——	MPG	MEDIUM PRESSURE GAS
—— PG ——	PG.	PROPANE GAS PIPE
	G.V.	GATE VALVE
—— D.S. ——	D.S.	DOWNSPOUT
—— RD ——	RD	ROOF DRAIN
	WHA W/AP	WATER HAMMER/ARRESTOR W/ACCESS PANEL
	P.O.C.	POINT OF CONNECTION
	F.CO.	FLOOR CLEANOUT
	W.CO.	WALL CLEANOUT
	Y.CO.	YARD CLEANOUT
	A.P.	ACCESS PANEL
	DN.	DOWN
	ABV.	ABOVE
	BEL.	BELOW
	GRD.	GRADE
	FLR.	FLOOR
	AFG	ABOVE FINISH GRADE
	FCO	FLOOR CLEANOUT
	WCO	WALL CLEANOUT
	GCO	GROUND CLEANOUT
	VTR	VENT THROUGH ROOF

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITH STANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

PLUMBING WASTE & VENT SIZE CHART

PIPE SIZING PER CPC 2019, 703.2

PIPE SIZE	MAX. UNIT (WASTE)	MAX. UNIT (VENT)
1 1/2"	1	8
2"	8	24
2 1/2"	14	48
3"	35	84
4"	216	256

CLEANOUT SIZING PERC CPC 2019, TABLE 707.1

PIPE SIZE	SIZE OF CLEANOUT	THREADS PER INCH
1 1/2"	1 1/2"	11 1/2"
2"	1 1/2"	11 1/2"
2 1/2"	2 1/2"	8
3"	2 1/2"	8
4" & LARGER	3 1/2"	8

GENERAL NOTES

1. BEFORE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATIONS AND CHARACTERISTICS OF ALL UTILITIES AND PIPING, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
2. EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL DRAWINGS
3. SEE ARCHITECTURAL DRAWING FOR ADA FIXTURE LOCATIONS AND MOUNTING HEIGHTS. INSULATE ALL EXPOSED HOT WATER, AND DRAIN PIPING BELOW ADA LAVATORIES, AND SINKS WITH INSULATING TAPE, AND OFFSET P-TRAP AGAINST WALL. ALSO, ALL FLUSH VALVES SHALL BE TO WIDE SIDE OF STALL.
4. ALL EQUIPMENT SHALL BE LATERALLY SUPPORTED IN ALL DIRECTIONS TO RESIST A MIN. OF 20% OF THE EQUIPMENT'S OPERATING WEIGHT.
5. ALL WORK AND MATERIAL SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED AND AMENDED BY THE INSPECTING AUTHORITY. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHERS APPLICABLE TO THIS PROJECT:

   CODE COMPLIANCE:

   2019 CALIFORNIA BUILDING CODE
   2019 CALIFORNIA MECHANICAL CODE
   2019 CALIFORNIA PLUMBING CODE
   2019 CALIFORNIA ELECTRICAL CODE
   2019 CALIFORNIA FIRE CODE
   2019 CALIFORNIA ENERGY CODE

   ALONG WITH ANY OTHER APPLICABLE LOCAL AN STATE LAWS AND REGULATIONS.
6. TRAPS FOR ALL LAVATORIES AND SINKS SHALL TRAP STRAIGHT BACK TO WALL WITH ALL REQUIRED OFFSETS HAPPENING WITHIN THE WALL.
7. ALL WASTE AND VENT PIPING SHALL SLOPE AT 2% UNLESS OTHERWISE INDICATED
8. ALL VALVES , TRAP PRIMER, WATER HAMMER ARRESTORS OR OTHER EQUIPMENT SHOWN IN WALLS OR ABOVE NON-ACCESSIBLE CEILING S SHALL BE INSTALLED BEHIND AN ACCESS PANEL.
9. ALL POINTS OF CONNECTION SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR PRIOR TO BID.
10. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH UTILITY COMPANIES FOR SERVICE CONNECTION, PAY ALL FEES AND MAKE APPLICATIONS FOR SERVICE IN THE NAME OF THE OWNER.
11. THE CONTRACTOR SHALL COORDINATE PLACEMENT OF ALL UNDERGROUND PIPING WITH GENERAL CONTRACTOR PRIOR TO CONSTRUCTION.
12. ALL LAVATORIES IN PUBLIC RESTROOMS SHALL BE EQUIPPED WITH:
    A. OUTLET DEVICES THAT LIMIT THE FLOW OF HOT WATER TO A MAXIMUM OF 0.5 GALLONS PER MINUTE. (GPM)
    B. DEVICES THAT LIMIT THE OUTLET TEMPERATURE TO 110° F.
13. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. LEVER-OPERATED, PUSH-TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.
14. THE CONTRACTOR SHALL VERIFY THE EXACT DEPTH AND LOCATION OF SITE SEWER SYSTEM PRIOR TO INSTALLATION OF ANY PIPING.
15. RECIRCULATING HOT WATER PIPING IS REQUIRED TO BE INSULATED AS FOLLOWS:1" PIPE SIZE OR LESS: 1" THICK INSULATION, LARGER PIPE SIZES REQUIRE 1 1/2" INSULATION. ALSO:HOT & COLD WITHIN 8' OF THE WATER HEATER. ES TABLE 120.3-A.
16. ALL CLEANOUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE AND AS REQUIRED BY SECTION 707.0 & 719.0 OF THE PLUMBING CODE.
17. EACH PLUMBING VENT SHALL TERMINATE NOT LESS THAT TEN FEET FROM OR AT LEAST THREE FEET ABOVE ANY WINDOW, DOOR, OPENING, AIR INTAKE OR VENT SHAFT.
18. ALL VALVES, UNIONS, ETC. TO BE SAME SIZE AS PIPE UNLESS OTHERWISE INDICATED ON DRAWINGS.
19. UNIONS SHALL BE PROVIDED AND INSTALLED AFTER EACH SCREW - TYPE VALVE AND PRIOR TO EQUIPMENT CONNECTIONS.
20. BEFORE FABRICATION OR INSTALLATION, THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT AND EQUIPMENT PROVIDED UNDER ANOTHER SECTION OF SPECIFICATIONS. EXACT ROUGH-IN LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED IN FIELD.
21. ALL PATCHING AND REPAIRING OF CONCRETE, PAVING, AND/OR WALKS SHALL BE UNDER ANOTHER SECTION OF THE SPECIFICATIONS.
22. ABS AND PVC INSTALLATION SHALL BE INSTALLED PER CHAPTER 15 FOR "FIRE STOP PROTECTION".
23. THE AGGREGATE CROSS SECTIONAL AREA OF VENTS SHALL NOT BE LESS THAN THAT OF THE LARGEST REQUIRED BUILDING SEWER. VENT PIPES FROM FIXTURES LOCATED UPSTREAM FROM PUMPS, EJECTORS, BACKWATER VALVES OR OTHER DEVICES THAT IN ANY WAY OBSTRUCT THE FLOW OF AIR AND OTHER GASES BETWEEN THE BUILDING SEWER AND THE OUTSIDE ATMOSPHERE SHALL NOT BE USED FOR MEETING THE CROSS SECTIONAL AREA VENTING REQUIREMENTS OF THE SECTION.
24. EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN 6 INCHES IN HEIGHT, ABOVE THE FLOOD LEVEL RIM OF THE FIXTURE BEFORE BEING CONNECTED TO ANY OTHER VENT.
25. FLOOR DRAINS AND SINKS SHALL BE PROVIDED WITH MEANS OF MAINTAINING THEIR WATER SEAL. (TRAP PRIMER)
26. ALL HOSE BIBS SHALL BE EQUIPPED WITH AN APPROVED NON-REMOVABLE VACUUM BREAKER.
27. NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE DISINFECTED PRIOR TO USE ACCORDING TO THE METHOD SET IN SECTION 609.9 OF THE PLUMBING CODE.
28. PLUMBING FIXTURES SHALL BE CERTIFIED BY THE CALIFORNIA ENERGY COMMISSION.
29. WATER SUPPLY TO A URINAL SHALL BE PROTECTED BY AN APPROVED TYPE VACUUM BREAKER OR OTHER APPROVED BACK FLOW PREVENTION. (2019 CPC, SECTION 603.5)
30. WATER HAMMER ARRESTOR SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO QUICK ACTING VALVES AT THE END OF LONG PIPE OR NEAR BATTERIES OF FIXTURES OR BOTH

OVERALL PLUMBING FIXTURE UNIT COUNTS FOR THE BUILDING

	FIXTURE NAME	Qty	WATER CW FU	WATER TOTAL	WASTE DRN FU	WASTE TOTAL
NEW FIXTURES	LAVATORY	6	1	6	1	6
	WATER CLOSET	6	5	30	4	24
	HAND SINK	3	1.5	4.5	2	6
	MOP SINK	1	3	3	3	3
	FLOOR DRAIN	4	-	-	2	8
	BARADLEY SINK	1	1.5	1.5	2	2
	DRINKING FOUNTAIN	3	1	3	1	3
	URINAL	5	4	20	2	10
	WASHER BOX	1	4	4	3	3
	FLOOR DRAIN FOR FLOOR AREA	18	-	-	2	36
	TROUGH DRAIN	5	-	-	2	10
	FLOOR SINK	2	-	-	3	6
TOTAL NEW FIXTURES				72		117
BUILDING HOSE BIBS		1	2.5	2.5		-
BUILDING HOSE BIBS (ADDITIONAL)		13	1	13		-
OVERALL BUILDING FIXTURES (NEW/EXISTING)				87.5		117

HOT & COLD WATER PIPE SIZING

FRICTION LOSS PER 100 FEET: 4.31

PIPE SIZE	COLD WATER: 8 ft/s CW GPM	COLD WATER: 8 ft/s CW FU (F.T.)	COLD WATER: 8 ft/s CW FU (F.V.)	HOT WATER: 5 ft/s HW GPM	HOT WATER: 5 ft/s HW FU
1/2"	2	1	-	2	1
3/4"	5	6	-	5	6
1"	11	15	-	11	15
1 1/4"	20	30	-	19	28
1 1/2"	32	58	14	27	46
2"	66	205	95	48	119
2 1/2"	115	455	329	74	245

DOMESTIC COLD WATER CALCULATIONS PER CPC 2019

WATER PRESSURE : MAX	90	MIN	85
SET PRESSURE AT PRESSURE REGULATOR TO:			75
TOTAL CW			87.5
FLOW (GPM)			63
PRESSURE LOSS THRU	2"	METER	2
PRESSURE LOSS THRU	2"	BFP	13
PRESSURE LOSS THRU	2"	PR	8
HEAD LOSS	25	FT X (.434)	10.9
MIN PRESSURE REQUIRED AT FIXTURE (PSI)			25
TOTAL LOSSES (PSI)			58.9
PRESSURE AVAILABLE AFTER LOSSES (PSI)			16.2
TOTAL DISTANCE TO LAST FIXTURE (FT)			300
MAX DISTANCE WITH 25%			375
ALLOWABLE DROP PER 100 FT.			4.31

GAS DEMAND

ITEM	QTY	MBH	TOTAL
ROOF TOP UNIT	3	300	900
WATER HEATER	3	200	600
USI BURNER	5	1000	5000
		TOTAL	6500

NATURAL GAS PIPE SIZING CHART

PER CPC 2016, TABLE 1216.2(1)

TOTAL DEVELOPED LENGH (FT):	250
PIPE SIZE	CAPACITY (CFH)
1/2"	30
3/4"	63
1"	119
1 1/4"	244
1 1/2"	366
2"	704
2 1/2"	1120
3"	1980
4"	4050
5"	7320

ADDITIONAL NOTE

ANY PENETRATION THROUGH SLAB SHALL MEET THE REQUIREMENTS FOR DETAIL GC-5.0 ON METHANE GAS PLAN.

PLUMBING SCHEDULES & NOTES

SCALE: NONE

PROENGINEERING
M E P C O N S U L T A N T S

PROJECT

No.1 Collision

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.

2120 Wilshire Boulevard Suite 200
Santa Monica California 90403
310 . 453 . 4431

CONSULTANTS

CLIENT
Walker Group of WALKER GROUP OF COMPANIES
ATTN:ROBERT A. WALKER
11100 CAMBIE ROAD #100
RICHMOND, BC V6X 1K9
P:604.231-9614 F: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
P:(310) 453-4431 F:(310) 829-5296

CONSULTING ARCHITECT
CHRISTOPHER BOZYK ARCHITECTS LTD.
ATTN:CHRIS BOZYK
Suite 414 - 611 Alexander Street
Vancouver, BC, Canada V6A 1E1
P: (604) 251-3440 F:(604) 251-3848

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN:JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA, 92614
P:(949) 250-3150 F:(949) 203-0450

M.E.P. ENGINEER
PRO ENGINEERING COSULTING, INC.
ATTN:RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN:RICK MAYER
1403 KENNETH RD. SUITE B
GLENDALE, CA 91201
P: (818) 956-8101 F: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & ASSOCIATES INC.
ATTN:DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK / REVISION	7/13/21
2	PLAN CHECK	5/31/23

STAMP + SIGNATURE

REGISTERED PROFESSIONAL ENGINEER
RASHID PARSI
M 26481
Exp.12-31-23
MECHANICAL
STATE OF CALIFORNIA

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SHEET TITLE

P0.1

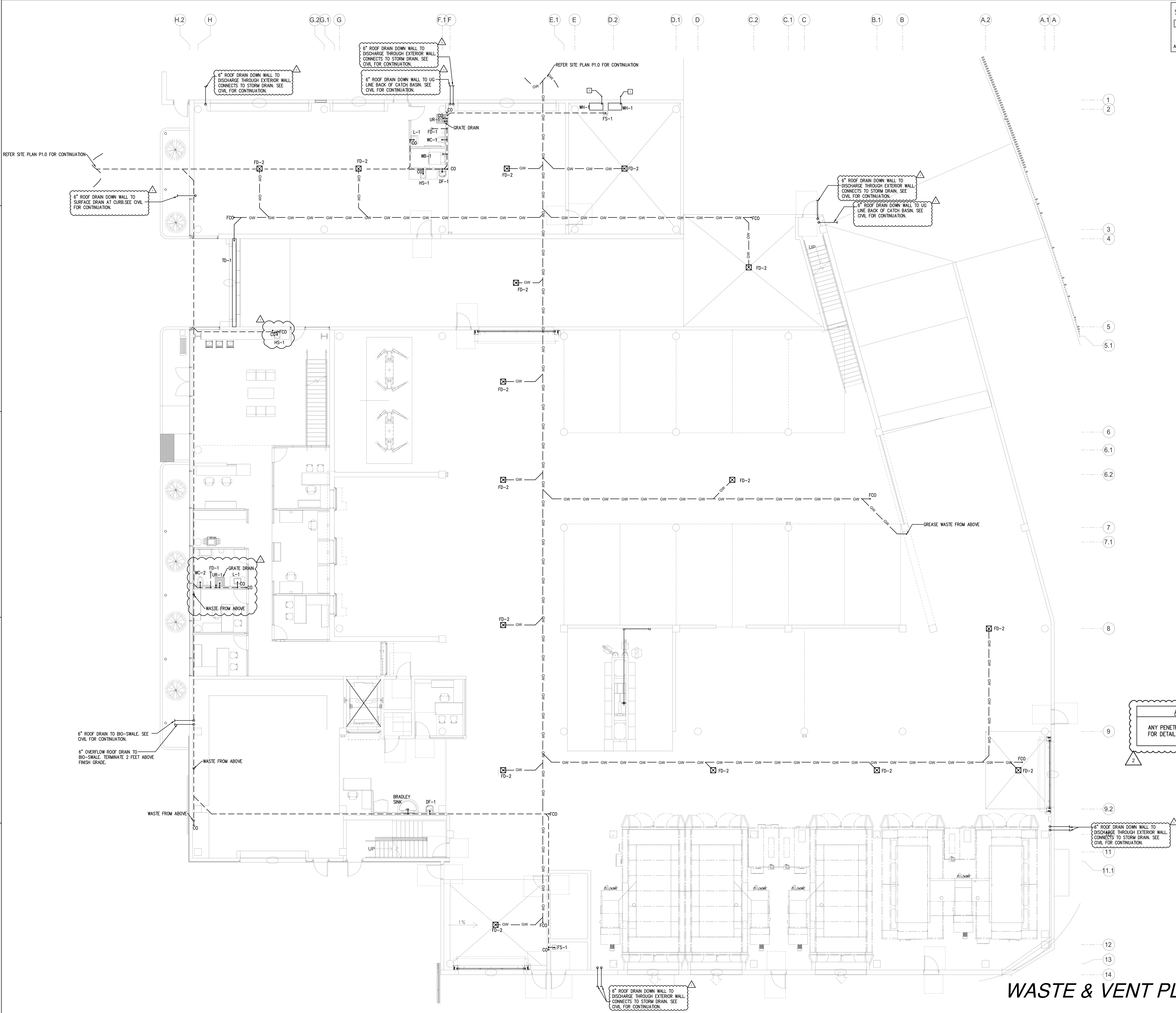
DATE: 5/31/2023
SCALE: NONE
DRAWN BY: R.P
PROJECT NUMBER: 19-0370

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

SHEET NOTES

1. WATER HEATER T&P DISCHARGE TO OUTSIDE. A WATER HEATER PRESSURE AND TEMPERATURE RELIEF DRAIN THAT TERMINATES OUTSIDE THE BUILDING MUST COMPLY WITH SECTION 608.5 CPC.

ALL WASTE LINES WILL BE INSTALLED AT 2% SLOPE



ADDITIONAL NOTE

ANY PENETRATION THROUGH SLAB SHALL MEET THE REQUIREMENTS FOR DETAIL GC-5.0 ON METHANE GAS PLAN.

WASTE & VENT PLAN 1ST FLOOR

SCALE: 1/8"=1'-0"

PROENGINEERING
MEP CONSULTANTS

PROJECT

No.1 Collision

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

CLIENT
Walker Group of WALKER GROUP OF COMPANIES
ATTN:ROBERT A. WALKER
11100 CAMBIE ROAD #100
RICHMOND, BC V6X 1K9
P:604.231-9614 F: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
P:(310) 453-4431 F:(310) 829-5296

CONSULTING ARCHITECT
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ATTN:CHRIS BOZYK
Suite 414 - 611 Alexander Street
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ATTN:JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA, 92614
P:(949) 250-3150 F:(949) 203-0450

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PRO ENGINEERING COSULTING, INC.
ATTN:RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN:RICK MAYER
1403 KENNETH RD. SUITE B
GLENDALE, CA 91201
P: (818) 956-8101 F: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & ASSOCIATES INC.
ATTN:DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

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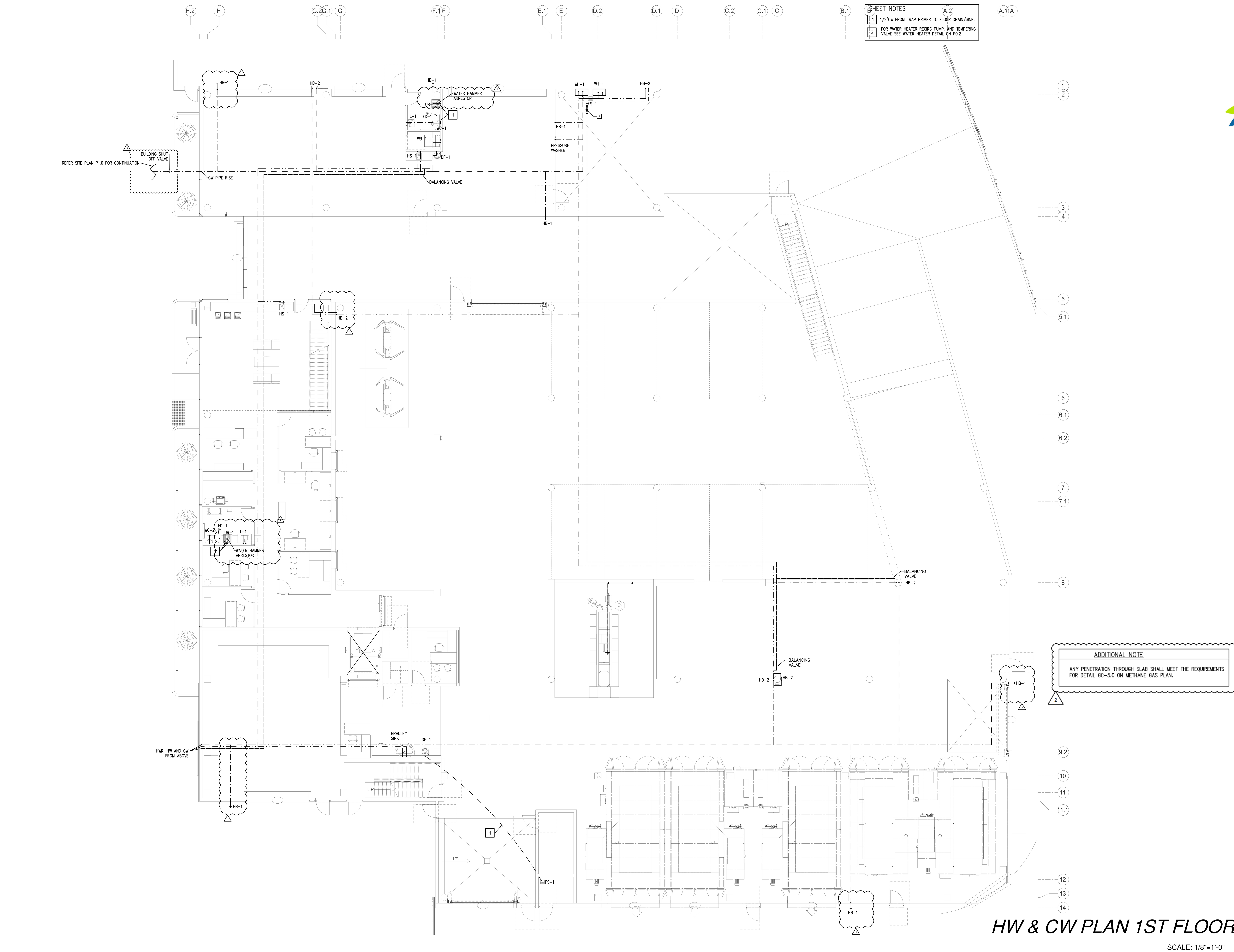
SHEET TITLE

P1.1

DATE:	5/31/2023
SCALE:	1/8"=1'-0"
DRAWN BY:	R.P
PROJECT NUMBER:	19-0370

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



SHEET NOTES

1. 1/2"CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK.
2. FOR WATER HEATER RECIRC PUMP. AND TEMPERING VALVE SEE WATER HEATER DETAIL ON P0.2

ADDITIONAL NOTE

ANY PENETRATION THROUGH SLAB SHALL MEET THE REQUIREMENTS FOR DETAIL GC-5.0 ON METHANE GAS PLAN.

HW & CW PLAN 1ST FLOOR

SCALE: 1/8"=1'-0"

PROJECT

No.1 Collision

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire Boulevard
Suite 200
Santa Monica
California 90403
310.453.4431

CONSULTANTS

CLIENT
Walker Group of WALKER GROUP OF COMPANIES
ATTN:ROBERT A. WALKER
11100 CAMBIE ROAD #100
RICHMOND, BC V6X 1K9
P:604.231-9614 F: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
P:(310) 453-4431 F:(310) 829-5296

CONSULTING ARCHITECT
CHRISTOPHER BOZYK ARCHITECTS LTD.
ATTN:CHRIS BOZYK
Suite 414 - 611 Alexander Street
Vancouver, BC, Canada V6A 1E1
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1057 SYCAMORE
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P: (858) 240-4336 F: (866) 936-5447

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TROLLER MAYER ASSOCIATES, INC.
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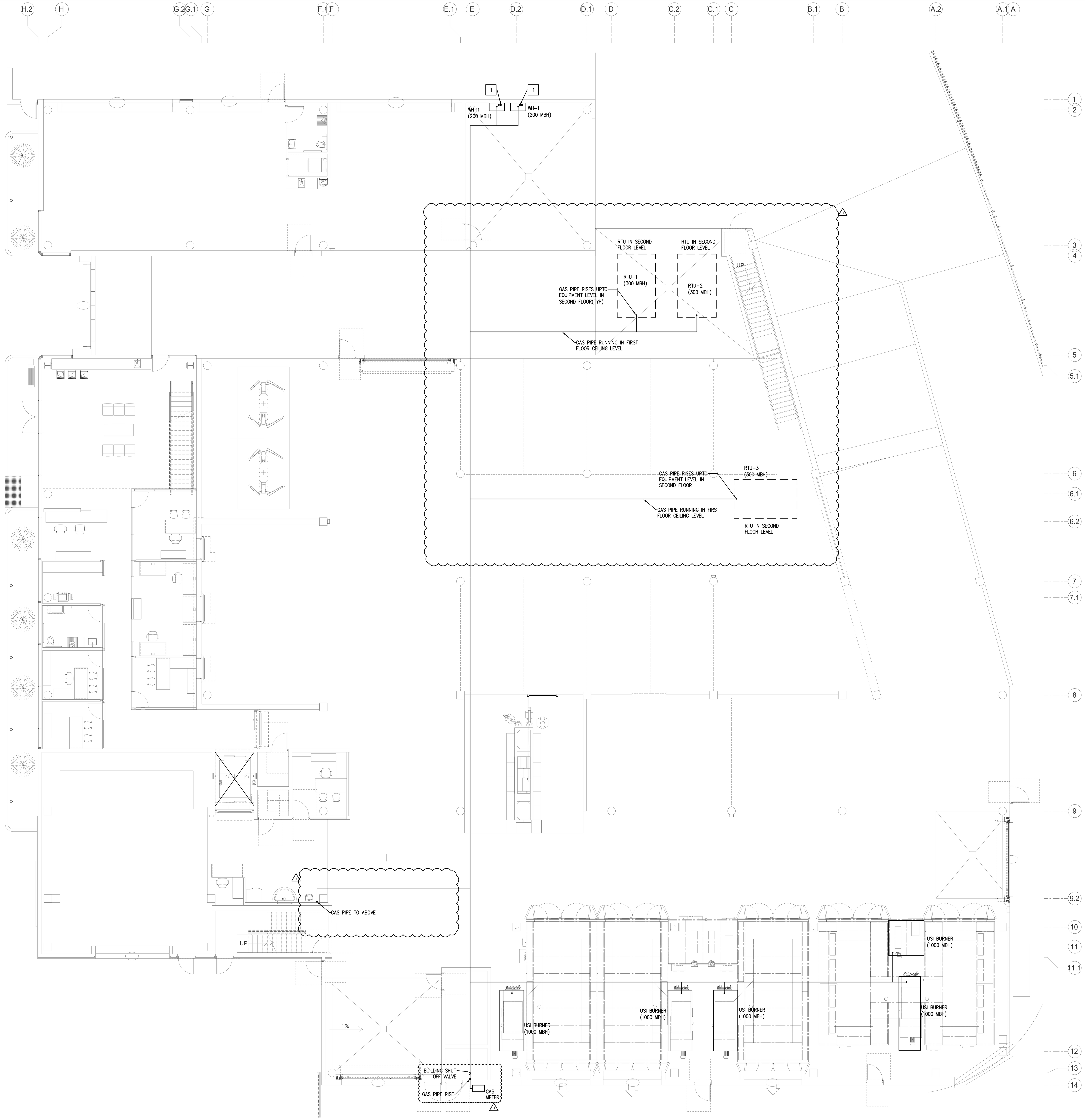
SHEET TITLE

P1.2

DATE:	5/31/2023
SCALE:	1/8"=1'-0"
DRAWN BY:	R.P
PROJECT NUMBER:	19-0370

ACTUAL SIZE OF THIS SHEET IS 30" X 42"



SHEET NOTES

1	WATER HEATER (2) 3" PVC EXHAUST/COMBUSTION AIR INTAKE TO ROOF. TERMINATE 10' FROM ANY INTAKE. ROUTING AND TERMINATION OF FLUE AND COMBUSTION AIR INTAKE SHALL COMPLY WITH MANUFACTURER SPECIFICATIONS

ADDITIONAL NOTE

ANY PENETRATION THROUGH SLAB SHALL MEET THE REQUIREMENTS FOR DETAIL GC-5.0 ON METHANE GAS PLAN.

GAS PLAN 1ST FLOOR

SCALE: 1/8"=1'-0"

PROENGINEERING
M E P CONSULTANTS

PROJECT

No.1 Collision

2750 BRISTOL ST.
COSTA MESA, CA 92626

ARCHITECT

AHT
ARCHITECTS INC.
2120 Wilshire Boulevard
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11100 CAMBIE ROAD #100
RICHMOND, BC V6X 1K9
P:604.231-9614 F: 604.231-9624

ARCHITECT
AHT ARCHITECTS
ATTN: PATRICK WIRZ/DON TREIMAN
2120 WILSHIRE BLVD. SUITE 200
SANTA MONICA, CA 90403
P:(310) 453-4431 F:(310) 829-5296

CONSULTING ARCHITECT
CHRISTOPHER BOZYK ARCHITECTS LTD.
ATTN:CHRIS BOZYK
Suite 414 - 611 Alexander Street
Vancouver, BC, Canada V6A 1E1
P: (604) 251-3440 F:(604) 251-3848

STRUCTURAL ENGINEER
GRIMM & CHEN STRUCTURAL ENGINEERING, INC.
ATTN:JEFF CHEN
17500 REDHILL, SUITE 240
IRVINE, CA, 92614
P:(949) 250-3150 F:(949) 203-0450

M.E.P. ENGINEER
PRO ENGINEERING COSULTING, INC.
ATTN:RAMIN PARSI
1057 SYCAMORE
VISTA, CA 92081
P: (858) 240-4336 F: (866) 936-5447

LANDSCAPE ARCHITECT
TROLLER MAYER ASSOCIATES, INC.
ATTN:RICK MAYER
1403 KENNETH RD. SUITE B
GLENDALE, CA 91201
P: (818) 956-8101 F: (818) 956-0120

CIVIL ENGINEER
JONES, CAHL & ASSOCIATES INC.
ATTN:DANIEL RUBIO
18090 BEACH BLVD. SUITE #12
HUNTINGTON BEACH, CA 92648
P: (714) 848-0566 F: (714) 848-6322

REVISIONS

NO.	DESCRIPTION	DATE
1	PLAN CHECK / REVISION	7/13/21
2	PLAN CHECK	5/31/23

STAMP + SIGNATURE

REGISTERD PROFESSIONAL ENGINEER
RASHID PARSI
M 26481
Exp.12-31-23
MECHANICAL
STATE OF CALIFORNIA

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SHEET TITLE

P1.3

DATE:	5/31/2023
SCALE:	1/8"=1'-0"
DRAWN BY:	R.P
PROJECT NUMBER:	19-0370

ACTUAL SIZE OF THIS SHEET IS 30" X 42"

METHANE
SPECIALISTS

5210 Lewis Road,
Suite 1,
Agoura Hills, CA - 91301

TEL: 805.987.5356

methanespecialists.com

May 25, 2023

County of Orange California
OC Health Care Agency
1241 E. Dyer Rd STE 120
Santa Ana, CA 92705
Tel: (714) 433-6000
Email: ehealth@ochca.com

Project: No. 1 Collision
2750 Bristol St
Costa Mesa, CA 92626

Subject: OC Health Care Agency Comments dated May 22, 2023

Dear: To whom it may concern

This letter is in response to the OC Health Care Agency Comments dated May 22, 2023, written by Dan Weerasekera regarding methane specialists comments under section "Based on Review" comments 1.,2., and 3.

1. GC-9.0 Trench Dam and Seal-Off Details for the explosion proof EYS fittings (Detail D and F) in reference to any electrical conduits entering the building from the subsurface (Hazardous Area to a Non-Classified Hazardous Area)

2. GC-4.0 and GC-7.0 Detail A show a Whirly Bird vent riser cap.

3. GC-5.0 Foundation Protection Notes Detail F. All methane membrane installed will be smoke tested following the completion of installation. See additional note on GC-1.0

Sincerely,

Chris Conahan

Chris Conahan
Principal

NO. 1 COLLISION

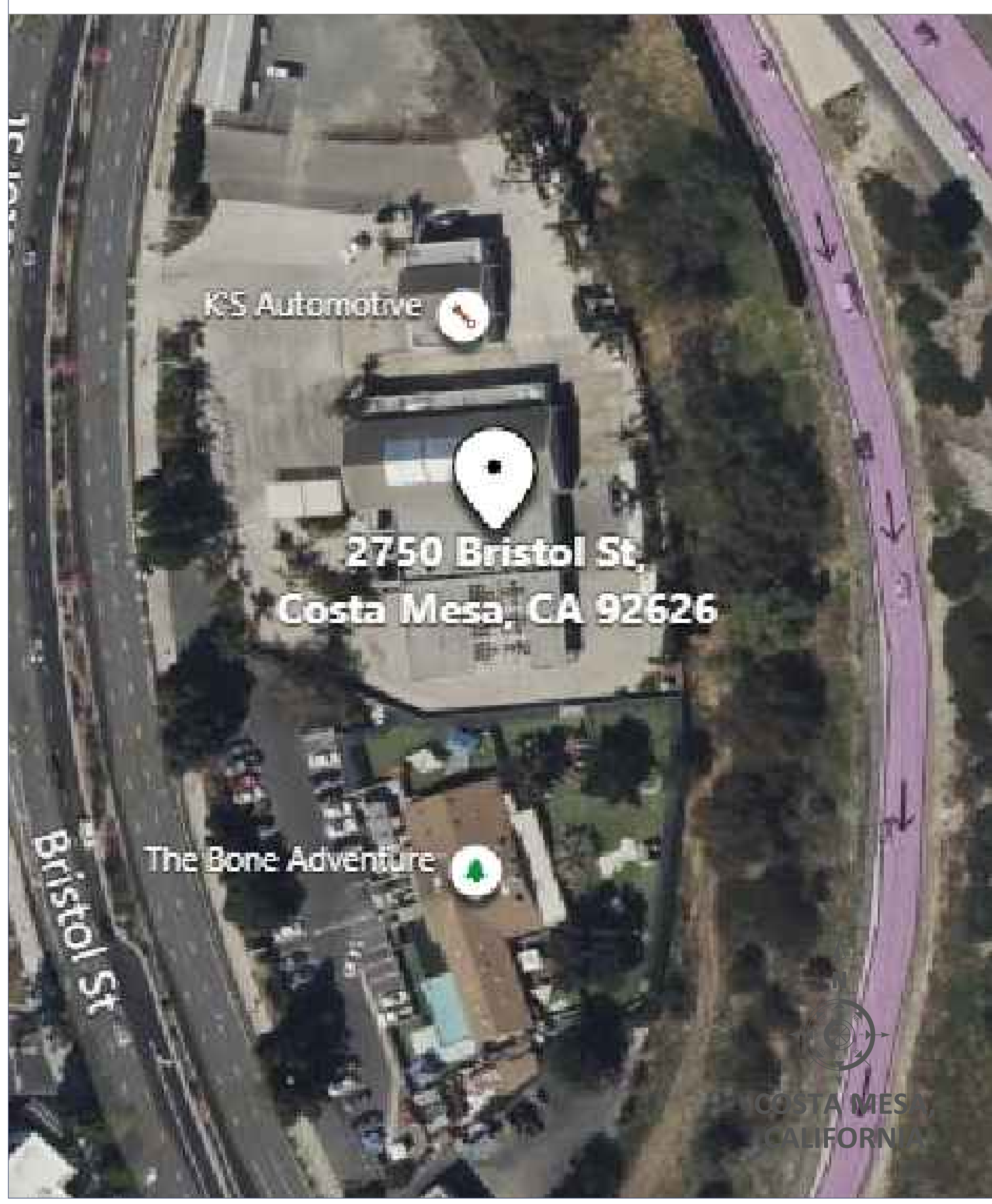
2750 BRISTOL ST
COSTA MESA, CA 92626

CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

METHANE GAS CONTROL SYSTEM

ALL MEMBRANE INSTALLED IS TO BE SMOKED TESTED 4

VICINITY MAP



PROJECT INFORMATION

A COMMERCIAL PROJECT FOR:

WALKER GROUP OF COMPANIES
ATTN: ROBERT A. WALKER
11100 CAMBRIE ROAD #100
RICHMOND, BC V6X 1K9
TEL: 604.231.9614

PROJECT DIRECTORY

ARCHITECT	STRUCTURAL ENGINEER
AHT ARCHITECTS ATTN: PATRICK WIRZ/DON TREIMAN 2120 WILSHIRE BLVD. SUITE 200 SANTA MONICA, CA 90403 TEL: 310.453.4431	GRIMM & CHEN STRUCTURAL ENGINEERING, INC ATTN: JEFF CHEN 17500 REDHILL, SUITE 240 IRVINE, CA 92614 TEL: 949.250.3150

SHEET INDEX

REFERENCE TO METHANE DRAWINGS REQUIRED FOR ALL PROJECT DRAWINGS, INCLUDING MECHANICAL, ARCHITECTURAL, ELECTRICAL, HVAC, PLUMBING, AND STRUCTURAL DRAWINGS.

BUILDING PERMIT # ____________________
MECHANICAL PERMIT # ____________________

METHANE SPECIALISTS
5210 LEWIS ROAD
SUITE 1
AGOURA HILLS, CA
91301
TEL: 805.987.5356
www.methanespecialists.com

ENGINEER STAMP

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DESIGN

DSN: J.KASONDRA
DRN: R. GIBSON
CHK: T. TUCKER
DATE: JULY 2022

REVISIONS

NO.	INT.	DESCRIPTION: DATE:
6		
5		
4	RG	WHIRLY BIRD DETAIL 05.25.2023
3	MP	VENT RISER RELOCATION 04.19.2023
2	RG	TESTING PORT DETAIL 03.03.2023
1	RG	DESIGN REVISION 02.17.2023

OWNER/AGENT

WALKER GROUP OF COMPANIES
ATT: ROBERT A. WALKER
11100 CAMBRIE ROAD #100
RICHMOND, BC V6X 1K9
TEL: 604.231.9614

PROJECT

C_1551

NO. 1 COLLISION
2750 BRISTOL ST. COSTA MESA, CA 92626

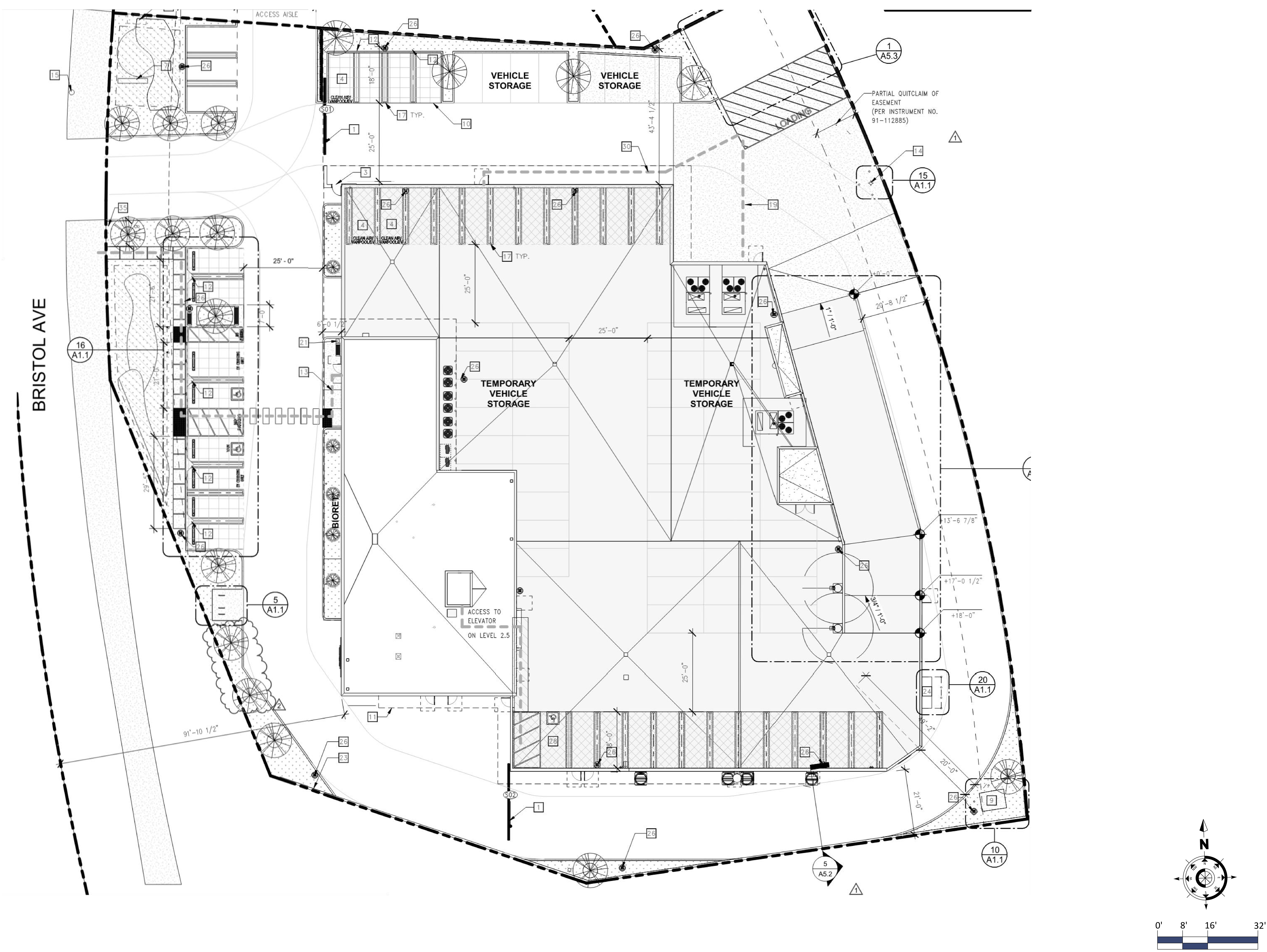
CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

SHEET TITLE

TITLE SHEET

GC-1.0

1 OF 13



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C_1551

NO. 1 COLLISION
2750 BRISTOL ST. COSTA MESA, CA 92626

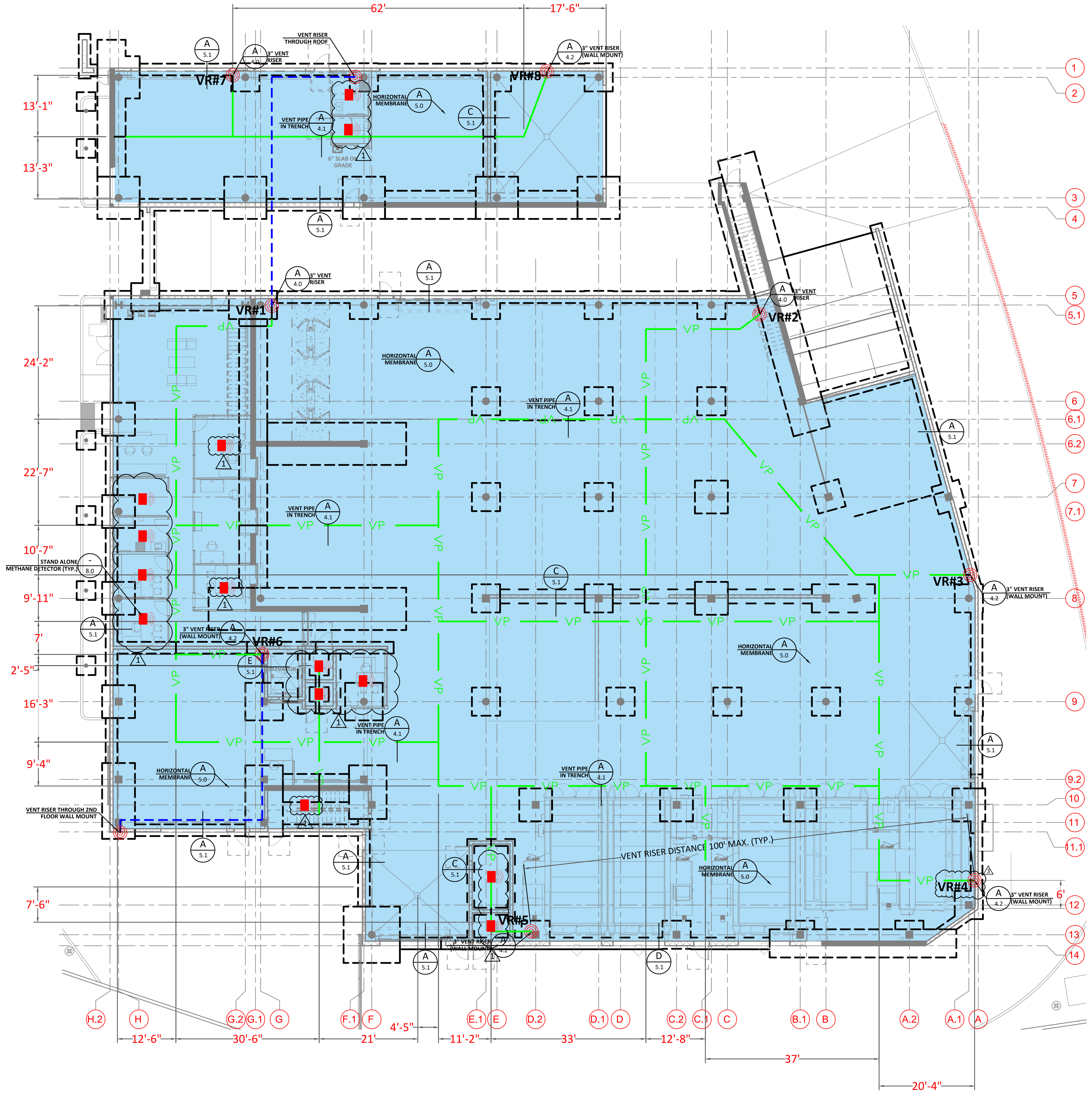
CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

SHEET TITLE

SITE PLAN

GC-2.0

2 OF 13



NOTES

1. PRIOR TO TRENCHING, CONTRACTOR SHALL VERIFY VENT RISER LOCATIONS WITH BUILDING CONTRACTOR & ARCHITECT FOR STRUCTURAL FRAMING, DOOR AND WINDOW LOCATIONS.
2. VAPOR COLLECTION SYSTEM MAY BE FIELD LOCATED TO COINCIDE WITH UTILITY TRENCHES, WITH APPROVAL OF ARCHITECT.
3. VENT RISERS MAY BE FIELD ADJUSTED TO AVOID DOORS, WINDOWS, OR OTHER ARCHITECTURAL INTERFERENCE.
4. INTERIOR SIDE OF FOOTINGS NEED TO BE TROWELED SMOOTH FOR THE METHANE BARRIER TERMINATIONS.
5. FIELD SITUATIONS NOT SPECIALLY DETAILED SHALL BE HANDLED PER THE INTENT OF THESE PLANS AND SPECIFICATIONS WITH THE APPROVAL OF METHANE SPECIALISTS. CONTRACTOR MAY SUBMIT SHOP DRAWINGS FOR ALTERNATIVE METHODS, WHICH MAY BE APPROVED IF THEY REPRESENT NO ADDITIONAL COST TO THE OWNER.
6. BUILDING DIMENSIONS ARE APPROXIMATE AND PROVIDED BY OTHERS.
7. NO VENT RISER SHALL BE INSTALLED WITHIN 10 FT. OF THE EXTREME OUTSIDE EDGE OF A FIRE PLACE.
8. SUB-SLAB VENTING SHALL EXTEND TO EACH CELL OF THE WAFFLE SLAB AND MAY BE FIELD ADJUSTED.

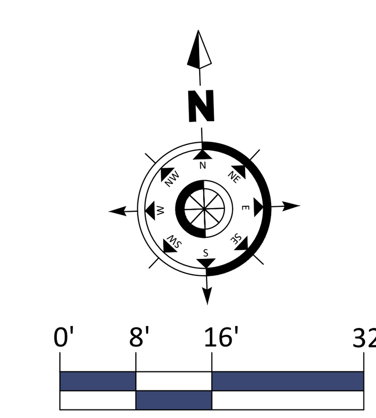
CALCULATIONS

BUILDING FOOTPRINT: APPROX. 21,188.8 SQ. FT.
USING 3" DIA VENT RISER
NUMBER OF VENT RISERS REQUIRED=21,188.8/7,500 =2.83

MIN. OF 4 REQUIRED
PROVIDED 8 VENT RISERS DUE TO SPACING REQUIREMENTS

LEGEND

MEMBRANE LIMITS
VP FLAT VENT PIPE
VR#8 VENT RISER
FOOTING VENT SLEEVE
VENT RISER ROUTE TO EXTERIOR EXTERIOR WALL
STAND ALONE METHANE DETECTOR



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TEL: 604.231.9614

PROJECT

C_1551

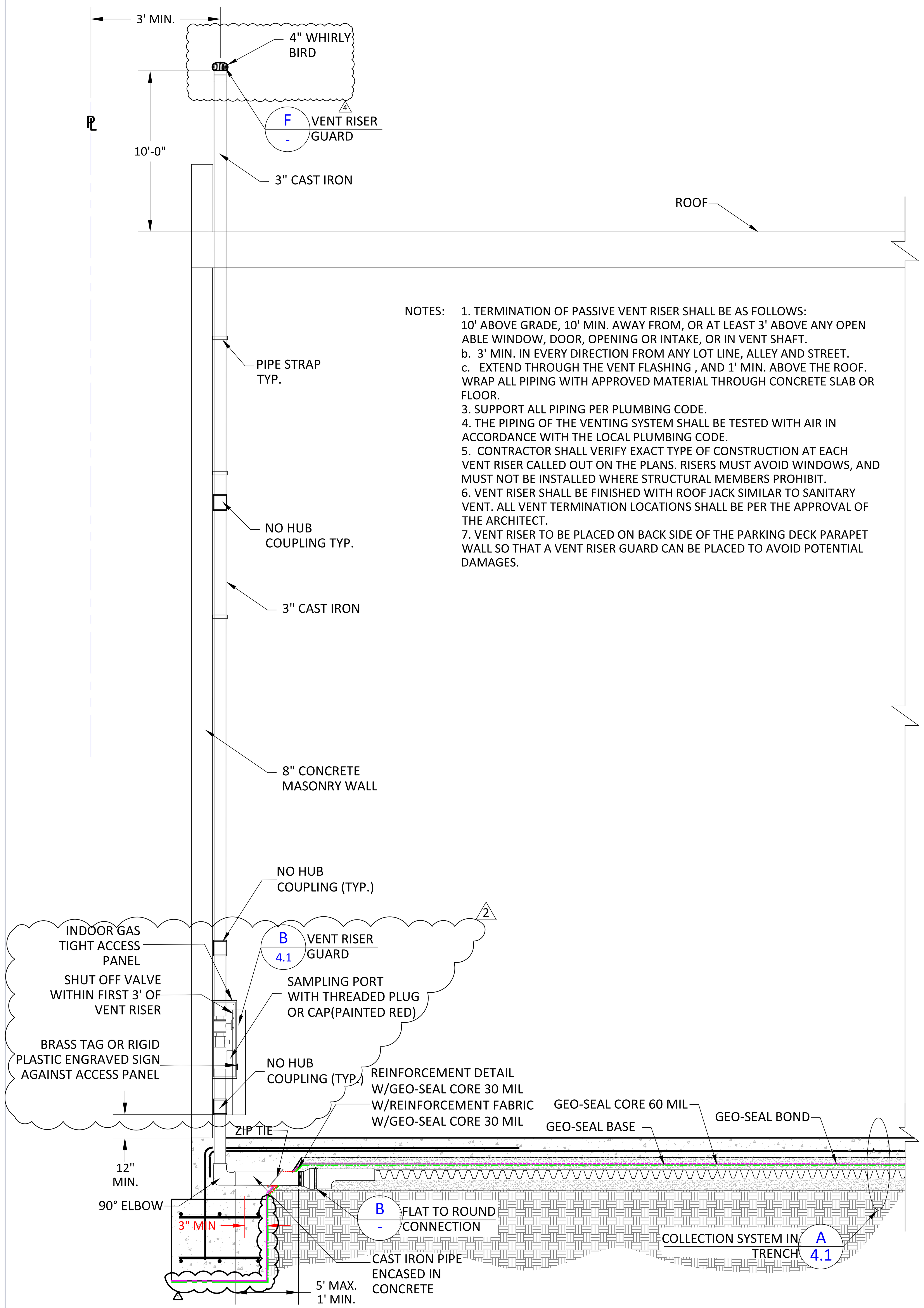
NO. 1 COLLISION
2750 BRISTOL ST. COSTA MESA, CA 92626

CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

SHEET TITLE

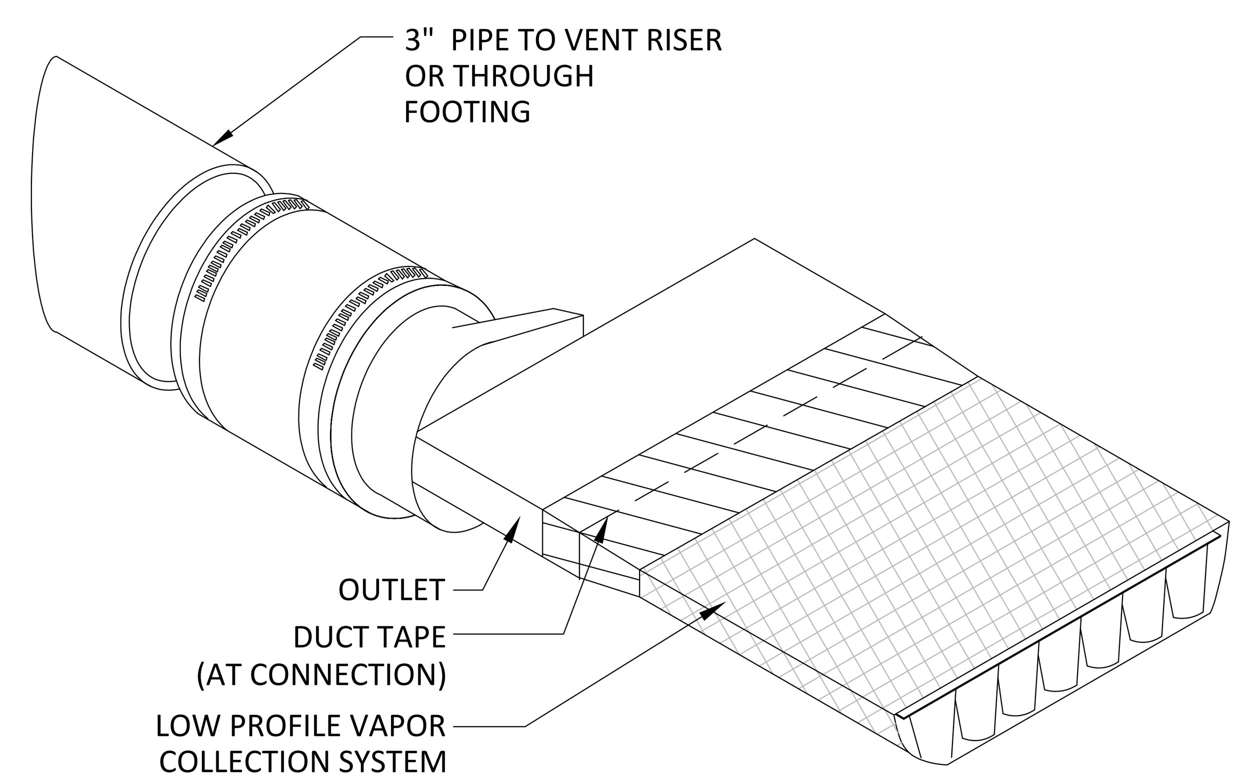
SUB-SLAB COLLECTION SYSTEM & MEMBRANE PLAN

GC-3.0



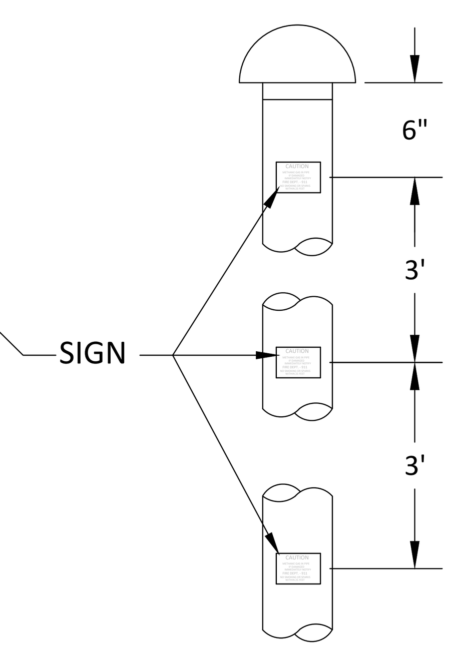
NOTES:
1. TERMINATION OF PASSIVE VENT RISER SHALL BE AS FOLLOWS:
10' ABOVE GRADE, 10' MIN. AWAY FROM, OR AT LEAST 3' ABOVE ANY OPEN ABLE WINDOW, DOOR, OPENING OR INTAKE, OR IN VENT SHAFT.
b. 3' MIN. IN EVERY DIRECTION FROM ANY LOT LINE, ALLEY AND STREET.
c. EXTEND THROUGH THE VENT FLASHING , AND 1' MIN. ABOVE THE ROOF. WRAP ALL PIPING WITH APPROVED MATERIAL THROUGH CONCRETE SLAB OR FLOOR.
3. SUPPORT ALL PIPING PER PLUMBING CODE.
4. THE PIPING OF THE VENTING SYSTEM SHALL BE TESTED WITH AIR IN ACCORDANCE WITH THE LOCAL PLUMBING CODE.
5. CONTRACTOR SHALL VERIFY EXACT TYPE OF CONSTRUCTION AT EACH VENT RISER CALLED OUT ON THE PLANS. RISERS MUST AVOID WINDOWS, AND MUST NOT BE INSTALLED WHERE STRUCTURAL MEMBERS PROHIBIT.
6. VENT RISER SHALL BE FINISHED WITH ROOF JACK SIMILAR TO SANITARY VENT. ALL VENT TERMINATION LOCATIONS SHALL BE PER THE APPROVAL OF THE ARCHITECT.
7. VENT RISER TO BE PLACED ON BACK SIDE OF THE PARKING DECK PARAPET WALL SO THAT A VENT RISER GUARD CAN BE PLACED TO AVOID POTENTIAL DAMAGES.

VENT RISER — A



FLAT TO ROUND PIPE CONNECTION — B

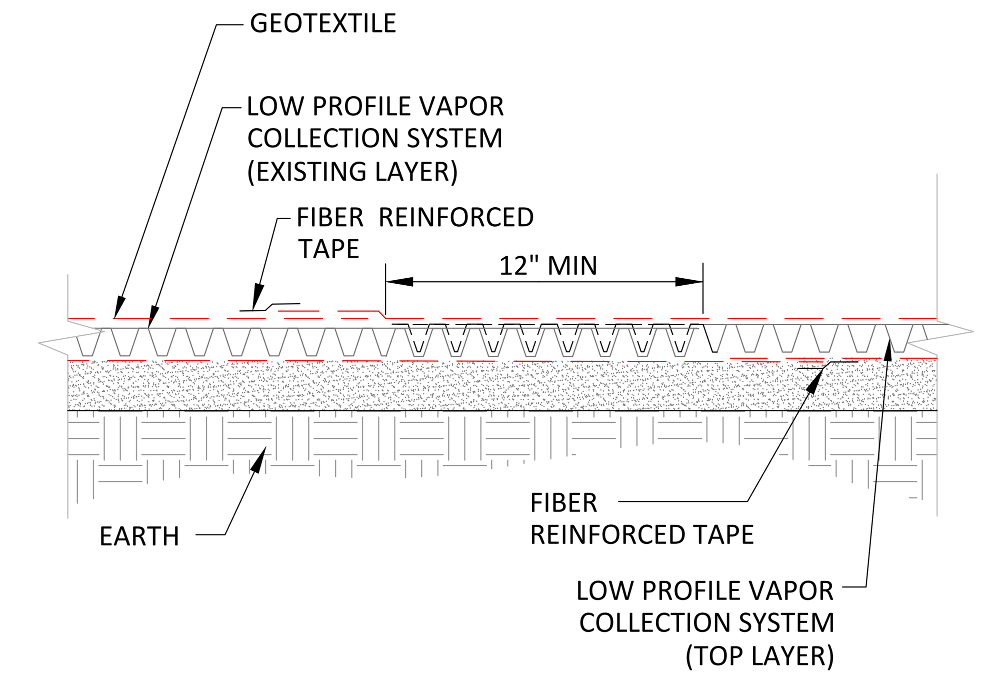
CAUTION
SOIL VAPOR IN PIPE
IF DAMAGED
IMMEDIATELY NOTIFY
CITY OF
COSTA MESA
NO SMOKING OR SPARKS
WITHIN 10 FEET



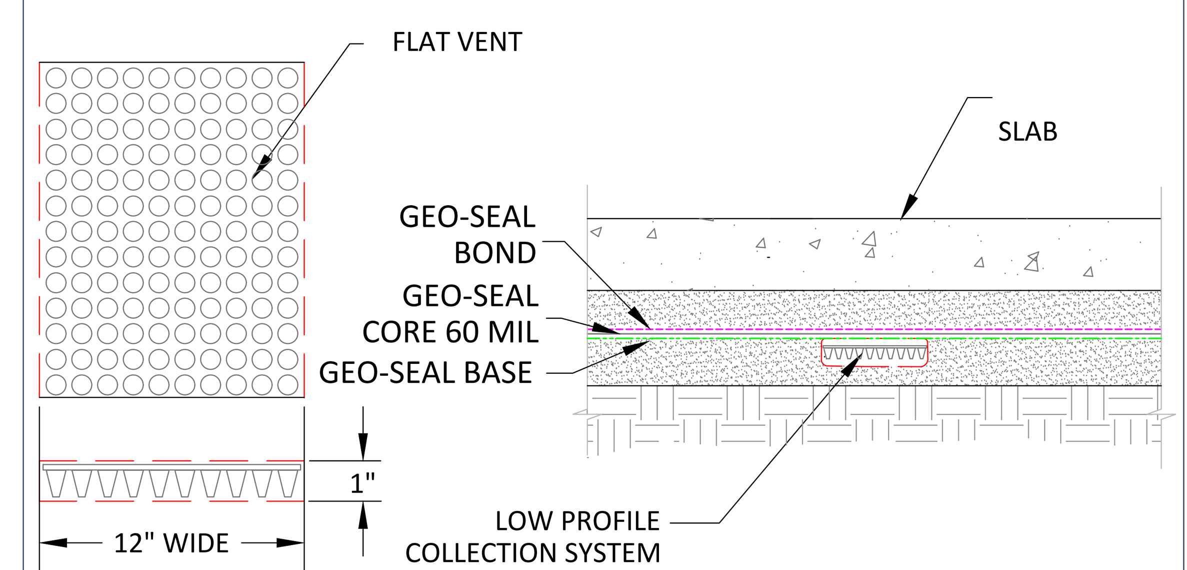
3" X 4" WIDE, ALL SIGNS PLASTIC WITH ADHESIVE BACKING, LARGE LETTERS MIN.. 1/2" HIGH WHITE LETTERS ON RED BACKGROUND.

THIS SIGN SHALL BE POSTED ON EACH VENT RISER AT FIVE FOOT (3') INTERVALS ALONG PIPE.

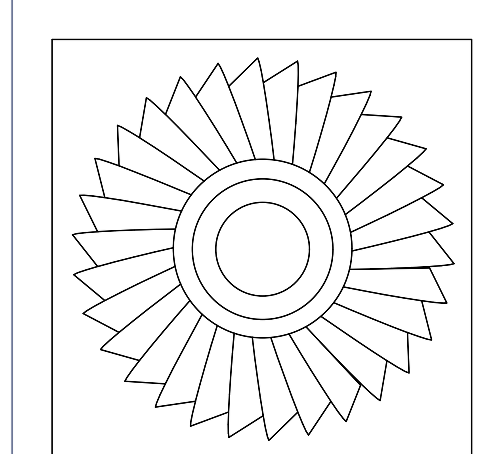
SIGN ON VENT RISERS — C



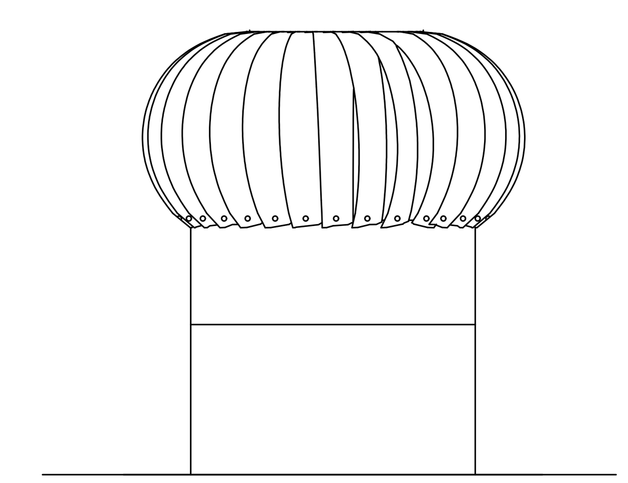
INTERLOCKING CONNECTIONS — D



METHANE COLLECTION SYSTEM DETAIL — E



Plan View



Elevation View

WHIRLY BIRD DETAIL — F

METHANE SPECIALISTS
5210 LEWIS ROAD
SUITE 1
AGOURA HILLS, CA
91301
TEL: 805.987.5356
www.methanespecialists.com

ENGINEER STAMP

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DSN:	J.KASONDRA
DRN:	R. GIBSON
CHK:	T. TUCKER
DATE:	JULY 2022

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OWNER/AGENT

WALKER GROUP OF COMPANIES
ATT: ROBERT A. WALKER
11100 CAMBRIE ROAD #100
RICHMOND, BC V6X 1K9
TEL: 604.231.9614

PROJECT

C_1551

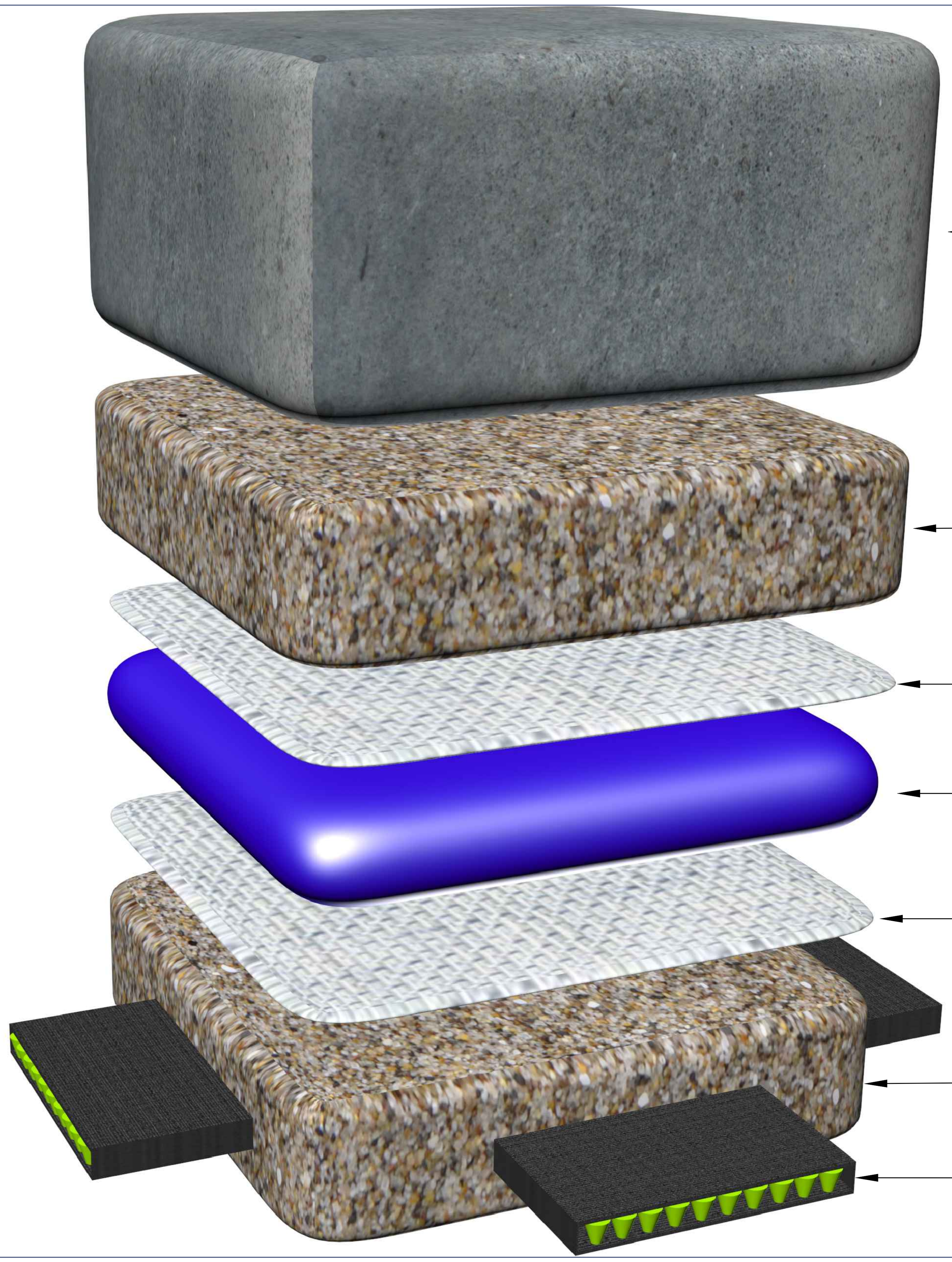
NO. 1 COLLISION
2750 BRISTOL ST. COSTA MESA, CA 92626

CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

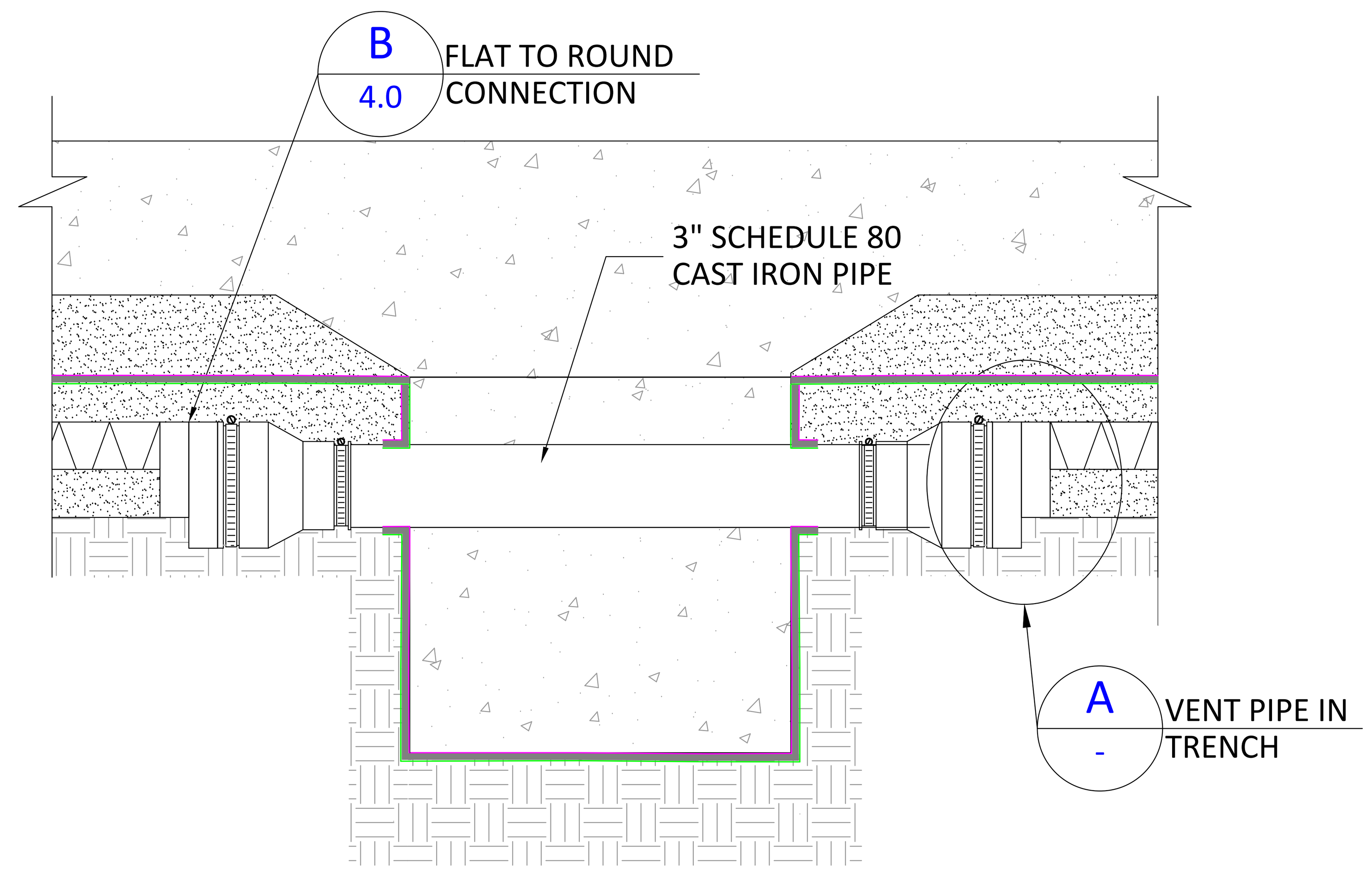
SHEET TITLE

SUB-SLAB VAPOR COLLECTION SYSTEM DETAILS

GC-4.0

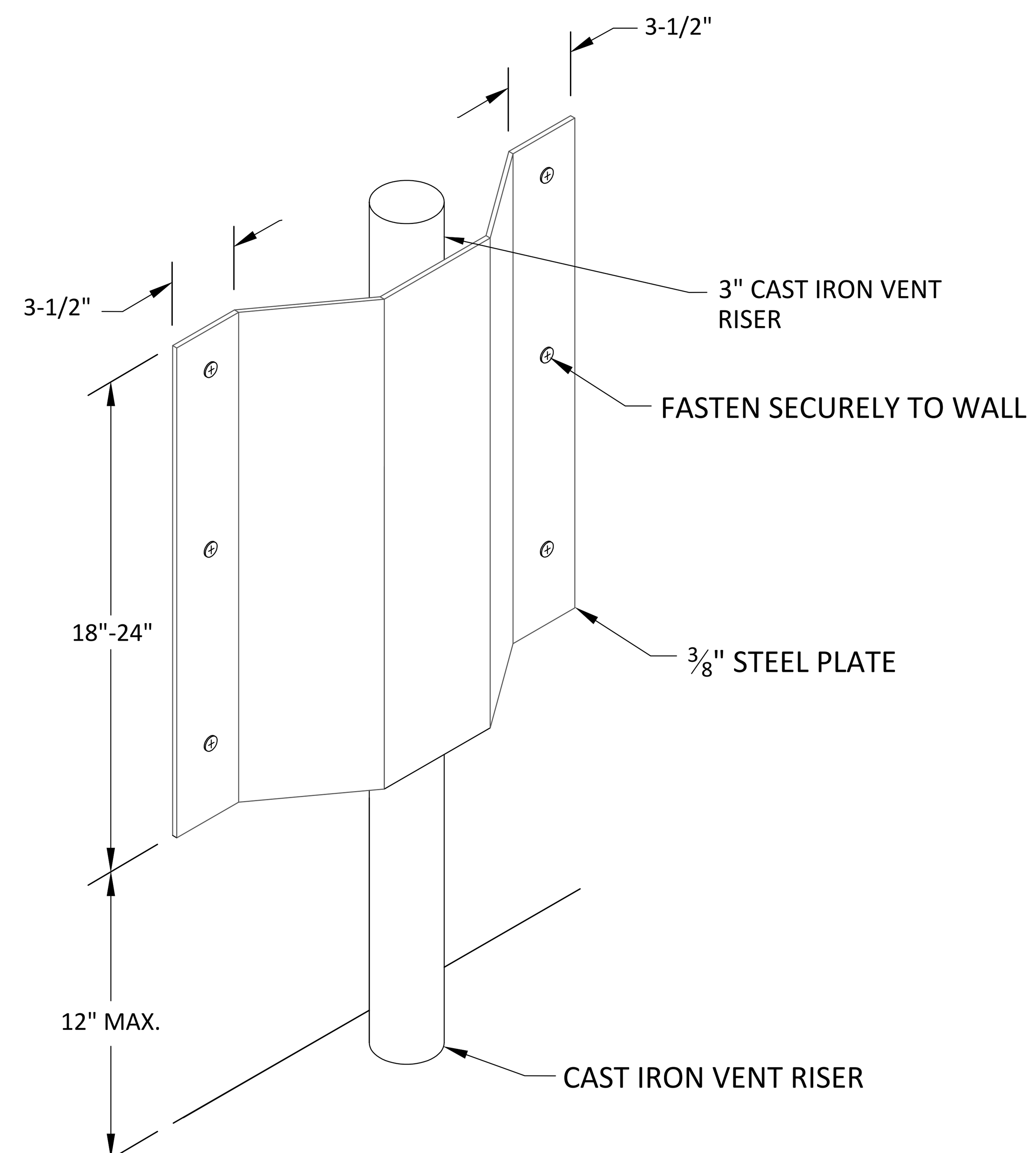


VENTING SYSTEM A



VENT PIPE THROUGH FOOTING C

THIS DETAIL APPLIES ONLY TO VENT RISERS EXPOSED TO POTENTIAL DAMAGE.



VENT RISER GUARD B

NO DETAIL D

NO DETAIL E

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5210 LEWIS ROAD
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AGOURA HILLS, CA
91301
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PROJECT

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2750 BRISTOL ST. COSTA MESA, CA 92626

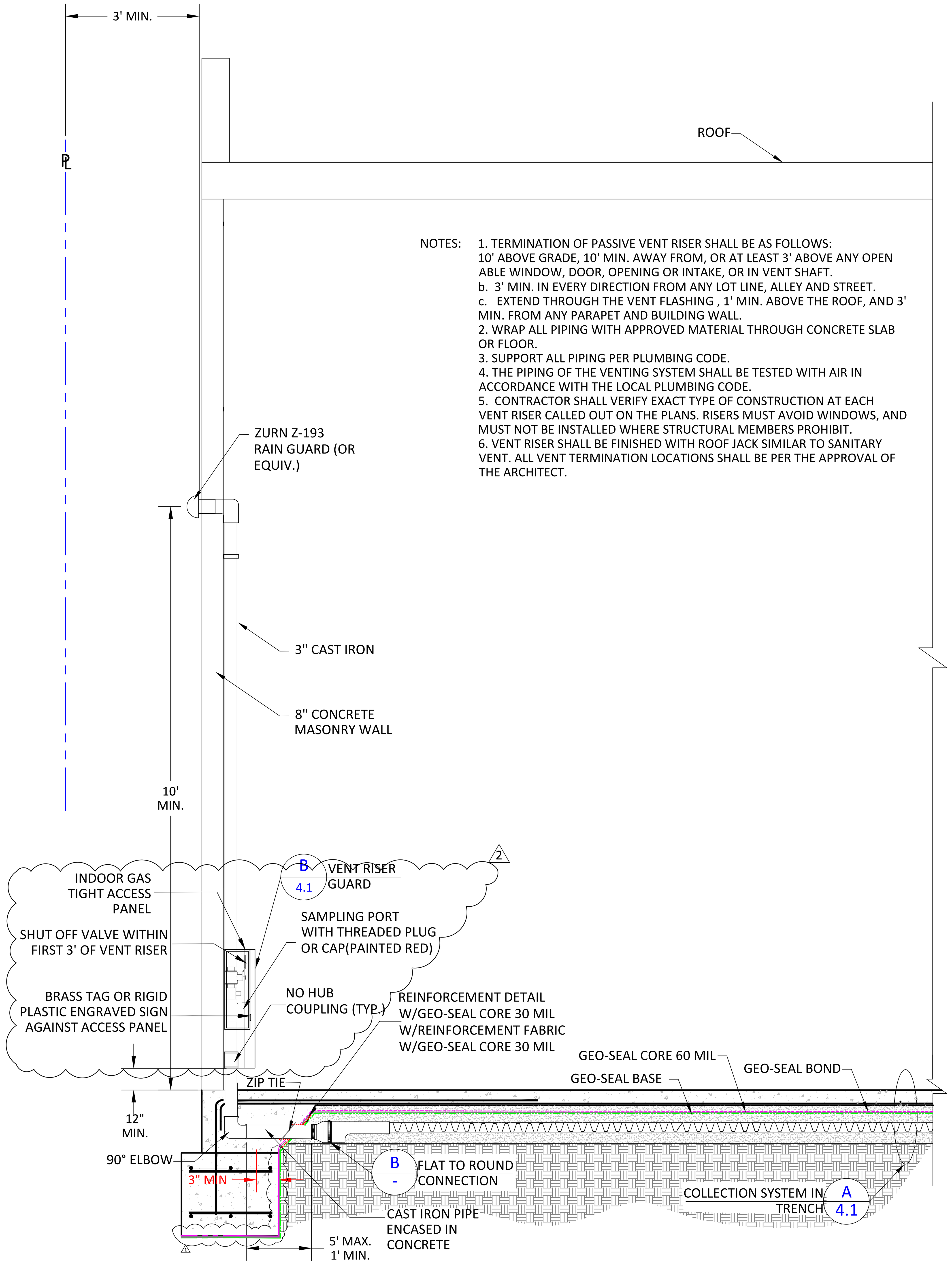
CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

SHEET TITLE

SUB-SLAB VAPOR COLLECTION SYSTEM DETAILS (CONT.)

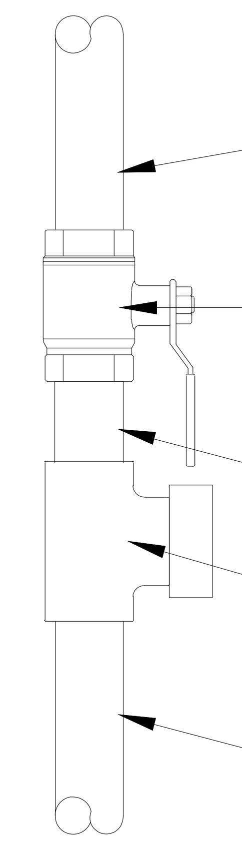
GC-4.1

NOTES:
1. TERMINATION OF PASSIVE VENT RISER SHALL BE AS FOLLOWS:
10' ABOVE GRADE, 10' MIN. AWAY FROM, OR AT LEAST 3' ABOVE ANY OPEN ABLE WINDOW, DOOR, OPENING OR INTAKE, OR IN VENT SHAFT.
b. 3' MIN. IN EVERY DIRECTION FROM ANY LOT LINE, ALLEY AND STREET.
c. EXTEND THROUGH THE VENT FLASHING , 1' MIN. ABOVE THE ROOF, AND 3' MIN. FROM ANY PARAPET AND BUILDING WALL.
2. WRAP ALL PIPING WITH APPROVED MATERIAL THROUGH CONCRETE SLAB OR FLOOR.
3. SUPPORT ALL PIPING PER PLUMBING CODE.
4. THE PIPING OF THE VENTING SYSTEM SHALL BE TESTED WITH AIR IN ACCORDANCE WITH THE LOCAL PLUMBING CODE.
5. CONTRACTOR SHALL VERIFY EXACT TYPE OF CONSTRUCTION AT EACH VENT RISER CALLED OUT ON THE PLANS. RISERS MUST AVOID WINDOWS, AND MUST NOT BE INSTALLED WHERE STRUCTURAL MEMBERS PROHIBIT.
6. VENT RISER SHALL BE FINISHED WITH ROOF JACK SIMILAR TO SANITARY VENT. ALL VENT TERMINATION LOCATIONS SHALL BE PER THE APPROVAL OF THE ARCHITECT.

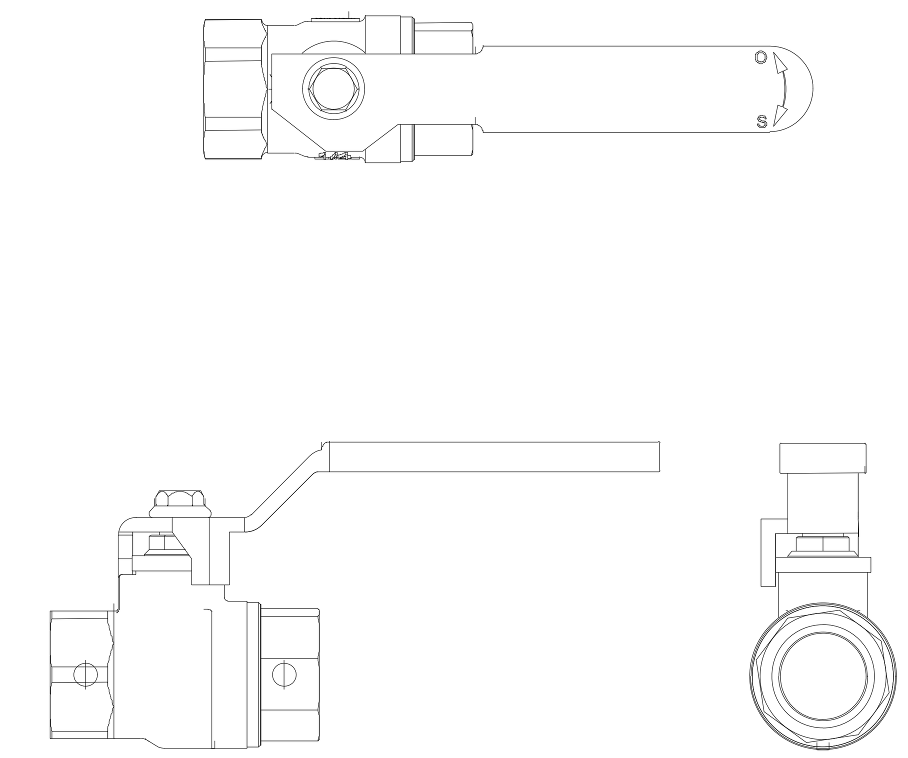


VENT RISER (WALL MOUNT) A

NOTE:
PIPE CONFIGURATION TO BE INSTALLED AT THE LOWEST LEVEL WHERE PENETRATES THE SLAB AND A MINIMUM OF 3 FEET ABOVE THE SLAB FOR LATER ACCESS.

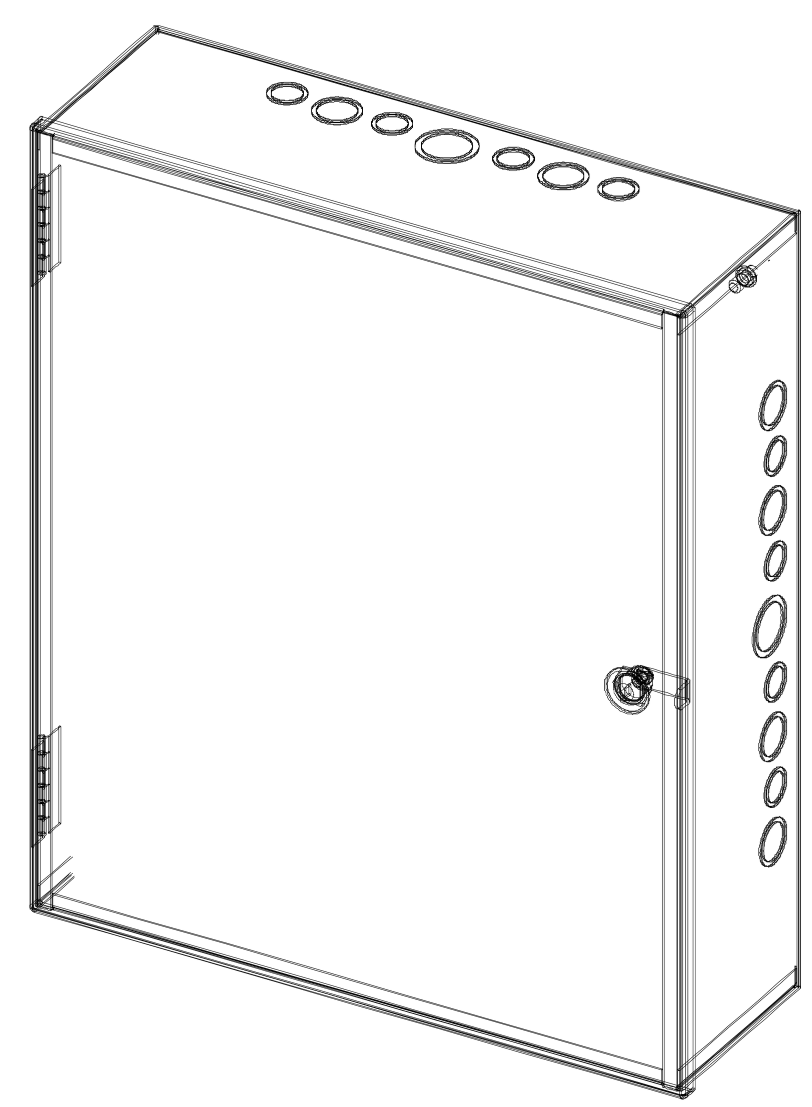


VENT RISER TEST PORT ASSEMBLY B

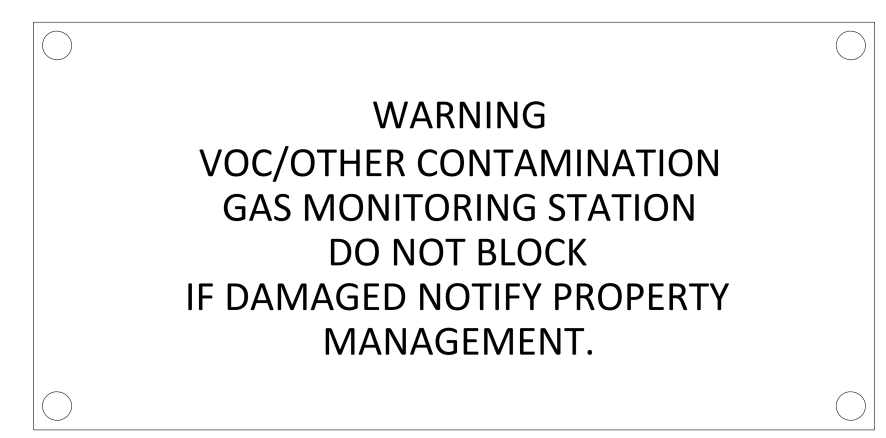


SHUT OFF VALVE D

ACCESS PANEL REQUIREMENTS:
-MINIMUM HEIGHT OF 30 IN.
-MINIMUM WIDTH OF 24 IN.
-MINIMUM DEPTH OF 6 IN.
-MUST BE LOCKABLE.



ACCESS PANEL C



PLACARD TO BE APPLIED AT ACCESS PANEL. 3" X 4" WIDE, ALL SIGNS PLASTIC W/ADHESIVE BACKING. LARGE LETTERS MIN. $\frac{1}{2}$" HIGH. WHITE LETTERS ON RED BACKGROUND.

THIS SIGN SHALL BE POSTED ON EACH VENT RISER AT THE ACCESS BOX PANEL.

SIGNAGE E

METHANE SPECIALISTS
5210 LEWIS ROAD SUITE 1 AGOURA HILLS, CA 91301
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ENGINEER STAMP

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PROJECT

C_1551

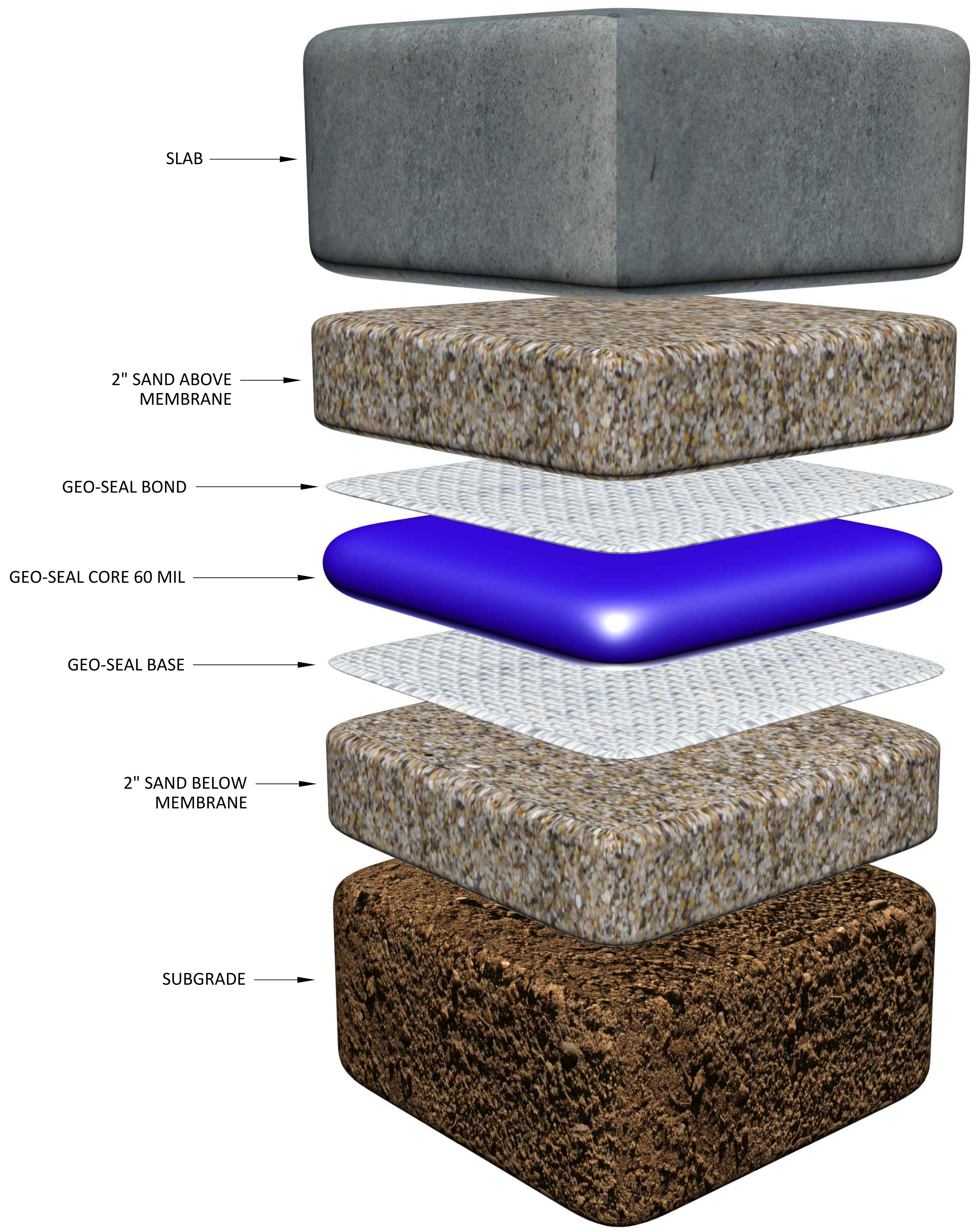
NO. 1 COLLISION
2750 BRISTOL ST. COSTA MESA, CA 92626

CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

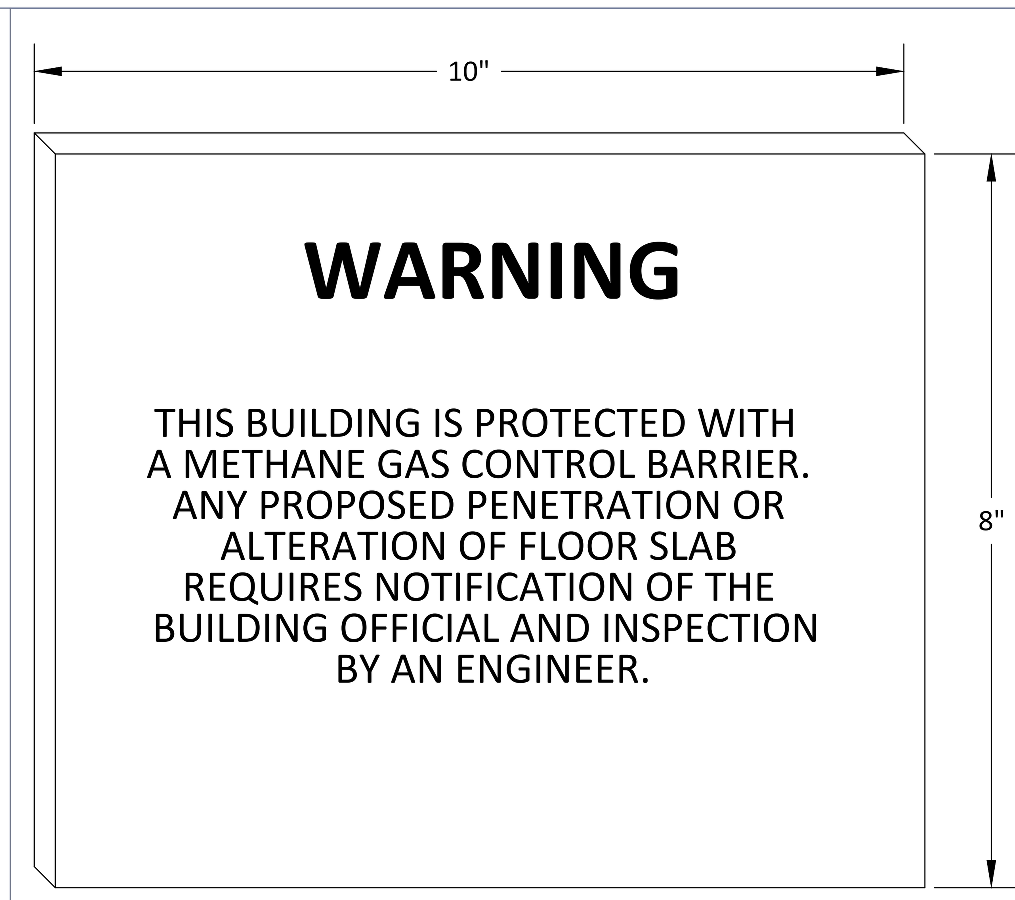
SHEET TITLE

VENT RISER (WALL MOUNT)

GC-4.2



HORIZONTAL MEMBRANE SYSTEM — A



NOTES:
1. ALL LETTERS ½" (MIN.) IN HEIGHT.
2. AT LEAST ONE REQUIRED PER BUILDING.
3. THIS NOTIFICATION SHALL BE POSTED AND MAINTAINED AT THE FRONT ENTRANCE OF THE BUILDING, EXCEPT RESIDENTIAL BUILDINGS.

SIGN IN BUILDING — C

NO DETAIL — D

THE MEMBRANE SHIELD MATERIAL SHALL BE A MINIMUM GEO-SEAL CORE 60 MIL.

A. INSTALLATION

THE MEMBRANE SHALL BE PLACED BETWEEN THE BOTTOM OF THE FLOOR SLAB AND THE EARTH, AROUND OR FASTENED TO FOOTINGS AND PITS PER THESE PLANS AND DETAILS. THE SHIELDING SHALL NOT BE PLACED MORE THAN 6-INCHES BELOW THE BOTTOM OF THE FLOOR SLAB. SEAMS SHALL BE LAPPED A MINIMUM OF 6-INCHES AND SEALED IN ACCORDANCE WITH THE MEMBRANE MANUFACTURER'S WRITTEN SPECIFICATIONS.

PRIOR TO PLACING THE FLOOR SLAB OVER THE MEMBRANE, METHANE SPECIALISTS/SPECIAL INSPECTOR SHALL HAVE INSPECTED THE MEMBRANE IN ACCORDANCE WITH THESE SPECIFICATIONS AND ANY REPAIRS SHALL HAVE BEEN MADE BY CONTRACTOR.

B. PENETRATIONS OF THE MEMBRANE

WHERE FOOTINGS, PLUMBING PIPES, ELECTRICAL CONDITIONS, ETC. PENETRATE THE MEMBRANE, SLEEVES OR BOOTS COMPOSED OF THE SAME SHIELDING MATERIAL OR OTHER APPROVED MATERIAL SHALL BE PROVIDED TO SEAL THE SPACE AROUND THE PENETRATIONS. THESE DEVICES ARE TO BE BONDED TO THE MEMBRANE MATERIAL AND SEALED AROUND THE PENETRATION WITH AN APPROVED SEALANT OR OTHER APPROVED METHOD IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

C. PROTECTION OF THE MEMBRANE

THE SUBGRADE UNDER THE MEMBRANE SHALL BE ROLLED SMOOTH AND WELL COMPACTED. ANGULAR MATERIAL SUCH AS ROCKS AND STONES SHALL BE COVERED BY A MINIMUM 2" SAND LAYER (APPROVED BY METHANE SPECIALISTS), OR ALTERNATE 10 OZ. GEOTEXTILE TO PREVENT PUNCTURE OF THE MEMBRANE.

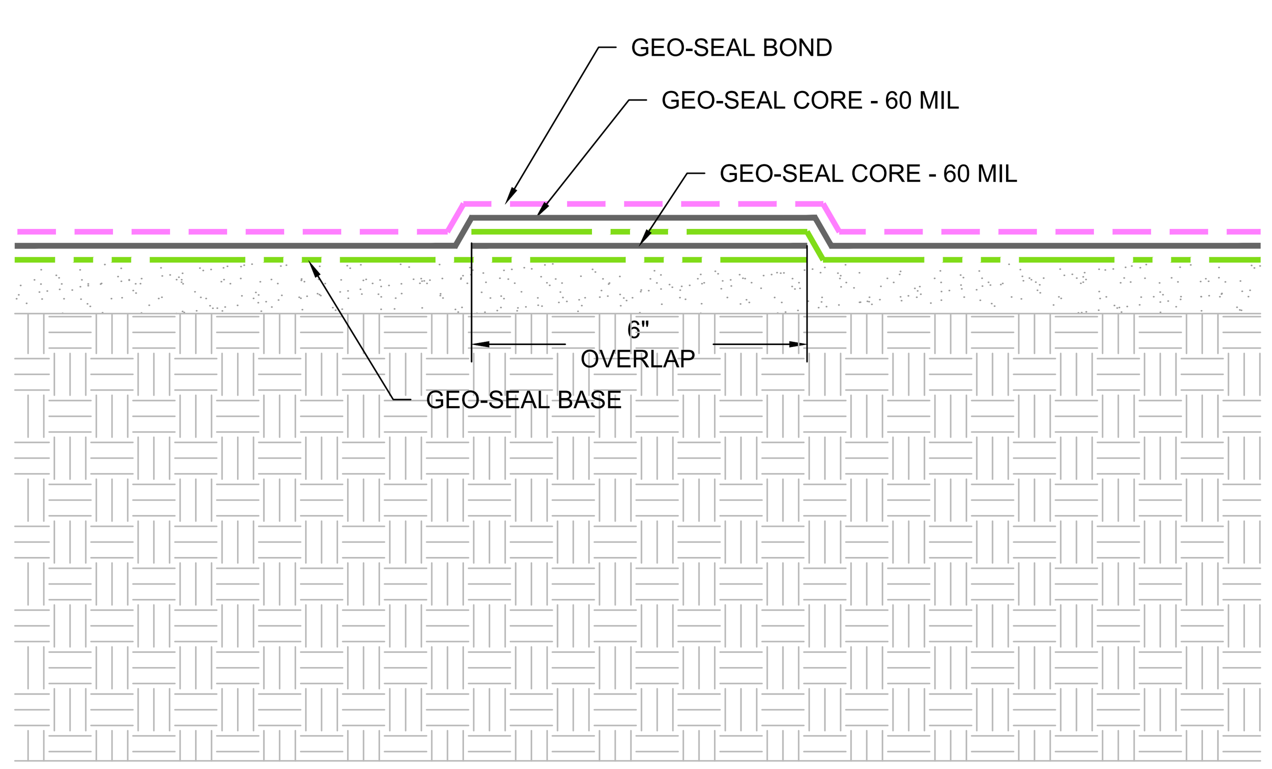
REINFORCING STEEL, PIPING, FORMS, ETC. SHALL NOT BE SUPPORTED DIRECTLY ON THE MEMBRANE ORPROTECTIVE COVERING AND EQUIPMENT SHALL NOT BE DRIVEN OVER THE MEMBRANE OR ITS PROTECTIVE COVERING.

D. SPECIAL INSPECTION

COMPLETE AND COMPREHENSIVE INSPECTION BY A METHANE SPECIALISTS INSPECTOR SHALL BE PROVIDED FOR MEMBRANE SHIELD INSTALLATION.

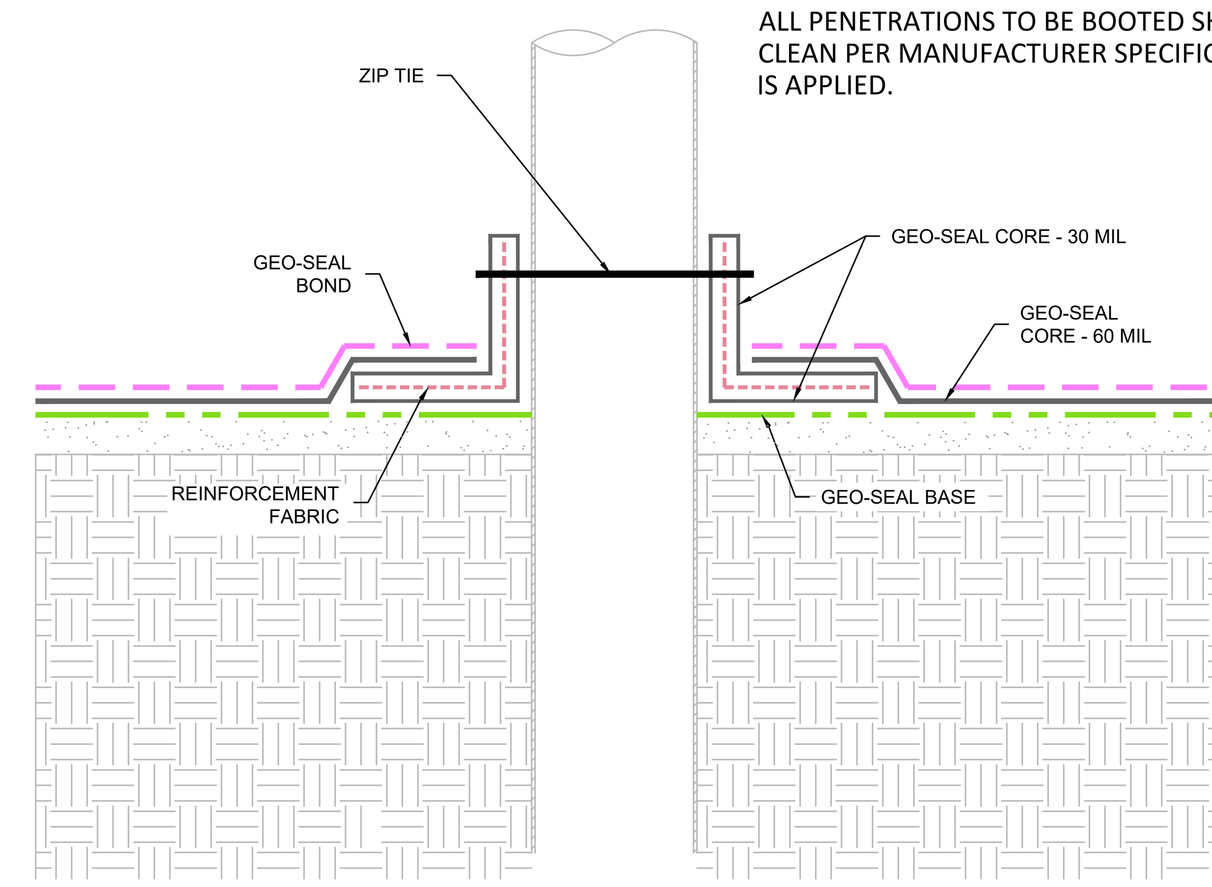
ALL METHANE MEMBRANE INSTALLED WILL BE SMOKED TESTED FOLLOWING THE COMPLETION OF INSTALLATION.

FOUNDATION PROTECTION NOTES — F



MEMBRANE LAP — B

ALL PENETRATIONS TO BE BOOTED SHALL BE PREPARED CLEAN PER MANUFACTURER SPECIFICATIONS BEFORE BOOT IS APPLIED.



PIPE PENETRATION — E

JOBS WITH VAPOR CONTROL MEMBRANE ARE DIFFERENT THAN OTHER JOBS. THE VAPOR CONTROL MEMBRANE IS DIFFERENT IN THAT IT MUST BE INSTALLED WITH SPECIAL INSPECTION AND TESTING. ANY DAMAGE DONE TO THE MEMBRANE AFTER IT HAS INITIALLY PASSED INSPECTION MUST BE REPAIRED, RETESTED, AND INSPECTED AGAIN. OBSERVING THE FOLLOWING PRECAUTIONS SHOULD MINIMIZE REPAIR COSTS.

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL INSURE THAT NO DAMAGE IS DONE TO MEMBRANE SUBSEQUENT TO INITIAL INSTALLATION, INCLUDING PUNCTURING WITH TOOLS OR OTHERWISE, OR PLACING OR STORING MATERIAL OVER THE MEMBRANE, OR DRIVING EQUIPMENT OVER THE MEMBRANE WITHOUT ADEQUATE PROTECTION & THE APPROVAL OF METHANE SPECIALISTS.

PLUMBERS SHALL INSURE THAT ALL SUBSLAB PIPING AND DRAINS ARE IN PLACE PRIOR TO PLACING MEMBRANE, TO AVOID CUTTING MEMBRANE.

ELECTRICIANS SHALL INSURE THAT ALL SUBSLAB CONDUIT IS IN PLACE PRIOR TO PLACING MEMBRANE, TO AVOID CUTTING MEMBRANE.

CONCRETE WORKERS SHALL NOTE THAT CERTAIN CONCRETE WORKS NEED A SMOOTH TROWEL FINISH IN ORDER TO ALLOW MEMBRANE BATTENING TO THE CONCRETE. COORDINATE WITH THE MEMBRANE CONTRACTOR;

CONCRETE WORKERS SHALL AVOID CHIPPING CONCRETE FROM ABOVE DIRECTLY ONTO INSTALLED MEMBRANE BELOW;

WELDERS SHALL AVOID BURNING MEMBRANE BY PLACING A HEAT RESISTANT PROTECTIVE COVER OVER MEMBRANE MATERIAL.

GRADING OR OTHER SUBCONTRACTORS SHALL AVOID BURYING MEMBRANE TERMINATIONS THAT NEED TO BE ATTACHED TO LATER ON. COORDINATE WITH MEMBRANE CONTRACTOR.

CONCRETE SUBCONTRACTORS SHALL EXERCISE CAUTION IN PLACING REBAR IN MEMBRANED AREAS. REBAR CHAIRS SHALL NEVER BE PLACED DIRECTLY UPON MEMBRANE.

MEMBRANE PROTECTION NOTES — G

METHANE SPECIALISTS
5210 LEWIS ROAD
SUITE 1
AGOURA HILLS, CA
91301
TEL: 805.987.5356
www.methanespecialists.com

ENGINEER STAMP

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DESIGN

DSN:	J.KASONDRA
DRN:	R. GIBSON
CHK:	T. TUCKER
DATE:	JULY 2022

REVISIONS

NO.	INT.	DESCRIPTION: DATE:
6		
5		
4	RG	WHIRLY BIRD DETAIL 05.25.2023
3	MP	VENT RISER RELOCATION 04.19.2023
2	RG	TESTING PORT DETAIL 03.03.2023
1	RG	DESIGN REVISION 02.17.2023

OWNER/AGENT

WALKER GROUP OF COMPANIES
ATT: ROBERT A. WALKER
11100 CAMBRIE ROAD #100
RICHMOND, BC V6X 1K9
TEL: 604.231.9614

PROJECT

C_1551

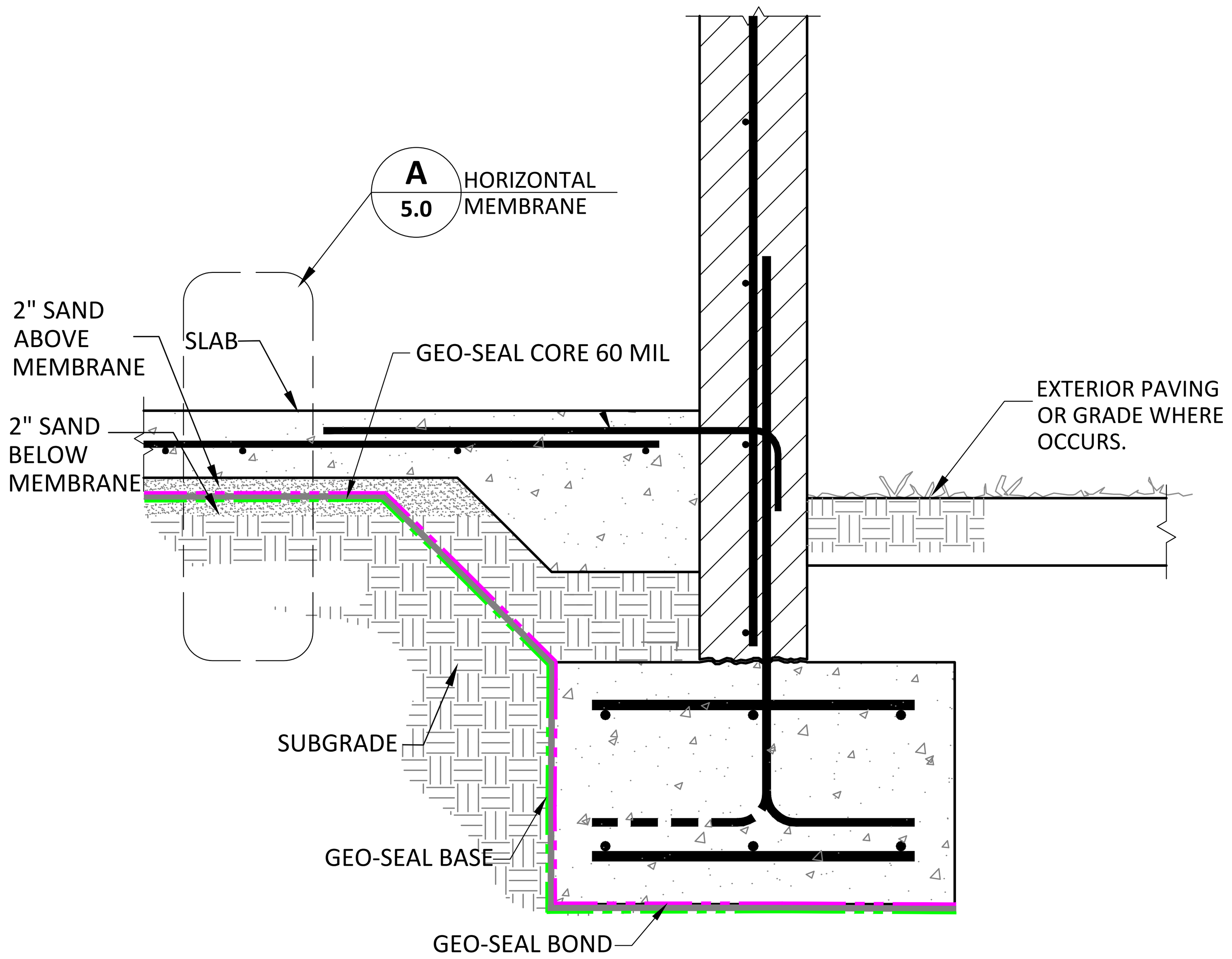
NO. 1 COLLISION
2750 BRISTOL ST. COSTA MESA, CA 92626

CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

SHEET TITLE

SUB-SLAB MEMBRANE DETAILS

GC-5.0



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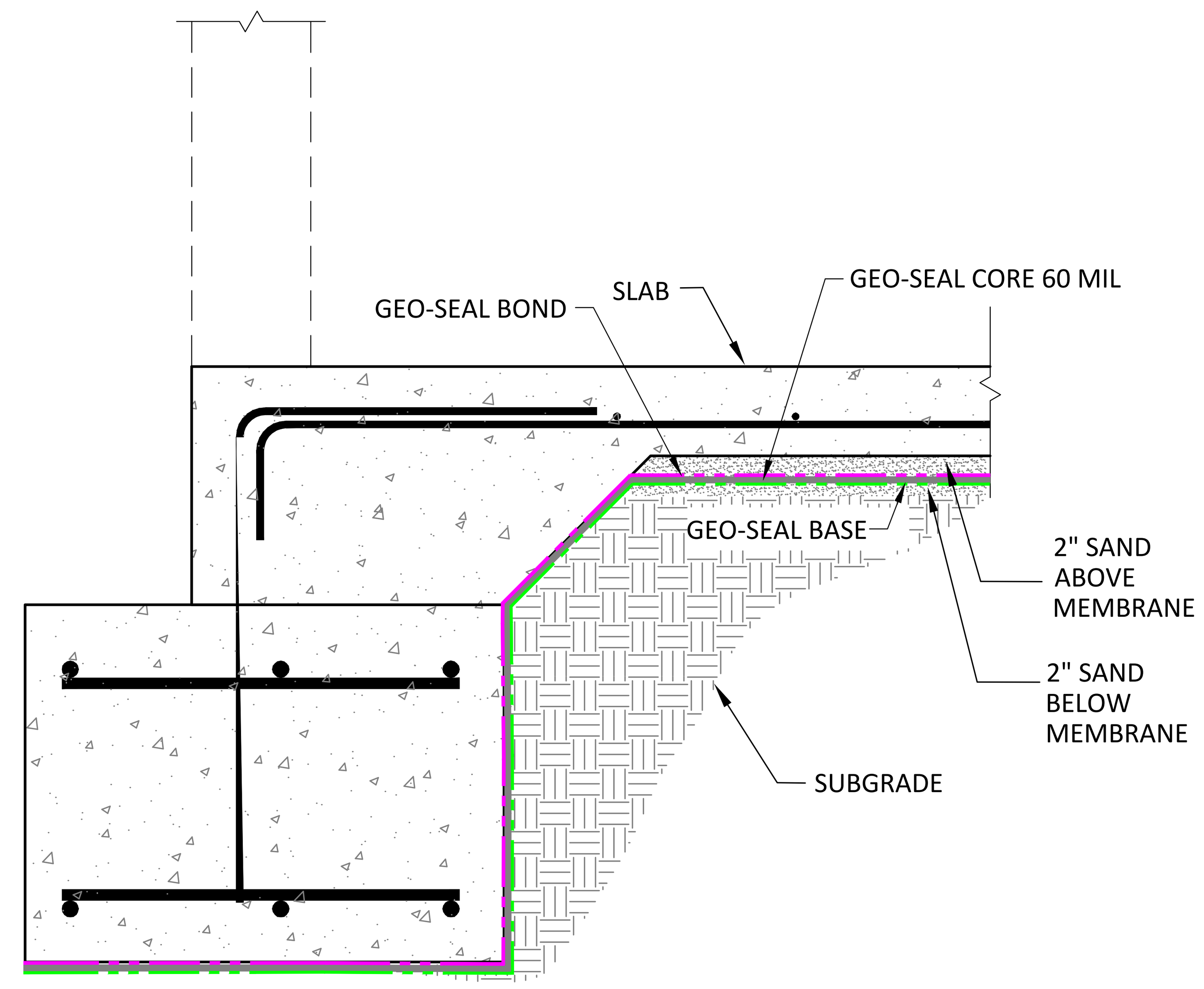
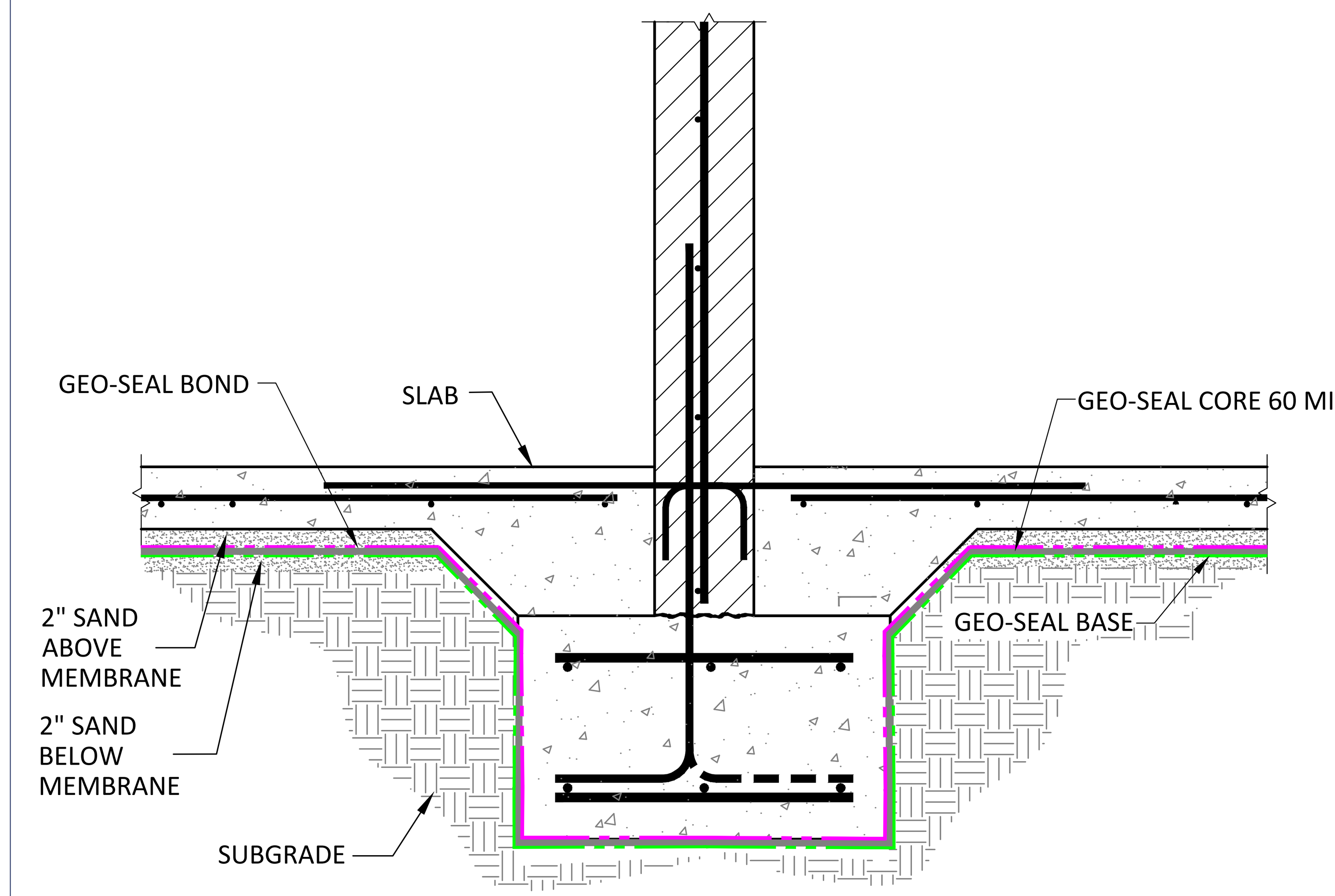
MEMBRANE AT EXTERIOR WALL TO FOOTING
A



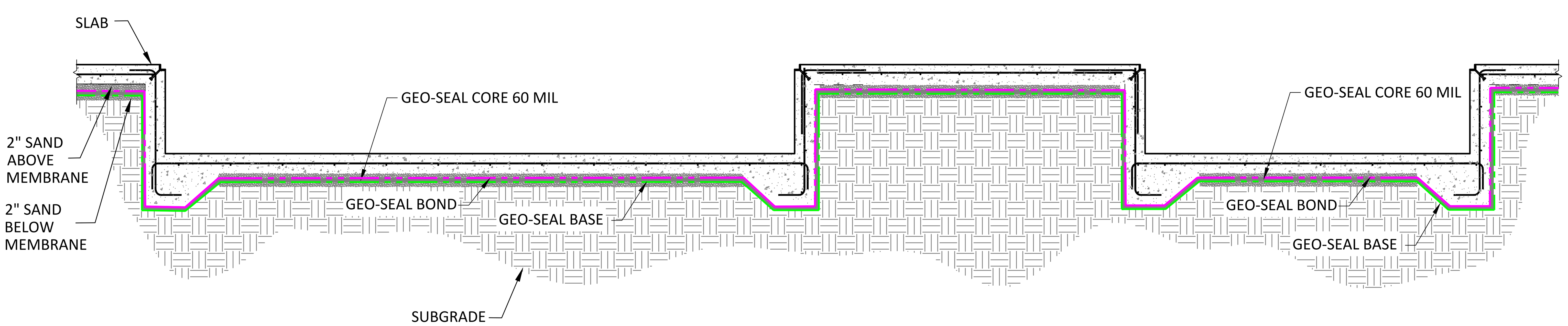
N.T.S.

MEMBRANE AT EXTERIOR FOOTING
B



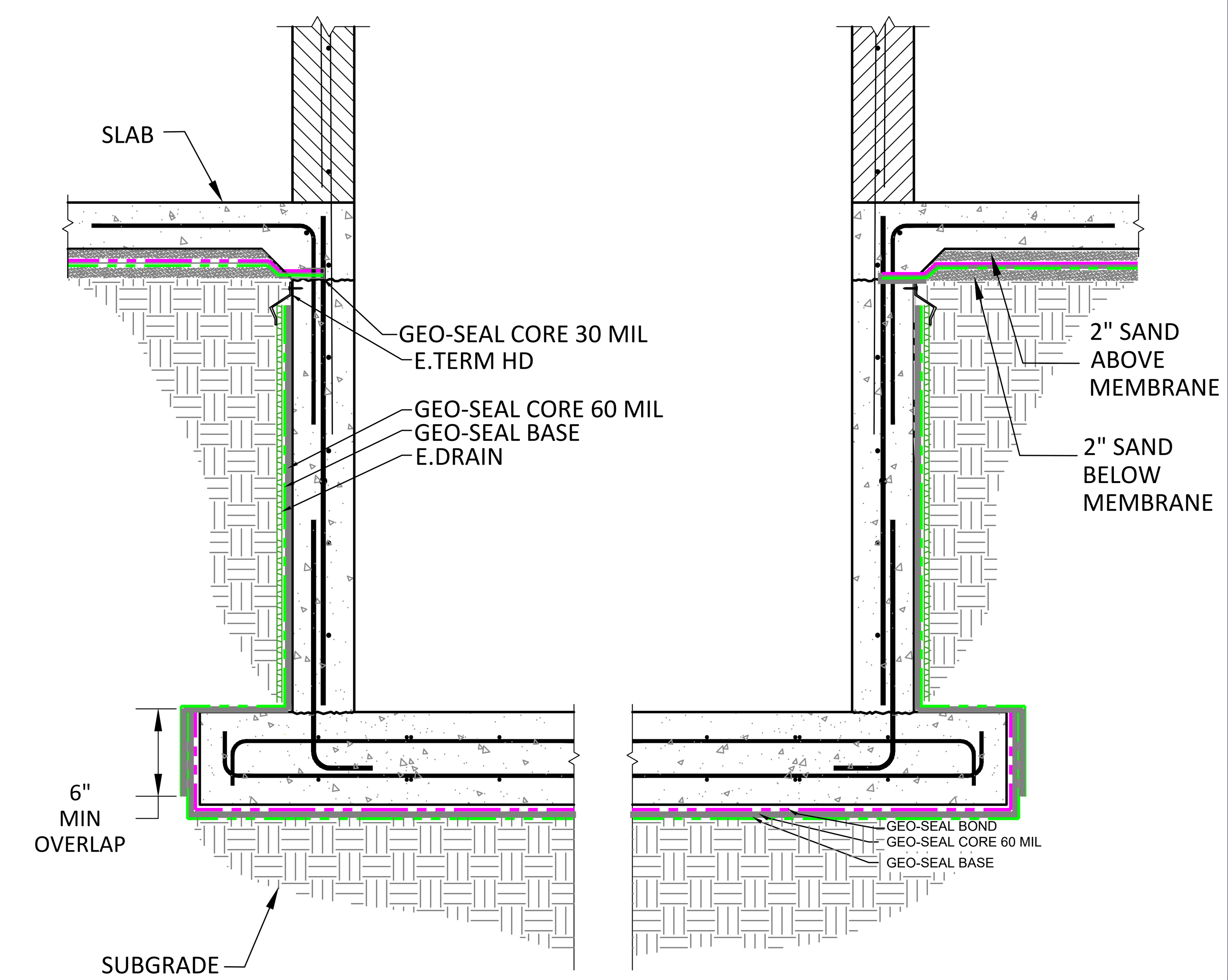
N.T.S.

MEMBRANE AT INTERIOR FOOTING
C



N.T.S.

MEMBRANE AT PAINT BOOTH-TRANSVERSE
D



N.T.S.

MEMBRANE AT ELEVATOR PIT
E

METHANE SPECIALISTS
5210 LEWIS ROAD
SUITE 1
AGOURA HILLS, CA
91301
TEL: 805.987.5356
www.methanespecialists.com

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SHEET TITLE

SUB-SLAB MEMBRANE DETAILS (CONT.)

GC-5.1

1

GEO-SEAL 60 SLAB ON GRADE COMPOSITE VAPOR INTRUSION BARRIER SPECIFICATION VERSION 1.40

SECTION 02 56 16 – GAS CONTAINMENT
SECTION 02 56 19.13 – FLUID-APPLIED GAS BARRIER

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including general and supplementary conditions, and Division 1 specification section, apply to this section.

1.2 SECTION INCLUDES

A. The installation of materials designed to provide vapor intrusion protection when installed per project specification, this section covers the methane mitigation and vapor intrusion membrane, along with the following:

1. Surface preparation and substrate treatment
2. Auxiliary materials
3. Prefabricated drainage mat (if applicable)
4. Foundation drain (if applicable)

1.3 RELATED SECTIONS

A. Section 02 24 00: Environmental Assessment

B. Section 02 32 00: Geotechnical Investigation

C. Section 03 15 00: Concrete Accessories

D. Section 03 30 00: Cast-in-Place Concrete

E. Section 03 40 00: Precast Concrete

F. Section 07 90 00: Joint Protection

G. Section 31 30 00: Earthwork Methods

H. Section 33 41 00: Subdrainage

1.4 PERFORMANCE REQUIREMENTS

A. General: Provide a vapor mitigation system that prevents the passage of methane gas, contaminant vapors including chlorinated solvents and petroleum hydrocarbons, and complies with the physical requirements as demonstrated by testing performed by an independent testing agency.

1.5 SUBMITTALS

A. Product Data: Submit manufacturer's printed technical data, tested physical and performance properties, instructions for evaluating, preparing, and treating substrates, and installation instructions.

B. Shop Drawings: Project specific drawings showing locations and extent of vapor intrusion barrier system, details for overlaps, penetrations, transitions, and termination conditions.

C. Samples: Submit two standard size samples of the each of the following:

1. Individual components of the specified composite vapor intrusion barrier system.

D. Applicator Certification: Submit written confirmation at the time of bid that applicator is currently approved by the membrane manufacturer.

1.6 QUALITY ASSURANCE

A. Applicator Qualifications: System applicator shall be an EPRO Authorized Applicator who is trained to perform work that in accordance with EPRO standards and policies.

B. Manufacturer Qualification: Obtain vapor intrusion barrier materials and system components from a single manufacturer source, EPRO. Manufacturer must have 20 years of experience in the manufacture of vapor intrusion barrier systems.

C. Third Party Inspection: Independent inspection of the composite system installation may be required based on project conditions and desired warranty coverage, or as required based on local building code/government agency jurisdiction. Inspection reports shall be submitted directly to the composite vapor intrusion barrier manufacturer and made available to other parties per the owner's direction.

D. Pre-Construction Meeting: A meeting shall be held prior to application of the barrier system to assure proper substrate preparation, confirm installation conditions, and any additional project specific requirements. Attendees of the meeting shall include, but are not limited to the following:

1. EPRO authorized applicator
2. Third party inspector
3. General contractor
4. Owner's representative
5. Architect and Engineer
6. Concrete/Shotcrete contractor
7. Rebar contractor
8. All appropriate related trades

E. Field Sample: Apply vapor intrusion barrier system field sample to 100 ft^2 (9.3 m^2) of each assembly to demonstrate proper application techniques and standard of workmanship.

1. Notify composite membrane system manufacturer representative, architect, certified inspector, and other appropriate parties one week in advance of the dates and times when field sample will be prepared.
2. If architect and certified inspector determines that field sample does not meet requirements; reapply composite membrane system until field sample is approved.
3. Retain and maintain approved field sample during construction in an undisturbed condition as a standard for judging the completed composite membrane system. An undamaged field sample may become part of the completed work.

1.7 DELIVERY, STORAGE AND HANDLING

A. Delivery: Deliver materials to site labeled with manufacturer's name, product brand name, material type, and date of manufacture. Upon the arrival of materials to the jobsite, inspect materials to confirm material has not been damaged during transit.

B. Storage: Proper storage of onsite materials is the responsibility of the certified applicator. Consult product data sheets to confirm storage requirements. Storage area shall be clean, dry, and protected from the elements. If ambient air temperatures are expected to fall below 40°F, precautions will need to be taken to protect any emulsion product from near freezing temperatures. Protect stored materials from direct sunlight.

C. Disposal: Remove and replace any material that cannot be properly applied in accordance with local regulations and specification section 01 74 19.

1.8 PROJECT CONDITIONS

A. Substrate Review: Substrates shall be reviewed and accepted by the certified applicator and independent inspector prior to application.

B. Penetrations: **All plumbing, electrical, mechanical, and structural items to be passing through the composite membrane system shall be properly spaced, positively secured in their proper positions, and appropriately protected prior to system application and throughout the construction phase.** Braided grounding rods are not allowed to pass through the vapor intrusion barrier.

C. Reinforcement Steel and Concrete Forms: Vapor intrusion barrier shall be installed before placement of reinforcing steel. When penetrations post system installation occurs, it is the responsibility of the general contractor to notify the vapor intrusion barrier applicator to immediately make repairs prior to the placement of overburden, this includes the use of solid plastic "VaporStakes" used to secure concrete forms.

D. Clearance: Minimum clearance of 24 inches is required for application of spray applied polymer modified asphalt, ***Geo-Seal CORE***. For areas with less than 24-inch clearance, the product may be applied by hand using ***Geo-Seal CORE Detail***.

E. Overspray: Protect all adjacent areas not receiving the barrier application. Masking is necessary to prevent unwanted overspray from adhering to, or staining, areas not receiving the membrane. Once ***Geo-Seal CORE*** adheres to a surface it is extremely difficult to remove.

F. Weather Limitations: Perform work only when existing and forecast weather conditions are within manufacturer's recommendations.

1. Spray Applied Polymer Modified Asphalt Membrane: Minimum ambient temperature should be 40°F (7°C) and rising. For applications temperatures below 38°F, but greater than +19ºF/-7ºC, special equipment and material handling is required. Substrate shall be clean and free from standing moisture.
2. EPRO applicators reserve the right not to install product when application conditions might be within manufactures acceptance, but ambient conditions may limit a successful application.

1.9 WARRANTY

A. Special Warranty: Submit a written warranty signed by vapor intrusion barrier manufacturer agreeing to replace system materials that do not conform to manufacturer's published specifications or are deemed to be defective. Warranty does not include failure of vapor intrusion barrier due to failure of soil substrate prepared and treated according to requirements or formation of new joints and cracks in the concrete that exceed 1/8 inch (3.175 mm) in width.

1. Warranty Period: 1 years after date of substantial completion. Longer warranty periods are available upon request.
2. Coverage: Manufacturer will guarantee that the material provided is free of defects for the warranty period.

B. Additional Warranty Options: Upgraded warranties are available by contacting the manufacturer. These warranties may have additional requirements and approval must be granted in accordance to the manufacturer's warranty requirements. Additional warranty options include:

1. Standard Labor and Material (Geo-Seal L&M): Manufacturer will provide non-prorated coverage for the warranty term, agreeing to repair or replace material that does not meet requirements or remain vapor tight.
2. Waterproofing Warranties: For below grade project that require vapor intrusion barriers and below grade waterproofing for foundation walls, single source warranties are available from EPRO.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: EPRO Services, Inc. (EPRO), P.O. Box 347; Derby, KS 67037; Tel: (800) 882-1896; www.eproinc.com

B. Basis of Design: Geo-Seal 60 (58 mils) – ***Geo-Seal FILM 11***, ***Geo-Seal CORE*** (30 mils), ***Geo-Seal BOND***

2.2 VAPOR INTRUSION BARRIER MATERIALS

A. The physical properties listed in this section reflect testing on the entire composite system. Physical properties of the individual system composite can be found in Specification Section 2.3.

1. **Geo-Seal 60 Vapor Intrusion Barrier** consists of a 30 mil layer of ***Geo-Seal CORE*** (polymer modified asphaltic membrane) sandwiched between two HDPE geocomposite membranes ***Geo-Seal FILM 11*** layer and ***Geo-Seal BOND*** protection sheet. ***Geo-Seal*** is ideal for moisture protection on sites that may also contain methane gas, contaminated soil, or contaminated groundwater.

PROPERTIES	TEST METHOD	VALUE
Tensile Strength	ASTM D412	527.7 psi
Elongation	ASTM D412	45%
Adhesion to Concrete	ASTM D903	8 lbf/in
Puncture Resistance	ASTM D1709	310 lbf
Water Vapor Transmission	ASTM E96	0.020 perms
PCE Diffusion Rate	Geokinetics	1.16×10^{-17} m^2/sec
Benzene Diffusion Rate	Geokinetics	2.31×10^{-18} m^2/sec
Vapor Barrier Classification	ASTM E1745	A, B & C

2.3 VAPOR INTRUSION BARRIER MATERIALS

A. Polymer Modified Asphalt

1. ***Geo-Seal CORE***: ***Geo-Seal CORE*** is a non-hazardous, low-viscosity, water-based, anionic asphalt emulsion modified with a blend of synthetic polymerized rubbers and proprietary additives. ***Geo-Seal CORE*** is highly stable during transit and when properly stored but becomes highly reactive during the spray application to form a rapidly cured membrane with exceptional bonding, elongation, and hydrophobic characteristics.

PROPERTIES	TEST METHOD	VALUE
Color		Brown to Black
Solvent Content		No Solvents
Shelf Life		6 months
Tensile Strength	ASTM 412	32 psi
Elongation	ASTM 412	4140%
Resistance to Decay	ASTM E 154 Section 13	4% Perm Los
Accelerated Aging	ASTM G 23	No Effect
Moisture Vapor Transmission	ASTM E 96	0.026 g./sq. ft./hr.
Hydrostatic Water Pressure	ASTM D 751	26 psi
Perm Rating	ASTM E 96 (US Perms)	0.21
Methane Transmission Rate	ASTM D 1434	0
Adhesion to Concrete & Masonry	ASTM C 836 & C 704	20 lbf./inch
Adhesion to HDPE	ASTM C 836	28.363 lbf./inch
Adhesion to Polypropylene Fabric	ASTM C 836	31.19 lbf./inch
Hardness	ASTM C 836	80
Crack Bridging	ASTM C 836-00	No Cracking
Low Temp. Flexibility		No Cracking at -20° C
Packaging: 55 gallon drum, 275 gallon tote, 330 gallon tote		

2. ***Geo-Seal CORE Detail***: ***Geo-Seal CORE Detail*** is single component, medium viscosity, water-based, polymer-modified anionic asphalt emulsion, which exhibits exceptional bonding, elongation and hydrophobic characteristics.

PROPERTIES	TEST METHOD	VALUE
Color		Brown to Black
Solvent Content		No Solvents
Shelf Life		6 months
Tensile Strength	ASTM 412	32 psi
Elongation	ASTM 412	3860%
Resistance to Decay	ASTM E 154 SECTION 13	9% Perm Loss
Accelerated Aging	ASTM G 23	No Effect
Moisture Vapor Transmission	ASTM E 96	0.071 g/sq. ft./hr.
Hydrostatic Water Pressure	ASTM D 751	28 psi
Perm Rating	ASTM E 96 (US Perms)	0.17
Methane Transmission Rate	ASTM D 14334	0
Adhesion to Concrete & Masonry	ASTM C 836	1 lbf/inch
Hardness	ASTM C 836	85
Crack Bridging	ASTM C 836	No Cracking
Low Temp. Flexibility	ASTM C 836-00	No Cracking at -20° C
Packaging: 5 gallon bucket		

B. Base Sheet

1. **Geo-Seal FILM 11**: **Geo-Seal FILM 11** is a base course comprised of an 11 mil HDPE film. The film is cross laminated to a create ridges that enhance the bond between the **Geo-Seal FILM 11** and **Geo-Seal CORE**.

PROPERTIES	TEST METHOD	VALUE
Film Material		HDPE
Film Color		Green
Film Thickness		11 Mil
Classification	ASTM E 1745	Exceeds Class A, B, and C
Tensile Strength	ASTM E 154 (ASTM D 882)	50 lbf/in
Puncture Resistance	ASTM D 1709	2400 grams Method A
Life Expectancy	ASTM E 154-93	Indefinite
Chemical Resistance	ASTM E 154-93	Unaffected
Water Permeance	ASTM E 96	0.020 Perms (US)
Dimensions: 12' x 200'		
Weight: 144 pounds		

C. Geocomposite Protection Course

1. **Geo-Seal BOND: Geo-Seal BOND** is an extremely durable, high strength protection course made from the lamination of HDPE film and nonwoven polypropylene geotextile fabric.

PROPERTIES	TEST METHOD	VALUE
Film Material		HDPE
Film Color		White

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DATE:	JULY 2022

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CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

SHEET TITLE

SUB-SLAB MEMBRANE SPECIFICATIONS

Fabric Material		Non-woven Polypropylene
Fabric Color		White
Film Thickness		5 Mil
Composite Thickness		18 Mil
Tensile @ ULT	ASTM D 882	TD 32.0 lbs/in
		MD 37.3 lbs/in
Elongation @ ULT	ASTM D 882	TD 65.3%
		MD 51.0%
Dart Impact	ASTM D 1709	Method A >1070 grams
		Method B 894 grams
Modulus	ASTM D 882	TD 270.6 lbs/in
		MD 295.5 lbs/in
Elmendorf Tear	ASTM D 1922	TD 5,140 grams
		MD 5,260 grams
Puncture-Prop Tear	ASTM D 2582	TD 13,250 grams Sled: 1-lb
		MD 11,290 grams Sled: 1-lb
Beach Puncture Tear	ASTM D 751	TD 165 in-lbs
		MD 160 in-lbs
Water Permeance	ASTM E 96	0.11 perms (US)
Dimensions: 12' x 150'		
Weight: 108 pounds		

2.4 AUXILIARY MATERIALS

A. General: All accessory products shall be provided by the specified vapor intrusion barrier manufacturer. Auxiliary products used in lieu of, or in addition to, the manufactures products must be approved in writing by EPRO prior to installation.

B. Reinforcement Fabric: Manufacturer's polyester fabric, ***Geo-Seal Reinforcement Fabric*** is available in 6 inch, 12 inch, and 40 inch widths.

C. Detailing Material: ***Geo-Seal CORE Detail***, a roller applied, water based, high viscosity, polymer modified asphaltic material.

D. Backer Rod: Closed cell polyethylene foam

E. Termination Bar: ***e.term hd***, or approved alternate

PART 3 - EXECUTION

3.1 EXAMINATION

A. Comply with project documents, manufacturer's product information, including product application and installation guidelines, pre-job punch list, as well as, manufacturer's shipping and storage recommendations.

3.1.2 SURFACE PREPARATION

A. The general contractor shall engage the certified vapor intrusion barrier contractor and certified inspector to ensure surfaces are prepared in accordance with manufacturer's instructions. Unless, explicitly stated in the contract documents, the vapor intrusion barrier contractor is not responsible for surface preparation.

B. Examine all substrates, areas, and conditions under which the composite membrane system will be installed, applicator and inspector must be present. Do not proceed with installation until unsatisfactory conditions have been corrected and surface prepration requirements have been met. If conditions exist that are not addressed in this section, notify inspector and contact EPRO for additional clarification.

C. Soil and Sand Substrates: Native soil and sand substrates shall be uniformly compacted to meet structural and building code requirements. All surfaces shall be free from protrusions and debris that may compromise the membrane system. Free standing water must be removed prior to application.

D. Aggregate Substrates: Aggregate substrates shall be compacted to meet structural and building code requirements and then rolled flat to provide a uniform substrate. ¾ inch minus aggregate with no more than one fractured face is recommended, but other aggregates substrates may be approved by the manufacturer provided they do not create sharp angular protrusions that may compromise the vapor intrusion system.

E. Working Slab: Mud slab, rat slab, or other concrete working slab shall have a uniform plane with a light broom or light trowel finish.

F. Concrete Surfaces: Clean and prepare concrete surface to manufacturer's recommendations. In general, only apply the Geo-Seal CORE material to dry, clean and uniform concrete substrates with a light trowel, light broom, or equivalent finish.

G. Cast-in-Place or Shotcrete Walls: Application to green concrete is acceptable provided the substrate is prepared in accordance with manufacturers specifications and published instructions.

1. Provide clean, dust-free, and dry substrate for vapor intrusion barrier application.
2. Surfaces shall be power washed to remove grease, oil, form release agents, or any other penetrating contaminants from the concrete.
3. Remove all fins, ridges, and other protrusions.
4. Fill honeycomb, aggregate pockets, tie holes, and other voids with hydraulic cement, or rapid-set grout.

3.2 VAPOR INTRUSION BARRIER INSTALLATION

A. General: The underslab vapor intrusion system shall be installed under strict accordance with the manufacturer's guideline and project specifications.

3.2.2 BASE COURSE – GEO-SEAL FILM 11

A. Whenever possible roll out ***Geo-Seal FILM 11*** in the same direction over the substrate. When multiple pours will occur, extend the ***Geo-Seal FILM 11*** a minimum of 2 feet past the pour joint.

B. Overlap ***Geo-Seal FILM 11*** a minimum of 6 inches.

C. At the seam overlap, peel back the top layer of ***Geo-Seal FILM 11*** and apply 60 mils into the overlapping seam, making certain to apply ***Geo-Seal CORE*** to both the top of the bottom sheet and the bottom of the top sheet. Embed the top sheet into the bottom sheet.

D. Visually verify there are no gaps/fish-mouths in seams.

3.2.3 TERMINATION SEQUENCE

A. System Termination: The termination process is appropriate for terminating the membrane onto exterior footings, pile caps, interior footings and grade beams. When terminating the membrane to stem walls or vertical surfaces the same process should be used.

1. Concrete surfaces that are not a light trowel, light broom or equivalent finish, will need to be repaired.
2. Terminations on horizontal and vertical surfaces should extend 6" onto the termination surface. Job specific conditions may prevent a 6" termination. In these conditions exist, contact manufacturer for recommendations.
3. Apply 60 mils of ***Geo-Seal CORE*** to the terminating surface and then embed the ***Geo-Seal FILM 11*** layer by pressing it firmly into the ***Geo-Seal CORE*** layer.
4. Apply 30 mils of ***Geo-Seal CORE*** to the ***Geo-Seal FILM 11*** layer.

5. Apply the ***Geo-Seal BOND*** layer and apply a final 30 mil seal of the ***Geo-Seal CORE*** layer over the edge of the termination. For further clarification, refer to the termination detail provided by manufacturer.

3.2.4 SEALING OF PENETRATIONS

A. Sealing of Standard Pipe Penetrations: Prepare membrane penetrations so they are free of any material that will inhibit a direct bond to the penetration surface: foam, insulation, protective coatings, etc.

1. Trim ***Geo-Seal FILM 11*** to within 1/8 inch of the penetration.
2. Apply ***Geo-Seal CORE Detail*** 3 inches horizontally and 3 inches vertically around the base of the penetration.
3. Embed ***Geo-Seal Reinforcement Fabric*** reinforcement fabric 3 inches horizontally and 3 inches vertically around the base of the penetration.
4. Apply a second layer of ***Geo-Seal CORE Detail*** to reinforcement fabric until the reinforcement fabric is fully saturated. Secure ***Geo-Seal Reinforcement Fabric*** reinforcement fabric to penetration with a cable tie. For further clarification, refer to the termination detail provided by manufacturer.

3.2.5 POLYMER MODIFED ASPHALT MEMBRANE – GEO-SEAL CORE

A. Mask off adjoining surfaces where unwanted ***Geo-Seal CORE*** polymer modified asphalt membrane may be exposed on finished surfaces or impact other construction trades.

B. Commence application of ***Geo-Seal CORE*** polymer modified asphalt when ambient air temperatures are within manufacturer recommendations.

C. Surfaces that will receive the membrane must be clean and free from standing moisture.

D. Start installing ***Geo-Seal CORE*** in presence of approved 3rd party inspector or required city inspector.

E. Apply one application of ***Geo-Seal CORE*** membrane in accordance to manufacturer's instructions in order to obtain a seamless membrane with a minimum dry film thickness of 30 mils (1.5 mm).

F. Apply ***Geo-Seal CORE/Geo-Seal CORE Detail*** in and around penetrations and cavities to ensure the formation of monolithic seal around all penetrations.

G. Apply ***Geo-Seal CORE/Geo-Seal CORE Detail*** to prepared wall terminations and vertical surfaces to heights indicated according to manufacturer's recommendations and details. (if applicable)

H. Verify ***Geo-Seal CORE*** thickness of every 1000 ft^2 (93 m^2), or as required by specifying engineer.

3.2.6 GEOCOMPOSITE PROTECTION COURSE – GEO-SEAL BOND

A. Sweep off any water that has collected on the surface of the ***Geo-Seal CORE*** layer, prior to the placement of the ***Geo-Seal BOND*** layer. Install ***Geo-Seal BOND*** protection course perpendicular to the direction of the ***Geo-Seal BASE***.

B. Overlap ***Geo-Seal BOND*** seams a minimum of 6 inches.

C. Secure the seams of ***Geo-Seal BOND*** by applying 30 mils of ***Geo-Seal CORE*** in-between the seam overlap OR by applying a 30 mil layer of ***Geo-Seal CORE*** on top of the seam overlap, completely covering the seam overlap.

D. To expedite the construction process, the ***Geo-Seal BOND*** layer can be placed over the ***Geo-Seal CORE*** immediately after the spray application is complete, provided the ***Geo-Seal CORE*** mil thickness has been verified and smoke tested.

E. Do not penetrate the membrane system once it has been applied. If the vapor intrusion barrier is penetrated, immediately contact the applicator. Failure to bring the breach of the membrane to the applicators attention and not allowing adequate time to make the necessary repair will result in voidance of warranty.

3.3 FIELD QUALITY CONTROL

A. Smoke Test: Conduct smoke test on all underslab areas upon installation of the ***Geo-Seal FILM 11*** sheet, the sealing of all penetrations, and application of ***Geo-Seal CORE***. All deficient areas shall be noted, marked for repair, and repairs verified. Refer to manufacturer's smoke testing protocol for additional guidance.

1. For projects that will require a Labor and Material warranty, a certified 3rd party inspector is required to inspect and verify the integrity of the membrane

B. Field Inspection: Contact EPRO for independent certification process.

C. Thickness Verification: Use a digital mil reading caliper to measure the thickness of coupon samples. To measure coupon samples correctly, the thickness of the systems ***Geo-Seal FILM 11*** layer must be measured and calibrated in the field when verifying coupon sample thicknesses. Mark coupon sample area for repair. Contact EPRO for coupon sampling protocol.

1. It should be noted that taking too many destructive samples can be detrimental to the membrane. Areas where coupon samples have been removed need to be marked for repair.

D. Take care to prevent contamination and damage during application stages and curing. Machinery, additional trades, or general construction, shall NOT take place over the membrane until inspection is complete and concrete has been placed. The membrane shall always be properly protected when equipment is operated near the membrane.

E. Prevent damage during the placement of reinforcement steel and overburden.

F. Damage Observation: Prior to the placement of concrete a visual inspection to confirm no damage has occurred from construction traffic or during the placement of reinforcement steel is recommended.

3.4 REPAIRS

A. Underslab:

1. Inspect damaged area to determine which system components have been damaged.
2. If the ***Geo-Seal FILM 11*** sheet has not been compromised, patch only the areas that have been damaged by re-installing the damaged materials. The patch should extend 6 inches beyond the damaged area in all directions.

3. If the ***Geo-Seal FILM 11*** sheet has been breached but no additional system components have been installed, install a patch below and above the base sheet that extends 6 inches beyond the damaged area. Area shall be sealed using the specified method for sealing the base sheet.
4. If the damaged area has breached the base sheet and additional components have been installed over the ***Geo-Seal FILM 11*** sheet, the area will require removal of the overlying components to expose the ***Geo-Seal FILM 11*** sheet.
5. If the damage is less than 3 inches, the base sheet will need to be opened up to create a minimum 4-inch diameter circle to allow access
6. Place a minimum 8-inch diameter coupon under the base sheet and seal using the specified method for seaming the base sheet. If heat welding the seam, probe the seam to ensure a uniform seal.
7. Apply a reinforcement detail of ***Geo-Seal CORE Detail*** and reinforcement fabric 6 inches beyond the edge of the repair area.
8. Apply the remaining layers as specified.
9. Refer to manufacturer's detail for further repair clarification.

End of Section

METHANE SPECIALISTS
5210 LEWIS ROAD
SUITE 1
AGOURA HILLS, CA
91301
TEL: 805.987.5356
www.methanespecialists.com

ENGINEER STAMP

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DESIGN

DSN: J.KASONDRA
DRN: R. GIBSON
CHK: T. TUCKER
DATE: JULY 2022

REVISIONS

NO.	INT.	DESCRIPTION: DATE:
6		
5		
4	RG	WHIRLY BIRD DETAIL 05.25.2023
3	MP	VENT RISER RELOCATION 04.19.2023
2	RG	TESTING PORT DETAIL 03.03.2023
1	RG	DESIGN REVISION 02.17.2023

OWNER/AGENT

WALKER GROUP OF COMPANIES
ATT: ROBERT A. WALKER
11100 CAMBRIE ROAD #100
RICHMOND, BC V6X 1K9
TEL: 604.231.9614

PROJECT

C_1551

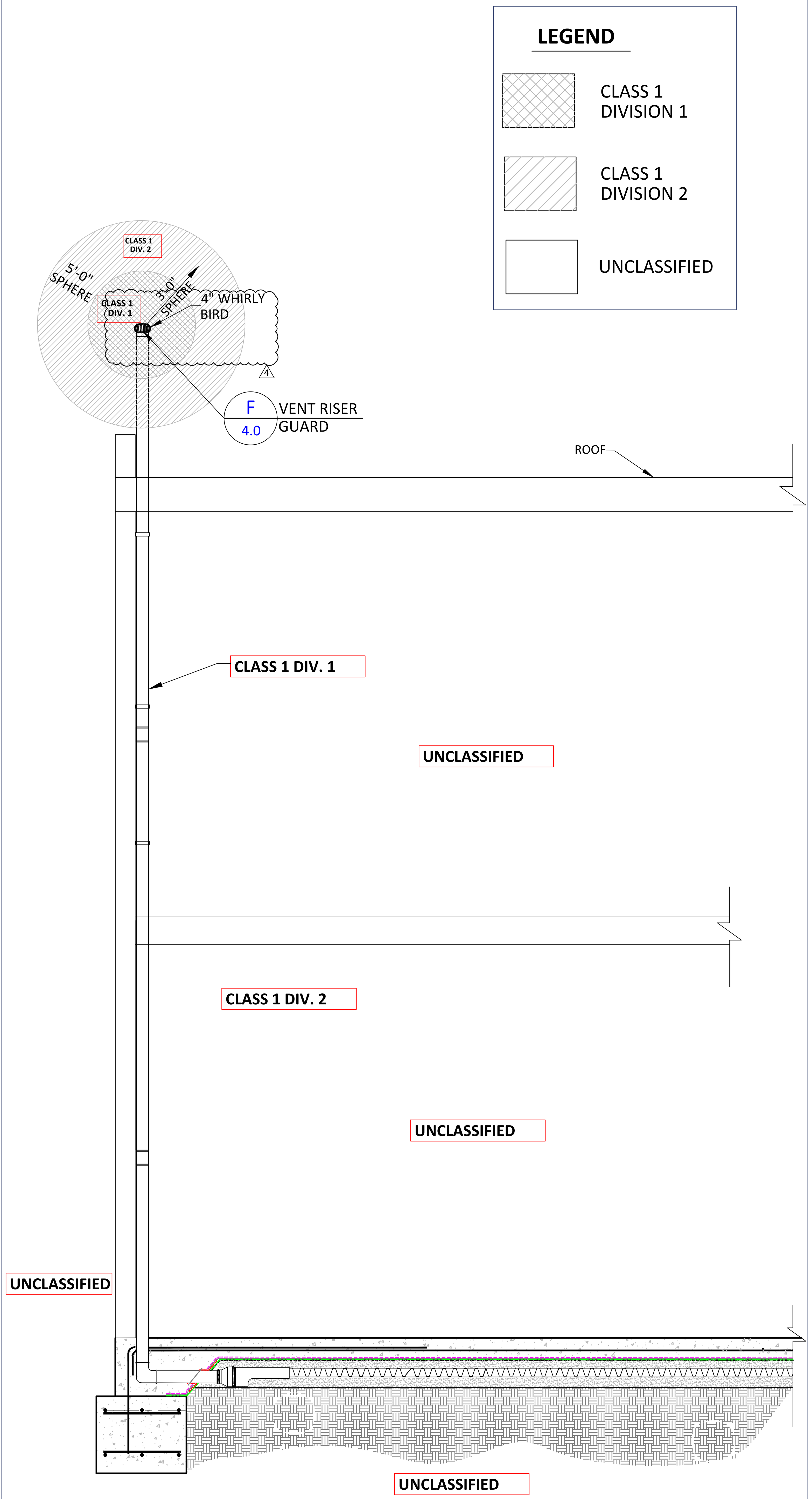
NO. 1 COLLISION
2750 BRISTOL ST. COSTA MESA, CA 92626

CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

SHEET TITLE

SUB-SLAB MEMBRANE SPECIFICATIONS

GC-6.1



SINGLE WALL VENT RISER TYPICAL

NOT TO SCALE

HAZARDOUS AREA CLASSIFICATIONS TYPICAL

A

OUTDOOR HAZARDOUS AREA CLASSIFICATION

LOCATION	PAVEMENT SIZE	METHANE DESIGN LEVEL	MEASURED SOIL GAS CONCENTRATION (ppmv)	MEASURED SOIL GAS PRESSURE (inches of water)	HAZARDOUS AREA CLASSIFICATION
Below Finished grade	None	I, II, III or IV	< 12,500	Less than 2" water	Unclassified
		I, II, III or IV	< 12,500	Greater than 2" water	5' or less depth; Unclassified Between 5' to 10' depth; Class 1 Division 2 Over 10' depth; Class I Division 1
		V	> 12,500	N/A	
Below finished grade with pavement greater than 15' from outside wall of building	• Less than 5000 Sq. Ft. or • Greater than 5000 Sq. Ft. & Less 25' Width	I, II, III or IV	< 12,500	Less than 2" water	Unclassified
		I, II, III or IV	< 12,500	Greater than 2" water	5' or less depth; Unclassified Between 5' to 10' depth; Class 1 Division 2 Over 10' depth; Class I Division 1
		V	> 12,500	N/A	
Below finished grade with pavement greater than 15' from outside wall of building or structure	Greater than 5000 Sq. Ft.	I, II, III	< 5,000	Less than 2" water	Unclassified
		IV	> 5,000, < 12,500,	Less than 2" water	2.5' or less depth; Unclassified Between 2.5' to 10' depth; Class 1 Division 2 Over 10' depth; Class I Division 1
		I, II, III or IV	< 12,500	Greater than 2" water	10' or less depth; Class I Division 2 Over 10' depth; Class I Division 1
		V	> 12,500	N/A	
Below Finished grade with pave-ment with less than or equal to 15' from the outside wall of a building or structure	Greater than 5000 Sq. Ft.	I, or II	< 1,000	Less than 2" water	Unclassified
		III	>1,000, < 5,000	Less than 2" water	2.5' or less depth; Unclassified Between 2.5' to 10' depth; Class 1 Division 2 Over 10' depth; Class I Division 1
		IV	>5,000, < 12,500	Less than 2" water	10' or less depth; Class I Division 2 Over 10' depth; Class I Division 1
		I, II, III or IV	<12,500	Greater than 2" water	Class I Division 1
		V	>12,500	N/A	
	Greater than 5000 Sq. Ft.	I, II, III or IV	< 12,500	Less than 2" water	Unclassified
		I, II, III or IV	< 12,500	Greater than 2" water	5' or less depth; Unclassified Between 5' to 10' depth; Class 1 Division 2 Over 10' depth; Class I Division 1
		V	> 12,500	N/A	
Above grade	Regardless	N/A	N/A	N/A	Unclassified

VENT RISER HAZARDOUS AREA CLASSIFICATION

LOCATION	POWER VENTILATED	HEMISPHERICAL DISTANCE FROM THE RIM OF THE VENT, A JOINT OR A FITTING	HAZARDOUS AREA CLASSIFICATION
Outlet	No	Within 0 to 3 feet	Class 1, Division 1
		Within 3 to 5 feet	Class 1, Division 2
		Over 5 feet	Unclassified
	Yes	Within 0 to 5 feet	Class 1, Division 1
		Within 5 to 10 feet	Class 1, Division 2
		Over 10 feet	Unclassified
Joints and Fittings not enclosed within wall spaces	N/A	Within 0 to 3 feet	Class 1, Division 2
		Over 3 feet	Unclassified
Joints and Fittings within framed wall spaces	N/A	Any distance within the frame stud bay	Class 1, Division 1
In the Vent System	N/A	Any distance within the frame stud bay	Class 1, Division 1
Gas Sampling Port	N/A	Within 0 to 3 feet	Class 1, Division 2
Mechanical extraction vent with direct drive blade motor with a mechanical check valve in the outlet of the motor duct.	Yes	N/A	Unclassified
Mechanical extraction vent with direct drive blade motor without a check valve in the outlet of the motor duct.	Yes	Within 0 to 3 feet	Class 1, Division 2

NOTE:

UNPAVED OPEN AREA, SUCH AS PLANTERS OR LANDSCAPING NOT LESS THAN 3' X 3' SPACED AT LESS THAN OR EQUAL TO 50' FROM EACH OTHERS EDGE, THE AREA IN BETWEEN THEM SHALL BE TREATED AS AN AREA THAT IS LESS THAN 5,000 SQ. FT. IF THE SPACE IN BETWEEN THEM EXCEEDS 50', THAT AREA CAN BE CONSTRUED AS LESS THAN 5,000 SQ. FT. PROVIDED THAT THE CONDUIT OR CABLE IS INSTALLED IN A TRENCH AND BACKFILLED WITH 3/4-INCH AGGREGATE OR GRAVEL UP TO THE GRADE.

NOTES:

THE HAZARDOUS AREA DESIGNATION FOR THESE AREAS IS CONSIDERED AS UNCLASSIFIED UNDER ANY ONE OF THE FOLLOWING CONDITIONS:

a. ALL JOINTS AND FITTINGS ARE WELDED IN APPROVED MANNER.

b. APPROVED DOUBLE WALLED VENT RISERS

c. APPROVED FOUR INCHED OR SMALLER THREADED STEEL PIPE VENTING SYSTEM OR EQUIVALENT APPROVED PIPING SYSTEM

BUILDING HAZARDOUS AREA CLASSIFICATION

LOCATION	METHANE DESIGN LEVEL	MEASURED SOIL GAS CONCENTRATION (ppmv)	MEASURED SOIL GAS PRESSURE (inches of water)	HAZARDOUS AREA CLASSIFICATION
Below Impervious Membrane	I or II	< 1,000	Less than 2" water	Unclassified
	III or IV	> 1,000, < 12,500	Less than 2" water	10' or less depth; Class 1, Division 2, Over 10' depth; Class 1, Division 1
	I, II, III or IV	< 12,500	Greater than 2" water	Class 1, Division 1
	V	> 12,500	N/A	
Below grade within the raised floor foundation or lowest building slab without an Impervious Membrane	I or II	< 1000	Less than 2" water	Unclassified
	III or IV	> 1,000 and < 12,500	Less than 2" water	10' or less depth; Class 1, Division 2, Over 10' depth; Class 1, Division 1
	I, II, III or IV	< 12,500	Greater than 2" water	Class 1, Division 1
	V	> 12,500	N/A	
Above grade within the raised floor foundation footing without an Impervious Membrane but with adequate ventilation	I, II, III or IV	< 12,500	Less than 2" water	Unclassified
	I, II, III or IV	< 12,500	Greater than 2" water	Class 1, Division 2
	V	> 12,500	N/A	
Above Impervious Membrane, but below the lowest building slab or raised floor foundation	I, II, III or IV	Below Membrane Less than 12,500	Below Membrane Greater than 2" water	Unclassified
	I, II, III or IV	Below Membrane Less than 12,500	Below Membrane Less than 2" water	
	V	Below Membrane Greater than 12,500	N/A	Class 1, Division 2
Above Impervious Membrane, through the lowest building slab or Above Slab	N/A	N/A	N/A	Unclassified

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PROJECT

C_1551

NO. 1 COLLISION
2750 BRISTOL ST. COSTA MESA, CA 92626

CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

SHEET TITLE

HAZARDOUS AREA CLASSIFICATIONS

GC-7.0

AC Powered, Plug-In CO/Gas Combination Alarm w/ Battery Backup

Part Number 900-0113 **Model KN-COEG-3**

Digital Display
Displays the level of carbon monoxide the unit is sensing.

Test/Reset Button
Tests unit's electronic circuitry operation and allows you to immediately silence the alarm

Peak Level Memory
Recalls the highest CO concentration detected

Alerts user to replace CO alarm after 7 years of operation

Description

The Kidde 900-0113 AC powered, plug-in CO and explosive gas alarm protects you and your family from two deadly threats. The 900-0113 includes 9V battery back up that provides protection during a power outage, when AC-only units can not provide protection. By pressing the Peak Level Button you can see the peak CO level recorded by the alarm since it was last reset or unplugged. The continuous digital display shows you the level of carbon monoxide (if any) the unit is sensing as well as if gas is present. The gas sensor is a metal oxide sensor designed to detect natural gas (methane) or propane.

Consumer Benefits

The Kidde 900-0113 provides you and your family a level of protection that you have come to expect in a Kidde product. The alarm is easily installed in any of your AC wall outlets, giving you the choice of a direct-plug, a 6' power cord or a table top unit. Depending on how or where you wish to mount your unit, you can get exactly what you need for a perfect application. The 900-0113 is UL listed and offers a 7-year life and a 5-year limited warranty.

Alarm

- **Sounder Alarm** – The 900-0113 offers a loud 85-decibel pulsing alarm that will sound to alert you to a potential problem.

Alarm Condition

- **Carbon Monoxide** – ***4 quick beeps, followed by 5 seconds of silence, followed by 4 quick beeps. Repeat with a number showing in the display (CO concentration in ppm).***
- **Gas** – ***one second of alarm on, one second of alarm off, repeating with "GAS" shown in display.***

YEAR LIMITED 5 WARRANTY
SIGNALING UL LISTED

Architectural and Engineering Specifications

The carbon monoxide and explosive gas alarm shall be Kidde Unit Number KN-COEG-3 (part number 900-0113) or approved equal. It shall be powered by a 120VAC, 60 Hz source along with a 9V battery back up. The temperature operation range shall be between 40°F and 100°F (4°C and 38°C) and the humidity operating range shall be 5% - 95% relative humidity.

The CO sensor shall be of a fuel cell design and shall meet the sensitivity requirements of Underwriters Laboratories UL2034 Single and Multiple Station Carbon Monoxide Detectors. The unit shall provide accuracy of ±20% +15 ppm when reading CO concentration levels.

The Gas sensor shall be a metal oxide sensor designed to detect natural gas (methane) or propane. The Gas sensor shall be calibrated to alarm before 25% of the LEL.

The alarm shall include an attached plug that can be installed in any outlet following the UL/NPFA/Manufacturer's recommended guidelines. The plug can be snapped into the back of the unit and shall be capable of being rotated so the alarm remains vertical independent of whether the electrical socket is mounted vertically or horizontally. In addition, the alarm plug will have an attached extension cord so the unit can be plugged into the wall outlet and then placed on a table or shelf.

The unit shall incorporate a digital display that meets the sensitivity requirements of UL2034. The display will identify the levels of CO in parts per million (ppm) once that level reaches 30ppm (i.e.: "abnormal" levels). The display will identify "GAS" if gas is present. The display will have a red dot in the lower right corner that will blink to indicate the normal operation.

The alarm shall include a test button that will electronically simulate the presence of CO or GAS and cause the unit to go into alarm. This sequence tests the unit's electronics to ensure proper operation.

The alarm shall include a piezoelectric horn that is rated at 85 decibels at 10 feet. When the unit detects carbon monoxide, the alarm pattern will be 4 quick beeps – followed by 5 seconds of silence – followed by 4 quick beeps. Repeated with a number showing in the display (CO concentration in PPM). When the unit detects GAS, the alarm pattern will be a 1/2 second alarm on, 1/2 second of silence – repeating with "GAS" shown in the display.

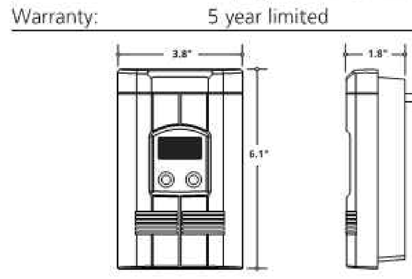
The unit shall include a peak level memory feature that will store the peak CO level sensed since the unit was last reset. The peak CO level stored in the unit's memory shall be displayed (in ppm) on the digital display by pressing the appropriate button on the unit. The memory shall also be capable of being reset.

The unit shall also indicate a low battery warning utilizing each of the following methods: a blinking dot will be displayed and the sounder will chirp every 15 seconds, the display will alternate between "Lb" (low battery) and CO reading while chirping.

The unit shall be listed to UL 2034. It shall also include a 5-year manufacturer's limited warranty.

Technical Specifications

Part Number:	900-0113
Model:	KN-COEG-3
UPC Number:	7-84908-01130-5
Power Source:	120VAC
Sensor:	Electrochemical
Audio Alarm:	85dB at 10ft
Temperature Range:	40°F (4.4°C) to 100°F (37.8°C)
Humidity Range:	5%-95% relative humidity (RH)
Size:	6.1"L x 3.8"W x 1.8"H
Weight:	1.5lbs
Interconnects:	No
Wiring:	Plug-In
LED:	Displays CO concentration in PPM
Warranty:	5 year limited

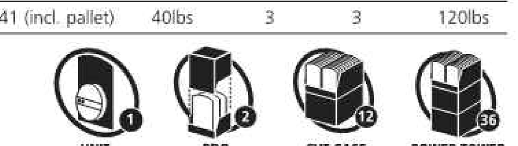


Ordering Information

Clam Shell UPC: 7-84908-01130-5

Part Number	I 2 of 5	Pack Quantity	Dimensions (w x d x h inches)	Weight	Case/ Skid	Layers/ Skid	Skid Weight
900-0113**	N/A	Individual	7.5 x 2.25 x 11.25	1.5lbs	N/A	N/A	N/A
900-0113-02	107 84908 01130 2	PDQ (2 units)	7.75 x 6 x 12	3.56lbs	105	3	374lbs
900-0113-16	207 84908 01130 9	Cut Case (12 units)	16 x 18 x 12	16.67lbs	18	3	300lbs
900-0113-37	307 84908 01130 6	Power Tower (36 units)	20 x 24 x 41 (incl. pallet)	40lbs	3	3	120lbs

***Not for sale by individual unit*



Kidde
1016 Corporate Park Drive
Mebane NC 27302
1-800-880-6788
www.Kidde.com

Distributed by:

METHANE SPECIALISTS
5210 LEWIS ROAD
SUITE 1
AGOURA HILLS, CA
91301
TEL: 805.987.5356
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PROJECT

C_1551

NO. 1 COLLISION
2750 BRISTOL ST. COSTA MESA, CA 92626

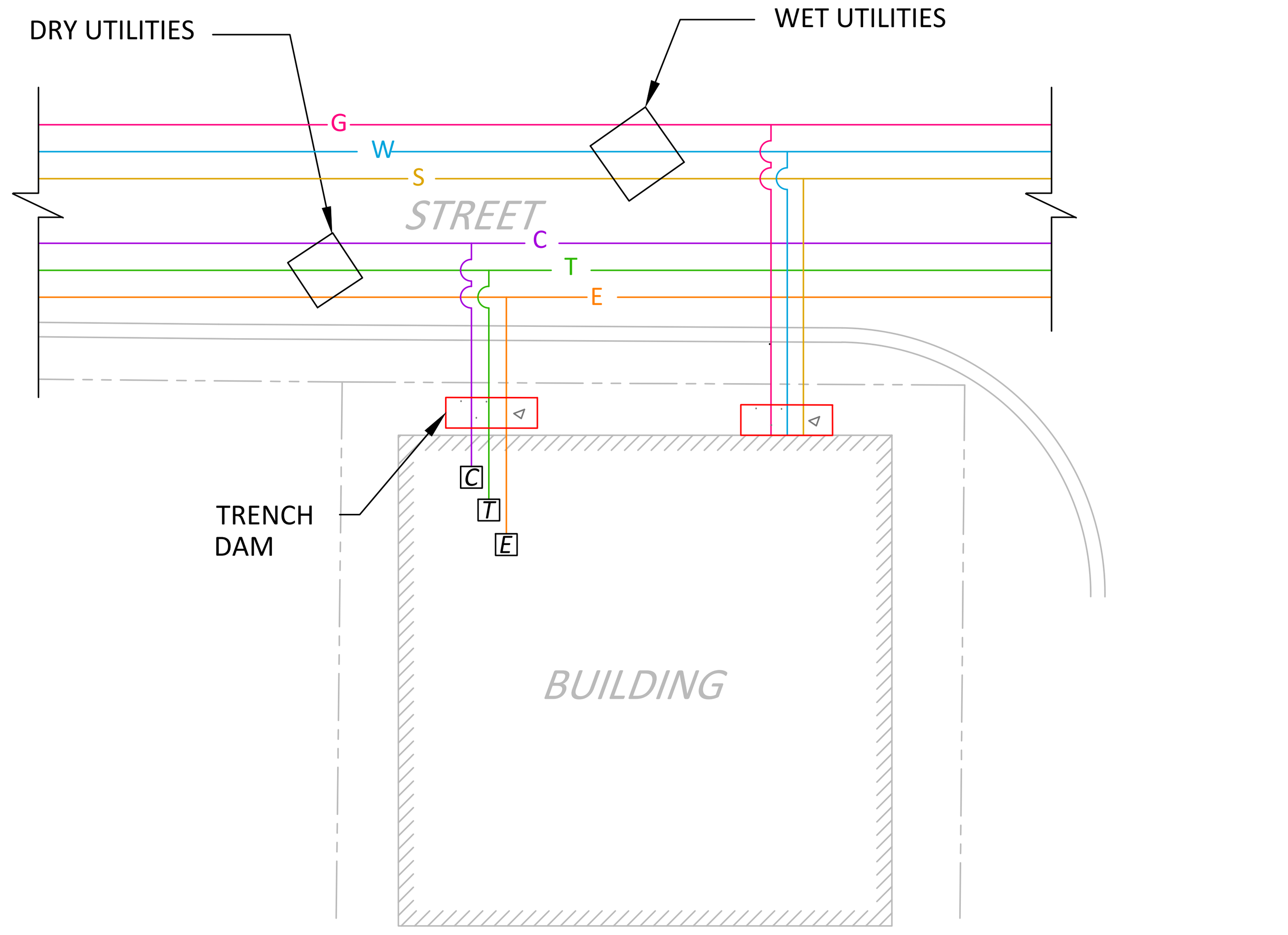
CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

SHEET TITLE

WALL OUTLET DETECTION SYSTEM SPECIFICATION

GC-8.0

1



LEGEND

- - - PROPERTY LINE
TRENCH DAM

WET UTILITIES
G GAS
W WATER
S SEWER

DRY UTILITIES
C CABLE TV
T TELEPHONE
E ELECTRICAL

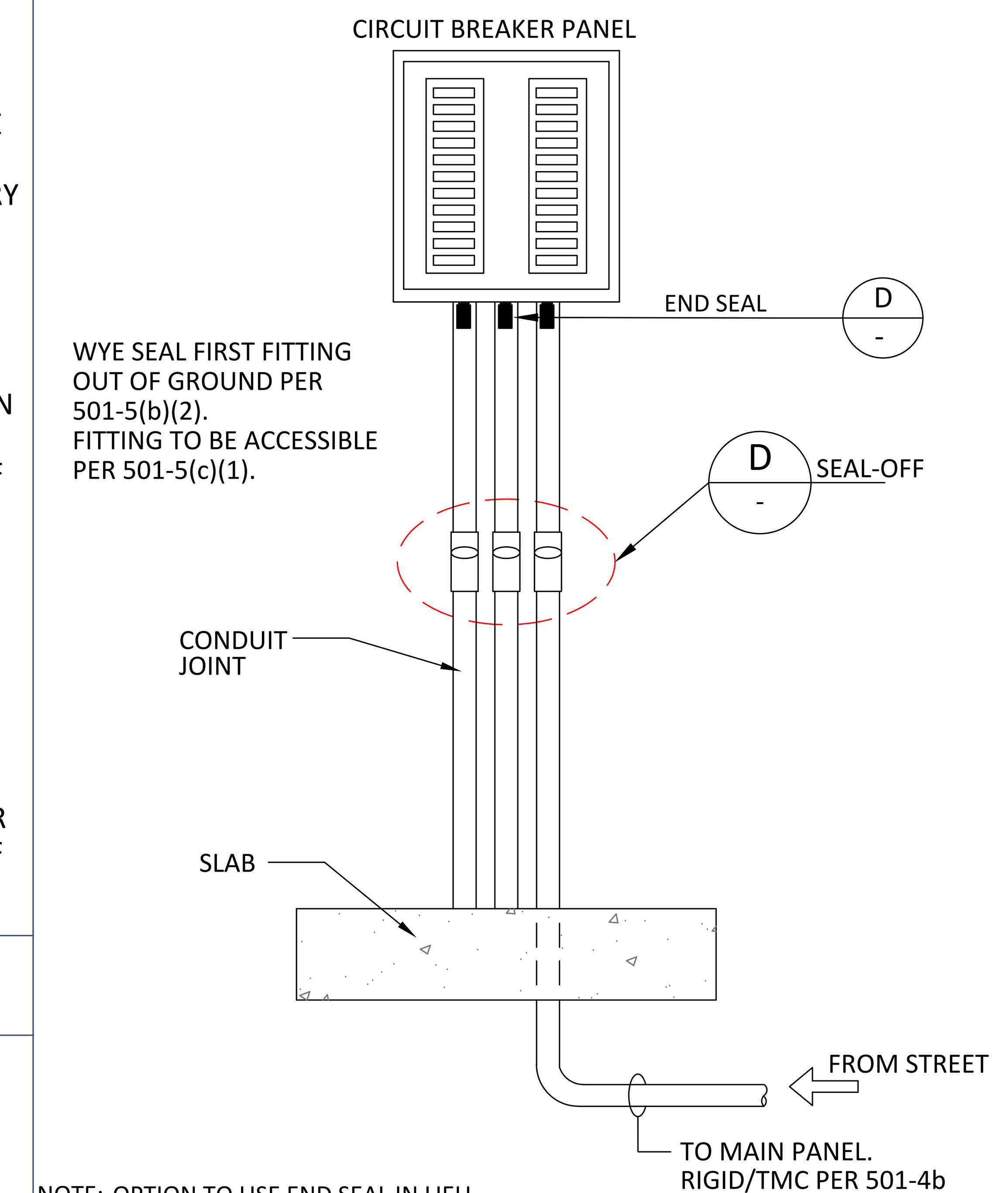
UTILITIES-OVERVIEW
A

NOTES:
1. THE GAS MIGRATION BARRIER (TRENCH DAM) SHALL BE INSTALLED IN THE UTILITY TRENCH IMMEDIATELY ADJACENT TO THE EXTERIOR OF THE BUILDING FOUNDATION.
2. THE GAS MIGRATION BARRIER (TRENCH DAM) SHALL CONSIST OF ONE OF THE FOLLOWING:
A) A MINIMUM OF 2-FOOT CONTINUOUS LENGTH OF SAND SLURRY CONSISTING OF A MIXTURE OF 4% TYPE II CEMENT, AND 2% POWDERED BENTONITE BY WEIGHT. THE SLURRY SHALL EXTEND FROM THE BOTTOM OF THE TRENCH TO A LEVEL OF 6-INCHES ABOVE THE BASE OF THE ADJACENT FOOTING.
B) A MINIMUM OF 5-FOOT CONTINUOUS LENGTH OF NATIVE SOIL BACKFILL COMPACTED TO AT LEAST 90% RELATIVE COMPACTION IN ACCORDANCE WITH ASTM D-1557 TESTING PROCEDURES. THE COMPACTED SOIL BACKFILL SHALL EXTEND FROM THE BOTTOM OF THE TRENCH TO A LEVEL AT LEAST 6" ABOVE THE BASE OF THE ADJACENT FOOTING.

NFPA CODE:
APPLICATION OF SEAL-OFFS AT THIS PROJECT

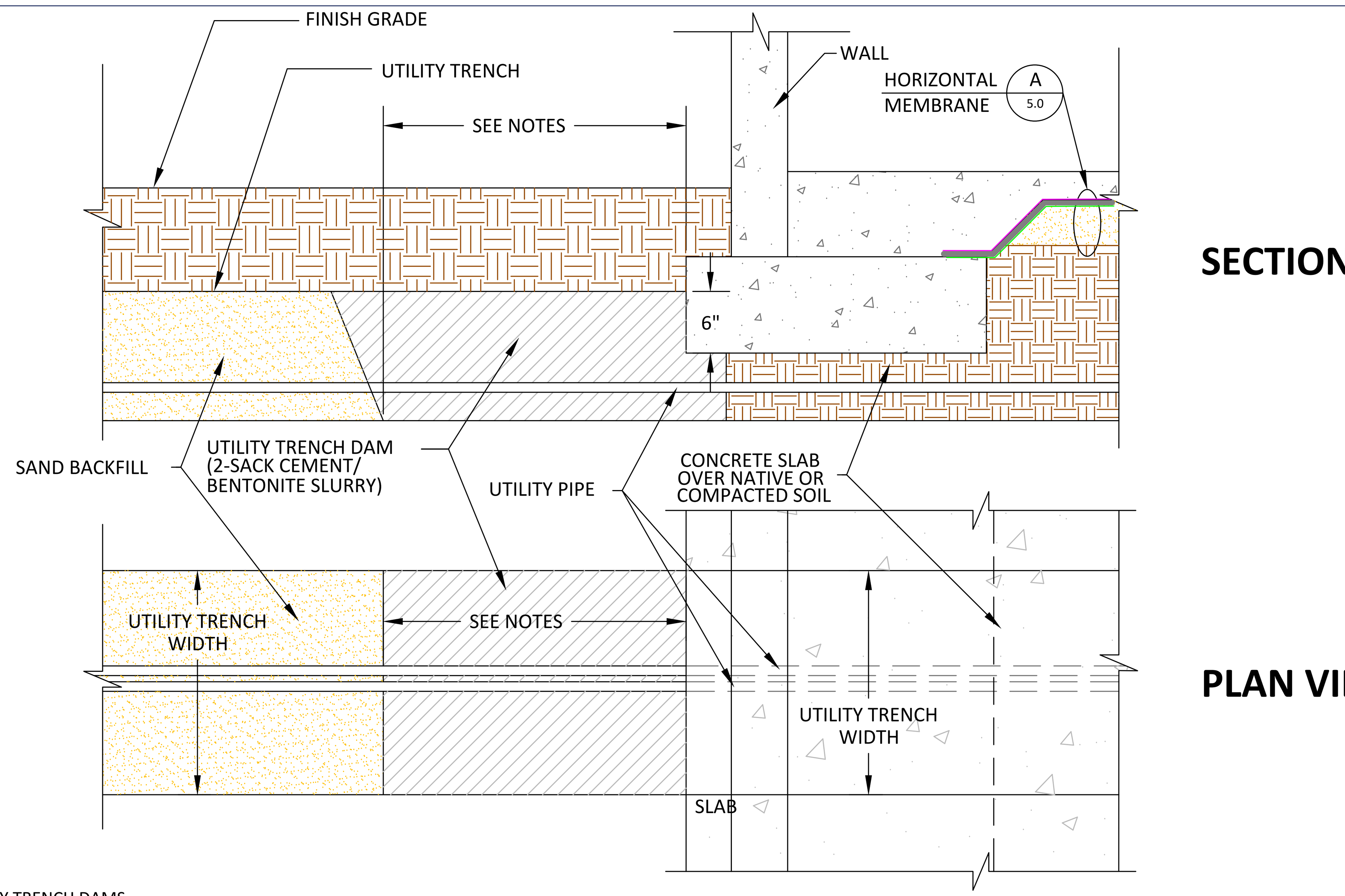
EYS FITTINGS ARE REQUIRED FOR ANY ELECTRICAL CONDUIT COMING FROM OUTSIDE OF THE MEMBRANE, THROUGH THE MEMBRANE TO THE STRUCTURE, OR DIRECTLY FROM THE SOIL OUTSIDE OF THE BUILDING FOOTPRINT INTO THE STRUCTURE. . FOR COMMUNICATIONS, CABLES, OR OTHER LOW VOLTAGE CIRCUITS, IT IS STILL RECOMMENDED THAT ALL OF THESE RUNS BE MADE ABOVE THE MEMBRANE.

NOTES
C



NOTE: OPTION TO USE END SEAL IN LIEU OF WYE SEALS.

UTILITY POWER FEED SEAL
E



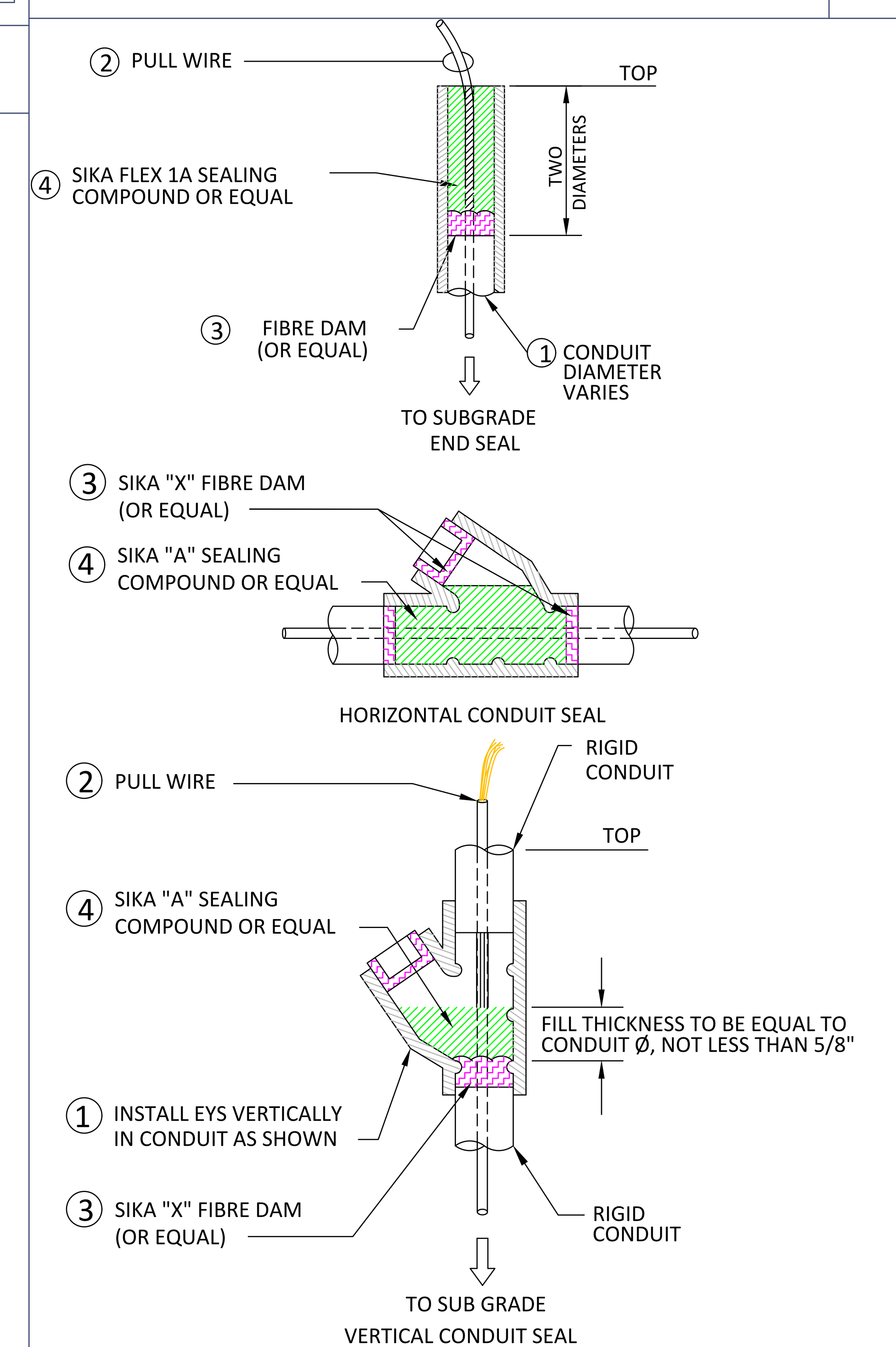
SECTION

PLAN VIEW

UTILITY TRENCH DAMS

1. ALL TRENCH DAMS SHALL BE INSTALLED IN TRENCHES CONTAINING PIPING AND CONDUIT THAT CONNECTS DIRECTLY FROM THE UTILITY LINES IN THE STREET.
2. THE WIDTH OF A TRENCH DAM SHALL BE ONE HALF THE LENGTH.
3. TRENCH DAMS SHALL BE CONSTRUCTED OF A MINIMUM 5-FOOT CONTINUOUS LENGTH OF NATIVE SOIL BACKFILL COMPACTED TO AT LEAST 90% RELATIVE COMPACTION IN ACCORDANCE WITH ASTM D-1557 TESTING PROCEDURES. THE COMPACTED SOIL BACKFILL SHALL EXTEND FROM THE BOTTOM OF THE TRENCH TO A LEVEL AT LEAST 6" ABOVE THE BASE OF THE ADJACENT FOOTING.
4. PIPING AND CONDUIT SHALL BE PROTECTED FROM CORROSION AND STRUCTURAL SETTLEMENT AS FOLLOWS:
a) TAPE SHALL BE APPLIED ON CONDUIT AND PIPING ENCASED IN CEMENT SLURRY OR CONCRETE.
b) TAPE SHALL BE PS-37-90, BLACK PLASTIC PVC OR PE PRESSURE-SENSITIVE CORROSION PREVENTATIVE TAPE.
5. WHEN A CONCRETE MIX, OTHER THAN BENTONITE CEMENT SLURRY IS USED FOR TRENCH DAM MATERIAL; THEN A HIGH DENSITY PVC FOAM TAPE, CLOSED CELLS, ADHESIVE BACKED, 1/4" THICK BY 1/2" WIDE SHALL BE APPLIED TO CLEAR SURFACE WITH ENDS BUFFED TOGETHER AT MOST VISIBLE LOCATIONS IN TRENCH DAM.
6. A GAS MIGRATION BARRIER (TRENCH DAM) SHALL BE INSTALLED IN ALL UTILITY TRENCHES THAT EXTEND BENEATH THE FOUNDATION FROM AREAS OUTSIDE THE PERIMETER OF THE BUILDING.
7. THE GAS MIGRATION BARRIER (TRENCH DAM) SHALL BE INSTALLED IN THE UTILITY TRENCH IMMEDIATELY ADJACENT TO THE EXTERIOR OF THE BUILDING FOUNDATION.

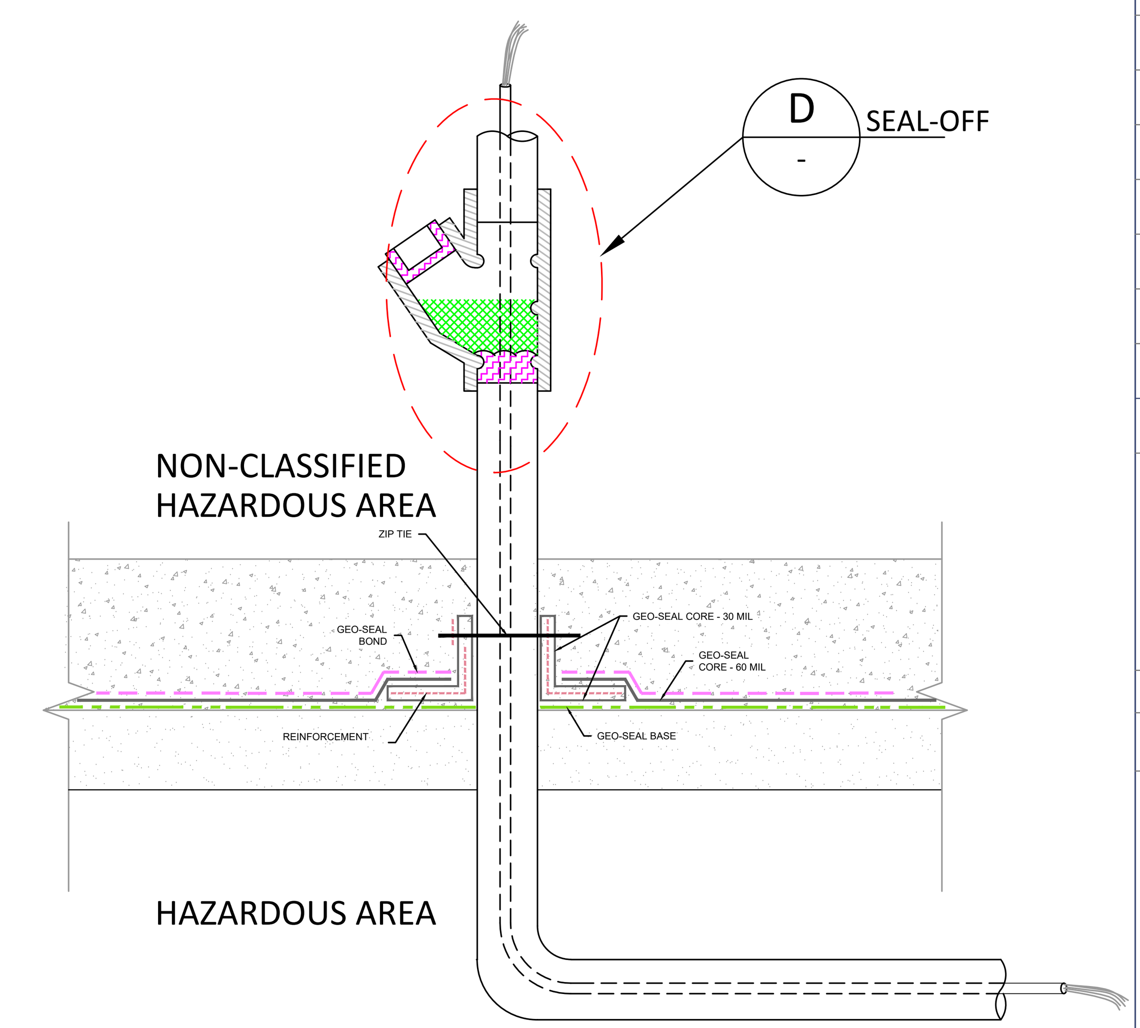
TRENCH DAM SECTION
B



THIS DETAIL IS FOR ELECTRICAL ONLY

NOTE: WYE SEAL CAN NOT BE USED ON THE MAIN ELECTRIC FEED.

SEAL OFF DETAILS
D



"NOTE: THIS DETAIL IS INTENDED FOR ALL HIGH AND LOW VOLTAGE CONDUITS COMING FROM A CLASSIFIED HAZARDOUS AREA AND ENTERING A NON-CLASSIFIED HAZARDOUS AREA"

CONDUIT SEAL
F

METHANE SPECIALISTS
5210 LEWIS ROAD
SUITE 1
AGOURA HILLS, CA
91301
TEL: 805.987.5356
www.methanespecialists.com

ENGINEER STAMP

NOTE: THESE METHANE SPECIALISTS PLANS, NOTES AND SPECIFICATIONS ARE PROPRIETARY AND ARE NOT TO BE COPIED, IMITATED OR USED EXCEPT BY CLIENT AND FOR THE SPECIFIC PROJECT STATED HEREON, WITHOUT PRIOR WRITTEN APPROVAL OF METHANE SPECIALISTS.

DESIGN

DSN: J.KASONDRA
DRN: R. GIBSON
CHK: T. TUCKER
DATE: JULY 2022

REVISIONS

NO.	INT.	DESCRIPTION: DATE:
6		
5		
4	RG	WHIRLY BIRD DETAIL 05.25.2023
3	MP	VENT RISER RELOCATION 04.19.2023
2	RG	TESTING PORT DETAIL 03.03.2023
1	RG	DESIGN REVISION 02.17.2023

OWNER/AGENT

WALKER GROUP OF COMPANIES
ATT: ROBERT A. WALKER
11100 CAMBRIE ROAD #100
RICHMOND, BC V6X 1K9
TEL: 604.231.9614

PROJECT

C_1551

NO. 1 COLLISION
2750 BRISTOL ST. COSTA MESA, CA 92626

CONSTRUCTION OF A HIGH-END COLLISION REPAIR FACILITY

SHEET TITLE

TRENCH DAM AND SEAL-OFF DETAILS

GC-9.0

Appendix D

PAL Laboratory Report

DRAFT (FOR CONSTRUCTION PURPOSES)

Performance Analytical Laboratories, Inc.

ELAP 2960

September 03, 2022

SCS Engineers

3900 Kilroy Airport Way, Suite 100

Long Beach, CA 90806

Re: 2750 Bristol St. Costa Mesa, CA

Project No. : 0122204.00 Task 1

Work Order: P209001

Dear Jeff Sieg

Enclosed are the results of analyses for samples received by our laboratory on 9/1/2022. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

Marycarol Valenzuela

Marycarol Valenzuela
Project Manager

Table of Contents

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P209001-01	SP-1		Solid	09/01/2022	09/01/2022
P209001-02	SP-2		Solid	09/01/2022	09/01/2022

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-1 **P209001-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B2I0002)							
Diesel C13-C22	ND	mg/kg	1	9.96	09/01/2022	EPA 8015B (M)	
ORO C23-C32	ND	mg/kg	1	99.6	09/01/2022	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	104%			60-140	09/01/2022	EPA 8015B (M)	
LUFT Gasoline (Batch ID: B2I0003)							
Gasoline C5-C12	ND	mg/kg	1	0.198	09/01/2022	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	101%			60-140	09/01/2022	EPA 8015B	
Mercury (Batch ID: B2I0007)							
Mercury	ND	mg/kg	1	0.507	09/02/2022	EPA 7471A	
Metals, CA Title 22 (Batch ID: B2I0005)							
Antimony	ND	mg/kg	1	5.02	09/02/2022	EPA 6010B	
Arsenic	**5.26**	mg/kg	1	2.01	09/02/2022	EPA 6010B	
Barium	**107**	mg/kg	1	6.02	09/02/2022	EPA 6010B	
Beryllium	ND	mg/kg	1	2.01	09/02/2022	EPA 6010B	
Cadmium	ND	mg/kg	1	2.01	09/02/2022	EPA 6010B	
Chromium	**21.5**	mg/kg	1	6.02	09/02/2022	EPA 6010B	
Cobalt	**6.69**	mg/kg	1	3.01	09/02/2022	EPA 6010B	
Copper	**21.7**	mg/kg	1	2.01	09/02/2022	EPA 6010B	
Lead	**20.8**	mg/kg	1	5.02	09/02/2022	EPA 6010B	
Molybdenum	ND	mg/kg	1	2.01	09/02/2022	EPA 6010B	
Nickel	**15.4**	mg/kg	1	2.01	09/02/2022	EPA 6010B	
Selenium	ND	mg/kg	1	5.02	09/02/2022	EPA 6010B	
Silver	ND	mg/kg	1	1.00	09/02/2022	EPA 6010B	
Thallium	ND	mg/kg	1	3.01	09/02/2022	EPA 6010B	
Vanadium	**39.0**	mg/kg	1	5.02	09/02/2022	EPA 6010B	
Zinc	**74.4**	mg/kg	1	3.01	09/02/2022	EPA 6010B	
Semivolatile Organic Compounds_Subcontract (Batch ID: 94554)							
1,2,4-Trichlorobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
1,2-Dichlorobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-1 (Continued) **P209001-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semivolatile Organic Compounds_Subcontract (Batch ID: 94554) (Continued)							
1,3-Dichlorobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
1,4-Dichlorobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2,4,5-Trichlorophenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2,4,6-Trichlorophenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2,4-Dichlorophenol	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
2,4-Dimethylphenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2,4-Dinitrophenol	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
2,4-Dinitrotoluene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2,6-Dinitrotoluene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2-Chloronaphthalene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2-Chlorophenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2-Methylnaphthalene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2-Methylphenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2-Nitroaniline	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
2-Nitrophenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
3,3´-Dichlorobenzidine	ND	µg/Kg	1	660	09/02/2022	EPA 8270C	
3-Nitroaniline	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
4,6-Dinitro-2-methylphenol	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
4-Bromophenyl-phenylether	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
4-Chloro-3-methylphenol	ND	µg/Kg	1	660	09/02/2022	EPA 8270C	
4-Chloroaniline	ND	µg/Kg	1	660	09/02/2022	EPA 8270C	
4-Chlorophenyl-phenylether	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
4-Methylphenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
4-Nitroaniline	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
4-Nitrophenol	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
Acenaphthene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Acenaphthylene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Anthracene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Benzo(a)anthracene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Benzo(a)pyrene	ND	µg/Kg	1	200	09/02/2022	EPA 8270C	
Benzo(b)fluoranthene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Benzo(g,h,i)perylene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Benzo(k)fluoranthene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Benzoic acid	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
Benzyl alcohol	ND	µg/Kg	1	660	09/02/2022	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-1 (Continued) **P209001-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semivolatile Organic Compounds_Subcontract (Batch ID: 94554) (Continued)							
Bis(2-chloroethyl)ether	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Bis(2-chloroisopropyl)ether	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Bis(2-ethylhexyl)phthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Butylbenzylphthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Chrysene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Di-n-butylphthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Di-n-octylphthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Dibenz(a,h)anthracene	ND	µg/Kg	1	200	09/02/2022	EPA 8270C	
Dibenzofuran	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Diethylphthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Dimethylphthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Fluoranthene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Fluorene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Hexachlorobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Hexachlorocyclopentadiene	ND	µg/Kg	1	660	09/02/2022	EPA 8270C	
Hexachloroethane	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Isophorone	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
N-Nitrosodi-n-propylamine	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
N-Nitrosodiphenylamine	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Naphthalene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Nitrobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Pentachlorophenol	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
Phenanthrene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Phenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Pyrene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Pyridine	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
Surrogate: 1,2-Dichlorobenzene-d4	79.8%			23-120	09/02/2022	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	73.3%			16-120	09/02/2022	EPA 8270C	
Surrogate: 2-Chlorophenol-d4	84.1%			25-120	09/02/2022	EPA 8270C	
Surrogate: 2-Fluorobiphenyl	80.4%			25-120	09/02/2022	EPA 8270C	
Surrogate: 2-Fluorophenol	85.5%			24-120	09/02/2022	EPA 8270C	
Surrogate: 4-Terphenyl-d14	86.0%			19-123	09/02/2022	EPA 8270C	
Surrogate: Nitrobenzene-d5	80.6%			17-120	09/02/2022	EPA 8270C	
Surrogate: Phenol-d5	84.8%			23-120	09/02/2022	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-1 (Continued) **P209001-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B2I0004)							
Acetone	ND	µg/Kg	1	20.2	09/01/2022	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	50.4	09/01/2022	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Benzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.04	09/01/2022	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20.2	09/01/2022	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.04	09/01/2022	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.04	09/01/2022	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Chloromethane	ND	µg/Kg	1	5.04	09/01/2022	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.04	09/01/2022	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-1 (Continued) **P209001-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B2I0004) (Continued)							
1,2-Dichloropropane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	5.04	09/01/2022	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	5.04	09/01/2022	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	5.04	09/01/2022	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.04	09/01/2022	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	20.2	09/01/2022	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	5.04	09/01/2022	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20.2	09/01/2022	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10.1	09/01/2022	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20.2	09/01/2022	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Styrene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25.2	09/01/2022	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Tetrahydrofuran	ND	µg/Kg	1	20.2	09/01/2022	EPA 8260B	
Toluene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-1 (Continued) **P209001-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B2I0004) (Continued)							
Trichloroethene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.01	09/01/2022	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.02	09/01/2022	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.02	09/01/2022	EPA 8260B	
Surrogate: Dibromofluoromethane	98.3%			60-140	09/01/2022	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	95.9%			60-140	09/01/2022	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	106%			60-140	09/01/2022	EPA 8260B	
Surrogate: Toluene-d8	98.8%			60-140	09/01/2022	EPA 8260B	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-2 **P209001-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B2I0002)							
Diesel C13-C22	ND	mg/kg	1	9.88	09/01/2022	EPA 8015B (M)	
ORO C23-C32	ND	mg/kg	1	98.8	09/01/2022	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	113%			60-140	09/01/2022	EPA 8015B (M)	
LUFT Gasoline (Batch ID: B2I0008)							
Gasoline C5-C12	ND	mg/kg	1	0.201	09/02/2022	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	96.8%			60-140	09/02/2022	EPA 8015B	
Mercury (Batch ID: B2I0007)							
Mercury	ND	mg/kg	1	0.505	09/02/2022	EPA 7471A	
Metals, CA Title 22 (Batch ID: B2I0005)							
Antimony	ND	mg/kg	1	4.96	09/02/2022	EPA 6010B	
Arsenic	**5.15**	mg/kg	1	1.98	09/02/2022	EPA 6010B	
Barium	**125**	mg/kg	1	5.95	09/02/2022	EPA 6010B	
Beryllium	ND	mg/kg	1	1.98	09/02/2022	EPA 6010B	
Cadmium	ND	mg/kg	1	1.98	09/02/2022	EPA 6010B	
Chromium	**20.5**	mg/kg	1	5.95	09/02/2022	EPA 6010B	
Cobalt	**8.70**	mg/kg	1	2.98	09/02/2022	EPA 6010B	
Copper	**25.5**	mg/kg	1	1.98	09/02/2022	EPA 6010B	
Lead	**32.5**	mg/kg	1	4.96	09/02/2022	EPA 6010B	
Molybdenum	ND	mg/kg	1	1.98	09/02/2022	EPA 6010B	
Nickel	**14.8**	mg/kg	1	1.98	09/02/2022	EPA 6010B	
Selenium	ND	mg/kg	1	4.96	09/02/2022	EPA 6010B	
Silver	ND	mg/kg	1	0.992	09/02/2022	EPA 6010B	
Thallium	ND	mg/kg	1	2.98	09/02/2022	EPA 6010B	
Vanadium	**39.3**	mg/kg	1	4.96	09/02/2022	EPA 6010B	
Zinc	**83.4**	mg/kg	1	2.98	09/02/2022	EPA 6010B	
Semivolatile Organic Compounds_Subcontract (Batch ID: 94554)							
1,2,4-Trichlorobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
1,2-Dichlorobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-2 (Continued) **P209001-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semivolatile Organic Compounds_Subcontract (Batch ID: 94554) (Continued)							
1,3-Dichlorobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
1,4-Dichlorobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2,4,5-Trichlorophenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2,4,6-Trichlorophenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2,4-Dichlorophenol	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
2,4-Dimethylphenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2,4-Dinitrophenol	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
2,4-Dinitrotoluene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2,6-Dinitrotoluene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2-Chloronaphthalene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2-Chlorophenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2-Methylnaphthalene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2-Methylphenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
2-Nitroaniline	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
2-Nitrophenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
3,3´-Dichlorobenzidine	ND	µg/Kg	1	660	09/02/2022	EPA 8270C	
3-Nitroaniline	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
4,6-Dinitro-2-methylphenol	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
4-Bromophenyl-phenylether	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
4-Chloro-3-methylphenol	ND	µg/Kg	1	660	09/02/2022	EPA 8270C	
4-Chloroaniline	ND	µg/Kg	1	660	09/02/2022	EPA 8270C	
4-Chlorophenyl-phenylether	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
4-Methylphenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
4-Nitroaniline	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
4-Nitrophenol	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
Acenaphthene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Acenaphthylene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Anthracene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Benzo(a)anthracene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Benzo(a)pyrene	ND	µg/Kg	1	200	09/02/2022	EPA 8270C	
Benzo(b)fluoranthene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Benzo(g,h,i)perylene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Benzo(k)fluoranthene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Benzoic acid	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
Benzyl alcohol	ND	µg/Kg	1	660	09/02/2022	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-2 (Continued) **P209001-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semivolatile Organic Compounds_Subcontract (Batch ID: 94554) (Continued)							
Bis(2-chloroethyl)ether	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Bis(2-chloroisopropyl)ether	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Bis(2-ethylhexyl)phthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Butylbenzylphthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Chrysene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Di-n-butylphthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Di-n-octylphthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Dibenz(a,h)anthracene	ND	µg/Kg	1	200	09/02/2022	EPA 8270C	
Dibenzofuran	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Diethylphthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Dimethylphthalate	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Fluoranthene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Fluorene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Hexachlorobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Hexachlorocyclopentadiene	ND	µg/Kg	1	660	09/02/2022	EPA 8270C	
Hexachloroethane	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Isophorone	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
N-Nitrosodi-n-propylamine	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
N-Nitrosodiphenylamine	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Naphthalene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Nitrobenzene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Pentachlorophenol	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
Phenanthrene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Phenol	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Pyrene	ND	µg/Kg	1	330	09/02/2022	EPA 8270C	
Pyridine	ND	µg/Kg	1	1700	09/02/2022	EPA 8270C	
Surrogate: 1,2-Dichlorobenzene-d4	80.8%			23-120	09/02/2022	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	72.4%			16-120	09/02/2022	EPA 8270C	
Surrogate: 2-Chlorophenol-d4	84.4%			25-120	09/02/2022	EPA 8270C	
Surrogate: 2-Fluorobiphenyl	81.1%			25-120	09/02/2022	EPA 8270C	
Surrogate: 2-Fluorophenol	86.6%			24-120	09/02/2022	EPA 8270C	
Surrogate: 4-Terphenyl-d14	85.5%			19-123	09/02/2022	EPA 8270C	
Surrogate: Nitrobenzene-d5	83.7%			17-120	09/02/2022	EPA 8270C	
Surrogate: Phenol-d5	85.2%			23-120	09/02/2022	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-2 (Continued) **P209001-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B2I0004)							
Acetone	ND	µg/Kg	1	20.0	09/01/2022	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	50.1	09/01/2022	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Benzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.01	09/01/2022	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20.0	09/01/2022	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.01	09/01/2022	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.01	09/01/2022	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Chloromethane	ND	µg/Kg	1	5.01	09/01/2022	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.01	09/01/2022	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-2 (Continued) **P209001-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B2I0004) (Continued)							
1,2-Dichloropropane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	5.01	09/01/2022	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	5.01	09/01/2022	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	5.01	09/01/2022	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.01	09/01/2022	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	20.0	09/01/2022	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	5.01	09/01/2022	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20.0	09/01/2022	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10.0	09/01/2022	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20.0	09/01/2022	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Styrene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25.1	09/01/2022	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Tetrahydrofuran	ND	µg/Kg	1	20.0	09/01/2022	EPA 8260B	
Toluene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample: SP-2 (Continued) **P209001-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B2I0004) (Continued)							
Trichloroethene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.00	09/01/2022	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.00	09/01/2022	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.01	09/01/2022	EPA 8260B	
Surrogate: Dibromofluoromethane	100%			60-140	09/01/2022	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	96.5%			60-140	09/01/2022	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	106%			60-140	09/01/2022	EPA 8260B	
Surrogate: Toluene-d8	99.6%			60-140	09/01/2022	EPA 8260B	

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B2I0002										
Blank (B2I0002-BLK1)				Prepared & Analyzed: 09/01/2022						
Diesel C13-C22	ND		9.90	mg/kg						
ORO C23-C32	ND		99.0	mg/kg						
Surrogate: n-Octacosane (c28)	1.89			mg/kg	2.00		94.5	60-140		
LCS (B2I0002-BS1)				Prepared & Analyzed: 09/01/2022						
Diesel	42.4		9.87	mg/kg	49.3		85.8	70-130		
Surrogate: n-Octacosane (c28)	1.99			mg/kg	1.99		99.9	60-140		
LCS Dup (B2I0002-BSD1)				Prepared & Analyzed: 09/01/2022						
Diesel	42.8		9.93	mg/kg	49.7		86.2	70-130	1.10	20
Surrogate: n-Octacosane (c28)	2.05			mg/kg	2.01		102	60-140		

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SCS Engineers
3900 Kilroy Airport Way, Suite 100
Long Beach, CA 90806

Project: 2750 Bristol St. Costa Mesa, CA
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Project Manager: Jeff Sieg

Quality Control
(Continued)

LUFT Gasoline

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B2I0003										
Blank (B2I0003-BLK1)				Prepared & Analyzed: 09/01/2022						
Gasoline C4-C12	ND		0.200	mg/kg						
Gasoline C6-C12	ND		0.200	mg/kg						
Gasoline C5-C12	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.253			mg/kg	0.250		101	60-140		
LCS (B2I0003-BS1)				Prepared & Analyzed: 09/01/2022						
Gasoline C4-C12	9.32		0.200	mg/kg	10.0		93.2	70-130		
Gasoline C6-C12	9.44		0.200	mg/kg	10.0		94.4	70-130		
Gasoline C5-C12	9.40		0.200	mg/kg	10.0		94.0	70-130		
Surrogate: 4-Bromofluorobenzene	0.263			mg/kg	0.250		105	60-140		
LCS Dup (B2I0003-BSD1)				Prepared & Analyzed: 09/01/2022						
Gasoline C4-C12	9.18		0.200	mg/kg	10.0		91.8	70-130	1.56	20
Gasoline C6-C12	9.54		0.200	mg/kg	10.0		95.4	70-130	1.05	20
Gasoline C5-C12	9.47		0.200	mg/kg	10.0		94.7	70-130	0.753	20
Surrogate: 4-Bromofluorobenzene	0.260			mg/kg	0.250		104	60-140		
Matrix Spike (B2I0003-MS1)		**Source: P209001-01**		Prepared & Analyzed: 09/01/2022						
Gasoline C4-C12	7.61		0.202	mg/kg	10.1	0.0435	75.1	70-130		
Gasoline C6-C12	7.76		0.202	mg/kg	10.1	ND	76.9	70-130		
Gasoline C5-C12	7.84		0.202	mg/kg	10.1	ND	77.7	70-130		
Surrogate: 4-Bromofluorobenzene	0.262			mg/kg	0.250		105	60-140		
Matrix Spike Dup (B2I0003-MSD1)		**Source: P209001-01**		Prepared & Analyzed: 09/01/2022						
Gasoline C4-C12	7.64		0.201	mg/kg	10.0	0.0435	75.6	70-130	0.297	20
Gasoline C6-C12	7.58		0.201	mg/kg	10.0	ND	75.4	70-130	2.34	20
Gasoline C5-C12	7.69		0.201	mg/kg	10.0	ND	76.6	70-130	1.93	20
Surrogate: 4-Bromofluorobenzene	0.262			mg/kg	0.250		105	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

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Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

LUFT Gasoline (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B2I0008										
Blank (B2I0008-BLK1)				Prepared & Analyzed: 09/02/2022						
Gasoline C4-C12	ND		0.200	mg/kg						
Gasoline C6-C12	ND		0.200	mg/kg						
Gasoline C5-C12	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.256			mg/kg	0.250		102	60-140		
LCS (B2I0008-BS1)				Prepared & Analyzed: 09/02/2022						
Gasoline C4-C12	9.70		0.200	mg/kg	10.0		97.0	70-130		
Gasoline C6-C12	9.85		0.200	mg/kg	10.0		98.5	70-130		
Gasoline C5-C12	9.81		0.200	mg/kg	10.0		98.1	70-130		
Surrogate: 4-Bromofluorobenzene	0.269			mg/kg	0.250		108	60-140		
Matrix Spike (B2I0008-MS1)		**Source: P209001-02**		Prepared & Analyzed: 09/02/2022						
Gasoline C4-C12	8.12		0.202	mg/kg	10.1	ND	80.4	70-130		
Gasoline C6-C12	8.10		0.202	mg/kg	10.1	ND	80.2	70-130		
Gasoline C5-C12	8.17		0.202	mg/kg	10.1	ND	80.9	70-130		
Surrogate: 4-Bromofluorobenzene	0.271			mg/kg	0.250		108	60-140		
Matrix Spike Dup (B2I0008-MSD1)		**Source: P209001-02**		Prepared & Analyzed: 09/02/2022						
Gasoline C4-C12	7.79		0.200	mg/kg	10.0	0.0231	77.5	70-130	4.18	20
Gasoline C6-C12	7.96		0.200	mg/kg	10.0	ND	79.5	70-130	1.69	20
Gasoline C5-C12	8.02		0.200	mg/kg	10.0	ND	80.1	70-130	1.86	20
Surrogate: 4-Bromofluorobenzene	0.261			mg/kg	0.250		104	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

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Quality Control
(Continued)

Mercury

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B2I0007										
Blank (B2I0007-BLK1)				Prepared & Analyzed: 09/02/2022						
Mercury	ND		0.498	mg/kg						
LCS (B2I0007-BS1)				Prepared & Analyzed: 09/02/2022						
Mercury	0.807		0.500	mg/kg	0.842		95.9	75-125		
Matrix Spike (B2I0007-MS1)		**Source: P209001-01**		Prepared & Analyzed: 09/02/2022						
Mercury	0.888		0.485	mg/kg	0.817	0.0970	96.8	75-125		
Matrix Spike Dup (B2I0007-MSD1)		**Source: P209001-01**		Prepared & Analyzed: 09/02/2022						
Mercury	0.888		0.493	mg/kg	0.831	0.0970	95.2	75-125	0.0502	20

Performance Analytical Laboratories, Inc.

ELAP 2960

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Quality Control
(Continued)

Metals, CA Title 22

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B2I0005										
Blank (B2I0005-BLK1)				Prepared: 09/01/2022 Analyzed: 09/02/2022						
Antimony	ND		5.00	mg/kg						
Arsenic	ND		2.00	mg/kg						
Barium	ND		6.00	mg/kg						
Beryllium	ND		2.00	mg/kg						
Cadmium	ND		2.00	mg/kg						
Chromium	ND		6.00	mg/kg						
Cobalt	ND		3.00	mg/kg						
Copper	ND		2.00	mg/kg						
Lead	ND		5.00	mg/kg						
Molybdenum	ND		2.00	mg/kg						
Nickel	ND		2.00	mg/kg						
Selenium	ND		5.00	mg/kg						
Silver	ND		1.00	mg/kg						
Thallium	ND		3.00	mg/kg						
Vanadium	ND		5.00	mg/kg						
Zinc	ND		3.00	mg/kg						
LCS (B2I0005-BS1)				Prepared: 09/01/2022 Analyzed: 09/02/2022						
Antimony	95.2		5.06	mg/kg	101		94.1	75-125		
Arsenic	102		2.02	mg/kg	101		101	75-125		
Barium	27.2		6.07	mg/kg	25.3		107	75-125		
Beryllium	102		2.02	mg/kg	101		101	75-125		
Cadmium	106		2.02	mg/kg	101		104	75-125		
Chromium	108		6.07	mg/kg	101		107	75-125		
Cobalt	106		3.03	mg/kg	101		105	75-125		
Copper	99.4		2.02	mg/kg	101		98.3	75-125		
Lead	111		5.06	mg/kg	101		110	75-125		
Molybdenum	98.9		2.02	mg/kg	101		97.8	75-125		
Nickel	109		2.02	mg/kg	101		108	75-125		
Selenium	98.3		5.06	mg/kg	101		97.2	75-125		
Silver	25.5		1.01	mg/kg	25.3		101	75-125		
Thallium	104		3.03	mg/kg	101		103	75-125		
Vanadium	101		5.06	mg/kg	101		99.7	75-125		
Zinc	105		3.03	mg/kg	101		104	75-125		

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ELAP 2960

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Quality Control
(Continued)

Metals, CA Title 22 (Continued)

Batch: B2I0005 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B2I0005-MS1)		**Source: P209001-01**		Prepared: 09/01/2022 Analyzed: 09/02/2022						
Antimony	22.2	QM-01	5.01	mg/kg	100	ND	22.2	75-125		
Arsenic	103		2.00	mg/kg	100	5.26	97.9	75-125		
Barium	135		6.01	mg/kg	25.0	107	111	75-125		
Beryllium	96.2		2.00	mg/kg	100	ND	96.1	75-125		
Cadmium	94.8		2.00	mg/kg	100	ND	94.7	75-125		
Chromium	119		6.01	mg/kg	100	21.5	97.1	75-125		
Cobalt	101		3.00	mg/kg	100	6.69	94.3	75-125		
Copper	123		2.00	mg/kg	100	21.7	102	75-125		
Lead	122		5.01	mg/kg	100	20.8	102	75-125		
Molybdenum	88.4		2.00	mg/kg	100	1.05	87.2	75-125		
Nickel	113		2.00	mg/kg	100	15.4	97.3	75-125		
Selenium	93.4		5.01	mg/kg	100	ND	93.3	75-125		
Silver	24.6		1.00	mg/kg	25.0	ND	98.1	75-125		
Thallium	88.1		3.00	mg/kg	100	ND	88.0	75-125		
Vanadium	137		5.01	mg/kg	100	39.0	98.3	75-125		
Zinc	172		3.00	mg/kg	100	74.4	97.7	75-125		
Matrix Spike Dup (B2I0005-MSD1)		**Source: P209001-01**		Prepared: 09/01/2022 Analyzed: 09/02/2022						
Antimony	22.6	QM-01	5.00	mg/kg	99.9	ND	22.6	75-125	1.88	20
Arsenic	104		2.00	mg/kg	99.9	5.26	98.4	75-125	0.368	20
Barium	134		5.99	mg/kg	25.0	107	108	75-125	0.565	20
Beryllium	96.2		2.00	mg/kg	99.9	ND	96.3	75-125	0.0140	20
Cadmium	94.9		2.00	mg/kg	99.9	ND	95.0	75-125	0.127	20
Chromium	117		5.99	mg/kg	99.9	21.5	95.2	75-125	1.76	20
Cobalt	99.7		3.00	mg/kg	99.9	6.69	93.1	75-125	1.35	20
Copper	120		2.00	mg/kg	99.9	21.7	98.5	75-125	2.70	20
Lead	116		5.00	mg/kg	99.9	20.8	95.4	75-125	5.35	20
Molybdenum	88.9		2.00	mg/kg	99.9	1.05	88.0	75-125	0.631	20
Nickel	111		2.00	mg/kg	99.9	15.4	95.6	75-125	1.72	20
Selenium	93.4		5.00	mg/kg	99.9	ND	93.5	75-125	0.0666	20
Silver	24.4		0.999	mg/kg	25.0	ND	97.8	75-125	0.527	20
Thallium	88.2		3.00	mg/kg	99.9	ND	88.2	75-125	0.113	20
Vanadium	134		5.00	mg/kg	99.9	39.0	95.5	75-125	2.16	20
Zinc	170		3.00	mg/kg	99.9	74.4	95.7	75-125	1.30	20

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ELAP 2960

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Quality Control
(Continued)

Metals, CA Title 22 (Continued)

Batch: B2I0005 (Continued)

Post Spike (B2I0005-PS1) **Source: P209001-01** Prepared: 09/01/2022 Analyzed: 09/02/2022

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Antimony	505		25.1	mg/kg	502	ND	101	70-130		
Arsenic	511		10.0	mg/kg	502	5.26	101	70-130		
Barium	223		30.1	mg/kg	126	107	92.2	70-130		
Beryllium	498		10.0	mg/kg	502	ND	99.1	70-130		
Cadmium	507		10.0	mg/kg	502	ND	101	70-130		
Chromium	529		30.1	mg/kg	502	21.5	101	70-130		
Cobalt	508		15.1	mg/kg	502	6.69	99.8	70-130		
Copper	505		10.0	mg/kg	502	21.7	96.3	70-130		
Lead	543		25.1	mg/kg	502	20.8	104	70-130		
Molybdenum	494		10.0	mg/kg	502	ND	98.5	70-130		
Nickel	530		10.0	mg/kg	502	15.4	103	70-130		
Selenium	496		25.1	mg/kg	502	ND	98.7	70-130		
Silver	122		5.02	mg/kg	62.8	ND	194	70-130		
Thallium	494		15.1	mg/kg	502	ND	98.4	70-130		
Vanadium	533		25.1	mg/kg	502	39.0	98.4	70-130		
Zinc	577		15.1	mg/kg	502	74.4	100	70-130		

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ELAP 2960

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Quality Control
(Continued)

Semivolatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 94554										
LCS (LCS-94554)				Prepared & Analyzed: 09/02/2022						
1,2,4-Trichlorobenzene	3539.000		330	µg/Kg	5000	0	70.8	46-120		
1,2-Dichlorobenzene	3233.500		330	µg/Kg	5000	0	64.7	44-120		
1,3-Dichlorobenzene	3187.500		330	µg/Kg	5000	0	63.8	43-120		
1,4-Dichlorobenzene	3283.500		330	µg/Kg	5000	0	65.7	47-120		
2,4,5-Trichlorophenol	4386.000		330	µg/Kg	5000	0	87.7	52-120		
2,4,6-Trichlorophenol	4331.000		330	µg/Kg	5000	0	86.6	51-120		
2,4-Dichlorophenol	3883.500		1600	µg/Kg	5000	0	77.7	47-120		
2,4-Dimethylphenol	3602.000		330	µg/Kg	5000	0	72.0	47-120		
2,4-Dinitrophenol	3004.500		1600	µg/Kg	5000	0	60.1	30-120		
2,4-Dinitrotoluene	4652.000		330	µg/Kg	5000	0	93.0	52-120		
2,6-Dinitrotoluene	4808.500		330	µg/Kg	5000	0	96.2	62-120		
2-Chloronaphthalene	4226.000		330	µg/Kg	5000	0	84.5	52-120		
2-Chlorophenol	3668.500		330	µg/Kg	5000	0	73.4	46-120		
2-Methylnaphthalene	3782.000		330	µg/Kg	5000	0	75.6	47-120		
2-Methylphenol	3733.000		330	µg/Kg	5000	0	74.7	48-120		
2-Nitroaniline	4683.000		1600	µg/Kg	5000	0	93.7	41-125		
2-Nitrophenol	3734.000		330	µg/Kg	5000	0	74.7	45-120		
3,3´-Dichlorobenzidine	5183.500		660	µg/Kg	7500	0	69.1	32-120		
3-Nitroaniline	4608.500		1600	µg/Kg	5000	0	92.2	54-120		
4,6-Dinitro-2-methylphenol	4296.500		1600	µg/Kg	5000	0	85.9	53-120		
4-Bromophenyl-phenylether	4898.500		330	µg/Kg	5000	0	98.0	59-120		
4-Chloro-3-methylphenol	4102.000		660	µg/Kg	5000	0	82.0	48-120		
4-Chloroaniline	3572.500		660	µg/Kg	5000	0	71.5	38-120		
4-Chlorophenyl-phenylether	4494.000		330	µg/Kg	5000	0	89.9	53-120		
4-Methylphenol	3810.000		330	µg/Kg	5000	0	76.2	48-120		
4-Nitroaniline	4450.500		1600	µg/Kg	5000	0	89.0	48-120		
4-Nitrophenol	4049.500		1600	µg/Kg	5000	0	81.0	40-120		
Acenaphthene	4506.500		330	µg/Kg	5000	0	90.1	47-120		
Acenaphthylene	4609.000		330	µg/Kg	5000	0	92.2	48-120		
Anthracene	4971.500		330	µg/Kg	5000	0	99.4	52-120		
Benzo(a)anthracene	4864.000		330	µg/Kg	5000	0	97.3	51-120		
Benzo(a)pyrene	4796.500		200	µg/Kg	5000	0	95.9	53-120		
Benzo(b)fluoranthene	5182.000		330	µg/Kg	5000	0	104	57-120		
Benzo(g,h,i)perylene	4935.500		330	µg/Kg	5000	0	98.7	53-120		
Benzo(k)fluoranthene	5265.000		330	µg/Kg	5000	0	105	56-120		
Benzoic acid	2250.000		1600	µg/Kg	5000	0	45.0	27-120		
Benzyl alcohol	3714.000		660	µg/Kg	5000	0	74.3	44-120		
Bis(2-chloroethoxy)methane	4823.500		330	µg/Kg	5000	0	96.5	56-120		
Bis(2-chloroethyl)ether	3742.000		330	µg/Kg	5000	0	74.8	44-120		
Bis(2-chloroisopropyl)ether	4067.500		330	µg/Kg	5000	0	81.4	21-138		
Bis(2-ethylhexyl)phthalate	5547.000		330	µg/Kg	5000	0	111	61-129		
Butylbenzylphthalate	5546.500		330	µg/Kg	5000	0	111	58-127		
Chrysene	4989.000		330	µg/Kg	5000	0	99.8	31-140		
Di-n-butylphthalate	5191.000		330	µg/Kg	5000	0	104	61-121		

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ELAP 2960

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Quality Control
(Continued)

Semivolatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 94554 (Continued)										
LCS (LCS-94554)				Prepared & Analyzed: 09/02/2022						
Di-n-octylphthalate	5855.000		330	µg/Kg	5000	0	117	58-132		
Dibenz(a,h)anthracene	4879.000		200	µg/Kg	5000	0	97.6	38-137		
Dibenzofuran	4351.000		330	µg/Kg	5000	0	87.0	50-120		
Diethylphthalate	4819.500		330	µg/Kg	5000	0	96.4	55-120		
Dimethylphthalate	4649.500		330	µg/Kg	5000	0	93.0	59-120		
Fluoranthene	4607.000		330	µg/Kg	5000	0	92.1	46-120		
Fluorene	4561.500		330	µg/Kg	5000	0	91.2	50-120		
Hexachlorobenzene	4588.500		330	µg/Kg	5000	0	91.8	57-120		
Hexachlorocyclopentadiene	2965.000		660	µg/Kg	5000	0	59.3	40-120		
Hexachloroethane	3270.500		330	µg/Kg	5000	0	65.4	47-120		
Indeno(1,2,3-cd)pyrene	4750.000		330	µg/Kg	5000	0	95.0	53-122		
Isophorone	5568.000		330	µg/Kg	5000	0	111	64-137		
N-Nitrosodi-n-propylamine	3959.500		330	µg/Kg	5000	0	79.2	33-120		
N-Nitrosodiphenylamine	4803.000		330	µg/Kg	5000	0	96.1	58-120		
Naphthalene	3587.500		330	µg/Kg	5000	0	71.8	45-120		
Nitrobenzene	3721.000		330	µg/Kg	5000	0	74.4	46-120		
Pentachlorophenol	4213.500		1600	µg/Kg	5000	0	84.3	48-120		
Phenanthrene	4853.000		330	µg/Kg	5000	0	97.1	52-120		
Phenol	3633.500		330	µg/Kg	5000	0	72.7	45-120		
Pyrene	4700.500		330	µg/Kg	5000	0	94.0	47-120		
Pyridine	2544.000		1600	µg/Kg	5000	0	50.9	23-120		
Surrogate: 1,2-Dichlorobenzene-d4	63.7			µg/Kg	5000	0	63.7	23-120		
Surrogate: 2,4,6-Tribromophenol	84.4			µg/Kg	5000	0	84.4	16-120		
Surrogate: 2-Chlorophenol-d4	71.0			µg/Kg	5000	0	71.0	25-120		
Surrogate: 2-Fluorobiphenyl	83.0			µg/Kg	5000	0	83.0	25-120		
Surrogate: 2-Fluorophenol	70.6			µg/Kg	5000	0	70.6	24-120		
Surrogate: 4-Terphenyl-d14	99.1			µg/Kg	5000	0	99.1	19-123		
Surrogate: Nitrobenzene-d5	71.0			µg/Kg	5000	0	71.0	17-120		
Surrogate: Phenol-d5	73.1			µg/Kg	5000	0	73.1	23-120		

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Semivolatile Organic Compounds_Subcontract (Continued)

Batch: 94554 (Continued)

MBLK (MB-94554) Prepared & Analyzed: 09/02/2022

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND		330	µg/Kg		0		-		
1,2-Dichlorobenzene	ND		330	µg/Kg		0		-		
1,3-Dichlorobenzene	ND		330	µg/Kg		0		-		
1,4-Dichlorobenzene	ND		330	µg/Kg		0		-		
2,4,5-Trichlorophenol	ND		330	µg/Kg		0		-		
2,4,6-Trichlorophenol	ND		330	µg/Kg		0		-		
2,4-Dichlorophenol	ND		1600	µg/Kg		0		-		
2,4-Dimethylphenol	ND		330	µg/Kg		0		-		
2,4-Dinitrophenol	ND		1600	µg/Kg		0		-		
2,4-Dinitrotoluene	ND		330	µg/Kg		0		-		
2,6-Dinitrotoluene	ND		330	µg/Kg		0		-		
2-Chloronaphthalene	ND		330	µg/Kg		0		-		
2-Chlorophenol	ND		330	µg/Kg		0		-		
2-Methylnaphthalene	ND		330	µg/Kg		0		-		
2-Methylphenol	ND		330	µg/Kg		0		-		
2-Nitroaniline	ND		1600	µg/Kg		0		-		
2-Nitrophenol	ND		330	µg/Kg		0		-		
3,3´-Dichlorobenzidine	ND		660	µg/Kg		0		-		
3-Nitroaniline	ND		1600	µg/Kg		0		-		
4,6-Dinitro-2-methylphenol	ND		1600	µg/Kg		0		-		
4-Bromophenyl-phenylether	ND		330	µg/Kg		0		-		
4-Chloro-3-methylphenol	ND		660	µg/Kg		0		-		
4-Chloroaniline	ND		660	µg/Kg		0		-		
4-Chlorophenyl-phenylether	ND		330	µg/Kg		0		-		
4-Methylphenol	ND		330	µg/Kg		0		-		
4-Nitroaniline	ND		1600	µg/Kg		0		-		
4-Nitrophenol	ND		1600	µg/Kg		0		-		
Acenaphthene	ND		330	µg/Kg		0		-		
Acenaphthylene	ND		330	µg/Kg		0		-		
Anthracene	ND		330	µg/Kg		0		-		
Benzo(a)anthracene	ND		330	µg/Kg		0		-		
Benzo(a)pyrene	ND		200	µg/Kg		0		-		
Benzo(b)fluoranthene	ND		330	µg/Kg		0		-		
Benzo(g,h,i)perylene	ND		330	µg/Kg		0		-		
Benzo(k)fluoranthene	ND		330	µg/Kg		0		-		
Benzoic acid	ND		1600	µg/Kg		0		-		
Benzyl alcohol	ND		660	µg/Kg		0		-		
Bis(2-chloroethoxy)methane	ND		330	µg/Kg		0		-		
Bis(2-chloroethyl)ether	ND		330	µg/Kg		0		-		
Bis(2-chloroisopropyl)ether	ND		330	µg/Kg		0		-		
Bis(2-ethylhexyl)phthalate	ND		330	µg/Kg		0		-		
Butylbenzylphthalate	ND		330	µg/Kg		0		-		
Chrysene	ND		330	µg/Kg		0		-		
Di-n-butylphthalate	ND		330	µg/Kg		0		-		
Di-n-octylphthalate	ND		330	µg/Kg		0		-		

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Semivolatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 94554 (Continued)										
MBLK (MB-94554)				Prepared & Analyzed: 09/02/2022						
Dibenz(a,h)anthracene	ND		200	µg/Kg		0		-		
Dibenzofuran	ND		330	µg/Kg		0		-		
Diethylphthalate	ND		330	µg/Kg		0		-		
Dimethylphthalate	ND		330	µg/Kg		0		-		
Fluoranthene	ND		330	µg/Kg		0		-		
Fluorene	ND		330	µg/Kg		0		-		
Hexachlorobenzene	ND		330	µg/Kg		0		-		
Hexachlorocyclopentadiene	ND		660	µg/Kg		0		-		
Hexachloroethane	ND		330	µg/Kg		0		-		
Indeno(1,2,3-cd)pyrene	ND		330	µg/Kg		0		-		
Isophorone	ND		330	µg/Kg		0		-		
N-Nitrosodi-n-propylamine	ND		330	µg/Kg		0		-		
N-Nitrosodiphenylamine	ND		330	µg/Kg		0		-		
Naphthalene	ND		330	µg/Kg		0		-		
Nitrobenzene	ND		330	µg/Kg		0		-		
Pentachlorophenol	ND		1600	µg/Kg		0		-		
Phenanthrene	ND		330	µg/Kg		0		-		
Phenol	ND		330	µg/Kg		0		-		
Pyrene	ND		330	µg/Kg		0		-		
Pyridine	ND		1600	µg/Kg		0		-		
Surrogate: 1,2-Dichlorobenzene-d4	71.5			µg/Kg	5000	0	71.5	23-120		
Surrogate: 2,4,6-Tribromophenol	61.8			µg/Kg	5000	0	61.8	16-120		
Surrogate: 2-Chlorophenol-d4	75.0			µg/Kg	5000	0	75.0	25-120		
Surrogate: 2-Fluorobiphenyl	75.1			µg/Kg	5000	0	75.1	25-120		
Surrogate: 2-Fluorophenol	75.5			µg/Kg	5000	0	75.5	24-120		
Surrogate: 4-Terphenyl-d14	99.1			µg/Kg	5000	0	99.1	19-123		
Surrogate: Nitrobenzene-d5	75.1			µg/Kg	5000	0	75.1	17-120		
Surrogate: Phenol-d5	75.4			µg/Kg	5000	0	75.4	23-120		

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Semivolatile Organic Compounds_Subcontract (Continued)

Batch: 94554 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
MS (N052407-017A-MS)			**Source: N052407-017A**	Prepared & Analyzed: 09/02/2022						
1,2,4-Trichlorobenzene	2532.000		330	µg/Kg	5000	0	50.6	30-120		
1,2-Dichlorobenzene	2347.000		330	µg/Kg	5000	0	46.9	30-120		
1,3-Dichlorobenzene	2269.000		330	µg/Kg	5000	0	45.4	29-120		
1,4-Dichlorobenzene	2335.500		330	µg/Kg	5000	0	46.7	34-120		
2,4,5-Trichlorophenol	3388.000		330	µg/Kg	5000	0	67.8	31-120		
2,4,6-Trichlorophenol	3288.000		330	µg/Kg	5000	0	65.8	30-120		
2,4-Dichlorophenol	2973.000		1600	µg/Kg	5000	0	59.5	27-120		
2,4-Dimethylphenol	2734.500		330	µg/Kg	5000	0	54.7	24-120		
2,4-Dinitrophenol	1952.500		1600	µg/Kg	5000	0	39.1	9-120		
2,4-Dinitrotoluene	3666.500		330	µg/Kg	5000	0	73.3	32-120		
2,6-Dinitrotoluene	3732.000		330	µg/Kg	5000	0	74.6	39-120		
2-Chloronaphthalene	3211.500		330	µg/Kg	5000	0	64.2	36-120		
2-Chlorophenol	2753.500		330	µg/Kg	5000	0	55.1	29-120		
2-Methylnaphthalene	2807.500		330	µg/Kg	5000	0	56.2	32-120		
2-Methylphenol	2792.000		330	µg/Kg	5000	0	55.8	27-120		
2-Nitroaniline	3735.500		1600	µg/Kg	5000	0	74.7	25-125		
2-Nitrophenol	2724.500		330	µg/Kg	5000	0	54.5	26-120		
3,3´-Dichlorobenzidine	3883.500		660	µg/Kg	7500	0	51.8	11-120		
3-Nitroaniline	3720.500		1600	µg/Kg	5000	0	74.4	33-120		
4,6-Dinitro-2-methylphenol	2623.500		1600	µg/Kg	5000	0	52.5	22-120		
4-Bromophenyl-phenylether	3663.500		330	µg/Kg	5000	0	73.3	38-120		
4-Chloro-3-methylphenol	3261.000		660	µg/Kg	5000	0	65.2	29-120		
4-Chloroaniline	2698.500		660	µg/Kg	5000	0	54.0	23-120		
4-Chlorophenyl-phenylether	3498.000		330	µg/Kg	5000	0	70.0	34-120		
4-Methylphenol	2857.000		330	µg/Kg	5000	0	57.1	28-120		
4-Nitroaniline	3586.000		1600	µg/Kg	5000	0	71.7	27-120		
4-Nitrophenol	3224.000		1600	µg/Kg	5000	0	64.5	19-120		
Acenaphthene	3412.000		330	µg/Kg	5000	0	68.2	30-120		
Acenaphthylene	3554.000		330	µg/Kg	5000	0	71.1	31-120		
Anthracene	3849.500		330	µg/Kg	5000	0	77.0	33-120		
Benzo(a)anthracene	3728.000		330	µg/Kg	5000	0	74.6	30-120		
Benzo(a)pyrene	3596.000		200	µg/Kg	5000	0	71.9	32-120		
Benzo(b)fluoranthene	3919.000		330	µg/Kg	5000	0	78.4	34-120		
Benzo(g,h,i)perylene	3235.000		330	µg/Kg	5000	0	64.7	26-120		
Benzo(k)fluoranthene	3823.000		330	µg/Kg	5000	0	76.5	32-120		
Benzoic acid	1565.000		1600	µg/Kg	5000	0	31.3	4-120		
Benzyl alcohol	2892.500		660	µg/Kg	5000	0	57.8	30-120		
Bis(2-chloroethoxy)methane	3431.000		330	µg/Kg	5000	0	68.6	37-120		
Bis(2-chloroethyl)ether	2727.500		330	µg/Kg	5000	0	54.6	29-120		
Bis(2-chloroisopropyl)ether	2905.500		330	µg/Kg	5000	0	58.1	22-120		
Bis(2-ethylhexyl)phthalate	3991.000		330	µg/Kg	5000	0	79.8	40-125		
Butylbenzylphthalate	3956.000		330	µg/Kg	5000	0	79.1	37-123		
Chrysene	3819.000		330	µg/Kg	5000	0	76.4	13-134		
Di-n-butylphthalate	3973.000		330	µg/Kg	5000	0	79.5	42-120		
Di-n-octylphthalate	3740.500		330	µg/Kg	5000	0	74.8	34-129		

Performance Analytical Laboratories, Inc.

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SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Semivolatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 94554 (Continued)										
MS (N052407-017A-MS)		**Source: N052407-017A**		Prepared & Analyzed: 09/02/2022						
Dibenz(a,h)anthracene	3306.500		200	µg/Kg	5000	0	66.1	14-128		
Dibenzofuran	3401.000		330	µg/Kg	5000	0	68.0	33-120		
Diethylphthalate	3804.000		330	µg/Kg	5000	0	76.1	37-120		
Dimethylphthalate	3714.000		330	µg/Kg	5000	0	74.3	39-120		
Fluoranthene	3585.500		330	µg/Kg	5000	0	71.7	28-120		
Fluorene	3609.000		330	µg/Kg	5000	0	72.2	32-120		
Hexachlorobenzene	3510.500		330	µg/Kg	5000	0	70.2	36-120		
Hexachlorocyclopentadiene	1469.500		660	µg/Kg	5000	0	29.4	15-120		
Hexachloroethane	2336.000		330	µg/Kg	5000	0	46.7	29-120		
Indeno(1,2,3-cd)pyrene	3248.000		330	µg/Kg	5000	0	65.0	27-120		
Isophorone	4196.500		330	µg/Kg	5000	0	83.9	39-140		
N-Nitrosodi-n-propylamine	2868.000		330	µg/Kg	5000	0	57.4	32-120		
N-Nitrosodiphenylamine	3647.500		330	µg/Kg	5000	0	73.0	37-120		
Naphthalene	2670.500		330	µg/Kg	5000	0	53.4	30-120		
Nitrobenzene	2782.500		330	µg/Kg	5000	0	55.6	30-120		
Pentachlorophenol	3305.000		1600	µg/Kg	5000	0	66.1	17-120		
Phenanthrene	3736.000		330	µg/Kg	5000	0	74.7	32-120		
Phenol	2794.000		330	µg/Kg	5000	0	55.9	28-120		
Pyrene	3689.500		330	µg/Kg	5000	0	73.8	28-120		
Pyridine	2143.000		1600	µg/Kg	5000	0	42.9	15-120		
Surrogate: 1,2-Dichlorobenzene-d4	86.2			µg/Kg	5000	0	86.2	23-120		
Surrogate: 2,4,6-Tribromophenol	82.3			µg/Kg	5000	0	82.3	16-120		
Surrogate: 2-Chlorophenol-d4	83.7			µg/Kg	5000	0	83.7	25-120		
Surrogate: 2-Fluorobiphenyl	88.8			µg/Kg	5000	0	88.8	25-120		
Surrogate: 2-Fluorophenol	85.3			µg/Kg	5000	0	85.3	24-120		
Surrogate: 4-Terphenyl-d14	85.7			µg/Kg	5000	0	85.7	19-123		
Surrogate: Nitrobenzene-d5	87.6			µg/Kg	5000	0	87.6	17-120		
Surrogate: Phenol-d5	84.0			µg/Kg	5000	0	84.0	23-120		

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Semivolatile Organic Compounds_Subcontract (Continued)

Batch: 94554 (Continued)

MSD (N052407-017A-MSD) **Source: N052407-017A** Prepared & Analyzed: 09/02/2022

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	2706.707		330	µg/Kg	5005	0	54.1	30-120	6.67	20
1,2-Dichlorobenzene	2507.508		330	µg/Kg	5005	0	50.1	30-120	6.61	20
1,3-Dichlorobenzene	2404.905		330	µg/Kg	5005	0	48.1	29-120	5.82	20
1,4-Dichlorobenzene	2495.495		330	µg/Kg	5005	0	49.9	34-120	6.62	20
2,4,5-Trichlorophenol	3371.872		330	µg/Kg	5005	0	67.4	31-120	0.477	20
2,4,6-Trichlorophenol	3243.744		330	µg/Kg	5005	0	64.8	30-120	1.36	20
2,4-Dichlorophenol	3121.622		1700	µg/Kg	5005	0	62.4	27-120	4.88	20
2,4-Dimethylphenol	2866.867		330	µg/Kg	5005	0	57.3	24-120	4.73	20
2,4-Dinitrophenol	1858.358		1700	µg/Kg	5005	0	37.1	9-120	4.94	20
2,4-Dinitrotoluene	3667.167		330	µg/Kg	5005	0	73.3	32-120	0.0182	20
2,6-Dinitrotoluene	3757.257		330	µg/Kg	5005	0	75.1	39-120	0.674	20
2-Chloronaphthalene	3225.225		330	µg/Kg	5005	0	64.4	36-120	0.426	20
2-Chlorophenol	2920.420		330	µg/Kg	5005	0	58.4	29-120	5.88	20
2-Methylnaphthalene	2964.965		330	µg/Kg	5005	0	59.2	32-120	5.46	20
2-Methylphenol	2971.972		330	µg/Kg	5005	0	59.4	27-120	6.24	20
2-Nitroaniline	3741.742		1700	µg/Kg	5005	0	74.8	25-125	0.167	20
2-Nitrophenol	2897.898		330	µg/Kg	5005	0	57.9	26-120	6.17	20
3,3´-Dichlorobenzidine	3964.464		660	µg/Kg	7508	0	52.8	11-120	2.06	20
3-Nitroaniline	3698.699		1700	µg/Kg	5005	0	73.9	33-120	0.588	20
4,6-Dinitro-2-methylphenol	2528.529		1700	µg/Kg	5005	0	50.5	22-120	3.69	20
4-Bromophenyl-phenylether	3772.773		330	µg/Kg	5005	0	75.4	38-120	2.94	20
4-Chloro-3-methylphenol	3316.316		660	µg/Kg	5005	0	66.3	29-120	1.68	20
4-Chloroaniline	2853.854		660	µg/Kg	5005	0	57.0	23-120	5.60	20
4-Chlorophenyl-phenylether	3469.970		330	µg/Kg	5005	0	69.3	34-120	0.805	20
4-Methylphenol	2984.484		330	µg/Kg	5005	0	59.6	28-120	4.36	20
4-Nitroaniline	3550.050		1700	µg/Kg	5005	0	70.9	27-120	1.01	20
4-Nitrophenol	3113.113		1700	µg/Kg	5005	0	62.2	19-120	3.50	20
Acenaphthene	3406.907		330	µg/Kg	5005	0	68.1	30-120	0.149	20
Acenaphthylene	3559.059		330	µg/Kg	5005	0	71.1	31-120	0.142	20
Anthracene	3819.319		330	µg/Kg	5005	0	76.3	33-120	0.787	20
Benzo(a)anthracene	3749.750		330	µg/Kg	5005	0	74.9	30-120	0.582	20
Benzo(a)pyrene	3539.540		200	µg/Kg	5005	0	70.7	32-120	1.58	20
Benzo(b)fluoranthene	3866.867		330	µg/Kg	5005	0	77.3	34-120	1.34	20
Benzo(g,h,i)perylene	3125.626		330	µg/Kg	5005	0	62.4	26-120	3.44	20
Benzo(k)fluoranthene	3774.274		330	µg/Kg	5005	0	75.4	32-120	1.28	20
Benzoic acid	1638.639		1700	µg/Kg	5005	0	32.7	4-120	0	20
Benzyl alcohol	3068.569		660	µg/Kg	5005	0	61.3	30-120	5.91	20
Bis(2-chloroethoxy)methane	3723.223		330	µg/Kg	5005	0	74.4	37-120	8.17	20
Bis(2-chloroethyl)ether	2961.962		330	µg/Kg	5005	0	59.2	29-120	8.24	20
Bis(2-chloroisopropyl)ether	3174.675		330	µg/Kg	5005	0	63.4	22-120	8.85	20
Bis(2-ethylhexyl)phthalate	3947.447		330	µg/Kg	5005	0	78.9	40-125	1.10	20
Butylbenzylphthalate	3974.975		330	µg/Kg	5005	0	79.4	37-123	0.479	20
Chrysene	3769.269		330	µg/Kg	5005	0	75.3	13-134	1.31	20
Di-n-butylphthalate	3983.984		330	µg/Kg	5005	0	79.6	42-120	0.276	20
Di-n-octylphthalate	3730.230		330	µg/Kg	5005	0	74.5	34-129	0.275	20

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Semivolatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 94554 (Continued)										
MSD (N052407-017A-MSD)			**Source: N052407-017A**	Prepared & Analyzed: 09/02/2022						
Dibenz(a,h)anthracene	3276.276		200	µg/Kg	5005	0	65.5	14-128	0.918	20
Dibenzofuran	3438.939		330	µg/Kg	5005	0	68.7	33-120	1.11	20
Diethylphthalate	3840.841		330	µg/Kg	5005	0	76.7	37-120	0.964	20
Dimethylphthalate	3700.701		330	µg/Kg	5005	0	73.9	39-120	0.359	20
Fluoranthene	3609.109		330	µg/Kg	5005	0	72.1	28-120	0.656	20
Fluorene	3577.578		330	µg/Kg	5005	0	71.5	32-120	0.874	20
Hexachlorobenzene	3478.979		330	µg/Kg	5005	0	69.5	36-120	0.902	20
Hexachlorocyclopentadiene	1504.004		660	µg/Kg	5005	0	30.1	15-120	2.32	20
Hexachloroethane	2451.952		330	µg/Kg	5005	0	49.0	29-120	4.84	20
Indeno(1,2,3-cd)pyrene	3179.680		330	µg/Kg	5005	0	63.5	27-120	2.13	20
Isophorone	4416.416		330	µg/Kg	5005	0	88.2	39-140	5.11	20
N-Nitrosodi-n-propylamine	3059.560		330	µg/Kg	5005	0	61.1	32-120	6.46	20
N-Nitrosodiphenylamine	3658.659		330	µg/Kg	5005	0	73.1	37-120	0.305	20
Naphthalene	2801.301		330	µg/Kg	5005	0	56.0	30-120	4.78	20
Nitrobenzene	2972.472		330	µg/Kg	5005	0	59.4	30-120	6.60	20
Pentachlorophenol	3307.307		1700	µg/Kg	5005	0	66.1	17-120	0.0698	20
Phenanthrene	3693.193		330	µg/Kg	5005	0	73.8	32-120	1.15	20
Phenol	2968.468		330	µg/Kg	5005	0	59.3	28-120	6.06	20
Pyrene	3714.214		330	µg/Kg	5005	0	74.2	28-120	0.668	20
Pyridine	2267.768		1700	µg/Kg	5005	0	45.3	15-120	5.66	20
Surrogate: 1,2-Dichlorobenzene-d4	83.6			µg/Kg	5005	0	83.6	23-120		
Surrogate: 2,4,6-Tribromophenol	78.7			µg/Kg	5005	0	78.7	16-120		
Surrogate: 2-Chlorophenol-d4	81.4			µg/Kg	5005	0	81.4	25-120		
Surrogate: 2-Fluorobiphenyl	85.2			µg/Kg	5005	0	85.2	25-120		
Surrogate: 2-Fluorophenol	82.3			µg/Kg	5005	0	82.3	24-120		
Surrogate: 4-Terphenyl-d14	81.7			µg/Kg	5005	0	81.7	19-123		
Surrogate: Nitrobenzene-d5	84.8			µg/Kg	5005	0	84.8	17-120		
Surrogate: Phenol-d5	81.8			µg/Kg	5005	0	81.8	23-120		

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B2I0004										
Blank (B2I0004-BLK1)				Prepared & Analyzed: 09/01/2022						
Acetone	ND		20.0	µg/Kg						
Acetonitrile	ND		50.0	µg/Kg						
Allyl Chloride	ND		1.00	µg/Kg						
Benzene	ND		1.00	µg/Kg						
Bromobenzene	ND		1.00	µg/Kg						
Bromochloromethane	ND		1.00	µg/Kg						
Bromodichloromethane	ND		1.00	µg/Kg						
Bromoform	ND		1.00	µg/Kg						
Bromomethane	ND		5.00	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20.0	µg/Kg						
n-Butylbenzene	ND		1.00	µg/Kg						
Carbon Disulfide	ND		5.00	µg/Kg						
Carbon Tetrachloride	ND		1.00	µg/Kg						
Chlorobenzene	ND		1.00	µg/Kg						
Chloroethane	ND		5.00	µg/Kg						
Chloroform	ND		1.00	µg/Kg						
Chloromethane	ND		5.00	µg/Kg						
Chloroprene	ND		1.00	µg/Kg						
2-Chlorotoluene	ND		1.00	µg/Kg						
4-Chlorotoluene	ND		1.00	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		5.00	µg/Kg						
Dibromochloromethane	ND		1.00	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.00	µg/Kg						
Dibromomethane	ND		1.00	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.00	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.00	µg/Kg						
1,2-Dichlorobenzene	ND		1.00	µg/Kg						
1,3-Dichlorobenzene	ND		1.00	µg/Kg						
1,4-Dichlorobenzene	ND		1.00	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.00	µg/Kg						
1,1-Dichloroethane	ND		1.00	µg/Kg						
1,2-Dichloroethane	ND		1.00	µg/Kg						
1,1-Dichloroethene	ND		1.00	µg/Kg						
c-1,2-Dichloroethene	ND		1.00	µg/Kg						
c-1,3-Dichloropropene	ND		1.00	µg/Kg						
t-1,2-Dichloroethene	ND		1.00	µg/Kg						
1,2-Dichloropropane	ND		1.00	µg/Kg						
1,3-Dichloropropane	ND		1.00	µg/Kg						
2,2-Dichloropropane	ND		1.00	µg/Kg						
1,1-Dichloropropene	ND		1.00	µg/Kg						
t-1,3-Dichloropropene	ND		1.00	µg/Kg						
Diethyl Ether	ND		5.00	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.00	µg/Kg						

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B2I0004 (Continued)										
Blank (B2I0004-BLK1)				Prepared & Analyzed: 09/01/2022						
Ethylbenzene	ND		1.00	µg/Kg						
Ethyl Methacrylate	ND		5.00	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.00	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.00	µg/Kg						
2-Hexanone	ND		5.00	µg/Kg						
Isopropylbenzene	ND		1.00	µg/Kg						
p-Isopropyltoluene	ND		1.00	µg/Kg						
Methacrylonitrile	ND		5.00	µg/Kg						
Methylene Chloride	ND		20.0	µg/Kg						
Methyl Methacrylate	ND		5.00	µg/Kg						
4-Methyl-2-Pentanone	ND		20.0	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.00	µg/Kg						
Naphthalene	ND		10.0	µg/Kg						
Propionitrile	ND		20.0	µg/Kg						
n-Propylbenzene	ND		1.00	µg/Kg						
sec-Butylbenzene	ND		1.00	µg/Kg						
Styrene	ND		1.00	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.00	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25.0	µg/Kg						
tert-Butylbenzene	ND		1.00	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.00	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.00	µg/Kg						
Tetrachloroethene	ND		1.00	µg/Kg						
Tetrahydrofuran	ND		20.0	µg/Kg						
Toluene	ND		1.00	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.00	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.00	µg/Kg						
1,1,1-Trichloroethane	ND		1.00	µg/Kg						
1,1,2-Trichloroethane	ND		1.00	µg/Kg						
Trichloroethene	ND		1.00	µg/Kg						
Trichlorofluoromethane	ND		1.00	µg/Kg						
1,2,3-Trichloropropane	ND		1.00	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.00	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.00	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.00	µg/Kg						
Vinyl Chloride	ND		1.00	µg/Kg						
o-Xylene	ND		1.00	µg/Kg						
p/m-Xylene	ND		2.00	µg/Kg						
Total Xylenes	ND		3.00	µg/Kg						
Surrogate: Dibromofluoromethane	49.5			µg/Kg	50.0		99.0	60-140		
Surrogate: 4-Bromofluorobenzene	49.0			µg/Kg	50.0		98.1	60-140		
Surrogate: 1,2-Dichloroethane-d4	53.4			µg/Kg	50.0		107	60-140		
Surrogate: Toluene-d8	50.0			µg/Kg	50.0		99.9	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B2I0004 (Continued)										
LCS (B2I0004-BS1)				Prepared & Analyzed: 09/01/2022						
Allyl Chloride	35.5		1.00	µg/Kg	40.0		88.7	60-140		
Benzene	35.7		1.00	µg/Kg	40.0		89.2	70-130		
Bromobenzene	37.5		1.00	µg/Kg	40.0		93.8	70-130		
Bromodichloromethane	37.6		1.00	µg/Kg	40.0		93.9	70-130		
Bromoform	39.7		1.00	µg/Kg	40.0		99.4	70-130		
Chlorobenzene	35.8		1.00	µg/Kg	40.0		89.4	70-130		
Chloroethane	39.1		5.00	µg/Kg	40.0		97.6	70-130		
Chloroform	35.7		1.00	µg/Kg	40.0		89.2	70-130		
4-Chlorotoluene	34.2		1.00	µg/Kg	40.0		85.4	70-130		
Dibromomethane	34.6		1.00	µg/Kg	40.0		86.4	70-130		
1,2-Dichlorobenzene	34.4		1.00	µg/Kg	40.0		85.9	70-130		
1,1-Dichloroethene	39.1		1.00	µg/Kg	40.0		97.8	70-130		
1,2-Dichloropropane	34.8		1.00	µg/Kg	40.0		87.1	70-130		
2,2-Dichloropropane	36.0		1.00	µg/Kg	40.0		90.0	70-130		
1,1-Dichloropropene	34.5		1.00	µg/Kg	40.0		86.3	70-130		
Diethyl Ether	40.7		5.00	µg/Kg	40.0		102	70-130		
Diisopropyl Ether (DIPE)	35.7		1.00	µg/Kg	40.0		89.3	70-130		
Ethylbenzene	36.0		1.00	µg/Kg	40.0		89.9	70-130		
Hexachloro-1,3-Butadiene	34.9		1.00	µg/Kg	40.0		87.3	70-130		
Methylene Chloride	35.8		20.0	µg/Kg	40.0		89.5	70-130		
Methyl-t-Butyl Ether (MTBE)	33.4		1.00	µg/Kg	40.0		83.4	70-130		
Naphthalene	32.1		10.0	µg/Kg	40.0		80.2	70-130		
Styrene	36.2		1.00	µg/Kg	40.0		90.4	70-130		
tert-Butylbenzene	34.0		1.00	µg/Kg	40.0		85.1	70-130		
Tetrachloroethene	35.9		1.00	µg/Kg	40.0		89.7	70-130		
Toluene	36.4		1.00	µg/Kg	40.0		91.0	70-130		
1,2,3-Trichlorobenzene	35.0		1.00	µg/Kg	40.0		87.6	70-130		
Trichloroethene	33.3		1.00	µg/Kg	40.0		83.2	70-130		
1,3,5-Trimethylbenzene	38.7		1.00	µg/Kg	40.0		96.7	70-130		
Vinyl Chloride	35.9		1.00	µg/Kg	40.0		89.8	70-130		
Surrogate: Dibromofluoromethane	51.2			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	50.2			µg/Kg	50.0		100	60-140		
Surrogate: 1,2-Dichloroethane-d4	53.6			µg/Kg	50.0		107	60-140		
Surrogate: Toluene-d8	50.4			µg/Kg	50.0		101	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B2I0004 (Continued)										
LCS Dup (B2I0004-BSD1)				Prepared & Analyzed: 09/01/2022						
Allyl Chloride	37.5		1.00	µg/Kg	40.0		93.8	60-140	5.53	20
Benzene	34.5		1.00	µg/Kg	40.0		86.3	70-130	3.36	20
Bromobenzene	35.2		1.00	µg/Kg	40.0		87.9	70-130	6.58	20
Bromodichloromethane	35.5		1.00	µg/Kg	40.0		88.7	70-130	5.75	20
Bromoform	37.2		1.00	µg/Kg	40.0		93.1	70-130	6.52	20
Chlorobenzene	34.8		1.00	µg/Kg	40.0		87.1	70-130	2.69	20
Chloroethane	35.6		5.00	µg/Kg	40.0		89.0	70-130	9.24	20
Chloroform	34.4		1.00	µg/Kg	40.0		86.1	70-130	3.51	20
4-Chlorotoluene	31.5		1.00	µg/Kg	40.0		78.6	70-130	8.26	20
Dibromomethane	33.6		1.00	µg/Kg	40.0		84.1	70-130	2.67	20
1,2-Dichlorobenzene	32.3		1.00	µg/Kg	40.0		80.7	70-130	6.21	20
1,1-Dichloroethene	38.2		1.00	µg/Kg	40.0		95.4	70-130	2.43	20
1,2-Dichloropropane	33.5		1.00	µg/Kg	40.0		83.7	70-130	3.95	20
2,2-Dichloropropane	34.9		1.00	µg/Kg	40.0		87.3	70-130	3.07	20
1,1-Dichloropropene	33.4		1.00	µg/Kg	40.0		83.4	70-130	3.39	20
Diethyl Ether	39.1		5.00	µg/Kg	40.0		97.7	70-130	4.13	20
Diisopropyl Ether (DIPE)	34.4		1.00	µg/Kg	40.0		86.1	70-130	3.68	20
Ethylbenzene	34.9		1.00	µg/Kg	40.0		87.2	70-130	3.11	20
Hexachloro-1,3-Butadiene	33.1		1.00	µg/Kg	40.0		82.8	70-130	5.32	20
Methylene Chloride	36.8		20.0	µg/Kg	40.0		92.0	70-130	2.84	20
Methyl-t-Butyl Ether (MTBE)	32.0		1.00	µg/Kg	40.0		80.1	70-130	4.01	20
Naphthalene	30.3		10.0	µg/Kg	40.0		75.7	70-130	5.68	20
Styrene	35.4		1.00	µg/Kg	40.0		88.4	70-130	2.21	20
tert-Butylbenzene	31.6		1.00	µg/Kg	40.0		79.1	70-130	7.28	20
Tetrachloroethene	34.5		1.00	µg/Kg	40.0		86.2	70-130	3.95	20
Toluene	35.7		1.00	µg/Kg	40.0		89.2	70-130	2.11	20
1,2,3-Trichlorobenzene	32.0		1.00	µg/Kg	40.0		80.1	70-130	9.00	20
Trichloroethene	33.5		1.00	µg/Kg	40.0		83.7	70-130	0.599	20
1,3,5-Trimethylbenzene	37.3		1.00	µg/Kg	40.0		93.2	70-130	3.71	20
Vinyl Chloride	35.5		1.00	µg/Kg	40.0		88.8	70-130	1.18	20
Surrogate: Dibromofluoromethane	51.4			µg/Kg	50.0		103	60-140		
Surrogate: 4-Bromofluorobenzene	49.7			µg/Kg	50.0		99.4	60-140		
Surrogate: 1,2-Dichloroethane-d4	53.6			µg/Kg	50.0		107	60-140		
Surrogate: Toluene-d8	50.3			µg/Kg	50.0		101	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control

(Continued)

Volatile Organic Compounds (Continued)

Batch: B2I0004 (Continued)

Matrix Spike (B2I0004-MS1) **Source: P209001-01** Prepared & Analyzed: 09/01/2022

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Allyl Chloride	32.9		1.01	µg/Kg	40.2	ND	81.8	60-140		
Benzene	32.9		1.01	µg/Kg	40.2	ND	81.7	70-130		
Bromobenzene	31.7		1.01	µg/Kg	40.2	ND	78.8	70-130		
Bromodichloromethane	35.8		1.01	µg/Kg	40.2	ND	89.0	70-130		
Bromoform	33.9		1.01	µg/Kg	40.2	ND	84.4	70-130		
Chlorobenzene	30.5		1.01	µg/Kg	40.2	ND	75.8	70-130		
Chloroethane	35.4		5.03	µg/Kg	40.2	ND	87.9	70-130		
Chloroform	33.5		1.01	µg/Kg	40.2	ND	83.3	70-130		
4-Chlorotoluene	27.0		1.01	µg/Kg	40.2	ND	67.0	70-130		
Dibromomethane	34.3		1.01	µg/Kg	40.2	ND	85.3	70-130		
1,2-Dichlorobenzene	25.9		1.01	µg/Kg	40.2	ND	64.3	70-130		
1,1-Dichloroethene	37.1		1.01	µg/Kg	40.2	ND	92.3	70-130		
1,2-Dichloropropane	32.2		1.01	µg/Kg	40.2	ND	80.1	70-130		
2,2-Dichloropropane	31.3		1.01	µg/Kg	40.2	ND	77.7	70-130		
1,1-Dichloropropene	32.8		1.01	µg/Kg	40.2	ND	81.6	70-130		
Diethyl Ether	38.6		5.03	µg/Kg	40.2	ND	95.8	70-130		
Diisopropyl Ether (DIPE)	33.6		1.01	µg/Kg	40.2	ND	83.5	70-130		
Ethylbenzene	31.4		1.01	µg/Kg	40.2	ND	78.0	70-130		
Hexachloro-1,3-Butadiene	18.0		1.01	µg/Kg	40.2	ND	44.7	70-130		
Methylene Chloride	33.2		20.1	µg/Kg	40.2	ND	82.6	70-130		
Methyl-t-Butyl Ether (MTBE)	31.0		1.01	µg/Kg	40.2	ND	77.1	70-130		
Naphthalene	19.2		10.1	µg/Kg	40.2	ND	47.6	70-130		
Styrene	31.0		1.01	µg/Kg	40.2	ND	77.0	70-130		
tert-Butylbenzene	25.5		1.01	µg/Kg	40.2	ND	63.4	70-130		
Tetrachloroethene	31.1		1.01	µg/Kg	40.2	ND	77.3	70-130		
Toluene	32.4		1.01	µg/Kg	40.2	ND	80.6	70-130		
1,2,3-Trichlorobenzene	19.0		1.01	µg/Kg	40.2	ND	47.1	70-130		
Trichloroethene	31.9		1.01	µg/Kg	40.2	ND	79.2	70-130		
1,3,5-Trimethylbenzene	31.2		1.01	µg/Kg	40.2	ND	77.4	70-130		
Vinyl Chloride	34.2		1.01	µg/Kg	40.2	ND	84.9	70-130		
Surrogate: Dibromofluoromethane	50.4			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	50.5			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	54.0			µg/Kg	50.0		108	60-140		
Surrogate: Toluene-d8	51.1			µg/Kg	50.0		102	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Batch: B2I0004 (Continued)

Matrix Spike Dup (B2I0004-MSD1) **Source: P209001-01** Prepared & Analyzed: 09/01/2022

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Allyl Chloride	33.8		1.00	µg/Kg	40.1	ND	84.3	60-140	2.70	20
Benzene	32.4		1.00	µg/Kg	40.1	ND	80.9	70-130	1.45	20
Bromobenzene	31.0		1.00	µg/Kg	40.1	ND	77.2	70-130	2.42	20
Bromodichloromethane	34.1		1.00	µg/Kg	40.1	ND	85.1	70-130	4.91	20
Bromoform	32.4		1.00	µg/Kg	40.1	ND	80.7	70-130	4.79	20
Chlorobenzene	30.4		1.00	µg/Kg	40.1	ND	75.7	70-130	0.501	20
Chloroethane	34.4		5.01	µg/Kg	40.1	ND	85.9	70-130	2.76	20
Chloroform	33.0		1.00	µg/Kg	40.1	ND	82.4	70-130	1.52	20
4-Chlorotoluene	28.8		1.00	µg/Kg	40.1	ND	71.8	70-130	6.45	20
Dibromomethane	31.7		1.00	µg/Kg	40.1	ND	79.2	70-130	7.85	20
1,2-Dichlorobenzene	27.6		1.00	µg/Kg	40.1	ND	69.0	70-130	6.58	20
1,1-Dichloroethene	36.3		1.00	µg/Kg	40.1	ND	90.5	70-130	2.40	20
1,2-Dichloropropane	30.9		1.00	µg/Kg	40.1	ND	77.0	70-130	4.31	20
2,2-Dichloropropane	30.9		1.00	µg/Kg	40.1	ND	77.0	70-130	1.21	20
1,1-Dichloropropene	32.2		1.00	µg/Kg	40.1	ND	80.3	70-130	2.10	20
Diethyl Ether	37.9		5.01	µg/Kg	40.1	ND	94.6	70-130	1.66	20
Diisopropyl Ether (DIPE)	33.3		1.00	µg/Kg	40.1	ND	83.2	70-130	0.732	20
Ethylbenzene	30.6		1.00	µg/Kg	40.1	ND	76.3	70-130	2.67	20
Hexachloro-1,3-Butadiene	20.3		1.00	µg/Kg	40.1	ND	50.7	70-130	12.3	20
Methylene Chloride	33.8		20.0	µg/Kg	40.1	ND	84.3	70-130	1.67	20
Methyl-t-Butyl Ether (MTBE)	31.1		1.00	µg/Kg	40.1	ND	77.7	70-130	0.342	20
Naphthalene	22.3		10.0	µg/Kg	40.1	ND	55.7	70-130	15.1	20
Styrene	30.6		1.00	µg/Kg	40.1	ND	76.3	70-130	1.35	20
tert-Butylbenzene	27.7		1.00	µg/Kg	40.1	ND	69.0	70-130	8.17	20
Tetrachloroethene	31.3		1.00	µg/Kg	40.1	ND	78.0	70-130	0.435	20
Toluene	33.0		1.00	µg/Kg	40.1	ND	82.4	70-130	1.90	20
1,2,3-Trichlorobenzene	21.2		1.00	µg/Kg	40.1	ND	52.9	70-130	11.2	20
Trichloroethene	31.9		1.00	µg/Kg	40.1	ND	79.6	70-130	0.102	20
1,3,5-Trimethylbenzene	31.1		1.00	µg/Kg	40.1	ND	77.6	70-130	0.208	20
Vinyl Chloride	34.3		1.00	µg/Kg	40.1	ND	85.6	70-130	0.420	20
Surrogate: Dibromofluoromethane	51.0			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	49.1			µg/Kg	50.0		98.3	60-140		
Surrogate: 1,2-Dichloroethane-d4	53.6			µg/Kg	50.0		107	60-140		
Surrogate: Toluene-d8	50.9			µg/Kg	50.0		102	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Notes and Definitions

Item	Definition
QM-01	Spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

ELAP 2960

SCS Engineers	Project: 2750 Bristol St. Costa Mesa, CA
3900 Kilroy Airport Way, Suite 100	Project Number: 0122204.00 Task 1
Long Beach, CA 90806	Project Manager: Jeff Sieg

Sample Summary Report

Sample: SP-1

P209001-01 (Solid)

Method	Prep Type	Prep Date	Batch	Instrument ID	Analysis Date	Analyst
EPA 6010B	EPA 3050B	09/01/2022	B2I0005	ICP	09/02/2022	ZZZ
EPA 7471A	EPA 7471	09/02/2022	B2I0007	FIMS-HG	09/02/2022	DP
EPA 8015B	EPA 5035/5030	09/01/2022	B2I0003	GC#1	09/01/2022	AR
EPA 8015B (M)	EPA 3550(M)	09/01/2022	B2I0002	GC#4	09/01/2022	AB
EPA 8260B	EPA 5035/5030	09/01/2022	B2I0004	MS#2	09/01/2022	AR
EPA 8270C	SW3546	09/02/2022	94554	ALAB	09/02/2022	PL

Sample: SP-2

P209001-02 (Solid)

Method	Prep Type	Prep Date	Batch	Instrument ID	Analysis Date	Analyst
EPA 6010B	EPA 3050B	09/01/2022	B2I0005	ICP	09/02/2022	ZZZ
EPA 7471A	EPA 7471	09/02/2022	B2I0007	FIMS-HG	09/02/2022	DP
EPA 8015B	EPA 5035/5030	09/02/2022	B2I0008	GC#1	09/02/2022	AR
EPA 8015B (M)	EPA 3550(M)	09/01/2022	B2I0002	GC#4	09/01/2022	AB
EPA 8260B	EPA 5035/5030	09/01/2022	B2I0004	MS#2	09/01/2022	AR
EPA 8270C	SW3546	09/02/2022	94554	ALAB	09/02/2022	PL

Performance Analytical Laboratories, Inc.

CHAIN-OF-CUSTODY

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

page 1 of 1

PAL WO#: P2090

Client Name	SCS Engineers
Address	3900 Kilroy Airport Way
Project Manager	Jeff Sieg
Email	jsieg@scsengineers.com
Phone	(562) 572-4461
Project Name/Number	2750 Bristol St. Costa Mesa, CA. 01222204.00 task 1
P.O. Number	
Sampled By	Jay Vargas

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	8260 B	8015M	8270	Title 22 Metals
1	SP-1	8/1/22	1430	Soil	8 oz. glass jar	X	X	X	X
2	SP-2	↓	↓	↓	↓	X	X	X	X
3									
4									
5									
6									
7									
8									
9									
10									

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	22.0 °C MV	

RELINQUISHED BY

Signature:	[signature]	DATE:	9/1/22
Print:	J. VARGAS		
Company:	SCS	TIME:	1541

RECEIVED BY

Signature:	MValenzuela	DATE:	9/1/22
Print:	MValenzuela		
Company:	PAL	TIME:	1541

RELINQUISHED BY

Signature:		DATE:	
Print:			
Company:		TIME:	

RECEIVED BY

Signature:		DATE:	
Print:			
Company:		TIME:	

***Matrix Codes: (S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)

****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)

****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P209001

Cooler 1 OF 1

Client: SCS Engineers

Date Received: 9/1/22

Courier: ⊗ CLIENT ○ PALI ○ OTHER ________ ○ FEDEX ○ UPS Tracking # ________

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank X Sample	22.0	0.0	22.0	TM-12

○ WET ICE ○ BLUE ICE ⊗ AMBIENT ○ OTHER ________

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated X Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated X Not Present

CLIENT COC

⊗ INCLUDED
○ NOT INCLUDED
⊗ Complete
○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID
○ AIR ○ OTHER ________

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MV	9/1/2022		

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

N052415

Work Order ID: P209001

SENDING LABORATORY:	**RECEIVING LABORATORY:**
Performance Analytical Laboratories	Asset Laboratories, Inc.
2702 Willow St	11110 Artesia Blvd., Suite B
Signal Hill, CA 90755	Cerritos, CA 90703
Phone: (310) 809-1041	Phone :(562) 219-7435
Fax: -	Fax:
Project Manager: Marycarol Valenzuela	

Analysis	TAT	Due	Comments
Sample ID: P209001-01 Matrix: Solid Sampled: 09/01/2022 00:00			N052415-01
S_SVOA 8270C	1	09/06/2022 15:00	
Containers Supplied: Glass Jar, 4 oz (B)			
Sample ID: P209001-02 Matrix: Solid Sampled: 09/01/2022 00:00			-02
S_SVOA 8270C	1	09/06/2022 15:00	
Containers Supplied: Glass Jar, 4 oz (B)			

Los Vegas
3-7 c° IR#3
GLS # 3092

Released By	Date	Time	Received By	Date	Time
M Valenzuela	9/1/22	1648		9/1/22	1648
	9/1/22	1717		9/1/22	1717
	9/1/22	17:40	Eden Fanego	9/2/22	0925

CA: 7.7°C IR#2

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On: 9/1/2022 Workorder: N052415

Rep sample Temp (Deg C): 3.7 IR Gun ID: 2

Temp Blank: ☑ Yes ☐ No

Carrier name: ASSET

Last 4 digits of Tracking No.: NA Packing Material Used: None

Cooling process: ☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None

Sample Receipt Checklist

	Yes	No	Not Present / NA
1. Shipping container/cooler in good condition?	☑	☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	☐	☐	Not Present ☑
3. Custody seals intact on sample bottles?	☐	☐	Not Present ☑
4. Chain of custody present?	☑	☐	
5. Sampler's name present in COC?	☐	☑	
6. Chain of custody signed when relinquished and received?	☑	☐	
7. Chain of custody agrees with sample labels?	☑	☐	
8. Samples in proper container/bottle?	☑	☐	
9. Sample containers intact?	☑	☐	
10. Sufficient sample volume for indicated test?	☑	☐	
11. All samples received within holding time?	☑	☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	☑	☐	NA ☐
13. Water - VOA vials have zero headspace?	☐	☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	☐	☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	☐	☐	NA ☑
16. Were there Non-Conformance issues at login?	☑	☐	NA ☐
Was Client notified?	☐	☐	NA ☑

Comments: Received at Las Vegas Lab on 09/2/22 at 3.7°C, IR#3, GSO#3092.

Checklist Completed By: MR 9/2/2022

Reviewed By: for: MBC 9/2/2022

ASSET Laboratories

WORK ORDER Summary

02-Sep-22

WorkOrder: N052415

Client ID: PERAN01

Project: P209001 **QC Level:** RTNE **Date Received:** 9/1/2022 5:17 PM

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N052415-001A	P209001-01	9/1/2022 12:00:01 AM	9/2/2022	Solid	EPA 3546	Microwave Extraction	☐	☐	☐	WS
			9/2/2022		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	WS
N052415-002A	P209001-02		9/2/2022		EPA 3546	Microwave Extraction	☐	☐	☐	WS
			9/2/2022		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	WS
N052415-003A	FOLDER	9/2/2022	9/2/2022		Folder	Folder	☐	☐	☐	LAB
			9/2/2022		Folder	Folder	☐	☐	☐	LAB

GLS.

800-322-5555
www.gls-us.com

Ship From
ASSET LABORATORIES
THAD MALIT
11110 ARTESIA BLVD. SUITE B
CERRITOS, CA 90703

Tracking #: 557683092

PDS

Ship To
ASSET LABORATORIES
SAMPLE CONTROL
3151 W. POST RD.,
LAS VEGAS, NV 89118

LAS VEGAS

C89102A

COD: $0.00
Weight: 0 lb(s)
Reference:

Delivery Instructions:
HOLD FOR PICK UP
Signature Type: STANDARD

71104242

LVS NV891-A 0

Print Date: 9/1/2022 5:23 PM

Package 1 of 2

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.
Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer.
Step 2: Fold this page in half.
Step 3: Securely attach this label to your package and do not cover the barcode.

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you **agree** to all of the General Logistics Systems US, Inc. (GLS) service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at www.gls-us.com.

3.7°C

0925

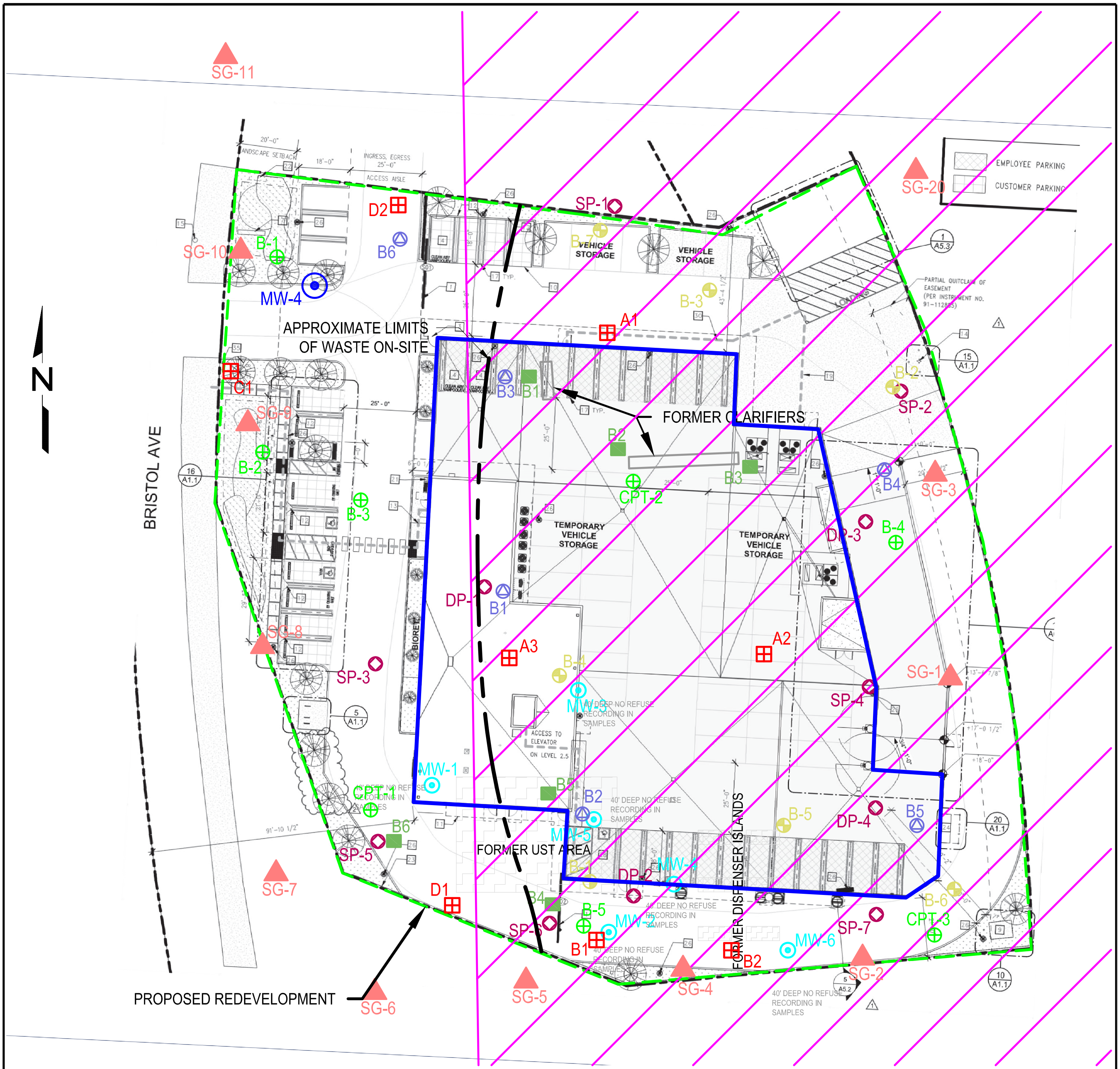
07
15
14
09

Appendix E

Compilation of Figures of Previous Investigations, Data Tables, and Boring Logs

DRAFT (FOR CONSTRUCTION PURPOSES)

Comprehensive Figure of Boring/Sample Locations



LEGEND

- PROPERTY BOUNDARY
- APPROXIMATE LIMITS OF DISPOSAL STATION # 1 NEWPORT AVENUE
- APPROXIMATE PROPOSED BUILDING FOOTPRINT
- SOIL BORING/PROBE LOCATIONS (SCS)
- SOIL/CPT BORING LOCATIONS (NorCal)
- GROUNDWATER MONITORING WELL LOCATIONS (WEECO)
- SOIL BORING LOCATIONS (PARTNER [ENVIRONMENTAL])
- SOIL BORING LOCATIONS (PARTNER [GEOTECHNICAL])
- METHANE PROBE LOCATIONS (DLS)
- SOIL BORING LOCATION (Soils International)
- METHANE PROBE LOCATION (InterPhase)
- SOIL BORING/GROUNDWATER WELL (EMCON)

GRAPHIC SCALE

0 50 100

SCALE IN FEET

SCS ENGINEERS	CLIENT:	SHEET TITLE:	DATE:
ENVIRONMENTAL CONSULTANTS 3900 KILROY AIRPORT WAY, SUITE 100 LONG BEACH, CA 90806 PH. (562) 426-9544 FAX. (562) 427-0805	WALKER GROUP VENTURES 11100 CAMBIE ROAD, UNIT 105 RICHMOND, BC V6X 1K9	SITE MAP SHOWING BORING/PROBE LOCATIONS	6/5/2023
PROJ. NO. 01222204.00 · DWN. BY: J.SIEG · ACAD FILE: N/A		PROJECT TITLE:	SCALE: 1"=50'
DSN. BY: SCS · CHK. BY: R.HUFF · APP. BY: K.LISTER		2750-2770 BRISTOL STREET COSTA MESA, CALIFORNIA	FIGURE NO. App E - 1

Data Tables

TABLE 1
SUMMARY OF ANALYTICAL RESULTS FOR SOIL VAPOR SAMPLES
VOLATILE ORGANIC COMPOUNDS and METHANE AND FIXED GASSES
WALKER GROUP
2750 BRISTOL STREET, COSTA MESA, CA

				Field Monitor	Various Methods (see notes)					Various Methods (see notes)																													
Consultant	Sample Location	Probe Depth (feet bgs)	Date of Collection	Pressure/Vacuum	Carbon Monoxide	Carbon Dioxide	Oxygen	Methane	Nitrogen	1,1-Difluoroethane	Freon 12	Freon 114	Chloromethane	Vinyl Chloride	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	Acetone	Carbon Disulfide	Isopropanol	Methylene Chloride	Trans-1,2-Dichloroethene	Methyl-tert Butyl Ether (MTBE)	n-Hexane	Cis-1,2-Dichloroethene	2-Butanone	Chloroform	Benzene	Trichloroethene	Bromodichloromethane	4-Methyl-2-Pentanone	Toluene	Tetrachloroethene	Ethylbenzene	m,p-Xylenes	o-Xylenes	4-Ethyltoluene	1,2,4-Trimethylbenzene	Xylene (total)
				i.w.	Percent Volume by Volume (%v/v)					micrograms per cubic meter (ug/m^3)																													
InterPhase*	SG-1	5	2/22/1996	--	--	<0.1	**20.9**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-2	5	2/22/1996	--	--	<0.1	**18.4**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-3	5	2/22/1996	--	--	**0.5**	**19.4**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**10**	--	--	--	**210**	--	--	--	--	--	--
	SG-4	5	2/22/1996	--	--	**3.3**	**16.4**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	**34**	--	--	--	--	--	--
	SG-5	5	2/22/1996	--	--	**0.6**	**20.4**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-6	5	2/22/1996	--	--	**0.4**	**19.7**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-7	5	2/22/1996	--	--	<0.1	**20.8**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-8	4	2/22/1996	--	--	**2.6**	**6.1**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-9	5	2/22/1996	--	--	**0.7**	**18.6**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-10	4	2/22/1996	--	--	**0.9**	**15.0**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-11	4	2/22/1996	--	--	**5.0**	**13.2**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**18**	--	--	--	<10	--	--	--	--	--	--
	SG-11 DUP			--	--	**4.9**	**13.8**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**17**	--	--	--	<10	--	--	--	--	--	--
	SG-12	5	2/22/1996	--	--	**5.4**	**13.5**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**380**	--	--	--	**30**	--	--	--	--	--	--
	SG-13	5	2/22/1996	--	--	**4.2**	**14.4**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**150**	--	--	--	<10	--	--	--	--	--	--
	SG-14	5	2/22/1996	--	--	**0.6**	**19.2**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	<10	--	--	--	--	--	--
	SG-15	5	2/22/1996	--	--	**4.3**	**13.9**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-16	5	2/22/1996	--	--	**1.7**	**17.1**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-17	5	2/22/1996	--	--	**9.8**	**13.2**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	**28**	--	--	--	--	--	--
	SG-18	5	2/22/1996	--	--	**7.5**	**13.3**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-19	5	2/22/1996	--	--	<0.1	**20.5**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
	SG-20	5	2/22/1996	--	--	**1.2**	**19.4**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<10	--	--	--	<10	--	--	--	--	--	--
DL Science, Inc.**	SP-1	4	5/31/2022	0.00	--	**0.2**	**9.7**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.01	--	**0.3**	**8.0**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	SP-2	4	5/31/2022	0.00	--	**0.1**	**15.2**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.00	--	**0.1**	**11.6**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	SP-3	4	5/31/2022	0.00	--	**0.2**	**15.2**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.00	--	**0.2**	**8.4**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	SP-4	4	5/31/2022	0.00	--	**0.1**	**14.1**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.00	--	**0.1**	**11.1**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	SP-5	4	5/31/2022	0.00	--	**0.1**	**14.1**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.00	--	**0.2**	**8.4**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	SP-6	4	5/31/2022	0.01	--	**0.1**	**18.3**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.02	--	**0.1**	**13.0**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	SP-7	4	5/31/2022	0.01	--	**0.1**	**16.9**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.01	--	**0.1**	**12.5**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	DP-1	5	5/31/2022	0.01	--	**1.5**	**3.2**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.02	--	**0.6**	**14.0**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		10	5/31/2022	0.00	--	**2.2**	**0.5**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.02	--	**0.7**	**6.9**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		20	5/31/2022	0.00	--	**7.4**	**0.3**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.01	--	**1.4**	**5.6**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	DP-2	5	5/31/2022	0.01	--	**0.1**	**11.6**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.01	--	**0.2**	**18.9**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		10	5/31/2022	0.01	--	**0.1**	**4.5**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.01	--	**0.1**	**5.7**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		20	5/31/2022	0.01	--	**0.1**	**2.6**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.01	--	**0.2**	**4.6**	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	DP-3	5	5/31/2022	0.01	--	**0.1**	**4.5**	**0.3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.01	--	**2.5**	<0.1	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		10	5/31/2022	0.01	--	**0.1**	**3.7**	**0.3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.00	--	**0.7**	<0.1	**0.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		20	5/31/2022	0.01	--	**0.1**	**2.6**	**0.5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.00	--	**0.1**	<0.1	**0.2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Consultant	Sample Location	Probe Depth (feet bgs)	Date of Collection	Field Monitor	Various Methods (see notes)					Various Methods (see notes)																													
				Pressure/Vacuum	Carbon Monoxide	Carbon Dioxide	Oxygen	Methane	Nitrogen	1,1-Difluoroethane	Freon 12	Freon 114	Chloromethane	Vinyl Chloride	Chloroethane	Trichlorofluoromethane	1,1-Dichlloroethene	Acetone	Carbon Disulfide	Isopropanol	Methylene Chloride	Trans-1,2-Dichloroethene	Methyl-tert Butyl Ether (MTBE)	n-Hexane	Cis-1,2-Dichloroethene	2-Butanone	Chloroform	Benzene	Trichloroethene	Bromodichloromethane	4-Methyl-2-Pentanone	Toluene	Tetrachloroethene	Ethylbenzene	m,p-Xylenes	o-Xylenes	4-Ethyltoluene	1,2,4-Trimethylbenzene	Xylene (total)
				i.w.	Percent Volume by Volume (%v/v)					micrograms per cubic meter (ug/m^3)																													
	DP-4	5	5/31/2022	0.00	--	0.1	6.9	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/1/2022	0.01	--	0.1	<0.1	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		10	5/1/2022	0.01	--	0.1	3.8	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/31/2023	0.00	--	0.4	<0.1	0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		20	5/1/2023	0.00	--	0.1	3.5	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			6/31/2023	0.01	--	0.2	<0.1	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SCS Engineers***	A1-S	5-10	1/6/2023	0.01	<0.16	0.71	1.4	<0.16	96	<4.3	3.5	<2.2	1.7	2.0	ND	3.1	1.6	<3.8	90	25	8.3	11	<1.2	38	100	<4.7	43	11	32	7.1	<1.3	30	37	2.5	4.4	1.9	1.7	<1.6	6.3
			1/20/2023	0.07	<0.16	1.2	<0.16	<0.16	97	<17	<6.3	9.2	<2.6	3.6	<3.4	<7.2	<5.1	<15	5.3	<16	5.0	14	<4.6	<4.5	89	<19	31	<4.1	45	<8.6	<5.2	<4.8	53	<5.6	<11	<5.6	<6.3	<6.3	<5.6
			2/3/2023	-0.10	<0.15	0.95	1.8	<0.15	95	<4.1	<1.5	13	2.7	<0.77	2.7	2.0	<1.2	<3.6	6.1	3.8	1.7	11	<1.1	<1.1	65	<4.4	17	2.1	29	2.4	<1.2	1.6	42	<1.3	<2.6	<1.3	<1.5	<1.5	<1.3
			3/27/2023	0.02	<0.17	8.3	1.1	<0.17	91	<11	9.4	44	<1.7	<2.0	<2.1	<4.5	<3.2	<9.5	39	<9.8	<2.8	<3.2	<2.9	<2.8	<3.2	<12	18	<2.6	550	<5.4	<3.3	<3.0	1,100	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5
			4/28/2023	0.03	<0.17	0.55	11	<0.17	86	<4.6	3.8	7.0	7.1	<0.87	<0.90	<1.9	<1.3	26	2.4	8.8	1.4	2.8	<1.2	<1.2	27	<5.0	2.4	7.2	12	<2.3	<1.4	<1.3	24	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
	A1-D	19-24	1/6/2023	0.01	<0.16	8.4	1.5	<0.16	87	<11	4.1	32	<1.7	<2.0	ND	<4.5	<3.2	67	14	25	4.3	<3.2	<2.9	<2.8	<3.2	<12	18	<2.6	540	<5.4	<3.3	<3.0	1,100	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5
			1/20/2023	0.06	<0.16	7.4	3.5	<0.16	87	<11	7.7	34	36	2.7	7.7	<4.5	<3.2	53	250	26	3.5	<3.2	<2.9	<3.0	<3.2	<12	16	3.0	420	<5.4	4.0	<3.0	850	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5
			2/3/2023	-0.10	<0.15	8.3	1.1	<0.15	87	<10	<3.7	37	<1.5	<1.9	<2.0	<4.2	<3.0	<8.9	17	<9.2	<2.6	<3.0	<2.7	<2.6	<3.0	<11	20	<2.4	520	<5.0	<3.1	<2.8	990	<3.3	<6.5	<3.3	<3.7	<3.7	<3.3
			3/27/2023	0.02	<0.17	0.48	14	<0.17	86	<4.6	3.8	6.2	4.4	<0.87	<0.90	<1.9	<1.3	45	1.3	<4.2	<1.2	1.9	<1.2	4.8	15	<5.0	2.7	1.2	8.1	<2.3	<1.4	1.6	18	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
			4/28/2023	0.01	<0.17	8.1	0.93	<0.17	88	<11	10	42	1.7	2.0	<2.1	<4.5	<3.2	16	22	<9.8	<2.8	<3.2	<2.9	<2.8	<3.2	<12	17	5.6	470	<5.4	<3.3	<3.0	890	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5
	A2-S	5-10	1/6/2023	0.03	<0.16	0.31	0.76	0.30	97	<170	<63	<89	<26	270	ND	<72	230	<150	110	<160	<44	140	<46	1,200	960	<190	<62	100	270	<86	<52	<48	140	<56	<110	<56	<63	<63	<56
			1/20/2023	0.20	<0.16	0.38	2.6	0.39	95	<170	<63	<89	<26	200	<34	<72	160	<150	<40	<160	<44	89	<46	440	610	<190	<62	<67	210	<86	<52	<48	130	<56	<110	<56	<63	<63	<56
			2/2/2023	-0.38	<0.16	0.33	6.8	0.28	92	<43	<16	25	<6.6	25	<8.4	<18	29	<38	<10	<39	<11	57	<12	32	370	<47	<16	16	120	<21	<13	<12	73	<14	<28	<14	<16	<16	<14
			3/27/2023	-0.09	<0.17	0.39	8.4	<0.17	90	<4.6	21	23	7.4	<0.87	<0.90	<1.9	3.1	12	1.3	<4.2	<1.2	17	4.0	<1.2	83	<5.0	2.1	1.2	75	2.3	<1.4	<1.3	67	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
			4/28/2023	-0.12	<0.17	0.44	11	<0.17	86	<4.6	14	15	6.6	<0.87	<0.90	<1.9	2.3	26	2.2	<4.2	1.3	13	5.7	<1.2	72	<5.0	<1.7	2.4	64	<2.3	<1.4	1.5	54	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
	A2-D	19-24	1/6/2023	-0.01	<0.16	0.99	<0.16	<0.16	97	<110	<40	68	<17	160	ND	<45	260	<95	32	<98	<28	140	<229	360	690	<120	<39	110	460	<54	<33	31	210	<35	<69	<35	<39	<39	<35
			1/20/2023	0.13	<0.16	0.56	<0.16	0.28	97	<170	<63	<89	<26	300	<34	<72	320	<150	71	<160	<44	130	<46	430	700	<190	<62	70	370	<86	<52	<48	180	<56	<110	<56	<63	<63	<56
			2/3/2023	-0.21	<015	0.80	<0.15	0.17	96	<160	<59	<84	<25	240	<32	<67	340	<140	46	<150	<42	130	<43	85	640	<180	<59	42	420	<80	<49	<45	190	<52	<100	<52	<59	<59	<52
			3/27/2023	-0.03	<0.17	0.89	<0.17	<0.17	96	<46	30	84	<7.0	78	<9.0	<19	250	<40	15	<42	<12	100	<12	46	450	<50	<17	37	410	<23	<14	<13	150	<15	<30	<15	<17	<17	<15
			4/28/2023	-0.03	<0.17	0.77	<0.17	<0.17	97	<18	35	66	<2.8	41	<3.6	<7.6	150	<16	40	<17	<4.7	100	<4.9	<4.8	420	<20	<6.6	49	390	<9.1	<5.6	<5.1	150	<5.9	<12	<5.9	<6.7	<6.7	<5.9
	A3-S	5-10	1/6/2023	-0.14	<0.16	1.7	<0.16	<0.16	96	<43	<16	23	<6.6	<8.2	ND	<18	<13	<38	88	<39	12	13	<12	170	120	<47	45	13	35	<21	<13	19	<22	<14	<28	<14	<16	<16	<14
			1/20/2023	0.19	<0.16	1.3	<0.16	<0.16	96	<43	<16	<22	<6.6	<8.2	<8.4	<18	<13	<38	21	<39	<11	<13	<12	34	79	<47	<16	13	19	<21	<13	19	<22	<14	<28	<14	<16	<16	<14
			2/3/2023	-0.27	<0.16	2.4	<0.16	<0.16	96	<8.6	<3.2	27	2.2	<1.6	<1.7	<3.6	<2.5	<7.6	12	<7.9	2.9	12	<2.3	18	130	<9.4	9.6	5.3	33	<4.3	<2.6	3.8	19	<2.8	<5.6	<2.8	<3.1	<3.1	<2.8
			3/27/2023	0.00	<0.17	3.7	<0.17	<0.17	94	<4.6	18	44	3.8	<0.87	<0.90	<1.9	<1.3	<4.0	2.2	<4.2	<1.2	12	<1.2	4.4	110	<5.0	2.1	1.5	37	<2.3	<1.4	1.4	24	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
			4/28/2023	0.00	<0.17	4.1	<0.17	<0.17	93	<4.6	25	56	5.3	<0.87	<0.90	<1.9	<1.3	9.1	2.5	7.9	1.2	7.1	2.6	<1.2	87	<5.0	<1.7	4.0	32	<2.3	<1.4	<1.3	21	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
	A3-D	19-24	1/6/2023	-0.20	<0.16	6.7	<0.16	<0.16	91	<4.3	2.7	67	1.3	<0.82	ND	<1.8	<1.3	6.9	8.9	<3.9	3.1	<1.3	1.6	15	2.8	<4.7	4.0	3.8	360	<2.1	<1.3	1.7	400	<1.4	<2.8	<1.4	<1.6	<1.6	<1.4
			1/20/2023	0.22	<0.16	6.6	<0.16	<0.16	92	<4.3	15	69	36	2.7	5.8	<1.8	<1.3	23	60	6.2	2.9	<1.3	<1.2	17	8.8	<47	4.4	3.8	310	<2.1	<1.3	2.9	360	<1.4	3.8	<1.4	<1.6	<1.6	3.8
			2/3/2023	-0.27	<0.15	6.6	<0.15	<0.15	92	<5.4	<2.0	71	1.8	<1.0	<1.1	<2.2	<1.6	7.6	3.2	<4.9	2.0	<1.6	<1.4	1.9	9.8	<5.9	4.0	2.7	340	<2.7	<1.6	1.5	350	<1.7	<3.5	<1.7	<2.0	<2.0	<1.7
			3/27/2023	0.00	<0.17	6.2	0.30	<0.17	91	<4.6	16	10	11	<0.87	1.7	<1.9	<1.3	13	6.6	<4.2	1.3	<1.3	<1.2	<1.2	7.7	<5.0	3.4	1.6	320	<2.3	<1.4	<1.3	390	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
			4/28/2023	0.00	<0.17	6.5	0.20	<0.17	90	<4.6	19	68	4.9	<0.87	<0.90	<1.9	<1.3	20	3.8	7.9	1.7	<1.3	2.4	36	9.6	<5.0	6.7	6.3	290	<2.3	<1.4	<1.3	340	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
SCS Engineers***	B1-S	5-10	1/6/2023	0.00	<1.6	6.9	2.0	<0.16	90	<17	<6.3	<8..9	<8.9	35	ND	<7.2	29	<15	120	<16	<4.4	36	92	220	230	<19	19	36	160	<8.6	<5.2	17	110	<5.6	<11	<5.6	<6.3	<6.3	<5.6
			1/20/2023	-0.05	<0.16	8.2	<0.16	<0.16	90	<11	6.2	0.81	4.6	9.2	<2.1	<4.5	12	<9.5	20	<9.8	<2.8	39	110	31	200	<12	9.4	8.3	160	<5.4	<3.3	<3.0	110	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5
			2/3/2023	-0.24	<0.15	8.1	<0.15	<0.15	89	<4.1	2.6	7.5	3.1	5.0	<0.79	<1.7	6.1	<3.6	12	4.4	1.3	37	88	10	160	<4.4	6.2	2.5	140	<2.0	<1.2	1.7	87	<1.3	<2.6	<1.3	<1.5	<1.5	<1.3
			3/27/2023	-0.08	<0.17	5.9	4.4	<0.17	88	<4.6	4.8	5.8	11	4.7	<0.90	<1.9	4.6	5.4	2.7	<4.2	<1.2	13	11	3.8	44	<5.0	3.1	1.6	82	<2.3	<1.4	<1.3	72	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
			4/28/2023	-0.02	<0.17	4.9	6.2	<0.17	88	<4.6	5.4	7.2	8.6	<0.87	<0.90	<1.9	<1.3	8.4	2.7	14	1.7	5.4	11	6.3	26	<5.0	2.5	1.4	72	<2.3	<1.4	<1.3	67	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
	B1-D	19-24	1/6/2023	0.00	<0.16	13	<0.16	<0.16	86	<4.3	3.9	<2.2	<0.66	8.4	ND	<1.8	4.9	58	20	4.2	<1.1	16	130	250	640	8.5	<1.6	41	130	<2.1	1.8	14	150	5.8	16	4.2	<1.6	4.0	20
			1/20/2023	-0.07	<0.16	12	<0.16	<0.16	85	<11	<4.0	<5.6	13	18	<2.1	<4.5	14	<9.5	150	<9.8	<2.8	23	160	230	570	<12	<3.9	40	140	<5.4	<3.3	13	98	5.0	12	3.6	<3.9	<3.9	15
			2/3/2023	-0.24	<0.15	11	<0.15	<0.15	86	<14	<4.9	<7.0	2.6	9.7	<2.6	<5.6	5.3	<12	19	<12	<3.5	16	130	160	620	<15	<4.9	36	110	<6.7	<4.1	11	100	4.8	13	<4.3	<4.9	<4.9	13
			3/27/2023	-0.12	<0.17	9.1	0.43	<0.17	87	<18	<6.7	<9.5	45	22	5.5	<7.6	21	<16	600	17	<4.7	25	180	81	420	<20	<6.6	15	120	<9.1	<5.6	<5.1	65	5.9	<12	<5.9	<6.7	<6.7	<5.9
			4/28/2023	0.01	<0.17	9.1	<0.17	<0.17	88	<11	<4.5	<5.6	3.4	8.0	<2.1	<4.5	4.6	<9.5	34	<9.8	<2.8	14	100	91	510	<12	<3.9	27	88	<5.4	<3.3	5.0	54	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5

Consultant	Sample Location	Probe Depth (feet bgs)	Date of Collection	Pressure/Vacuum	Carbon Monoxide	Carbon Dioxide	Oxygen	Methane	Nitrogen	1,1-Difluoroethane	Freon 12	Freon 114	Chloromethane	Vinyl Chloride	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	Acetone	Carbon Disulfide	Isopropanol	Methylene Chloride	Trans-1,2-Dichloroethene	Methyl-tert Butyl Ether (MTBE)	n-Hexane	Cis-1,2-Dichloroethene	2-Butanone	Chloroform	Benzene	Trichloroethene	Bromodichloromethane	4-Methyl-2-Pentanone	Toluene	Tetrachloroethene	Ethylbenzene	m,p-Xylenes	o-Xylenes	4-Ethyltoluene	1,2,4-Trimethylbenzene	Xylene (total)
				Field Monitor	Various Methods (see notes)					Various Methods (see notes)																													
				i.w.	Percent Volume by Volume (%v/v)					micrograms per cubic meter (ug/m^3)																													
SCS Engineers***	B2-S	5-10	1/6/2023	0.00	<0.16	2.4	<0.16	<0.16	96	<35	14	<18	5.9	95	ND	<14	31	<30	310	<31	8.9	40	83	1,400	360	<38	35	81	190	<17	<10	24	150	<11	<22	<11	<13	<2.6	<11
			1/20/2023	-0.34	<0.16	3.9	<0.16	<0.16	95	30	11	9.0	2.6	52	<2.7	<5.8	28	<12	41	<13	5.5	36	68	36	210	<15	13	18	190	<6.9	<4.2	<4.5	170	<4.4	<8.9	<4.4	<5.0	<5.0	<4.4
			2/3/2023	-0.20	<0.15	9.6	1.4	<0.15	89	<20	<7.4	<10	<3.1	<3.8	<4.0	<8.4	<5.9	<18	<4.7	<18	<5.2	<5.9	<5.4	<5.3	<5.9	<22	<7.3	<4.8	56	<10	<6.1	<5.7	1,400	<6.5	<13	<6.5	<7.4	<11	<6.5
			3/27/2023	-0.05	<0.17	8.0	2.2	<0.17	87	<14	7.9	<7.0	5.8	<2.6	<2.6	<5.6	<4.0	<12	<3.1	<12	<3.5	<4.0	<3.6	<3.5	<4.0	<15	<4.9	<3.2	52	<6.7	<4.1	<3.8	1,600	<4.3	<8.7	<4.3	<4.9	<4.9	<4.3
			4/28/2023	0.09	<0.17	2.2	10	<0.17	85	<4.6	7.9	6.9	12	1.2	<0.90	<1.9	<1.3	19	3.2	<4.2	1.6	11	17	2.8	86	<5.0	<1.7	1.8	71	<2.3	<1.4	1.3	68	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
	B2-D	19-24	1/6/2023	0.00	<0.16	9.8	1.5	<0.16	88	<14	<5.1	<7.2	<2.1	<2.6	ND	<5.8	<4.1	<12	13	<13	<3.6	<4.1	<3.7	<3.6	<4.1	<15	<5.0	<3.3	55	<6.9	<4.2	<3.9	1,600	<4.4	<8.9	<4.4	<5.0	<5.0	<4.4
			1/20/2023	0.00	<0.18	9.8	1.3	<0.18	88	<19	<7.1	<10	<3.0	<3.7	<3.8	<8.1	<5.7	<17	5.9	<18	<5.0	<5.7	<5.2	<5.1	<5.7	<21	<7.0	<4.6	62	<9.6	<5.9	<5.4	1,600	<6.3	<13	<6.3	<7.1	<7.1	<6.3
			2/3/2023	-0.33	<0.15	4.4	<0.15	<0.15	94	<4.1	<1.5	12	2.1	36	1.0	<1.7	18	<3.6	18	8.0	3.6	37	45	16	230	<4.4	8.9	15	160	<2.0	<1.2	3.2	140	<1.3	<2.6	<1.3	<1.5	<1.5	<1.3
			3/27/2023	0.00	<0.17	4.4	<0.17	<0.17	93	<4.6	12	14	2.0	7.3	<0.90	<1.9	5.6	5.4	2.8	<4.2	1.3	26	26	1.7	170	<5.0	3.0	8.9	150	<2.3	<1.4	<1.3	160	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
			4/28/2023	0.00	<0.17	7.8	2.1	<0.17	88	<15	7.5	<7.6	4.4	<2.8	<2.9	<6.1	<4.3	15	<3.4	14	<3.8	<4.3	<3.9	<3.8	<4.3	<16	<5.3	<3.5	44	<7.3	<4.5	<4.1	1,400	<4.7	<9.4	<4.7	<5.3	<5.3	<4.7
	C1-S	5-10	1/6/2023	0.00	<0.16	1.6	5.6	<0.16	92	26	5.0	32	1.5	<0.82	ND	<1.8	<1.3	6.0	34	5.6	1.4	<1.3	<1.2	15	<1.3	<4.7	24	2.2	110	5.9	<1.3	39	240	<1.4	<2.8	<1.4	<1.6	<1.6	<1.4
			1/20/2023	-0.01	<0.16	0.39	14	<0.16	85	<4.3	2.2	7.0	2.7	<0.82	<0.84	<1.8	<1.3	10	13	5.7	<1.1	<1.3	<1.2	<1.1	<1.3	<4.7	8.0	<1.0	32	<2.1	<1.3	<1.2	110	<1.4	<28	<1.4	<1.6	<1.6	<1.4
			2/3/2023	-0.27	<0.15	0.70	14	<0.15	83	<4.1	<1.5	6.1	<0.79	<0.77	<0.79	<1.7	<1.2	12	3.9	5.5	1.7	<1.2	<1.1	<1.1	<1.2	<4.4	8.8	1.7	35	<2.0	<1.2	2.1	95	<1.3	<2.6	<1.3	<1.5	<1.5	<1.3
			3/27/2023	0.00	<0.17	0.53	15	<0.17	83	<4.6	2.7	3.8	1.3	<0.87	<0.90	<1.9	<1.3	5.9	1.7	4.2	<1.2	<1.3	<1.2	<1.2	<1.3	<5.0	3.2	<1.1	8.7	<2.3	<1.4	<1.3	48	1.5	<30	,<3.0	<1.7	<1.7	<1.5
			4/28/2023	0.00	<0.17	0.95	14	<0.17	83	<4.6	2.4	3.2	16	<0.87	<0.90	<1.9	<1.3	25	1.7	<4.2	1.3	<1.3	<1.2	1.8	<1.3	<5.0	3.5	4.2	21	<2.3	<1.4	<1.3	72	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
	C1-D	19-24	1/6/2023	-0.02	<0.16	6.5	1.1	<0.16	91	<22	<7.9	27	<3.3	<4.1	ND	<9.0	<6.3	<19	9.2	<20	<5.6	<6.3	<5.8	<5.6	<6.3	<24	19	<5.1	700	<11	<6.6	<6.0	1,400	<6.9	<14	<6.9	<7.9	<7.9	<6.9
			1/20/2023	0.05	<0.18	6.2	1.1	<0.18	90	<12	5.3	29	3.3	<2.3	<2.4	<5.1	<3.6	12	57	<11	<3.1	<3.6	<3.2	5.5	<3.6	<13	14	<2.9	590	<6.0	<3.7	5.9	1,200	<3.9	<7.8	<3.9	<4.4	<4.4	<3.9
			2/3/2023	-0.31	<0.15	5.7	1.4	<0.15	87	<16	<5.9	26	<2.5	<3.1	<3.2	<6.7	<4.8	<14	13	<15	<4.2	<4.8	<4.3	<4.2	<4.8	<18	11	<3.8	550	<8.0	<4.9	<4.5	1,100	<5.2	<10	<5.2	<5.9	<5.9	<5.2
			3/27/2023	-0.01	<0.17	5.3	0.98	<0.17	91	<14	5.7	31	2.8	<2.6	<2.6	<5.6	<4.0	<12	11	<12	<3.5	<4.0	<3.6	3.7	<4.0	<15	8.3	<3.2	480	<6.7	<4.1	<3.8	1,100	<4.3	<8.7	<4.3	<4.9	<4.9	<4.3
			4/28/2023	0.02	<0.17	5.1	0.84	<0.17	92	<9.2	5.7	30	3.9	<1.7	<1.8	<3.8	<2.7	18	16	<8.4	<2.4	<2.7	<2.5	<2.4	<2.7	<10	6.9	3.9	370	<4.6	<2.8	<2.6	760	<3.0	<5.9	<3.0	<3.3	<3.3	<3.0
	D1-S	5-10	1/6/2023	0.00	<0.16	3.5	15	<0.16	81	<4.3	2.4	<2.2	1.2	<0.82	ND	<1.8	<1.3	6.0	3.7	4.3	1.6	<1.3	<1.2	<1.1	<1.3	<4.7	8.3	<1.0	<1.7	4.4	<1.3	6.5	440	<1.4	<2.8	<1.4	<1.6	<1.6	<1.4
			1/20/2023	0.00	<0.16	3.8	14	<0.16	82	<6.9	2.7	<3.6	1.7	<1.3	<1.4	<2.9	<2.0	<6.1	3.0	7.8	<1.8	<2.0	<1.8	<1.8	<2.0	<7.5	2.8	<1.6	<2.8	<3.4	<2.1	<1.9	500	<2.2	<4.4	<2.2	<2.5	<2.5	<2.2
			2/3/2023	-0.19	<0.15	3.4	15	<0.15	82	<5.4	<2.0	3.7	1.0	<1.0	<1.1	<2.2	<1.6	5.7	2.1	<4.9	<1.4	<1.6	<1.4	<1.4	<1.6	<5.9	<2.0	<1.3	<2.1	<2.7	<1.6	<1.5	400	<1.7	<3.5	<1.7	<2.0	<2.0	<1.7
			3/27/2023	-0.05	<0.17	3.7	13	<0.17	82	<6.8	3.9	5.1	4.5	<1.3	<1.3	<2.8	<2.0	8.5	2.0	<6.1	<1.7	<2.0	<1.8	<1.8	<2.0	<7.4	<2.4	<1.6	<2.7	<3.4	<2.0	<1.9	540	<2.2	<4.3	<2.2	<2.5	<2.5	<2.2
			4/28/2023	0.00	<0.17	5.4	8.7	<0.17	84	<4.6	3.6	6.3	11	<0.87	<0.90	<1.9	<1.3	24	2.3	<4.2	<1.2	<1.3	<1.2	<1.2	<1.3	<5.0	<1.7	3.4	<1.8	<2.3	<1.4	1.6	390	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
	D1-D	19-24	1/6/2023	0.00	<0.16	8.8	7.7	<0.16	83	<22	<7.9	<11	<3.3	<4.1	ND	<9.0	<6.3	<19	3.2	<20	<5.6	<6.3	<5.8	44	<6.3	<24	<7.8	<5.1	47	<11	<6.6	<6.0	1,800	<6.9	<14	<6.9	<7.9	<7.9	<6.9
			1/20/2023	0.00	<0.16	9.4	5.9	<0.16	85	<22	<7.9	<11	<3.3	<4.1	<4.2	<9.0	<6.3	<19	17	<20	<5.6	<6.3	<5.8	8.3	<6.3	<24	<7.8	<5.1	75	<11	<6.6	<6.0	2,100	<6.9	<14	<6.9	<7.9	<7.9	<6.9
			2/3/2023	-0.20	<0.15	8.3	7.2	<0.15	84	<20	<7.4	<10	14	<3.8	<4.0	<8.4	<5.9	30	200	<18	<5.2	<5.9	<5.4	<5.3	<5.9	<22	<7.3	<4.8	45	<10	<6.1	<5.7	1,600	<6.5	<13	<6.5	<7.4	<7.4	<6.5
			3/27/2023	-0.04	<0.17	8.9	5.2	<0.17	83	<23	<8.4	<12	12	<4.3	<4.5	<9.6	<6.7	28	200	<21	<5.9	<6.7	<6.1	<6.0	<6.7	<25	<8.3	49	32	<11	<7.0	<6.4	1,800	<7.4	<15	<7.4	<8.4	<8.4	<7.4
			4/28/2023	0.01	<0.17	9.2	4.4	<0.17	83	<4.6	3.2	4.3	23	<0.87	1.3	<1.9	<1.3	28	170	<4.2	<1.2	<1.3	<1.2	<1.2	<1.3	<5.0	2.9	2.2	24	<2.3	<1.4	<1.3	1,500	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
	D2-S	5-10	1/6/2023	-0.05	<0.15	1.4	7.7	<0.15	90	27	<4.0	6.1	3.8	<2.0	ND	<4.5	<3.2	<9.5	370	<9.8	6.5	7.5	120	61	80	<12	63	4.1	100	9.6	<3.3	7.3	53	<3.5	<6.9	<3.5	<3.9	<3.9	<3.5
			1/20/2023	0.08	<0.18	3.4	3.7	<0.18	92	<4.9	5.7	15	5.2	<0.92	<0.95	<2.0	<1.4	25	43	10	2.7	6.1	92	2.3	46	<5.3	29	1.4	160	4.1	<1.5	2.3	120	<1.6	<3.1	<1.6	<1.8	<1.8	<1.6
			2/3/2023	-0.28	<0.16	4.5	3.4	<0.16	89	<4.3	2.5	22	3.1	<0.82	<0.84	<1.8	<1.3	18	15	<1.6	1.9	5.6	95	1.3	41	<4.7	14	1.9	210	<2.1	<1.3	1.7	180	<1.4	<2.8	<1.4	<1.6	<1.6	<1.4
			3/27/2023	-0.05	<0.17	6.0	3.0	<0.17	88	<4.6	7.0	28	4.7	<0.87	<0.90	<1.9	<1.3	15	4.3	<4.2	<1.2	3.4	80	<1.2	23	<5.0	4.1	3.6	250	<2.3	<1.4	<1.3	340	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
			4/28/2023	0.03	<0.17	6.7	2.8	<0.17	88	<4.6	7.3	29	8.8	<0.87	<0.90	<1.9	<1.3	18	3.5	<4.2	<1.2	3.2	91	2.2	24	<5.0	3.1	2.2	220	<2.3	<1.4	<1.3	320	<1.5	<3.0	<1.5	<1.7	<1.7	<1.5
	D2-D	19-24	1/6/2023	-0.07	<0.16	7.2	6.8	<0.16	85	<22	<7.9	19	<4.2	<4.1	ND	<9.0	<6.3	<19	14	<20	<5.6	<6.3	<5.8	5.9	<6.3	<24	12	<5.1	1,200	<11	<6.6	<6.0	1,200	<6.9	<14	<6.9	<7.9	<12	<6.9
			1/20/2023	0.09	<0.16	7.6	5.5	<0.16	86	<22	<7.9	25	<3.3	<4.1	<4.2	<9.0	<6.3	<19	8.0	<20	<5.6	<6.3	<5.8	<5.6	<6.3	<24	12	<5.1	1,300	<11	<6.6	<6.0	1,300	<6.9	<14	<6.9	<7.9	<7.9	<6.9
			2/3/2023	-0.22	<0.15	7.5	5.1	<0.15	85	<16	<5.9	23	3.4	<3.1	<3.2	<6.7	<4.8	<14	16	<15	<4.2	<4.8	<4.3	<4.2	<4.8	<18	12	<3.8	1,200	<8.0	<4.9	<4.5	1,100	<5.2	<2.4	<5.2	<5.9	<8.9	<5.2
			3/27/2023	0.01	<0.17	6.4	6.0	<0.17	85	<18	7.1	26	24	<3.5	<3.6	<7.6	<5.4	17	390	<17	<4.7	<5.4	<4.9	<4.8	<5.4	<20	9.3	<4.3	1,100	<9.1	<5.6	<5.1	1,100	<5.9	<12	<5.9	<6.7	<6.7	<5.9
			4/28/2023	0.00	<0.17	6.8	5.1	<0.17	86	<18	1.5	27	37	<3.5	4.0	<7.6	<5.4	22	470	<17	<4.7	<5.4	<4.9	<4.8	<5.4	<20	13	<4.3	1,100	<9.1	<5.6	<5.1	1,000	<5.9	<12	<5.9	<6.7	<6.7	<5.9
	DTSC-Recommended SL (Future Commercial/Industrial) - AF 0.0005			--	--	--	--	--	--	15,400	880,000	--	780,000	320	--	10,600,000	620,000	--	6,200,000	1,760,000	24,000	700,000	94,000	6,200,000	70,000	--	1,060	840	6,000	660	26,000,000	2,600,000	4,000	9,800	880,000	880,000	--	520,000	880,000

Notes:

ug/l = micrograms per liter
ND = Not Detected
< = Below Laboratory's Reporting Limit

DTSC-Recommended SL = Screening Level as recommended in California Department of Toxic Substances Control (DTSC), Office of Human and Ecological Risk (HERO), Human Health Risk Assessment (HHRA) Note No. 3 - Commercial/industrial land use scenarios at an existing and future building (June 2020, Revised May 2022).

-- = Not applicable/not reported
AF = Attenuation Factor
i.w. = pressure or vacuum measured in inches of water
* = analytical method not specified
** = readings collected with field monitoring equipment
*** = Methane and fixed gasses by ASTM D1946, VOCs by EPA Method TO-15

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS FOR
TPH, VOCs, AND SEMI-VOCs
2750-2770 BRISTOL STREET, COSTA MESA, CA

Sample Location	Sample Depth	Date of Collection	EPA Method 8015			VOCs by EPA Method 8260B			SVOCs by EPA Method 8270C/8270C SIM																	
			TPH as Gasoline Range Organics (C8 - C10)	TPH as Diesel Range Organics (C10 - C28)	TPH as Heavy Range Organics (C28 - C44)	Acetone	Methylene Chloride	Cis-1,2-Dichloroethene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Acenaphthylene	Flourene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluorathene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene	Benzo(g,h,i)perylene	Diethylphthalate
			mg/kg			ug/kg			ug/kg																	
A1	5	12/28/2022	<10	**15**	**52**	<100	**3.1 J**	<5.0	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<6,200
	10		<10	<10	<20	<100	**2.8 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	15		<10	<10	<20	<100	**3.4 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<100	**3.9 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	25		<9.9	<9.9	<20	<100	**4.0 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
A2	5	2/28/2022	<10	<10	<20	<100	**3.9 J**	<5.0	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	10		<20	**24**	**91**	**32 J**	**2.5 J**	**2.6 J**	<40	<40	<40	<40	<40	**21 J**	<40	**27 J**	**22 J**	<40	**15 J**	<40	<40	<40	<40	<40	<40	<990
	15		<10	<10	<20	<100	**2.4 J**	**2.4 J**	<10	<10	**6.1 J**	<10	<10	**11**	<10	**22**	**19**	**10**	**16**	**14**	**10**	**8.5 J**	**8.6 J**	<10	**8.8 J**	<250
	20		<10	**12**	<20	<99	<5.0	**2.6 J**	<10	<10	**14**	<10	<10	**23**	**4.7 J**	**44**	**42**	**23**	**32**	**22**	**23**	**21**	**17**	**5.4 J**	**22**	<250
	25		<10	<10	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
A3	5	12/28/2022	<10	<10	<20	<100	**3.2 J**	<5.0	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<1,000
	10		<10	**16**	**22**	<100	**3.8 J**	<5.0	<9.9	<9.9	<9.9	<9.9	<9.9	**10**	<9.9	**18**	**15**	**6.7 J**	**7.2 J**	**5.8 J**	<9.9	**5.4 J**	<9.9	<9.9	<9.9	<250
	15		<10	<10	<20	<100	**4.0 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<100	**4.6 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	25		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1	5	2/27/2022	<9.9	<9.9	**21**	<100	**2.3 J**	<5.0	<10	<10	<10	**6.1 J**	**7.8 J**	**70**	**22**	**89**	**70**	**35**	**34**	**27**	**24**	**27**	**17**	<10	**15**	<250
	10		<10	<10	**21**	<100	**2.8 J**	<5.0	<10	<10	**5.0 J**	<9.9	<9.9	**5.4 J**	<9.9	**4.9 J**	<9.9	<9.9	**4.9 J**	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	15		<10	<10	**24**	<100	**2.4 J**	**2.2 J**	<10	<10	**14**	<10	<10	**35**	**7.7 J**	**38**	**30**	**16**	**20**	**17**	**13**	**13**	**9.8 J**	<10	**11**	<250
	20		<10	<10	<20	<100	**4.1 J**	**2.1 J**	**22.0**	**46**	**110**	<10	**12**	**34**	**5.1 J**	**15**	**12**	**4.3 J**	**6.7 J**	<10	<10	<10	<10	<10	<10	**94 J**
	25		<10	<10	<20	<100	**3.5 J**	**5.1**	**31**	**63**	**180**	<10	<10	**15**	<10	**4.7 J**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
B2	5	2/27/2022	<10	<10	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	10		<9.9	<99	**25**	**21 J**	<5.0	**1.5 J**	<10	<10	**8.6 J**	<10	<10	**11**	<10	**8.1 J**	**7.2 J**	**4.5 J**	**7.7 J**	**5.8 J**	<10	<10	<10	<10	**4.9 J**	<250
	15		<9.9	<9.9	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	25		<9.9	<9.9	<20	<100	**2.2 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
C1	5	12/29/2022	<10	<10	<20	<100	<5.0	<5.0	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	10		<9.9	<9.9	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	15		<9.9	<9.9	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	25		<10	<10	<20	<100	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
D1	5	2/27/2022	<9.9	<9.9	<20	<100	**3.1 J**	<5.0	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	**3.9 J**	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	10		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	15		<10	<10	<20	<100	**4.0 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	**5.7 J**	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<100	**3.7 J**	<5.0	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	25		<9.9	<9.9	<20	<100	**4.3 J**	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
D2	5	12/28/2022	<10	**20**	**46**	<100	**1.9 J**	<5.1	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<2,500
	10		<10	<10	<20	<96	<4.8	<4.8	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<500
	15		<10	<10	<20	<100	<5.1	<5.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
	20		<10	<10	<20	<99	<4.9	<4.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<250
	25		<10	<10	<20	<100	<5.1	<5.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<250
RWQCB SSLs (<20 feet above groundwater)			**100**	**100**	**1,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DTSC-Recommended SLs (Residential)			--	--	--	**70,000,000**	**2,200**	**18,000**	**9,900**	**190,000**	**2,000**	**3,300,000**	**2,300,000**	--	**17,000,000**	**2,400,000**	**1,800,000**	**1,100**	**110,000**	**1,100**	**11,000**	**110**	**1,100**	--	--	**51,000,000**
DTSC-Recommended SLs (Commercial/Industrial)			--	--	--	**1,100,000,000**	**26,000**	**84,000**	**30,000**	**1,300,000**	**6,500**	**23,000,000**	**17,000,000**	--	**130,000,000**	**18,000,000**	**13,000,000**	**12,000**	**1,300,000**	**13,000**	**130,000**	**1,300**	**13,000**	--	--	**420,000,000**

Notes:
ug/kg = micrograms per kilogram; equivalent to parts per billion
mg/kg = milligrams per kilogram; equivalent to parts per billion
J = Analyte detected between Method Detection Limit and the Practical Quantitation Limit
TPH = Total Petroleum Hydrocarbons
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
-- = not analyzed for or not applicable
RWQCB SSLs = Los Angeles Regional Water Quality Control Board Soil Screening Levels for Sandy Soils
DTSC-Recommended SL = Screening Level as recommended in the California Department of Toxic Substances Control (DTSC), Office of Human and Ecological Risk (HERO), Human Health Risk Assessment (HHRA) Note No. 3 (June 2020 - Revised May 2022)

TABLE 2

SUMMARY OF ANALYTICAL RESULTS FOR METALS

2750-2770 BRISTOL STREET, COSTA MESA, CALIFORNIA

Sample (or Boring) ID	Sample Depth (feet bgs)	Sampling Date	Title 22 Metals (EPA Method 6010B, except Mercury by EPA Method 7471A)																
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
			milligrams per kilogram (mg/kg), equivalent to parts per million																
A1	5	12/28/2022	<3.0	4.0	76	0.43 J	0.18 J	19	6.4	19	14	0.019 J	0.45 J	12	0.47 J	<0.50	<3.0	37	65
	10		<3.0	0.70 J	46	0.27 J	<0.50	11	3.3	9.0	2.4	<0.15	0.78 J	5.9	0.46 J	<0.50	<3.0	24	29
	15		<2.9	2.1	37	0.30 J	0.12 J	9.0	3.3	8.7	2.2	<0.16	<0.96	7.7	0.65 J	<0.48	<2.9	22	26
	20		0.55 J	3.1	29	<0.48	<0.48	7.1	2.3	5.2	3.0	<0.15	1.1	4.6	0.45 J	<0.48	0.77 J	19	17
	25		1.6 J	2.0	33	<0.50	<0.50	5.6	2.1	5.0	1.4	<0.15	0.20 J	4.0	0.93 J	<0.50	0.58 J	14	15
A2	5	12/28/2022	1.5 J	4.1	63	<0.49	<0.49	14	4.9	10	5.0	<0.15	1.6	9.6	<2.9	<0.49	1.1 J	34	45
	10		4.6	14	270	<0.48	2.8	31	8.9	390	350	0.36	5.0	33	<2.9	1.2	<2.9	25	720
	15		32	24	280	<0.50	1.7	47	10	270	580	0.17	8.3	42	<3.0	0.45 J	<3.0	17	4,600
	20		7.5	23	430	<0.49	3.4	55	15	350	660	1.0	5.6	60	<2.9	1.2	<2.9	22	1,200
	25		0.59 J	2.5	27	<0.48	<0.48	7.1	2.1	9.5	11	0.049 J	<0.95	5.7	<2.9	<0.48	<2.9	16	34
A3	5	12/28/2022	1.6 J	5.1	93	<0.50	<0.50	22	7.1	17	11	0.019	<0.99	15	<3.0	<0.50	1.2 J	38	55
	10		1.1 J	3.5	78	<0.49	<0.49	12	3.9	22	30	0.040 J	0.90 J	8.0	<2.9	<0.49	0.76 J	24	82
	15		0.98 J	4.1	53	<0.50	<0.50	11	6.0	12	3.7	<0.16	<0.99	7.0	<3.0	<0.50	<3.0	24	45
	20		0.88 J	1.6	22	<0.48	<0.48	5.1	2.0	4.5	1.8	<0.16	<0.96	4.1	<2.9	<0.48	<2.9	11	14
	25		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1	5	12/27/2022	<2.9	4.8	80	0.38 J	0.43 J	18	6.0	12	7.5	<0.14	1.1	12	0.57 J	<0.49	<2.9	35	44
	10		<2.9	4.6	180	0.34 J	1.2	21	6.0	100	330	0.2	1.6	20	0.77 J	<0.48	<2.9	28	430
	15		0.94 J	7.8	220	0.37 J	2.4	24	9.1	180	240	0.069 J	2.6	2.9	2.5 J	0.52	0.56	27	680
	20		19	23	260	0.14 J	5.1	68	18	1,200	730	0.22	11	100	8.2	1.5	2.9	12	4,600
	25		7.0	8.2	340	0.11J	1.0	16	8.4	55	150	0.078 J	2.7	21	2.8 J	<0.49	<2.9	12	560
B2	5	12/27/2022	<3.0	7.4	100	0.31 J	0.25 J	12	4.1	32	18	0.041 J	0.99	7.8	0.51 J	<0.50	<3.0	25	96
	10		1.8 J	12	320	0.30 J	3.8	38	7.6	370	480	0.23	4.4	36	1.9 J	0.56	<2.9	27	870
	15		<2.9	8.3	40	0.24J	<0.49	8.9	3.2	8.8	1.4	<0.16	0.66	7.3	0.52 J	<0.49	<2.9	25	22
	20		<2.9	6.1	73	0.48 J	0.079 J	14	5.9	14	3.5	<0.16	0.30 J	9.7	<2.9	<0.49	<2.9	40	43
	25		<3.0	2.2	17	0.097 J	<0.50	4.6	1.4	3.3	1.1	<0.15	<0.99	3.2	<3.0	<0.50	<3.0	11	11
C1	5	12/29/2022	<2.9	2.2	50	<0.49	<0.49	12	5.0	9.6	18	<0.14	<0.97	7.9	<2.9	<0.49	<2.9	27	44
	10		<2.9	2.5	84	0.74	<0.49	25	8.4	11	4.0	<0.16	1.8	18	<2.9	<0.49	<2.9	36	62
	15		<3.0	<1.0	11	<0.50	<0.50	8.1	1.4	2.5	<1.0	<0.16	<1.0	2.2	<3.0	<0.50	<3.0	11	11
	20		<2.9	2.8	36	<0.49	<0.49	7.8	3.8	6.7	<0.97	<0.16	<0.97	7.5	<2.9	<0.49	<2.9	22	23
	25		<2.9	1.3	110	<0.48	<0.48	3.9	1.4	3.7	1.0	<0.17	<0.95	3.6	<2.9	<0.48	<2.9	11	10
D1	5	12/27/2022	<2.9	4.7	99	0.42 J	0.76	17	6.6	35	41	0.016 J	1.1	14	0.38 J	<0.49	<2.9	35	120
	10		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	15		<2.9	3.5	18	0.32 J	<0.49	5.9	3.1	5.7	3.5	<0.16	0.29 J	5.0	0.49 J	<0.49	<2.9	20	18
	20		<2.9	4.4	42	0.33 J	0.10 J	12	4.9	11	2.4	<0.15	0.76 J	9.2	1.1 J	<0.49	<2.9	46	32
	25		<2.9	1.4	18	0.084 J	<0.49	6.3	1.5	3.3	1.3	<0.15	0.19 J	3.9	0.40 J	<0.49	<2.9	12	12
D2	5	12/28/2022	1.3 J	5.4	100	<0.49	<0.49	17	6.0	19	17	0.055 J	0.73 J	13	<2.9	<0.49	1.2 J	34	61
	10		1.2 J	3.6	100	<0.50	<0.50	15	5.4	19	25	0.0086 J	<0.99	11	<3.0	<0.50	1.2 J	35	69
	15		<2.9	1.0	19	<0.49	<0.49	11	1.9	4.5	1.4	<0.16	<0.97	2.9	<2.9	<0.49	<2.9	42	13
	20		<2.9	3.8	35	<0.49	<0.49	4.6	2.8	4.7	1.8	<0.14	<0.97	3.6	<2.9	<0.49	<2.9	15	30
	25		0.69 J	2.1	22	<0.49	<0.49	5.4	1.5	4.1	1.9	<0.15	<0.97	<0.97	<2.9	<0.49	<2.9	11	27
DTSC-Recommended SL (Commercial/Industrial)			470	0.36	220,000	230	79	1,800,000/6.2±	350	47,000	500	4.4	5,800	11,000	5,800	5,800	120	5,800	350,000

Notes:

bgs = below ground surface

-- = Not Analyzed

± = Value for Chromium (III) / Value for Chromium (IV)

DTSC-Recommended SL = Screening Level as recommended in California Department Substances Control (DTSC), Office of Human and Ecological Risk (HERO), Human Health Risk Assessment (HHRA) Note No. 3, May 2022

"J" Indicates analyte was detedted. However, analyte concentration is an estimated value which is between the method detection limit (MDL) and the practical quantitation limit (PQL).

NA = Not Applicable

Table 3: Soil Samples TPH Laboratory Results
Former South Pacific Car Wash
2750 and 2770 Bristol Street
Costa Mesa, California 92626
Project Number 19-243003.2
June 2019

EPA Method	Sample	TPH via 8015M												
Units		(mg/kg)												
Analyte	Date	MSSLs	B1-4'	B1-8'	B2-4'	B2-6'	B3-8'	B3-10'	B4-8'	B4-12'	B5-6'	B5-10'	B6-8'	B6-14'
TPH-g (C5-C12)	**5/10/2019**	**500**	<0.0383	0.0622	0.0552	0.0491	0.131	0.117	<0.0384	0.0451	0.0499	0.0388	<0.0357	<0.0368
C12-C22	**5/10/2019**	**1,000**	<8.45	<8.47	<8.27	1.9	8.84	<7.79	31.2	<7.99	9.72	10.4	1.04	1.24
TPH-d (C22-C32)	**5/10/2019**	**1,000**	<15.3	70.6	18.3	8.04	40.1	<14.1	296	32.1	66.8	98.5	3.05	<1.48
TPH-o (C32-C40)	**5/10/2019**	**10,000**	23.7	100	34.3	8.76	61.8	22.5	352	46.4	83.3	153	3.83	<1.48

Notes:

TPH = Total petroleum hydrocarbons

EPA = United States Environmental Protection Agency

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

TPH-o = total petroleum hydrocarbons as oil

mg/kg = milligrams per kilogram

MSSLs = Maximum soil screening levels (Los Angeles Regional Water Quality Control Board - April 27, 2004) for groundwater at a depth of 20 to 150 feet below ground surface (bgs)

Values in **bold** exceed laboratory PQLs

Highlighted values exceed one or more regulatory guideline

Table 2: Soil Samples VOCs Laboratory Results
Former South Pacific Car Wash
2750 and 2770 Bristol Street
Costa Mesa, California 92626
Partner Project Number 19-243003.2
June 2019

EPA Method		VOCs via 8260B													
Units		(µg/kg)													
Analyte	Sample date	Residential Soil RSL	Commercial-Industrial Soil RSLs	B1-4'	B1-8'	B2-4'	B2-6'	B3-8'	B3-10'	B4-8'	B4-12'	B5-6'	B5-10'	B6-8'	B6-14'
Benzene	5/10/2019	330	1,400	<0.461	0.463	<0.465	<0.444	**1.25**	**0.945**	<0.616	**1.17**	<0.444	<0.453	<0.430	<0.462
Ethylbenzene	5/10/2019	5,800	25,000	**5.18**	**4.03**	**5.19**	**3.46**	**2.84**	**3.29**	<0.816	**6.53**	**2.56**	**4.37**	**2.63**	**4.35**
Toluene	5/10/2019	110,000	5,400,000	**7.34**	<1.44	**1.57**	<1.39	**1.72**	**1.4**	<1.92	**3.02**	<1.39	<1.42	<1.34	<1.44
Total Xylenes	5/10/2019	580,000	2,500,000	**18.3**	**17.1**	**22.2**	**12.5**	**12.2**	**13.2**	<7.36	**30.1**	**10.5**	**15.2**	**10.9**	**18.5**
Isopropylbenzene	5/10/2019	NS	NS	**9.02**	<0.997	<1.0	<0.958	<1.04	<0.945	<1.33	<0.978	<0.957	<0.978	<0.928	<0.997
n-Propylbenzene	5/10/2019	NS	NS	**2.06 J**	<1.36	<1.38	<1.31	<1.43	<1.3	<1.81	<1.34	<1.31	<1.34	<1.27	<1.36
Methyl-tert-butyl-ether	5/10/2019	61,000,000	670,000,000	<0.340	<0.341	<0.343	<0.327	<0.358	<0.323	<0.454	**10.2**	<0.327	<0.334	<0.317	<0.341
Methylene Chloride	5/10/2019	1,200,000	6,400,000	<7.65	<7.67	**8.77**	**10.8**	<8.04	**12.8**	<10.2	<7.52	<7.37	<7.52	**11.6**	**10.3**
Tetrachloroethene	5/10/2019	590	2,700	<0.807	**1.55**	**1.69**	**1.41**	**14.9**	**15.1**	<1.08	**2.58**	**1.41**	**3.73**	**1.39**	<0.808
Trichloroethene	5/10/2019	940	6,000	<0.461	<0.462	<0.465	<0.444	**19.7**	**14.5**	<0.616	**4.52**	<0.444	<0.453	<0.430	<0.462
cis-1,2-dichloroethene	5/10/2019	160,000	2,300,000	<0.795	<0.797	<0.802	<0.766	**26.8**	**2.28**	<1.06	**5.78**	<0.765	<0.782	<0.742	<0.797
trans-1,2-dichloroethene	5/10/2019	1,600,000	23,000,000	<1.65	<0.165	<1.66	<1.59	**5.55**	<1.56	<2.21	<1.62	<1.59	<1.62	<1.54	<1.65
1,2,4-Trimethylbenzene	5/10/2019	300,000	1,800,000	**2.03 J**	<1.34	<1.34	<1.29	<1.40	<1.27	<1.79	<1.32	<1.29	<1.31	<1.25	<1.34
Other VOCs	5/10/2019	Varies	Varies	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

VOCs = volatile organic compounds

EPA = United States Environmental Protection Agency

µg/kg = micrograms per kilogram

RSL = April 2019 Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, November 2018 EPA RSLs were utilized

< = not detected above indicated laboratory Reporting Limit (RL)

ND = not detected above laboratory RLs

Values in **bold** exceed laboratory RLs

NS = No Standard

Boring Logs

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: A1

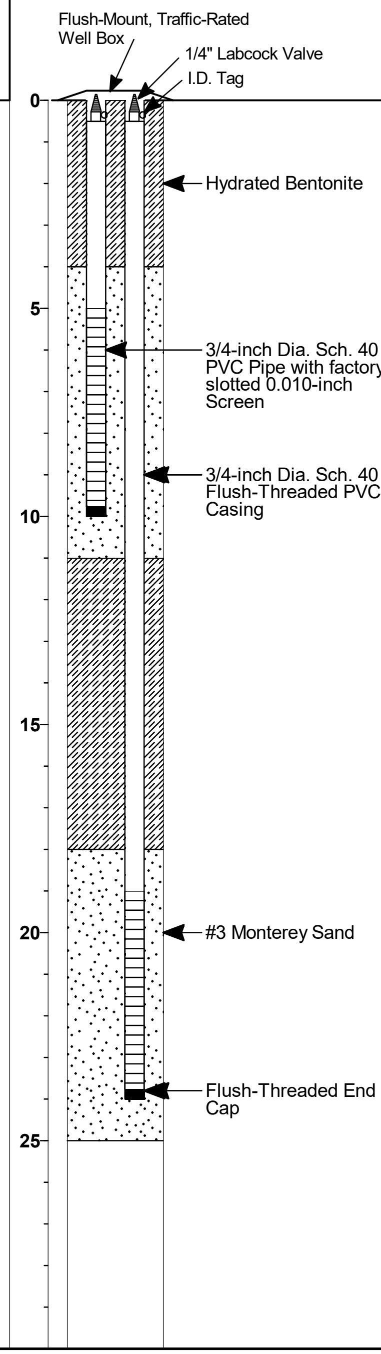
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0							
1								
	5		A1-5	14 15 15				Mixture of Silt, Sand, and Clay with Some (approx. 15%) Gravel, Glass, and Concrete Fragments, Moist
2								
3	10		A1-10	15 16 16				Mixture of Silt, Sand, and Clay with Some (approx. 15%) Gravel, Glass, and Concrete Fragments, Moist
4								
	15		A1-15	14 16 16		SM		Brown, Silty Fine to Coarse Sand, Moist
5								
6	20		A1-20	12 15 17		SM		Brown, Silty Fine Sand, Very Moist
7								
	25			18 50 5x3		SW		Light Brown, Fine to Coarse Sand with Some Gravel, Moist
8								
9	30							

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/28/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

SCS ENGINEERS — BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: A2

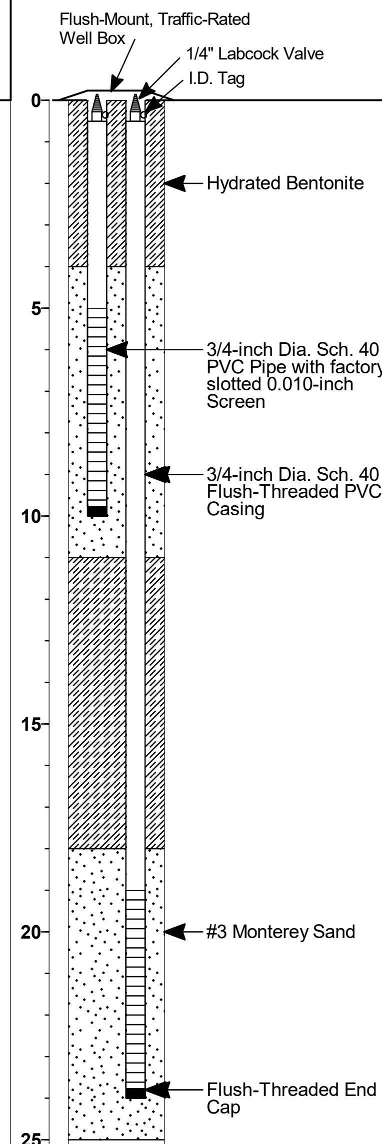
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
5	A2-5	11 11 13			Dark Brown, Silt, Sand, and Clay Mixture with Trace (<5%) Glass Fragments, Moist
10	A2-10	12 14 16			Dark Brown to Black, Silt, Sand, and Clay Mixture with Some (approx. 20%) Glass, Concrete, and Wood Fragments, Moist
15	A2-15	12 14 16			Dark Brown, Silt, Sand, and Clay Mixture with Some (Approx. 10-15%) Glass and Brick Fragments, Moist
20	A2-20	13 15 17			Dark Brown, Silt, Sand, and Clay Mixture with Some (Approx. 10-15%) Glass and Brick Fragments, Moist
25	A2-25	14 18 18		SW	Orangish Brown, Fine to Coarse Sand, Poorly Sorted, Moist

Completion Detail



Drilling Company:	ABC Liovin	Date Started:	12/28/22
Drilling Method:	Hollow Stem Auger	Date Ended:	12/28/22
Logged By:	T. Birren	Boring Diameter:	8-inch
Sampling Method:	Split Spoon	Well Diameter:	2x 3/4-inch

Total Depth: **25.0 ft.**

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: A3

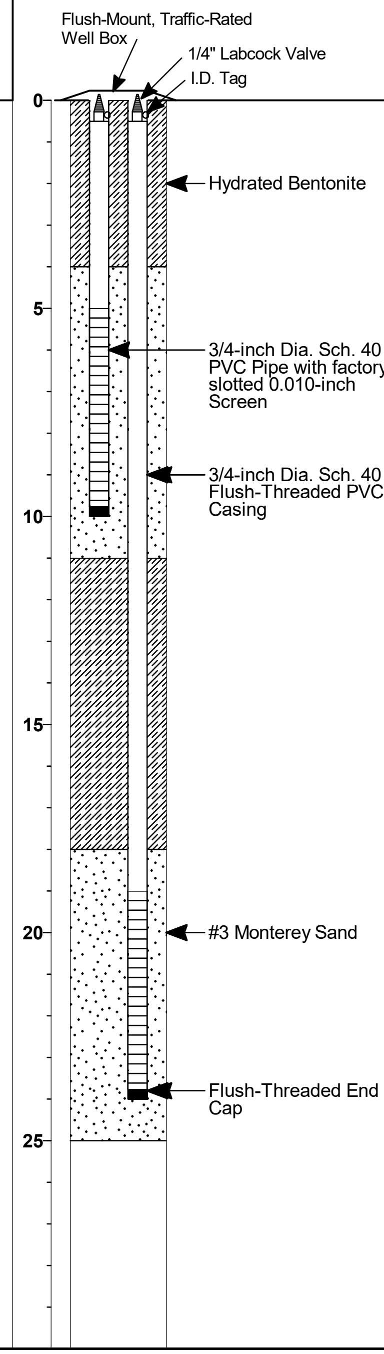
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0	0						Trace Brick and Wood Fragments in Cuttings
	5	X	A3-5	11 13 14			Dark Brown, Silty Sand and Clay with Some (approx. 10%) Wood and Glass Fragments, Moist
3	10	X	A3-10	12 12 15			Dark Brown, Silt, Sand and Clay with Some (approx. 20%) Concrete and Brick Fragments
	15	X	A3-15	11 13 16		SM	Orangish Brown, Silty Fine to Coarse Sand, Moist, Well Graded
6	20	X	A3-20	13 14 16		SP	Orangish Brown, Fine to Medium Sand, Moist, Moderately Sorted
	25	X					No Recovery
9	30						

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/28/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

SCS ENGINEERS — BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: B1

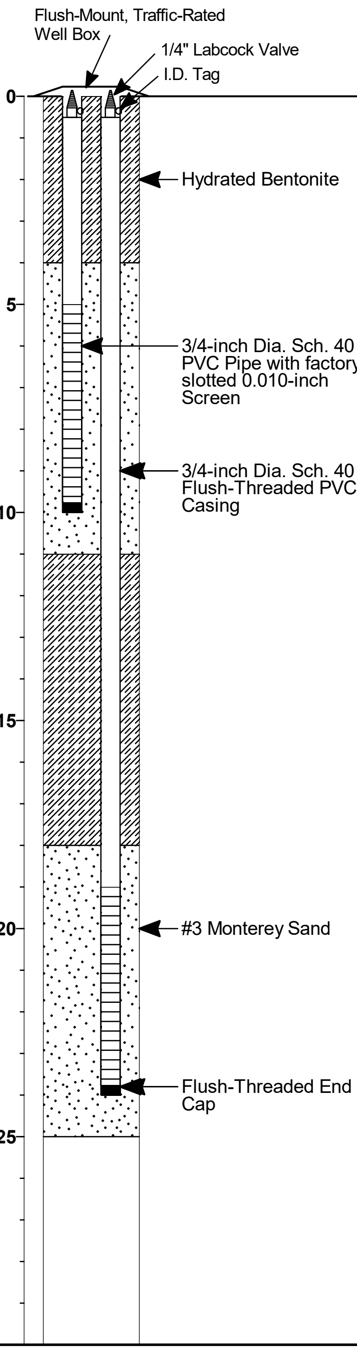
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0	0					
1.5	5	B1-5	11 12 14			Light Brown, Silt, Sand, and Clay Mixture with Some Gravel
3	10	B1-10	15 17 18			Dark Brown, Silty Sand with Some (appox. 10%) concrete, brick and glass Fragments
4.5	15	B1-15	28 50 50X4			Dark Brown, Silty Sand with Trace (<5%) Glass Fragments
6	20	B1-20	21 50 50X3			Black, Silty Sand with Some (approx. 20%) Metal, Glass, and Brick Fragments
7.5	25	B1-25	14 16 18		SW	Black, Silty Sand with Some (approx. 20%) Metal, Glass, and Brick Fragments Light Brown, Fine to Coarse Sand, Slightly Moist, Poorly Sorted
9	30					

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/27/22**		
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/27/22**	Total Depth:	**25.0 ft.**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**		
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**		

STANDARD_LOG 01222204 BORING LOGS2.GPJ STD_LOG.GDT 2/19/23

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: B2

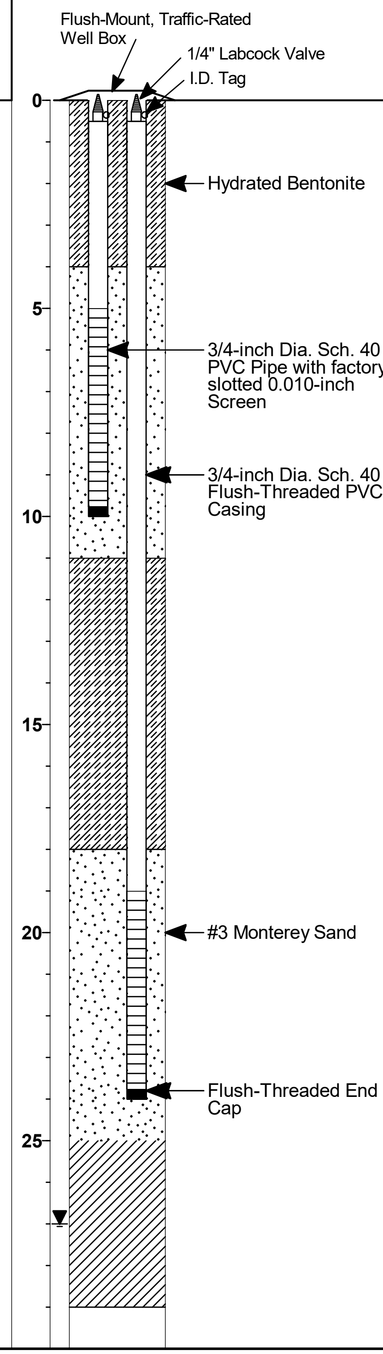
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0–5					Silt and Sand Mixture with Trace (<5%) brick, and glass fragments
5	B2-5	5 16 16		SM	Brown, Sand, Silt and Clay Mixture the Trace (<5%) concrete, glass, and brick fragements, Slightly Moist
10	B2-10	24 50X5		SM	Dark Brown and Greenish Gray, Sand, Silt and Clay with Some (approximately 10%) glass, brick and wood fragments, Slightly Moist
15	B2-15	16 17 21		SP	Orangish Brown, Very Fine to FIne Sand with Some Silt, Slightly Moist, Well Sorted
20	B2-20	16 16 27		SW	Light Brown, Fine to Coarse Sand with Some Gravel, Slightly Moist, Poorly Sorted
25	B2-25	16 16 18		SW	Light Brown, Fine to Coarse Sand with Some Gravel, Moist, Poorly Sorted

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/27/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/27/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Depth to Water: **27.0 ft.**
Total Depth: **29.0 ft.**

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: C1

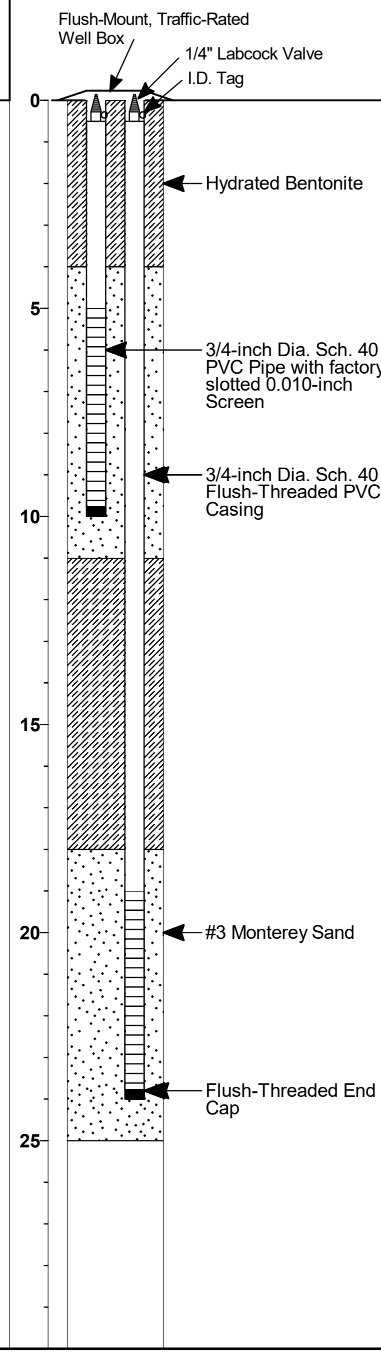
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
5	C1-5	12, 14, 16			Light Brown, Sand, Silt and Clay Mixture, Moist
10	C1-10	16, 16, 17			Light Brown, Sand, Silt and Clay Mixture, Moist
15	C1-15	14, 14, 16		SP	Orangish Brown, Medium to Coarse Sand, Well Sorted
20	C1-20	13, 14, 15		SP	Light Brown, Very Fine to FIne Sand, Moist, Well Sorted
25	C1-25	11, 12, 14		SP	Light Brown, Very Coarse Sand with Some Gravel, Very Moist

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/29/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/29/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

STANDARD_LOG 01222204 BORING LOGS2.GPJ STD_LOG.GDT 2/19/23

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: D1

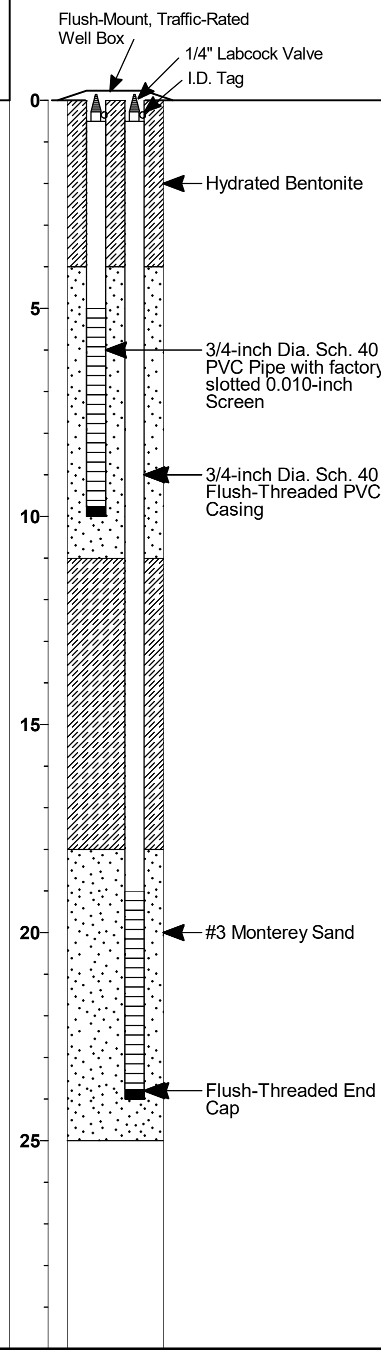
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0	0					
1						
	5	D1-5	14 14 16			Brown, Clayey Silt with Some Sand and Gravel and Trace (<5%) Glass Fragments
2						
3	10					No Recovery. Loose Gravel in Cuttings
4						
	15	D1-15	14 16 18			Gravel with Some Sand
5						
					SM	Grayish Brown, Silty Fine Sand with Trace Gravel
6	20	D1-20	14 17 17		SP	Orangish Brown, Fine Sand, Slightly Moist, Well Sorted
7						
	25	D1-25	13 14 14		SP	Orangish Brown, Medium Sand, Moist, Well Sorted
8						
9	30					

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/27/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/27/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

SCS ENGINEERS

BORING LOG

3900 Kilroy Airport Way, Suite 100
Long Beach, California 90806-6816

BORING NUMBER: D2

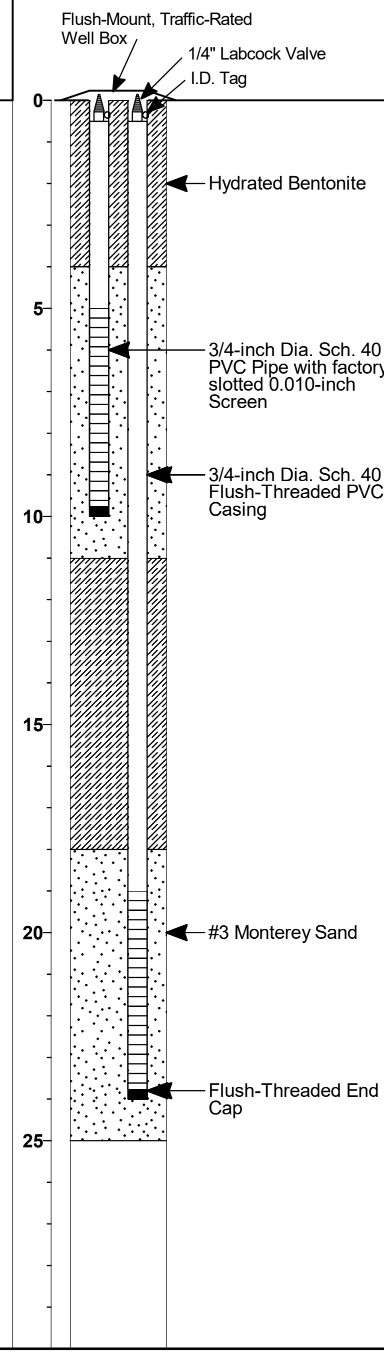
Walker Group
2750 Bristol Street
Costa Mesa, CA

JOB NUMBER: 01222204.00

REMARKS:

Depth (feet)	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
5	D2-5	4 9 12			Light Brown, Silt, Sand, and Clay Mixture with Trace Gravel
10	D2-10	10 11 13			Light Brown, sand Silt and Clay Mixture, Moist
15	D2-15	11 12 19		SM	Orangish Brown, Silty Fine to Medium Sand
20	D2-20	13 14 16		SW	Orangish Brown, Gravelly Fine Sand
25	D2-25	12 14 16		SW	Orangish Brown, Gravelly Fine Sand

Completion Detail



Drilling Company:	**ABC Liovin**	Date Started:	**12/28/22**
Drilling Method:	**Hollow Stem Auger**	Date Ended:	**12/29/22**
Logged By:	**T. Birren**	Boring Diameter:	**8-inch**
Sampling Method:	**Split Spoon**	Well Diameter:	**2x 3/4-inch**

Total Depth: **25.0 ft.**

Kunzik and Sara Construction
21887-20

Log of Boring B-1

Boring Location: 2750 & 2770 Bristol St, Costa Mesa	
Date of Drilling: 7/14/2020	Groundwater Depth: None Encountered
Drilling Method: Simco 2800HS	
Hammer Weight: 140 lbs	Drop: 30"
Surface Elevation: Not Measured	

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0–5	GWT not encountered	FILL Silty CLAY Brown to dark brown, stiff, moist Intermingled lenses of sandy silt with gravel and fragments of asphalt and concrete fragments					
5		Boring completed at depth of 5'					

Depth scale: 0, 5, 10, 15, 20, 25, 30, 35

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

NorCal Engineering

Kunzik and Sara Construction
21887-20

Log of Boring B-2

Boring Location: 2750 & 2770 Bristol St, Costa Mesa	
Date of Drilling: 7/14/2020	Groundwater Depth: None Encountered
Drilling Method: Simco 2800HS	
Hammer Weight: 140 lbs	Drop: 30"
Surface Elevation: Not Measured	

Depth (feet)	Lith-ology		Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		GWT not encountered	FILL Silty CLAY Brown to dark brown, stiff, moist Intermingled lenses of sandy silt with gravel and fragments of asphalt and concrete fragments					
5								
10			NATURAL Silty CLAY Brown, stiff, moist					
			Boring completed at depth of 10'					
15								
20								
25								
30								
35								

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

NorCal Engineering

Kunzik and Sara Construction 21887-20	Log of Boring B-3

Boring Location: 2750 & 2770 Bristol St, Costa Mesa	
Date of Drilling: 7/14/2020	Groundwater Depth: None Encountered
Drilling Method: Simco 2800HS	
Hammer Weight: 140 lbs	Drop: 30"
Surface Elevation: Not Measured	

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		Concrete Slab					
	GWT not encountered	FILL Silty CLAY to Silty SAND Brown to dark brown, stiff/dense, moist Intermingled lenses of sandy silt with gravel and fragments of asphalt and concrete fragments	■	12/15	13.5	114.8	
5			■	14/21	11.5	111.5	
10		NATURAL Silty CLAY Brown, stiff, moist	■	9/14	9.2	124.5	
		Sandy CLAY Brown, stiff, moist					
15			■	10/12	12.7	114.3	
		Boring completed at depth of 16'					
20							
25							
30							
35							

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NorCal Engineering

Kunzik and Sara Construction
21887-20

Log of Boring B-4

Boring Location: 2750 & 2770 Bristol St, Costa Mesa

Date of Drilling: 7/14/2020 | Groundwater Depth: 24'

Drilling Method: Simco 2800HS

Hammer Weight: 140 lbs | Drop: 30"

Surface Elevation: Not Measured

Depth (feet)	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0	Concrete Slab					
0–18	FILL Silty CLAY Brown to dark brown, stiff/dense, moist Intermingled lenses of sandy silt with gravel and fragments of asphalt and concrete fragments					
~3		Bulk				
5		Ring	10/15	11.6	107.9	
10		Ring	18/22	13.1	112.1	
15		Ring	18/27	11.9	114.5	
18–35	NATURAL SAND (medium to coarse grained) Yellow-brown, dense, moist to wet; slightly silty with occasional gravel and some cobble					
20		Ring	15/17	9.7	118.2	
24	Groundwater (▽)					
25		Ring	20/20	11.8	121.6	
30		Ring	9/11	13.7	123.7	
35						

NorCal Engineering

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

Kunzik and Sara Construction 21887-20	Log of Boring B-5

Boring Location: 2750 & 2770 Bristol St, Costa Mesa

Date of Drilling: 7/14/2020 | Groundwater Depth: 25'

Drilling Method: Simco 2800HS

Hammer Weight: 140 lbs | Drop: 30"

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
0		Concrete Slab					
		FILL Silty CLAY Brown to dark brown, stiff/dense, moist Intermingled sandy silt to silty sand with gravel and fragments of asphalt and concrete below 5'					
5			☒	10/11/13	11.7		74
10			☒	9/11/12	10.4		71
15			☒	20/29/26	10.6		25
20			☒	14/17/18	8.7		24
25		NATURAL SAND (medium to coarse grained) Grey-brown, dense, wet; slightly silty with some gravel and occasional cobbles	☒	8/9/15	12.0		5
30			☒	7/10/16	11.7		4
35							

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

Kunzik and Sara Construction
21887-20

Log of Boring B-5

Boring Location: 2750 & 2770 Bristol St, Costa Mesa
Date of Drilling: 7/14/2020 | **Groundwater Depth: 25'**
Drilling Method: Simco 2800HS
Hammer Weight: 140 lbs | **Drop: 30"**
Surface Elevation: Not Measured

Depth (feet)	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: Fines Content %
35	NATURAL SAND (medium to coarse grained) Grey-brown, dense, wet; slightly silty with some gravel and occasional cobbles	☒	8/10/14	11.1		9
	Silty CLAY Grey, stiff, wet					
40		☒	8/10/14	27.1		72
45	Silty (fine to medium grained) SAND Brown, dense, wet; silty to slightly silty	☒	4/7/12	25.3		37
50		☒	7/9/11	19.5		15
	Boring completed at depth of 51.5'					
55						
60						
65						
70						

SuperLog CivilTech Software, USA www.civiltech.com File: C:\Superlog4\PROJECT\21887-20.log Date: 8/3/2020

NorCal Engineering

LOG OF BORING

Drill Rig: B-61 8" HOLLOW STEM AUGER			Boring Diameter : 8 inches				Boring Number : MW-1
Drilling Date 11-19-2004	Logger: SL	Registered Civil Engineer: AA	This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions.				

BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS
							6" Concrete Paving.
X	X	ND	11:55	5-5-6	5	SC	6" – 5 FT: Coarse grained brown clayey sand, moist.
X	X	ND	12:14	5-5-5	10	CL	5 FT - 10 FT: Fine grained dark brown clay, moist.
X	X	ND	12:34	12-15-15	15	SC	10 FT – 15 FT: Coarse grained brown clayey sand, moist.
X	X	ND	12:51	15-15-15	20	SP	15 FT – 20 FT: Coarse grained light brown sand, moist
X	X	ND	1:16	15-16-16	25	SP	20 FT – 25 FT: Coarse grained light brown sand, moist
							27 FT: Encountered Groundwater. Installed 40-feet groundwater monitoring well (20' blank & 20' screen).
					30		
					35		
					40		

WEECO Western Environmental Engineers Co. 1815 E. Wilshire Ave. (Suite #905) Santa Ana, California 92705	PROJECT NAME: Phase II E.S.A. & Groundwater Mointoring Well Installation ADDRESS: 2750 South Bristol Street Costa Mesa, CA 92626
	Project Number: 2005-1382D | Figure Number

LOG OF BORING

Drill Rig: B-61 8" HOLLOW STEM AUGER	Boring Diameter : 8 inches		Boring Number : MW-2

Drilling Date 11-18-2004	Logger: SL	Registered Civil Engineer: AA	This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions.

BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS
							6" Concrete Paving.
X	X	ND	1:18	4-4-4	5	CL	6" – 5 FT: Fine grained brown clay, moist.
X	X	ND	1:33	5-7-7	10	CL	5 FT - 10 FT: Fine grained dark brown clay, moist.
X	X	ND	1:57	11-12-12	15	SC	10 FT – 15 FT: Coarse grained brown clayey sand, moist.
X	X	ND	2:18	16-16-16	20	SP	15 FT – 20 FT: Coarse grained light brown sand, moist
X	X	ND	2:35	14-14-14	25	SP	20 FT – 25 FT: Coarse grained light brown sand, moist
							27 FT: Encountered Groundwater. Installed 40-feet groundwater monitoring well (20' blank & 20' screen).
					30		
					35		
					40		

WEECO Western Environmental Engineers Co. 1815 E. Wilshire Ave. (Suite #905) Santa Ana, California 92705	PROJECT NAME: Phase II E.S.A. & Groundwater Mointoring Well Installation ADDRESS: 2750 South Bristol Street Costa Mesa, CA 92626
	Project Number: 2005-1382D Figure Number

LOG OF BORING

Drill Rig: B-61 8" HOLLOW STEM AUGER	Boring Diameter : 8 inches		Boring Number : MW-3
Drilling Date 12-16-2004 / Logger: SL / Registered Civil Engineer: AA	This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions.		

BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS
							6" Concrete Paving.
X	X	ND	9:30	5-5-7	5	SC	6" – 5 FT: Coarse grained dark brown clayey sand, moist.
X	X	ND	9:46	12-12-18	10	CL	5 FT - 10 FT: Fine grained dark brown silty clay, moist.
X	X	ND	5:10	8-8-8	15	CL	10 FT – 15 FT: Fine grained brown silty clay, moist.
X	X	ND	5:23	12-15-18	20	SP	15 FT – 20 FT: Coarse grained light brown sand, moist
X	X	ND	5:32	12-12-12	25	SP	20 FT – 25 FT: Coarse grained light brown sand, moist
X	X	ND	5:42	18-18-18	30	SW	25 FT – 30 FT: Coarse grained light brown sand, wet
					35		30 FT: Encountered Groundwater. Installed 40-feet groundwater monitoring well (20' blank & 20' screen).
					40		

WEECO Western Environmental Engineers Co. 1815 E. Wilshire Ave. (Suite #905) Santa Ana, California 92705	PROJECT NAME: Phase II E.S.A. & Groundwater Mointoring Well Installation ADDRESS: 2750 South Bristol Street Costa Mesa, CA 92626
	Project Number: 2005-1382D / Figure Number

LOG OF BORING

Drill Rig: B-61 8" HOLLOW STEM AUGER	Boring Diameter : 8 inches		Boring Number : MW-4

Drilling Date 11-18-2004	Logger: SL	Registered Civil Engineer: AA	This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions.

BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS
							6" Concrete Paving.
X	X	ND	9:00	2-2-2	5	CL	6" – 5 FT: Fine grained dark brown clay, moist.
X	X	ND	9:35	4-12-12	10	CL	5 FT - 10 FT: Fine grained dark brown clay, moist.
X	X	ND	9:50	12-12-12	15	SC	10 FT – 15 FT: Coarse grained brown clayey sand, moist.
X	X	ND	10:16	12-12-12	20	SC	15 FT – 20 FT: Coarse grained dark brown clayey sand, moist
X	X	ND	10:40	7-7-7	25	SM	20 FT – 25 FT: Coarse grained dark brown silty sand, moist
							27 FT: Encountered Groundwater. Installed 40-feet groundwater monitoring well (20' blank & 20' screen).
					30		
					35		
					40		

WEECO Western Environmental Engineers Co. 1815 E. Wilshire Ave. (Suite #905) Santa Ana, California 92705	PROJECT NAME: Phase II E.S.A. & Groundwater Mointoring Well Installation ADDRESS: 2750 South Bristol Street Costa Mesa, CA 92626
	Project Number: 2005-1382D | Figure Number

LOG OF BORING

Drill Rig: B-61 8" HOLLOW STEM AUGER			Boring Diameter : 8 inches		Boring Number : MW-5
Drilling Date 11-19-2004	Logger: SL	Registered Civil Engineer: AA	This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions.		

BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	USCS	DESCRIPTION AND REMARKS
							6" Concrete Paving.
X	X	ND	7:28	1-1-1	5	SC	6" – 5 FT: Coarse grained brown clayey sand, moist.
X	X	ND	7:40	2-3-3	10	SC	5 FT - 10 FT: Fine grained dark brown clayey sand, moist.
X	X	ND	7:53	2-2-2	15	SC	10 FT – 15 FT: Coarse grained brown clayey sand, moist.
X	X	ND	8:12	15-15-15	20	SP	15 FT – 20 FT: Coarse grained light brown sand, moist
X	X	ND	8:25	15-18-18	25	SP	20 FT – 25 FT: Coarse grained light brown sand, moist
							27 FT: Encountered Groundwater. Installed 40-feet groundwater monitoring well (20' blank & 20' screen).
					30		
					35		
					40		

WEECO Western Environmental Engineers Co. 1815 E. Wilshire Ave. (Suite #905) Santa Ana, California 92705	PROJECT NAME: Phase II E.S.A. & Groundwater Mointoring Well Installation ADDRESS: 2750 South Bristol Street Costa Mesa, CA 92626
	Project Number: 2005-1382D | Figure Number

Boring Number:	B1		Page 1 of 1
Location:	Southwest of Clarifier 1	Date Started:	5/10/2019
Site Address:	2750 Bristol Street	Date Completed:	5/10/2019
	Costa Mesa, California 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.2	Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig	Partner Engineering and Science	
Sampling Equipment:	Acetate Liners, VOAs	2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches	Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2	B1-2	1.6	ML	Dark Grayish Brown (2.5 Y 4/2) sandy silt, medium dense, moist	
3					
4	B1-4	3.1	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, moist	
5					
6	B1-6	2.4	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, moist	
7					
8	B1-8	2.6	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
9					
10	B1-10	3.1	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
11					
12	B1-12	2.4	SM	Light Olive Brown (2.5 Y 5/4) silty sand (fine-to coarse-grained), loose, moist	
13					
14	B1-14	1.3	SM	Light Olive Brown (2.5 Y 5/4) silty sand (fine-to coarse-grained), loose, moist	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B2	Page 1 of 1	
Location:	Northwest of Clarifier 2	Date Started:	5/10/2019
Site Address:	2750 Bristol Street	Date Completed:	5/10/2019
	Costa Mesa, California 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.2	Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig	**Partner Engineering and Science**	
Sampling Equipment:	Acetate Liners, VOAs	2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches	Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2	B2-2	3.0	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, moist	
3					
4	B2-4	2.1	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, moist	
5					
6	B2-6	2.2	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, moist	
7					
8	B2-8	1.5	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
9					
10	B2-10	1.5	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
11					
12	B2-12	2.1	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
13					
14	B2-14	1.6	SM	Light Olive Brown (2.5 Y 5/4) silty sand (fine-to coarse-grained), loose, moist	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B3	Page 1 of 1	
Location:	Southeast of Clarifier 2	Date Started:	5/10/2019
Site Address:	2750 Bristol Street	Date Completed:	5/10/2019
	Costa Mesa, California 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.2	Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig	Partner Engineering and Science	
Sampling Equipment:	Acetate Liners, VOAs	2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches	Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2				no recovery, extremely soft	
3					
4				no recovery	
5					
6				no recovery	
7					
8	B3-8	7.4	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
9					
10	B3-10	5.1	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
11					
12	B3-12	4.6	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
13					
14	B3-14	3.2	SM	Dark Gray (2.5 Y 4/1) silty sand (fine-to medium-grained), slightly dense, moist	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B4		Page 1 of 1
Location:	Southeast of former USTs	Date Started:	5/10/2019
Site Address:	2750 Bristol Street	Date Completed:	5/10/2019
	Costa Mesa, California 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.2	Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig	Partner Engineering and Science	
Sampling Equipment:	Acetate Liners, VOAs	2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches	Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2	B4-2	3.5	ML	Dark Grayish Brown (2.5 Y 4/2) sandy silt, medium dense, moist	
3					
4	B4-4	3.2	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
5					
6	B4-6	2.1	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
7					
8	B5-8	2.4	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, damp	
9					
10	B4-10	1.6	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
11					
12	B4-12	1.8	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
13					
14	B4-14	0.4	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B5			Page 1 of 1
Location:	North of former USTs		Date Started:	5/10/2019
Site Address:	2750 Bristol Street		Date Completed:	5/10/2019
	Costa Mesa, California 92626		Depth to Groundwater:	N/A
Project Number:	19-243003.2		Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig		Partner Engineering and Science	
Sampling Equipment:	Acetate Liners, VOAs		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches		Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2	B5-2	0.0	ML	Dark Grayish Brown (2.5 Y 4/2) sandy silt, medium dense, moist	
3					
4	B5-4	0.3	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
5					
6	B5-6	1.2	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
7					
8	B5-8	0.2	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, damp	
9					
10	B5-10	1.0	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
11					
12	B5-12	0.7	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
13					
14	B5-14	0.8	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B6		
			Page 1 of 1
Location:	Southwest of former USTs	Date Started:	5/10/2019
Site Address:	2750 Bristol Street	Date Completed:	5/10/2019
	Costa Mesa, California 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.2	Field Technician:	J. Cain
Drill Rig Type:	Geoprobe Model 6712 DT Track Mounted Drill Rig	Partner Engineering and Science	
Sampling Equipment:	Acetate Liners, VOAs	2154 Torrance Boulevard, Suite 200	
Borehole Diameter:	3 inches	Torrance, California 90501	

Depth	Sample	PID	USCS	Description	Notes
1					3-4 inches of concrete at surface
2	B6-2	0.7	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
3					
4	B6-4	0.3	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, moist	
5					
6	B6-6	0.7	SM	Dark Grayish Brown (2.5 Y 4/2) silty sand (fine-to medium-grained), slightly dense, damp	
7					
8	B6-8	0.3	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to medium-grained), slightly dense, damp	
9					
10	B6-10	0.3	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to coarse-grained), loose, moist	
11					
12	B6-12	0.0	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to coarse-grained), loose, moist	
13					
14	B6-14	0.1	SM	Olive Brown (2.5 Y 4/3) silty sand (fine-to coarse-grained), loose, moist	
15					
16					Borehole terminated at 15 feet bgs. Groundwater was not encountered. Borehole was backfilled with hydrated bentonite and capped with concrete after sampling.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:	B1		Boring Log Page 1 of 2
Location:	Building pad	Date Started:	5/23/2019
Site Address:	2750 Bristol Street	Date Completed:	5/23/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	27' 6"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (6"), no base
1			CL	**FILL:** Dark brown, damp, firm, sandy CLAY with organics (plant roots)
2				
3				
4				
5	S	12		(same as above)
6				
7				
8				
9				
10	S	12	SC	**NATIVE:** Dark brown, damp, medium dense, clayey SAND
11				
12				
13				
14				
15	R	31	ML	Tan, damp, stiff, SILT (Dry Density: 103.3 pcf, Moisture Content: 23.2%, Fines: 62.4%)
16				
17				
18				
19				
20	S	20	SP	Light brown, moist, dense, SAND
21				
22				
23				
24				
25	S	32	SP-SM	Light brown, saturated, dense, SAND with silt with gravel
26				
27			∇	**groundwater encountered**
28				
29				

Boring Number:	B1	Boring Log Page 2 of 2		
Location:	Building pad	Date Started:	5/23/2019	
Site Address:	2750 Bristol Street	Date Completed:	5/23/2019	
	Costa Mesa, CA 92626	Depth to Groundwater:	27' 6"	
Project Number:	19-243003.3	Field Technician:	YK	
Drill Rig Type:	CME-75	**Partner Engineering and Science**		
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200		
Borehole Diameter:	8"	Torrance, CA 90501		

Depth	Sample	N-Value	USCS	Description
30	S	46	SM	Light brown, saturated, dense, silty SAND with gravel
31				
32				
33				
34				
35	S	16		medium dense
36				
37				
38				
39				
40	S	21	CL/ML	Blue-ish tan, moist, stiff, silty CLAY/clayey SILT
41				
42				
43				
44				
45	S	53	SM	Brown, saturated, dense, silty SAND
46				
47				
48				
49				
50	S	48		(same as above)
51				Boring terminated at 51.5'
52				Backfilled with soil cuttings and patched with concrete
53				Groundwater encountered at 27' 6"
54				
55				
56				
57				
58				
59				

Boring Number:	B2	Boring Log Page 1 of 2	
Location:	Building pad	Date Started:	5/24/2019
Site Address:	2750 Bristol Street	Date Completed:	5/24/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	27' 6"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (3"), no base
1			ML	**FILL:** Greyish brown, damp, firm, sandy SILT with clay
2				*debris*
3				
4				
5	S	13		(same as above)
6				
7				
8				
9				
10	S	22	SM	Greyish brown, damp, dense, silty SAND with clay
11				*debris*
12				
13				
14				
15	S	21	ML	Dark greyish brown, damp, siff, sandy SILT with clay
16				*debris*
17				
18				
19				
20	S	28	SM	Dark greyish brown, damp, dense, silty SAND
21				*debris*
22				
23				
24				
25	R	57	SP-SM	**NATIVE:** Light brown, saturated, dense, SAND with silt (Dry Density: 111.4 pcf,
26				Moisture Content: 13.5%, Fines: 6%)
27			∇	**groundwater encountered**
28				
29				

Boring Number:	B2 (Cont.)	Boring Log Page 2 of 2	
Location:	Building pad	Date Started:	5/24/2019
Site Address:	2750 Bristol Street	Date Completed:	5/24/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	27' 6"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
30	S	46	SM	Light brown, saturated, dense, silty SAND with gravel
31				Boring terminated at 31.5'
32				Backfilled with soil cuttings and patched with concrete
33				Groundwater encountered at 27' 6"
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				

Boring Number:	B3	Boring Log Page 1 of 2	
Location:	Building pad	Date Started:	5/23/2019
Site Address:	2750 Bristol Street	Date Completed:	5/23/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	26' 8"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (3"), no base
1			ML/SM	**FILL:** Dark brown, damp, firm, sandy SILT/silty SAND
2				
3				
4				
5	S	10		(same as above)
6				
7				
8				
9				
10	S	20	SM	Greyish, damp, dense, silty SAND
11				
12				
13				
14				
15	R	40		(same as above)
16				
17				
18				
19				
20	S	17	SP	Brown, damp, medium dense, SAND
21				*debris*
22				
23				
24				
25	R	7	SM	**NATIVE:** Light brown, saturated, loose, silty SAND with gravel
26			∇	**Groundwater encountered**
27				
28				
29				

Boring Number:	B3 (Cont.)	Boring Log Page 2 of 2	
Location:	Building pad	Date Started:	5/23/2019
Site Address:	2750 Bristol Street Costa Mesa, CA 92626	Date Completed:	5/23/2019
		Depth to Groundwater:	26' 8"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
30	S	46	SM	Light brown, saturated, dense, silty SAND with gravel
31				Boring terminated at 31.5'
32				Backfilled with soil cuttings and patched with concrete
33				Groundwater encountered at 26' 8"
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				

Boring Number:	B4	Boring Log Page 1 of 1	
Location:	ramp	Date Started:	5/23/2019
Site Address:	2750 Bristol Street Costa Mesa, CA 92626	Date Completed:	5/23/2019
		Depth to Groundwater:	N/A
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (6"), no base
1				
2	S	13	SM	FILL: Dark brown, damp, medium dense, silty SAND with little clay and gravel
3				(Fines: 37%, LL: 29 PI: 11)
4				
5	S	21		stiff, with gravel
6				*debris (broken glass)*
7				
8				
9				
10	S	26	SM	Dark brown, damp, dense, silty SAND
11				*debris (broken glass)*
12				
13				
14				
15	S	25		(same as above) *debris (broken glass)*
16				Boring terminated at 16.5'
17				Backfilled with soil cuttings and patched with concrete
18				Groundwater not encountered
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				

Boring Number:	B5	Boring Log Page 1 of 2	
Location:	Building pad	Date Started:	5/24/2019
Site Address:	2750 Bristol Street	Date Completed:	5/24/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	27'3"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (6"), no base
1			ML	**FILL:** Greyish brown, damp, firm, sandy SILT with clay
2				*debris (broken glass)*
3				
4				
5	S	19		(same as above)
6				*debris (broken glass)*
7				
8				
9				
10	S	23		Dark greyish brown
11				*debris (broken glass)*
12				
13				
14				
15	S	27		Dark brown
16				*debris (broken glass)*
17				
18				
19				
20	S	49	SP	Brown, damp, medium dense, SAND
21				*debris (broken glass)*
22				
23				
24				
25	R	83	SP	**NATIVE:** Light brown, saturated, very dense, SAND with gravel (Dry Density: 119.2 pcf,
26				Moisture Content: 8%, Fines: 5%)
27			∇	**Groundwater encountered at 27' 3"**
28				
29				

Boring Number:	B5 (Cont.)	Boring Log Page 2 of 2	
Location:	Building pad	Date Started:	5/24/2019
Site Address:	2750 Bristol Street	Date Completed:	5/24/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	27' 3"
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
30	S	30	SP-SM	Light brown, saturated, very dense, SAND with silt
31				Boring terminated at 31.5'
32				Backfilled with soil cuttings and patched with concrete
33				Groundwater encountered at 27' 3"
34				
35				
36				
37				
38				
39				
40				
41				
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56				
57				
58				
59				

Boring Number:	B6	Boring Log Page 1 of 1	
Location:	parking area	Date Started:	5/23/2019
Site Address:	2750 Bristol Street	Date Completed:	5/23/2019
	Costa Mesa, CA 92626	Depth to Groundwater:	N/A
Project Number:	19-243003.3	Field Technician:	YK
Drill Rig Type:	CME-75	**Partner Engineering and Science**	
Sampling Equipment:	SPT & Rings	2154 Torrance Blvd., Suite 200	
Borehole Diameter:	8"	Torrance, CA 90501	

Depth	Sample	N-Value	USCS	Description
0				**SURFACE COVER:** concrete (6.5"), no base
1				*hand auger to 3' --> hit something hard, but seems to be leftover slab*
2			ML	**FILL:** Dark brown, damp, firm, sandy SILT/silty SAND with some clay
3				
4				
5	S	12		(same as above)
6				*debris*
7				
8				
9				
10	S	15	SM	**NATIVE:** Brown, damp, medium dense, silty SAND with gravel
11				
12				
13				
14				
15	S	23		Light brown
16				Boring terminated at 16.5'
17				Backfilled with soil cuttings and patched with concrete
18				Groundwater not encountered
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				

LOG OF BORING № 1

DATE DRILLED 11/8/84 | DRILLING EQUIPMENT 24" dia. Bucket Auger

DRIVING WEIGHT 2000 Lbs-12" drop | SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU.FT.
			FILL SAND fine, silty w/moderate debris 2" rocks, A.C, concrete, glass, etc. fragments	brown	sl. dry	mod. loose	
	●	3		mott. brown		mod. comp.	107
5			fine-med. clayey			mod. loose	
	●	1	med., sl. clayey w/wood, metal, concrete, & rock debris (mod)				102
10			increased amounts of same debris est. 60-70%	dk. gray			
	●	2					83
15			same debris, added wire & brick est. 80%±				
			large rocks and concrete				
20			End of boring due to refusal on concrete				
			No groundwater				
			Caving in bottom				
			No detectable noxious odor				
			● Core sample				
			o Bulk sample				
25							

SHEAR RESISTANCE @ ANTICIPAT[ED] PRESSURE - KIPS PER SQUARE FO[OT]

● 1 2 3 4

MOISTURE CONTENT - % DRY WEI[GHT]

▲ 10 20 30 40

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No.	S-0889-F
PLATE	B

SOILS INTERNATIONAL

CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 2

DATE DRILLED 11/8/84	DRILLING EQUIPMENT 24" dia. Bucket Auger
DRIVING WEIGHT 2000 Lbs-12" drop	SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPATE PRESSURE - KIPS PER SQUARE FOC (● 1 2 3 4) / MOISTURE CONTENT - % DRY WEIGHT (▲ 10 20 30 40)
			FILL SAND fine, silty w/minor to heavy debris content A.C., concrete, wood, glass, brick fragments-debris increases w/depth est.30-40%	brown / mott. brown	sl. dry	mod. loose		
	▪						58	▲
5				dk gray black	moist			
	▪						86	▲
			wire added					
10			w/heavy amounts of metal debris					
15								
			w/est. 80% metal debris(tin cans)					
20			SAND, med-coarse, gravelly	brown	▽ wet			
	▪	1					101	
			End of boring @ 22'. ▽ perched g.w.l. Caving @ 16-17' No detectable noxious odor					
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No.	S-0889-F
PLATE	C

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

B-15

LOG OF BORING Nº 3

DATE DRILLED 11/9/84 | DRILLING EQUIPMENT 24" dia. Bucket Auger

DRIVING WEIGHT 2000 Lbs-12" drop | SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPATED PRESSURE - KIPS PER SQUARE FOOT (0 1 2 3 4) / MOISTURE CONTENT - % DRY WEIGHT (▲ 10 20 30 40)
			FILL — SAND, fine, silty w/occasional rocks to 2"	brown	sl. dry	mod. loose		
		2	SAND, fine-med. sl. clayey		moist	mod. comp.	110	
5			CLAY, sandy, silty	gray		stiff		
		4	SAND, medium, clayey w/pebbles to 3/4"	gray lt. brown		comp.	122	
10		4					90	
			End of Boring @ 10.0'					
			No caving					
			No groundwater					
15								
20								
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No.	S-0889-F
PLATE	D

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 4

DATE DRILLED 11/9/84	DRILLING EQUIPMENT 18" Bucket Auger
DRIVING WEIGHT 2000 Lbs-12" drop	SURFACE ELEVATION

SHEAR RESISTANCE @ ANTICIPA[TED] PRESSURE - KIPS PER SQUARE F[OOT]: 0, 1, 2, 3, 4

MOISTURE CONTENT - % DRY WEI[GHT]: ▲ 10, 20, 30, 40

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.
			FILL — SAND, fine, silty w/small rocks to 3"	brown	sl. dry	mod. loose	
	■	4					115
			SAND, clayey w/pebbles	mott brown	moist		
5			med, clay binder	brown			
	■	6	CLAY, silty	gray		stiff	108
			SAND, fine-med. w/clay binder 10%gravelly	brown & gray		comp.	
10	■	5					115
			End of boring @ 10.0'				
			No caving				
			No groundwater				
15							
20							
25							

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No.	S-0889-F
PLATE	E

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 5

DATE DRILLED 11/9/84	DRILLING EQUIPMENT 18" dia. Bucket Auger
DRIVING WEIGHT 2000 Lbs-12" drop	SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPATED PRESSURE - KIPS PER SQUARE FOOT ● 1 2 3 4 / MOISTURE CONTENT - % DRY WEIGHT ▲ 10 20 30 40 5
			FILL SAND, fine, silty w/minor debris 3" rocks & glass, concrete fragments	brown / gray & brown	sl. dry / moist	mod. loose		
5			silty, no debris	gray				
	■	3	SAND, medium w/clay binder	brown & gray		mod. comp.	110	
10	■	4					114	
			End of boring @ 10.0'					
			No caving					
			No groundwater					
15								
20								
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No.	S-0889-F
PLATE	F

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 6

DATE DRILLED 11/9/84	DRILLING EQUIPMENT 18" dia. Bucket auger
DRIVING WEIGHT 2000 Lbs-12" drop	SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPA PRESSURE - KIPS PER SQUARE F (● 1 2 3 4) / MOISTURE CONTENT - % DRY WEI (▲ 10 20 30 40)
			FILL SAND, fine silty w/minor to mod. debris A.C., glass & metal fragments	brown / dk. gray to black	sl. dry	mod. loose to mod. comp.		
5		3	SAND, fine, silty	gray brown	moist		110	▲
			medium W/clay binder	brown				
10		4					116	▲
			End of boring @ 12.0' No caving No groundwater					
15								
20								
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No. S-08890?

PLATE G

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

LOG OF BORING Nº 7

DATE DRILLED 11/9/84 | DRILLING EQUIPMENT 18" Bucket Auger

DRIVING WEIGHT 2000 Lbs-12" drop | SURFACE ELEVATION

Depth in Feet	Samples	Blows per foot	SOILS CLASSIFICATION	COLOR	MOISTURE	CONSISTENCY	DRY UNIT WEIGHT LB. PER CU. FT.	SHEAR RESISTANCE @ ANTICIPATED PRESSURE - KIPS PER SQUARE FOOT (0 1 2 3 4) / MOISTURE CONTENT - % DRY WEIGHT (▲ 10 20 30 40 5)
			FILL SAND, fine gravelly w/minor debris, glass, etc fragments	brown	sl. dry	mod. loose		
		1		lt. gray with white			74	
5								
		3	SAND, medium w/clay binder	gray brown	moist	mod. comp.	120	
10							110	
				brown				
			fine w/clay binder					
15		3					114	
			End of boring @ 15.0'					
			No caving					
			No groundwater					
20								
25								

SMC Motor Inns Improvement
2750 Bristol Avenue
Costa Mesa, California

PROJECT No.	S-0889-F
PLATE	H

SOILS INTERNATIONAL
CONSULTING FOUNDATION ENGINEERS & ENGINEERING GEOLOGISTS

B-20

LOG OF EXPLORATORY BORING

PROJECT NUMBER C11-03.04 BORING NO. MW-4

PROJECT NAME NEWPORT AVE. LANDFILL PAGE 1 OF 2

BY R.J.B. DATE 8/10/92 SURFACE ELEV. ft.MSL

TLV Reading (ppm)	Penetrometer (TSF)	Penetration Blows/Ft.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOGRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
--	--	30		5			GRAVELLY SILT (ML), dark grayish brown (10YR, 4/2); 10% gravel (0.5 - 1"); 40% fine to coarse-grained sand; 50% silt; low plasticity; very poorly sorted; slightly clayey; very stiff; slightly moist; not enough material for sample.	
50	--	46		10			SILTY SAND (SM), dark yellowish brown (10YR, 4/6); 10% medium-plastic fines; 10% fine sand; 80% coarse sand; poorly sorted; rounded; dense; very moist; no odor.	
40	--	34		15			SAND (SM), as above; pebbly.	
40	--	52		20			GRAVELLY SAND (SW), light yellowish brown (10YR, 6/4); 10% fine and medium sand; 25% gravel (0.5"); 65% coarse sand; poorly sorted; angular; very dense; very moist.	

REMARKS

1.) Well drilled and installed by Beylik Drilling using a B-61 Mobil-Drill drill rig. 2.) Ground water first encountered at 23 feet bgs. 3.) No trash encountered. 4.) Well located east of Bristol St. between 55 & 73 freeways.

EMCON SOUTHWEST

LOG OF EXPLORATORY BORING

PROJECT NUMBER C11-03.04 BORING NO. MW-4

PROJECT NAME NEWPORT AVE. LANDFILL PAGE 2 OF 2

BY R.J.B. DATE 8/10/92 SURFACE ELEV. ft.MSL

TLV Reading (ppm)	Penetro-meter (TSF)	Penetra-tion Blows/Ft.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
			▽					
130	--	29		25			SAND (SW), as before; 10% gravel (0.5"); wet.	
60	--	28		30			SAND (SW), light olive brown (2.5Y, 5/4); 25% fine; 25% coarse; 50% medium-grained sand; poorly sorted; slightly silty; strong iron oxide staining at 30.5 feet; medium dense; wet.	
70	2.60	29		35			CLAY (CL), gray (2.5Y, N4/0); 100% medium-plastic clay; trace fine sand; mottled; shell fragments; homogeneous; very stiff; slightly moist.	
60	2.80	37		40			CLAY (CL), as above; abundant claystone at 40.5 to 41 feet; slightly moist.	
							Bottom of boring at 40 feet. Sampled to a depth of 41 feet.	

REMARKS

1.) Well drilled and installed by Beylik Drilling using a B-61 Mobil-Drill drill rig. 2.) Ground water first encountered at 23 feet bgs. 3.) No trash encountered. 4.) Well located east of Bristol St. between 55 & 73 freeways.

EMCON SOUTHWEST

Appendix F

Site-Specific Health and Safety Plan

DRAFT (FOR CONSTRUCTION PURPOSES)

Site-Specific Health and Safety Plan
Walker Group Ventures
2750 Bristol Street
Costa Mesa, California 92626

REQUIRED APPROVAL			
SCS Safety Coordinator or designee:	Jed Douglas	Date:	May 31, 2023
SCS PM:	Jeff Sieg	Date:	May 31, 2023

Project No.:	01222204.00 Task 1
Project Name:	Walker Group
Site Address:	2750 Bristol Street Costa Mesa, California 92626
Client Contact:	Robert Walker Walker Group Ventures 11100 Cambie Road, Unit 105 Richmond, BC V6X 1K9

EMERGENCY TELEPHONE NUMBERS	
Fire:	911
Police:	911
Hospital	South Coast Global Medical Center 714.754.5454 2701 South Bristol Street, Santa Ana, CA
Ambulance:	911
WorkCare	888.449.7787
The directions and information on the nearest hospital are found on Page 3.	

Acknowledgement Page

"I have read the attached Health and Safety Plan for the Walker Group project in Costa Mesa. I have discussed any questions and/or concerns that I have regarding the contents of this document with the designated SCS project safety representative, and I understand its requirements."

Name	Signature	Company	Date

Table of Contents

Attachments

1 INTRODUCTION

At SCS, protection of human health and the environment is paramount. This Site-Specific Health and Safety Plan (SSHSP) provides information to identify hazards that may be present and/or introduced by the project's activities onto SCS job sites, and details needed precautions that employees should follow to protect themselves. Tasks performed on site or during projects should be analyzed by the project manager to determine if physical or chemical hazards requiring safeguards or additional Personal Protective Equipment (PPE) exist. This plan will be modified as necessary if new hazards are identified during the project that require additional safeguards be put in place.

PROJECT ORGANIZATION

On-site Health and Safety Representative:	Lou Camacho	619.936.1886
Health and Safety Coordinator	Jed Douglas	562.221.4986
Project Manager:	Jeff Sieg	562.572.4461
Project Director:	Ashley Hutchens	562.496.2692
Client Representatives:		

SITE BACKGROUND

The Site consists of an approximately 1.5-acre parcel that overlies a portion of the former 15-acre municipal waste landfill designated as Newport Avenue Station No.1 (SWIS No. 30-CR-0071). North of the Site is a vacant land, east of the site is a Freeway, south is a commercial facility for dog care and boarding, west is Bristol Street. Land to the north, east, and south encompass the majority of the designated footprint of the Landfill.

- Most (approximately 80%) of the refuse material was removed from the Landfill during the development of the Corona Del Mar/Newport Freeway interchange. Developments to the west (including the Site) contain fill sand with minor to heavy amounts of debris (identified primarily as rock, asphaltic concrete [AC], concrete fragments, glass, wood, brick fragments, and metal fragments) ranging between 0 to 20 feet below ground surface (bgs).
- Potential for LFG generation and migration was considered very low since the majority of refuse had been removed during the freeway interchange construction and that the remaining deposited material was mostly inert rubbish and burn residue. Furthermore, in a study conducted by Clements Environmental in 1996, methane was not detected in 20 probes that surrounded the Site to the north, south, east and, west. During the Clements investigation, the probes were installed at approximately 5 feet bgs and the monitoring equipment used was capable of detecting methane at a concentration of 1,000 parts per million by volume (ppmv) or greater.
- On February 2, 2022, demolition activities began at the Site in accordance with City of Costa Mesa Department of Building and Safety (CMDBS) approved permits. Following demolition activities, grading and earth work proceeded in accordance with the proposed

redevelopment plans that had been provided to the CMDBS. Redevelopment activities commenced with routine inspections conducted by the CMDBS. During the grading activities the upper 8 to 10 feet of soil currently at the site was excavated and re-compacted as engineered fill. The current condition of the Site is unpaved land with engineered fill soils. The Current geotechnical report indicates that only the upper 2 feet of soil need additional earth work, such as re-compaction and scarification.

- Recent investigation of soil and soil vapor were conducted at the Site between 2022 and 2023.
    - With respect to soils, total petroleum hydrocarbons (TPH) volatile organic compounds (VOCs) and semi-VOCs (SVOCs) were not detected at concentrations exceeding their respective DTSC-Recommended Screening Levels (SLs) for long term exposure, and therefore do not present a significant risk to human-health or groundwater. Lead and arsenic were the only constituents detected above recommended SLs for long term exposure; however, soil samples containing lead and arsenic at concentrations above screening levels were detected at depths between 10 and 20 feet bgs. Based on these depths and the proposed development activities worker exposure through direct contact or inhalation is unlikely unless excavation of soil is to occur at depths greater than 10 feet bgs.
    - With respect to VOCs in soil vapor, during the 2023 LFG assessment, 29 VOC species were detected in subsurface gas samples collected over three bi-weekly monitoring events. VOCs detected at the highest concentration with the lowest permissible exposure limit (PEL) as established by the Occupational Health and Safety Administration (OSHA) of for a commercial working include the following:
        - Vinyl Chloride (maximum concentration detected 0.12 parts per million by volume [ppmv] – PEL 1 ppmv)
        - Trichloroethene (maximum concentration detected 0.25 ppmv – PEL 50 ppmv)
        - Tetrachloroethene (maximum concentration detected 0.30 ppmv – PEL 100 ppmv)

SCOPE OF WORK

As discussed above the majority of earth work at the Site has been completed. Limited soil movement and scarification of engineered fill soil pads and trenches for footing and utilities are required. Work for building construction is not anticipated to a depth greater than 4 feet below ground surface (bgs). Prior to re-compaction of engineered soil fill two landfill gas (LFG) probes will require abandonment. Each of the LFG probes are to be overdrilled to a depth of approximately 20 feet and backfilled cement-bentonite slurry. Following probe abandonment and earthwork activities all areas beneath the proposed footprint of the building will be covered with an impervious membrane.

SCS staff will be on site during well abandonment activities and will act as a health and safety officer to monitor work zones and ensure proper utilization of personal protection equipment (PPE).

VOCs in soil vapor and lead and arsenic have been detected at slightly elevated concentrations in soils deeper than 5 to 10 feet bgs. In the event that excavation activities are conducted below 5 feet bgs, SCS will be on-site to monitor worker zones and ensure that proper PPE is utilized during these activities.

This HASP is not inclusive of all heavy equipment and activities that may be conducted, it has been prepared to support contractors and their subcontractors to understand potential hazards associated constituents of potential concern (COPCs) at the Site. If requested, SCS will provide as-needed support for observing recommended health and safety procedures with respect to COPCs that may be encountered at the Site by the clients contractors. The clients contractors and/or subcontractors are responsible for the health and safety of their employees and the specific equipment they will utilize.

SITE HAZARD PREVENTION

Injuries may occur due to the potential hazards associated with the presence of heavy equipment, working at depths (climbing into trenches or open excavations), inhalation and physical contact with impacted soil, climactic conditions, and carelessness. The presence of hauling trucks and construction traffic presents potential hazards which can be generally avoided with the use of general common sense and staying visible to the drivers. Wearing high visibility clothing, including safety vests and hard hats, is required.

The COPCs in soil present potential physical and inhalation hazards. These include, but are not limited to, inhaling vapors from VOCs, TPH, and dust potentially containing heavy metals; and direct contact with soil that may have COPCs.

To alleviate the possibility of injury, caution should be employed when physically handling the soil. Protective clothing and safety glasses, may be necessary when work is occurring. If there is any question about the handling of impacted soil, the Health and Safety Representative should be notified.

Caution should be taken to avoid the possibility of heat stress due to protective clothing or weather. During hot weather, shade and drinking water must be provided. Work/rest cycles shall be implemented during periods of hot weather, and portable cooling fans may be implemented. Cold stress may also be a factor, dependent on the time of year the excavation work commences.

Demolition and redevelopment activities can pose a potential fire hazard. Fires can be started through carelessness, sparks, refueling operations, or accidental releases of combustible or flammable products typically found at construction sites. If fire or smoke is observed, Site personnel should be notified immediately using the selected notification method. Fire extinguisher(s) should be present at the work area, and SCS personnel should be trained in the operation of fire extinguishers. In the event of a fire that cannot be immediately extinguished using a fire extinguisher, SCS personnel and subcontractors should leave the immediate area at once, and the local fire department should be notified.

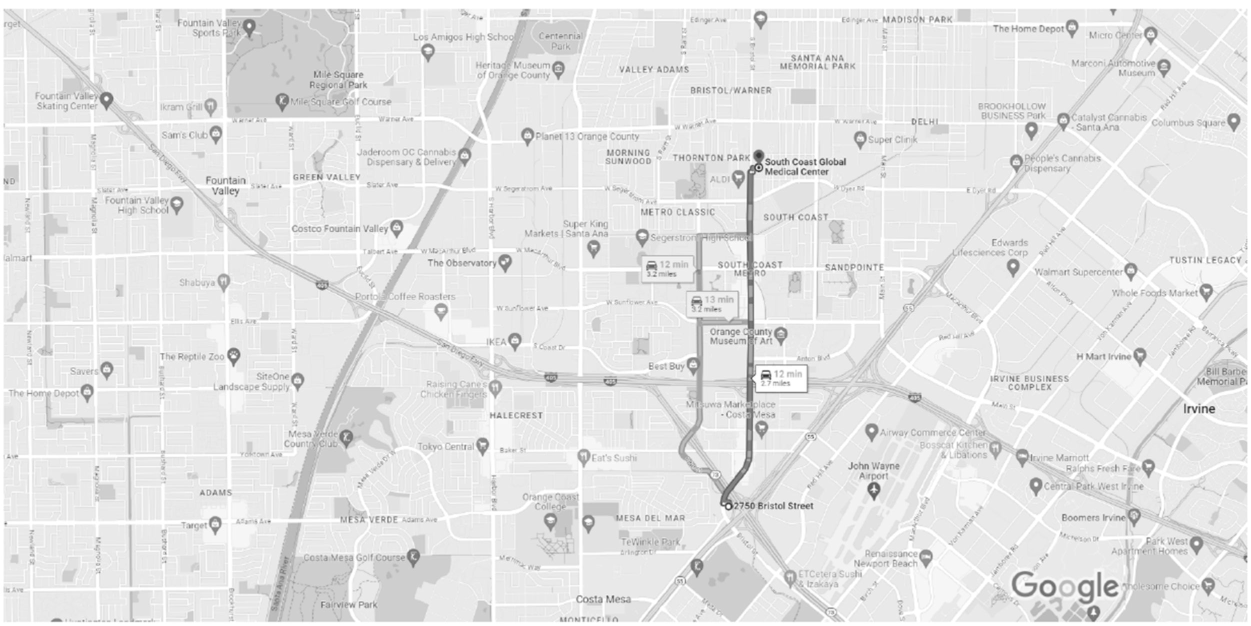
2 EMERGENCY RESPONSE AND MEDICAL TREATMENT PROCEDURES

ROUTE TO HOSPITAL

Directions:

1. Exit Site and Proceed North on Bristol Street for 2.6 miles.
2. Hospital will be on your right, follow signs to emergency room

Figure 1. Map to the Hospital and Directions from Site



ACCIDENT OR INCIDENT REPORTING SYSTEM

In the event of an emergency at the Project Area, on-site personnel should call 911 for emergency assistance. After the immediate emergency situation has been addressed by emergency personnel, SCS project personnel should then call the SCS Project Manager and the Client Representative and inform them of the situation. The Project Manager should evaluate the nature of the emergency and direct project personnel actions from that point.

NOTIFICATION PROCEDURES FOR INCIDENTS (CLIENT, LOCAL, STATE, OR FEDERAL)

SCS personnel should contact their supervisor immediately when an accident or injury occurs, and provide any needed information so that additional notifications can be determined and completed. Call Work Care at 888-449-7787.

METHODS TO SUMMON EMERGENCY RESPONSE TEAM

Emergency services can be summoned through 911, as this service is active in the areas. Non-emergency numbers can also be contacted if 911 calls do not go through. The hospital can also be contacted directly if enroute to the emergency room in an SCS vehicle.

STOP WORK AND MEDICAL TREATMENT REQUIREMENTS

Stop work authority should be exercised if an injury or accident occurs. The appropriate emergency agency should be contacted and first aid administered, if possible. Regardless of the injury, contact WorkCare at 888-449-7787. First aid kits and fire extinguishers are available in each SCS work truck. Additional first aid supplies are anticipated to be available at each facility.

3 SITE DESCRIPTION

LOCATION DESCRIPTION

The Site is located at 2750 Bristol Street in Costa Mesa, California. North of the Site is a vacant land, east of the site is a Freeway, south is a commercial facility for dog care and boarding, west is Bristol Street.

4 GENERAL FIELD SAFETY PROCEDURES

General Standard Operating Procedures (SOPs) and additional SCS Health and Safety procedures and requirements are included in the current SCS Injury Illness Prevention Program (IIPP) and on the SCS intranet. These documents are considered a part of this plan.

SCS team members will conduct themselves in a professional manner at all times. The following restrictions will also be observed by all SCS personnel and subcontractors to SCS.

- Working while under the influence of intoxicants, narcotics, or controlled substances (including prescription medicine) is prohibited.
- Smoking anywhere on site is prohibited.
- Loose clothing will not be worn on-site. Long hair will be tied back or worn up inside the hard hat.
- Eating, drinking, chewing gum, smoking, or any practice that increases the probability of hand-to-mouth transfer and ingestion of material is prohibited on-site, unless in designated break areas after removal of PPE. Remove gloves, Tyvek, overalls, and other protective equipment that has come into contact with soils suspect of contamination such as discoloration or refuse, and wash hands prior to performing hand to mouth activities.
- Personnel will be not be admitted to the Site without the proper safety equipment, clearance, or other approval.

- Personnel must comply with established safety procedures. Staff members who do not comply with safety policy, as established by the Project Manager, will be immediately dismissed from the site.
- No unapproved work clothes or equipment will be allowed on-site.
- Prescription drugs should not be taken by personnel where the potential for contact with toxic substances exist. Use must be specifically approved by a qualified physician.
- Work areas for various operational activities will be established.
- Work areas will be established based on prevailing site conditions and are subject to change. Personnel should check with the Project Manager for current and appropriate procedures regularly.
- Contact with contaminated or potentially contaminated material should be avoided. Whenever possible, do not walk through puddles, mud, or any discolored ground surface. Do not lean, sit or place equipment on drums, containers, or vehicles.
- Due caution will be observed when proceeding on foot through open areas. Personnel may utilize traffic cones or barricades to separate the sampling area from areas where vehicles may be operating.
- Medical emergencies supersede routine safety requirements.
- Use a photoionization detector (PID) or organic vapor meter (OVM) to screen soil samples and the breathing zone for VOCs. The general action level for VOCs is 50 parts per million (ppm) in the breathing zone.

APPLICABLE STANDARD OPERATING PROCEDURES (SOPS) AND PROGRAMS

The following checked SOPs are incorporated by reference and available on the SCS intranet.

	SOP Number and Name		SOP Number and Name
X	01 - General Code of Safe Work Practices		22 - Safe Procedures for Working with Sites That Contain Hydrogen Sulfide
X	04 - JTSA and PPE Assessment Procedures	X	24 - Avoidance of Slips, Trips, and Falls
	05 - Work Permits	X	25 - Avoidance and Prevention of Heat and Cold Stress, and Other Weather-Related Hazards
X	06 - Forklift and Heavy Machinery Operations		26 - All-Terrain Vehicles and Watercraft
	07 - Compressed Air and Compressed Gas Cylinders		27 - OSHA and Other Regulatory Inspections
X	08 - Drilling and Well Installation Procedures		Appendix Letter and Program Name
	09 - Electrical Safety		B - Hazard Communication
	10 - Fall Protection	X	C - HAZWOPER
X	11 - Fire Extinguishers		D - Exposure Assessment
X	12 - Hand and Power Tools	X	E - PPE Other Than Respiratory Protection
	13 - Working Safely with Ladders		F - Respiratory Protection
	14 - Landfill Leachate and Condensate Safe Procedures	X	G - Motor Vehicle and Fleet Safety
	15 - Lockout and Tagout	X	H - Hearing Conservation
	17 - Materials Use and Handling		I - Bloodborne Pathogens
	18 - Polyethylene (PE) Pipe Work Safe Procedures	X	J - Excavation and Construction Earthwork Program
X	19 - Site Sanitation Procedures		K - Confined Space Entry – Under no circumstances will SCS personnel enter areas that are considered confined spaces.
	20 - Safe Work Practices for Scaffolds		L - Ergonomics Program
	21 - Safe Procedures for Biological Hazards (Snakes, Insects, Vegetation, Bacteria)		

JOB TASK SAFETY ANALYSIS (JTSA) AND PPE ASSESSMENT

Job Task Safety Analysis (JTSA) for activities performed at this site have been completed as indicated below and are included as Attachments 1 and 2. A completed JTSA is required for each work task performed at the Property. **JTSAs are designed to identify steps which involve potential hazards to employees and should be reviewed and understood (and signed providing evidence of understanding) before performing any task at the Property. If additional steps or hazards are present, the JTSA should be revised or amended (and the revision signed by each affected staff) to indicate that new items have been appropriately addressed and are understood before proceeding with the task.**

Unless identified in an attached JTSA form, each project task is anticipated to require Level D PPE, as defined by the Occupational Safety and Health Administration (OSHA). Level D PPE includes the following elements:

- Work clothes consisting of long-sleeved shirts and long pants
- ASTM-approved safety-toed boots (puncture resistant)
- ANSI-approved safety glasses
- Hard hat (minimum Class G)
- Gloves (nitrile and work or Kevlar, as needed)
- Hearing protection (as needed)
- Boot covers (as needed)
- High-visibility vest
- Dust Masks (as needed)

SCS field personnel (including subcontractors) will be informed in the use of safety equipment and will be required to wear protective clothing appropriate for the tasks in which they will be involved. If an upgrade in PPE is deemed necessary, prior to working in a Level C or B environment, each employee is required to be medically qualified (by an approved SCS medical provider) and properly fit-tested for the needed respiratory protection defined in this plan. The designated Project Manager will ensure that this is completed per SCS policy, with assistance, as needed, from the SCS Corporate Health and Safety Director (CHSD). In addition, any employee working at a site as defined in 29 CFR 1910.120 (or applicable state OSHA standard) or required by contract shall be trained in accordance with 29 CFR 1910.120(e) (24-hour or 40-hour HAZWOPER, as appropriate). Each employee will only perform tasks that they have been properly trained to perform. A copy of each employee's training record is available through the SCS Health and Safety Coordinator or designee.

Sufficient water for personal use will be brought on-site daily. Accommodations for hand washing, restrooms, and drinking water will be provided.

SAFE OBSERVATIONS

The SCS Safety Awareness for Everyone (SAFE) Observation Checklist will be used by field and project personnel. The goal is for SCS staff to make at least one (1) documented observation per quarter during site activities.

OTHER INSPECTION PROCEDURES

Periodic site inspections may be made by the Project Director, Project Manager, and Regional Compliance Auditor or Safety Specialist. There is also the potential for the client or regulatory agencies to visit and inspect the Property. SCS personnel are to perform tasks in compliance with contractual, regulatory, and company requirements.

TAILGATE HEALTH AND SAFETY MEETINGS

A safety meeting will be conducted at the start of each work day. During that meeting, activities for the day will be discussed along with reminders of procedures to be implemented to ensure safety. Any near misses from previous days will also be discussed.

SITE CONTROL

Work zones will be set up to ensure that access to heavy machinery is limited to necessary personnel. Our clients are responsible for providing SCS employees with safe site access, which includes sites that are free of threats from transients or other aggressive people or animals. If an SCS employee encounters an aggressive person or animal, they should withdraw from the Property and contact the Client Representative and their SCS supervisor. The Client is responsible for removing the threats, and SCS employees should not take affirmative action of their own, unless for personal defense.

DECONTAMINATION PROCEDURES

The risk of illness due to ingestion or absorption of chemical constituents from the work site is not considered significant. Regardless, to minimize these risks, personnel should remove and store the outer layer of their protective clothing (i.e., Tyvek, gloves, hard hat, etc.) on-site. Hands, face, and fingernails should be thoroughly washed, or scrubbed, with soap and water prior to engaging in an activity likely to transmit materials encountered on-site into the mouth. If hazardous constituents come in contact with the skin, that crew member will be temporarily excused to thoroughly wash the affected area with soap and water. Portable emergency eye wash bottles will be provided by SCS.

HANDLING OF POTENTIALLY-HAZARDOUS MATERIALS, SAMPLES, AND CONTAINERS

Contact with potentially-hazardous materials will be avoided if possible. Caution will be taken when handling soil samples that may be impacted including using nitrile gloves.

HOUSEKEEPING REQUIREMENTS

Toilet and hand-washing facilities will be provided by the client. A designated break area will be assigned, and will include shade and cooled drinking water.

AIR MONITORING - EQUIPMENT AND EXPOSURE LIMITS

A PID/OVM will be used to monitor and screen soil samples and the breathing zone during excavation activities deeper than 5 feet bgs. It is anticipated that levels of COPCs at the Property will be below action levels shown below in Table 1.

Table 1. Chemical Hazards and Air Monitoring Plan

Chemical/ Parameter	PEL		IDLH	Action Level	Monitoring Equipment	Sample Location and Frequency	Procedures When Action Levels Exceeded
Total Petroleum Hydrocarbons (as petroleum distillates [naphtha])	500 ppm TWA STEL not established REL = 87 ppm Ceiling = 445 ppm (15-minute exposure)		1100 ppm (10% LEL)	250 ppm	PID	Near drilling area and when collecting samples; continuous.	Wear ½ face APR if above 25 ppm but below 250 ppm; >250 ppm evacuate area and use ventilation fans to lower concentrations.
Vinyl Chloride	1 ppm TWA 5 ppm STEL REL = 0.1 ppm and 1 ppm STEL		ND	0.5 ppm	Instant read detector tubes	Near excavation areas exceeding feet bgs.	Wear ½ face APR if above 1 ppm, or evacuate area and use ventilation fans to lower concentrations.
Trichloroethene	100 ppm TWA 200 ppm STEL REL = 0.1 ppm and 1 ppm STEL		1,000 ppm	50 ppm	PID	Near excavation areas exceeding feet bgs.	Wear ½ face APR if above 1 ppm, or evacuate area and use ventilation fans to lower concentrations.
Arsenic (not a likely air contaminant, exposure likely due to ingestion)	0.010 mg/m³ TWA NIOSH ceiling = 0.002 mg/m³		5 mg/m³	Visible dust	Visual	Near drilling area and excavations exceeding 10 feet bgs.	Use dust suppression techniques (water) when visible dust is observed. Wash hands prior to eating or drinking.

Table Key:

PEL: OSHA (most stringent state OSHA value). Permissible Exposure Limits are specified legal employee exposure limits based on specified lengths of time (see Ceiling, TWA, and STEL).

REL: Recommend Exposure Limit (a non-enforceable guideline based on health risk assessments) promulgated by the National Institute of Occupational Safety and Health.

Chemical/ Parameter	PEL		IDLH	Action Level	Monitoring Equipment	Sample Location and Frequency	Procedures When Action Levels Exceeded

TLV: Threshold Limit Values (TLV's) are guidelines (not standards) prepared by the American Conference of Governmental Industrial Hygienists, Inc. (ACGIH), to assist industrial hygienists in making decisions regarding safe levels of exposure to various hazards found in the workplace.
IDLH: An atmosphere that poses an immediate threat to life would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.
TWA: Time-Weighted Averages are the upper limit of a toxic material to which an average person in average health may be exposed on a day-to-day basis (40-hour work week, 8-hour work periods) with no adverse health effects.
STEL: Short-Term Exposure Limit is the maximum average chemical concentration in which an employee can be exposed for up to 15 minutes. At no time can the employee exposure concentration exceed the "Ceiling" limit.
Ceiling: The maximum instantaneous chemical concentration in which an employee can be exposed to at any time.
%: Percent gas by volume.
% LEL: Percent of the lower explosive limit.
mg/m^3: Milligrams per cubic meter
PPM: Parts per million.

Note: Instrument alarm levels and required responses are defined in TSOP 207.

5 SITE HAZARDS

CHEMICAL AND PHYSICAL AGENT HAZARDS

The following chemical and physical hazards should be considered before performing tasks or work at the Property. Recognizing the hazards depends on a thorough understanding of the Property's physical characteristics and the task(s) being performed.

Toxic Compounds: Recent investigations have identified elevated concentrations of VOCs and heavy metals in the subsurface below 5 feet bgs. The concentrations of VOCs detected are all well below their respective PELs; however, soil excavation beneath 5 feet bgs should be monitored to ensure worker safety. Other COPCs detected include arsenic and lead. Elevated concentrations of arsenic and lead were detected at depths greater than 10 feet bgs. Therefore, any excavation activities conducted at a depth greater than 10 feet dust suppression must be utilized and workers within close proximity should wear appropriate dusk mask to prevent inhalation. These potential hazards should be evaluated on a case-by-case basis. Additional precautions will be established as needed.

Flammables: Fuels such as gasoline and diesel (combustible) may be present at the Property during some activities. Additionally, other flammable/combustible materials may be present at the Property. The primary risk associated with these materials is fire. Keep ignition sources away from flammable materials. Do not smoke, unless in an area designated by SCS. Avoid contact with flammable materials. If encountered, immediately remove contaminated PPE and clothing, and wash skin that becomes contaminated with soapy water.

Poisons: Pesticides, cleaners, or other toxic materials of various types are not anticipated at the Property. If present, avoid contact with these items. Immediately remove contaminated PPE and clothing, and wash with soapy water any skin that becomes contaminated. Avoid contact at all times.

Oxidizers: Fertilizers, pool chemicals, chlorine, or other oxidizers are not anticipated to be present. The primary risk from oxidizers is an increased fire potential. Keep fire and fuel or oil away from oxidizers. Do not smoke, unless in designated areas. Immediately remove contaminated PPE and clothing, and wash your body with soapy water where exposed to contaminants.

Corrosives: Acids and caustic materials are not anticipated to be present. The primary risk from corrosives is damage to the skin or eyes. Immediately remove contaminated PPE and clothing, and wash your body with soapy water where exposed to contaminants.

Other: Although not anticipated to be encountered in the Project Area during the proposed scope of work, asbestos fibers may be present in discarded or buried building materials. These fibers present an inhalation and health risk. Asbestos fibers associated with these health risks are too small to be seen with the naked eye. Breathing asbestos fibers can cause a buildup of scar-like tissue in the lungs called asbestosis and result in loss of lung function that often progresses to disability and death. Asbestos also causes cancer of the lung and other diseases such as mesothelioma of the pleura which is a fatal malignant tumor of the membrane lining the cavity of the lung or stomach.

Physical Hazards

The following physical hazards should be considered before performing tasks or work at the Site. Depending on the task(s) being performed, any or all of these hazards may be present.

Heavy Equipment: Excavation equipment will be present in the immediate vicinity of the sample areas. Heavy construction equipment is also anticipated to be present during grading/construction activities at the Property. Loud noise and limited visibility can increase the threat of being run over, crushed, or caught in rotating equipment by these vehicles. Wear high-visibility vests and coordinate with vehicle operators when working in the vicinity of heavy equipment and support trucks.

Steep and Uneven Terrain: Although the site is generally level, uneven terrain can be caused by excavation and stockpiling of trench spoils. Treacherous footing on slopes (i.e., sandy soil/clay), heavy equipment, or snakes and other animals that could present potential hazards at work sites. Walking, driving, or operating heavy equipment on steep hills or uneven terrain can be dangerous. These areas should be avoided whenever possible. When it is necessary to walk or drive in such locations, great care should be taken. Move slowly and be aware of loose materials or holes that could be present. Sharp items or spilled materials may also exist there and should be avoided. When traversing steep terrain, drive straight up or down slopes to reduce the possibility of roll over. Holes, pits, and ditches may be present. Falling or driving into these hazards can be avoided by becoming familiar with the site. Tall grass or vegetation can hide these features.

Do not drive on areas with which you are not familiar. Discuss access routes and hazards with site personnel. A good rule of thumb for driving is: "When in doubt—get out."

Electrical: Electrical hazards include underground or overhead electrical power lines that may be encountered. The location of all electrical power lines should be determined before any digging or excavation is performed. The presence of overhead electrical power lines should be determined so that contact with tall equipment can be prevented. Contracted locater services and/or physical protective measures (barriers or line covers) should be used as needed.

Pipelines and other Utilities.

Lightning: Lightning can strike miles ahead of a storm when no rain is present. All operations should be stopped immediately when lightning is visible or thunder is audible. All personnel should seek shelter and remain inside a building (primary) or vehicle (secondary) until the danger passes. Do not take shelter near tall objects such as power lines, trees, antennas, or the flare stack. Work can resume when the lightning is no longer visible and the thunder cannot be heard.

Heat-Related Injuries: Elevated body temperatures can cause serious injury or death. Working outdoors or in the sun increases the chance of heat-related injuries. This hazard is especially critical when PPE (such as Tyvek or rain gear) is worn, since heat from the body becomes trapped inside clothing. Personnel should drink plenty of liquids and take breaks as needed.

In order to minimize the potential for heat stress and heat stroke, rest breaks will be taken at 2-hour intervals during level D work activities and at ½-hour intervals upon PPE upgrade (see Table 1 below). Similar heat stress monitoring will be implemented beginning at 70°F if Level C PPE is required.

- Visual Observations. The on-site Health and Safety Representative will monitor field personnel through visual observations of breathing rate and redness of skin. If the Health and Safety Representative suspects heat stress, further personnel monitoring will be initiated.
- Heart Rate. Count the radial pulse during a 30-second period as early as possible in the rest period. If it exceeds 110 beats per minute, shorten the next work cycle by one-third and keep the rest period the same. Repeat the procedure each rest period, shortening the work cycle as needed by one-third.
- Oral Temperature. Use a clinical thermometer or similar instrument to measure the oral temperature at the end of the work period (before drinking). If it exceeds 99.6°F, shorten the next work cycle by one-third without changing the rest period. Repeat this procedure

each rest period. DO NOT permit a worker to wear a semi-permeable or impermeable garment when his/her temperature exceeds 100.6° F.

Table 1. Summary of Work/Rest Periods Based on Temperature (Level D)

Temperature (degrees)	Work (minutes)	Rest (minutes)
75 to 80	120	15
80 to 85	90	15
85 to 90	60	15
90 to 95+	30	15

The following describes the various effects of heat-related injuries.

Heat Disorders and Health Effects:

- Heat Stroke: This disorder occurs when the body's system of temperature regulation (e.g., sweating and evaporation) fails and body temperature rises to critical levels. The condition is caused by a combination of highly variable factors, and its occurrence is difficult to predict. Heat stroke is a serious hazard. Primary signs and symptoms are confusion, irrational behavior, loss of consciousness, convulsions, a lack of sweating (usually), hot, dry skin, and an abnormally high body temperature. If a worker shows signs of possible heat stroke, call 911 to obtain immediate medical assistance. The worker should be placed in a shady area, and his or her outer clothing should be removed. The worker's skin should also be wetted and air movement around the body increased to improve evaporative cooling until professional methods of cooling are initiated and the seriousness of the condition can be assessed. Fluids should be replaced as soon as possible--by mouth only if the worker is conscious. The medical outcome of an episode of heat stroke depends on the victim's physical fitness and the timing and effectiveness of first aid treatment. Regardless of the worker's protests, employees suspected of being ill from heat stroke should NOT be sent home or left unattended unless a physician has specifically approved such an order.
- Heat Exhaustion: The signs and symptoms of heat exhaustion include clammy skin, headache, nausea, vertigo, weakness, thirst, and giddiness. Fortunately, heat exhaustion responds readily to prompt treatment. This condition, however, should not be dismissed lightly, for several reasons. One is that fainting associated with heat exhaustion can be dangerous because the victim may be operating machinery or controlling an operation that should not be left unattended. The victim could also be injured when he or she faints and falls. While the signs and symptoms associated with heat exhaustion are similar to those of heat stroke, the notable difference (with heat exhaustion) is clammy skin. Workers suffering from heat exhaustion should be removed from hot environments and given fluid replacement, by mouth only if the workers are conscious. They should also be encouraged to get adequate rest.
- Heat Rashes: The most common problem occurring in hot work environments is heat rash. Prickly heat is manifested as red papules and usually appears in areas where the clothing is restrictive. As sweating increases, the papules give rise to a prickling sensation. Prickly heat occurs in skin that is persistently wetted by unevaporated sweat,

and papules may become infected if they are not treated. In most cases, heat rash will disappear when the affected individual returns to a cool environment.

- **Heat Fatigue:** One factor that predisposes individuals to heat fatigue is the lack of acclimatization. Use of a program of acclimatization and training for work in hot environments is advisable. The signs and symptoms of heat fatigue include impaired performance of skilled sensorimotor, high-concentration, or high-vigilance activities. The sole treatment available for heat fatigue is to remove heat stress and increase fluid replacement before a more serious heat-related condition develops.

Biological Hazards

Rodents, poisonous insects, snakes, other animals and/or plants are a natural part of any ecosystem. They are sometimes difficult to eliminate or avoid on some sites because of the location. Employees should be aware of the potential for encountering these types of animals and plants. Where possible, nesting places should be removed or access to them should be limited. If infestations occur, remedies should be discussed with a supervisor and the client (see **SCS IIPP, SOP-21**, for precautions and treatment for biological hazards). The following could be encountered in performance of the project:

Hantavirus: Infection typically occurs by the inhalation of tiny airborne droplets of fresh or dried rodent excretions. Transmission to humans may also occur through direct contact with rodents or rodent-contaminated materials, and ingestion of contaminated food or water is also a possible route of transmission. Sweeping or "shaking out" rodent-contaminated materials should be avoided unless performed using respiratory protection. The early symptoms of Hantavirus disease are flu-like (fever, chills, muscle aches). For a very short period of time, the infected person starts to feel better. Then, within one to two days, they may develop shortness of breath. The disease gets worse quickly and leads to respiratory failure, a condition known as Hantavirus Pulmonary Syndrome (HPS). About half of all HPS patients experience these symptoms, which usually occur one to five weeks from contracting the illness.

Snakes: Rattlesnakes are poisonous snakes that are known to inhabit California. Not all rattlesnakes give audible warning before they strike. Extra caution should be taken if roll-off bins have been stationary for an extended period of time, as snakes could be present beneath the bin(s). The most active times for rattlesnakes are morning, late afternoon, and early evening; however, encounters could happen at any time of the day. Walking loudly, shuffling feet, or making noise while working is recommended.

Bloodborn Pathogens: Human blood can contain harmful viruses such as the Human Immunodeficiency Virus (HIV) and Hepatitis B and C Virus. Contact with affected blood, as well as materials contaminated by this blood, can result in transmitting viruses and the life-threatening conditions they can cause.

SCS has adopted a Bloodborne Pathogen Exposure Control Plan to protect employees who may come into contact with blood, or materials contaminated with blood, during the performance of tasks. Although the program is intended to comply with OSHA's Bloodborne Pathogens Standard, 29 CFR 1910.1030, the primary purpose for adopting the plan is to help employees avoid bloodborne pathogens at work.

When an employee is involved in an exposure incident, it must be reported in accordance with the Injury and Illness Prevention Program. Employees involved in an exposure incident will be offered post-exposure evaluation and follow-up, in accordance with the OSHA standard. Follow-up will include:

- Documentation of the route of exposure and the circumstances related to the incident.
- If possible, identification of the source individual and, if possible, the status of the source individual. The blood of the source individual will be tested (after consent is obtained) for HIV and hepatitis infectivity.
- Results of testing of the source individual will be made available to the exposed employee, along with applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.
- The employee will be offered the option of having blood collected for testing of that employee's serological status. The blood sample will be preserved for at least 90 days to allow the employee to decide if the blood should be tested for HIV and/or hepatitis serological status. However, if the employee decides not to have the blood tests performed, prior to that time that testing will be conducted, the appropriate action can be taken and the blood sample discarded.
- The employee will be offered post-exposure counseling in accordance with current recommendations of the U.S. Public Health Service.
- The employee will be given appropriate counseling concerning precautions to take during the period after the exposure incident. The employee will also be given information regarding potential illnesses and procedures for reporting related symptoms to appropriate personnel.

COVID-19

First and foremost, staff must feel comfortable performing the proposed work. If they are not comfortable, please encourage them to stop their work and speak to a supervisor to see if changes can be made to address the issues in order for the worker to become comfortable. Employees must follow the most basic fitness for duty requirement, where sick employees must remain at home.

The work is occurring during the COVID-19 pandemic, so social distancing (6 feet apart, or two arm lengths) shall be practiced whenever possible. SCS field staff shall follow the general SCS COVID-19 protocol, as follows:

- Wear and change gloves frequently, especially during contact with shared surfaces.
- Have face covering or mask available for times where social distancing is not possible. Consider wearing when working in close environment with others. Follow Los Angeles County Health Department requirements in effect at the time the work is performed.
- Wipe down sampling equipment and high-touch surfaces frequently with disinfecting wipes or alcohol, and before transfer between people.

From CDC.gov:

> *It is thought to spread mainly from close contact from person to person, including between people who are physically near each other (within about 6 feet). When people with COVID-19 cough, sneeze, sing, talk, or breathe they produce respiratory droplets. Infections occur mainly through exposure to respiratory droplets when a person is in close contact with someone who has COVID-19.*
>
> *Respiratory droplets cause infection when they are inhaled or deposited on mucous membranes, such as those that line the inside of the nose and mouth.*

It may be possible that a person can get COVID-19 by **touching a surface or object that has the virus on it** *and then touching their own mouth, nose, or eyes. Spread from touching surfaces is not thought to be a common way that COVID-19 Spreads.*

Work practices should follow CDC recommendations:

- Social distancing, where the 6 foot rule is to be observed. Consider this the most important rule to follow for field work.

- Proper and constant hygiene/hand-washing, or use of disinfectant gels where hand washing facilities are limited. Nitrile gloves can be worn, but should be changed often, and should not be considered a replacement for hand-washing.

- If staff are high-risk individuals (>60 years old, immune-suppressed, diabetic, heart disease, kidney/liver disease, pregnancy, lung disease), please request they let you (or Human Resources) know. It is preferred that these individuals not be in the vicinity of other workers.

- Constant hydration is crucial. If bottled water is in shortage, use water bottles and fill at home or on the road. Remember that normal water from the faucet meets (and may exceed) the quality of the bottled water.

- Follow this SSHSP for emergency medical situations.

SCS Employee Health/Symptoms

SCS actively encourages its employees to stay home or leave the worksite when feeling sick or when they have been in close contact with a confirmed positive COVID-19 case. All SCS employees reporting for field work are required to self-screen using the Go Evo Personal Protective App (PPA) prior to the beginning of their shift. The PPA evaluates for the following symptoms:

- Any life-threatening symptoms, including:

    - ☐ Bluish lips or face
    - ☐ Severe and constant pain or pressure in the chest
    - ☐ Extreme difficulty breathing
    - ☐ New disorientation
    - ☐ Unconscious or very difficult to wake up
    - ☐ Slurred speech or difficulty speaking
    - ☐ New or worsening seizures
    - ☐ Signs of low blood pressure
    - ☐ Dehydration

- New or worsening of the following symptoms:

    - ☐ Headache
    - ☐ Fever or feeling feverish - Any worker with a temperature of 100.4°F or higher is considered to have a fever and must not report to work.
    - ☐ Cough
    - ☐ Mild or moderate difficulty breathing

- Sore throat
- Vomiting or diarrhea
- New loss of taste or smell
- Congestion or runny nose

- Cared for or have close contact (within 6 feet of an infected person for at least 15 minutes) with someone with symptoms of Covid-19, tested for Covid-19, or diagnosed with Covid-19 in the past two weeks?
- Other than for essential work travel, have you traveled to or from any location on California's mandatory quarantine list in the last 14 days?
- Tested positive for Covid-19 or awaiting test results?

Subcontractor and Visitor Health/Symptoms

Any subcontractors working for SCS, or visitors that will be on an SCS site for longer than 15 minutes, must complete a self-screening survey and review the guidance, included as Appendix B. Any persons that do not comply with the guidance will be asked by the SCS on-site Health and Safety representative to comply with the guidance or, if necessary, leave the site. It is expected that contractors not under SCS control or contract will be operating at the site. These contractors are directly responsible for the health and safety of their employees or subcontractors. Therefore, other contractors and/or subcontractors shall have their own health and safety plan(s) applicable to the scope of work being performed and the hazards present.

Developing Symptoms

If symptoms develop during a shift, the worker should be immediately sent home. If symptoms develop while the worker is not working, the worker should not return to work until they have been evaluated by a healthcare provider. Failure of employees to comply will result in employees being sent home during the COVID-19 emergency actions.

Attachment A

Job Task Safety Analysis Form

Job Task Safety Analysis and PPE Assessment Form: ES-07 A

Job Task Safety Analysis Form			
Task Type:	**Task Description**	**Location or Project:**	
		Date Revised:	
		Project #/Revision #:	
Analysis Team Member	**Position Title**	**Reviewed by**	**Position Title**
	Project Director		
	Project Manager		
	Site Sampler		
Special Training Required:	None		
Applicable SAFE Checklist(s):	ES SAFE Observation Report		
Job Task Step	**Potential Environmental and Personal Hazards [1]**	**Critical Actions**	**PPE Required**
1. Review & Sign SSHSP/JTSA	None	None	None

2. Locate Utilities (performed by others)	None	Verify that the contractor has identified all utilities within and near the work areas.	None
3. Monitor area to ensure the ground is stable and personnel area are at a safe distance	Steep slopes/ uneven terrain	Watch for uneven surfaces/ trip hazards Use boots that are slip resistant and provide good ankle support	Head: Hard hat Body: Hi-vis shirt or vest Foot: Steel-toe boots Hand: None Respiratory: None Hearing: None Eye/face: Safety glasses

4. Observe excavation activities	Getting struck by heavy equipment, steep slopes/ uneven terrain, flying particles and debris/falling objects, slip/trip fall hazards; overhead hazards; high noise; dust Possible vapor exposure.	Keep personnel away from heavy equipment when possible. Use of pre-determined hand signals to communicate with ground crew. Watch for uneven surfaces/ trip hazards Use boots that are slip resistant and provide good ankle support Approach excavations from down slope direction Perform required air monitoring as specified in project H&S plan. If action levels are exceeded on air monitoring devices, evacuate area or don appropriate respiratory equipment.	Head: Hard hat Body: Hi-vis shirt or vest Foot: Steel-toe boots Hand: None Respiratory: None Hearing: Earplugs Eye/face: Safety glasses
5. Collect soil samples	Getting struck by heavy equipment, overextension	Keep personnel away from heavy equipment when possible. Keep arms close to body when lifting. Seal sample containers immediately and store properly. Fill out sample log. Perform required air monitoring as specified in project H&S plan. If action levels are exceeded on air monitoring devices, evacuate area or don appropriate respiratory equipment	Head: Hard hat Body: Hi-vis shirt or vest Foot: Steel-toe boots Hand: Nitrile gloves Respiratory: None Hearing: Ear plugs Eye/face: Safety glasses
End of JTSA Form			

[1] See SCS Injury Illness and Prevention Plan SOP 4-1 and 4-2 for examples of Personal and Environmental Hazards.

Attachment B

Standard Operating Procedures

SOP 1

GENERAL CODE OF SAFE WORK PRACTICES

PURPOSE AND SCOPE

This procedure outlines safe work practices that must be adhered to in the workplace. The procedure applies to all employees in all work areas.

GENERAL CODE OF SAFE WORK PRACTICES

Procedures for ensuring safe work practices are as follows:

General

- Read and become familiar with the following safety-related documents:
  - SCS Health and Safety Injury and Illness Prevention Plan.
  - Any site-specific, or task-specific, health and safety plans, programs, procedures or requirements published by SCS. See the SCS intranet or contact your supervisor for the latest versions. These materials must be understood before you report for work at a site or perform any field work.
- Use of or possession of illegal drugs or controlled substances by SCS employees is prohibited. The use of alcohol while conducting operations on behalf of SCS, or reporting to work while under the influence, is also prohibited.
- Any employee properly using prescription or nonprescription medications, including medical marijuana, that may affect or impair the performance of his/her job responsibilities must notify their supervisor upon reporting to work.
- Arrive at work fit for duty and maintain that fitness throughout the day. Notify your supervisor if you are fatigued to the point of not being able to perform your duties safely.
- Participate in the SAFE process by making periodic observations using SAFE checklists and providing feedback to observed employee(s).
- Report all unsafe conditions to your supervisor, your health and safety coordinator (HSC), or the Health and Safety Director. Report all accidents, near misses, injuries, or occupational illnesses to your supervisor.
- When driving a vehicle or operating equipment, buckle the seat belt, pay attention, and observe traffic laws.
- Permit no horseplay or running at the job site. Do not throw rocks, tools, or any other item.

- Avoid awkward positions or twisting while lifting, pulling, or pushing. Pushing generally is better than pulling loads. Review ergonomic training material and apply knowledge to your work tasks. The maximum allowable lift is 50 pounds. Use a lifting calculator, as outlined in **Attachment A of Appendix L**, to determine if lifts are safe.

- Comply with job site policies regarding health and safety (e.g., smoking policies, work permits required, and site entry/exit logs).

- Familiarize yourself with locations of first aid kit(s) and where to obtain first aid, emergency evacuation routes, and details of the emergency notification system.

- If you provide first aid or other assistance, avoid direct contact with blood or other bodily fluids, and wear appropriate gloves and other protective equipment. Follow the exposure control guidelines outlined in **Appendix I, Bloodborne Pathogens Exposure Control Program**.

- Know locations of safety equipment (eye wash stations, emergency showers, fire extinguishers, etc.) how to use them. Do not operate, tamper with, or remove portable fire extinguishers, except in an emergency and in accordance with safety procedures. If a fire extinguisher is used, contact building maintenance or the HSC to have the fire extinguisher recharged or replaced as soon as possible.

- Always practice good housekeeping:

  – Keep floors clean and dry to prevent slipping hazards. Spills should be cleaned up immediately.

  – Do not permit trash, garbage, or waste containers to overflow.

  – Store environmental samples in a secure location, separate from food.

  – Decontaminate field equipment at the job site before bringing it back to the office.

Office Safe Practices

- Read and understand your office Emergency Action Plan, and be prepared to follow it.

- Make sure your office furniture gives proper back support and keyboard elevations. Your mouse and keyboard should be situated on the same level, about “elbow high” as you are seated. Exhibit L-1, Workstation Evaluation Checklist (see **Appendix L**) will help you to evaluate your workstation and make modifications to meet checklist requirements.

- Take breaks from typing or other repetitive tasks as needed, including standing up, stretching in place, or walking around.

- Use equipment properly: pay attention when using items such as paper cutters and electric staplers, and do not use such equipment if guards or other safety features are broken or defective.

- Comply with fire codes. Keep hallways and exits clear, and familiarize yourself with proper fire response procedures and fire extinguisher locations.

- Do not block access to fire extinguishers, fire pull stations, or other firefighting equipment.

- Do not obstruct electrical control panels. Maintain at least 36 inches of clearance in front of this equipment.

- When storing materials of any description near the ceiling, allow at least 18 inches between the top of the storage and any fire sprinkler head.

- Do not leave file cabinets or desk drawers open. Do not fully open the top drawer of a file cabinet if it could tip over or become unstable as a result.

- Do not run electrical cords or any other cords, ropes, cables, or other trip hazards across aisles, walkways, corridors, passageways, stairways, or any other areas where people might walk.

- Do not tamper with or remove lights or lighting fixtures unless authorized. Building maintenance personnel will repair or adjust the lighting as needed.

- Be alert to maintain office security. If you are working alone at night or on weekends, keep the main door to the office locked. If possible, leave the building in groups to maximize safety.

- Personal property (such as purses and briefcases) should be stored in locked cabinets or out of sight to avoid the risk of theft.

Field Locations

- Wear clothing that is appropriate to the job. Do not wear loose clothing or jewelry near moving equipment or machinery.

- Never expose yourself to potentially hazardous conditions without appropriate protection.

- Wear Personal Protective Equipment (PPE) in all areas requiring PPE to be worn:

  – Hard hat, steel-toe safety boots, and high-visibility clothing (e.g., safety vest) are our uniform. Wear them proudly.

  – Respirator use is mandatory where required by site-specific programs; comply with the fit test and other requirements of the **Respiratory Protection Program** (see **Appendix F**).

  – Wear special clothing and gloves designated to protect against chemical exposure.

  – Wear eye protection (safety glasses or goggles) to protect against flying objects (chipped stones, metal shards, etc.) or other hazards (such as splashing contaminants).

- Use tools for the job as intended. Comply with all warning labels.

- Establish and comply with zones of control at contaminated sites:

   - No eating, drinking, smoking or any activity that increases hand-to-mouth contact within the contaminated zone.

   - Upon leaving the contaminated zone, wash hands and arms; after removing outer garments that may be contaminated, wash the entire body as soon as possible.

- Watch out for natural hazards. Avoid potentially dangerous animals where possible, and take steps to control or protect against stings and bites that may result despite precautions. Review safety procedures and training materials contained in **SOP 21, Safe Procedures for Biological Hazards**.

- Be familiar with site communications systems (hand signals, emergency signals, etc.).

- Locate wind direction indicators (e.g., flags, strips of surveyor's tape) strategically placed at job site. Be aware of weather conditions (wind direction, temperature, impending thunderstorms, etc.), and plan your work accordingly.

- If injured, call WorkCare (888-449-7787) or 911 as appropriate, and report the accident to your supervisor immediately.

- For short-term jobs, remote locations and when working alone, check in with your supervisor and/or the main office after arriving at the job site, periodically on a pre-arranged schedule, and when you leave the site.

- When dismounting equipment, use the three-point contact rule. DO NOT jump off machinery.

- Observe the walking surface, especially in areas with heavy vegetation, and note the potential for tripping, slipping, and falling, including such hazards as hidden holes or ditches. Wear boots with adequate ankle support.

Read, or discuss with your site supervisor, the requirements of the Site-Specific Health and Safety Plan, and sign the plan to acknowledge your understanding of the site requirements before traveling to or performing any field work on SCS project sites

SOP 4

JOB TASK SAFETY ANALYSIS AND PERSONAL PROTECTIVE EQUIPMENT ASSESSMENT PROCEDURE

PURPOSE

The purpose of the Job Task Safety Analysis (JTSA) and Personal Protective Equipment (PPE) Assessment procedure is to identify job hazards, determine which PPE are necessary to perform work safely, and ensure that employees are properly trained to complete tasks. This procedure will help in maintaining compliance with PPE Assessment requirements of the Occupational Safety and Health Standard (OSHA), 29 CFR 1910.132.

SCOPE

This procedure applies to all employees performing potentially hazardous activities related to work in OM&M, Construction, Energy, and Engineering Services.

DEFINITIONS

- **Job:** A task that involves a series of steps. The term "job" does not refer to an occupation, but to a particular work task such as collecting groundwater samples, grading a road surface, or tuning a LFG extraction well.

- **Job Task Safety Analysis (JTSA):** A multi-step process designed to study and analyze a particular job task, and to break down the task into steps that provide a means of eliminating associated hazards. The JTSA results in a detailed written procedure for completing potentially hazardous portions of job tasks.

- **Personal Protective Equipment (PPE) Assessment:** An assessment of the task to determine if hazards are present, or are likely to be present, and necessitate the use of PPE. Hazards identified in the assessment will be used to select the proper type of PPE.

SELECTING JOB TASKS FOR ANALYSIS

Each Profit Center will develop a list of job tasks requiring a JTSA and PPE Assessment. These tasks will be selected based on the following factors:

- Tasks that have potential to cause serious injury or fatality, or that have produced serious injury or fatality in the past.

- Tasks that resulted in near misses or high numbers of injuries.

- New tasks or tasks involving the use of new equipment or processes.
- Tasks that field employees consider to be most hazardous.

The priority for analyzing job tasks should be based on the severity of potential or actual past injuries, the frequency with which job tasks are performed, and the probability that injury or illness may occur while performing tasks. Job tasks with the highest combination of severity, frequency, and probability should be analyzed first.

PERFORMING JTSA AND PPE ASSESSMENTS

A team of employees who perform or supervise the task being analyzed will complete the JTSA and PPE Assessment. The analysis team should consist of two or more employees and include at least one supervisor and one field employee who perform the task. The JTSA and PPE assessment should be documented using the form shown in ***Exhibit SOP 4-1***. The steps for performing the JTSA and PPE Assessment are as follows:

- **Step 1 -** Define the scope of the job being analyzed.
- **Step 2 -** Arrange to meet with individuals involved.
- **Step 3 -** Break down job task chronologically into steps.
- **Step 4 -** Identify safety and environmental hazards involved with each job task step.
- **Step 5 -** Identify personal hazards and potential exposures requiring additional PPE.
- **Step 6 -** Develop safeguards to eliminate or control hazards identified, or choose additional PPE to eliminate personal hazards.
- **Step 7 -** Review completed JTSA and PPE Assessment with all personnel involved.

Step 1 - Define the Scope of the Job Being Analyzed

Defining the scope of the analysis means determining where the job task to be reviewed begins and ends. The JTSA and PPE Assessment can be very broad and cover pre- and post-job supplementary tasks, such as selecting tools, spotting equipment, lockout/tagout, checking MSDS, performing monitoring, and decontamination. The JTSA and PPE Assessment can also be specific and focus only on parts relevant to the analysis or not covered by other procedures and work practices.

If a previous JTSA and PPE Assessment have been completed for a similar job task at another Profit Center or during another project, the analysis team can modify the assessment to fit any unique site conditions, or adopt it as-is if no additional hazards or steps have been identified.

A repository of JTSA and PPE Assessments is available on the company intranet site.

Step 2 - Arrange to Meet with Individuals Involved

The analysis team should meet either on site during a pre-job safety meeting, during the initial daily toolbox safety meeting, or off site during development of the Project or Site Health and Safety Plan. The JTSA and PPE Assessment will be a key component of Project and Site Health and Safety Plans, and must be attached to all of those plans.

The Regional Health and Safety Committees for OM&M, Energy, and Construction can perform JTSA for tasks related to those groups. The National Advisory Health and Safety Committee can perform JTSA and PPE Assessments for high-frequency tasks performed by Engineering Services.

Step 3 - Break down Job Task Chronologically into Steps

Breaking the job down into a chronological list of steps makes the JTSA process useful as a step-by-step work procedure. If this can be done in advance, the JTSA study will proceed more smoothly. Job steps should be documented in Column 1, the first column of ***Exhibit SOP 4-1***.

Analysis begins with the first step of the job task, as defined by the scope, and continues chronologically until all steps are completed. Whether developing the JTSA during a project or a committee meeting, or conducting the analysis during an informal tool box safety meeting, an individual experienced in performing the job task should attend the meeting. A proper sequencing of tasks is imperative.

Step 4 - Identify Safety and Environmental Hazards Involved with Each Job Task Step

Identifying hazards involved in each task step is one of the main purposes of conducting a JTSA. Hazards are recorded in Column 2 of ***Exhibit SOP 4-1***. This exhibit provides checklists to aid in analyzing and determining the hazards present. Though individuals on the team will offer diverse points of view regarding such hazards, all possibilities should be analyzed, even those posed by related work. Ergonomic hazards may be identified using the Ergonomic Hazard Checklist in ***Exhibit L-2*** (see ***Appendix L***).

Step 5 - Identify Personal Hazards and Potential Exposures Requiring Additional PPE

A checklist is provided to assist in identifying hazards to the head, eye/face, hand/body, hearing, foot, or respiratory system that require additional PPE beyond a site's minimal requirements. If questions about hazards to hearing, respiratory systems, or air and noise monitoring arise, real-time or personal monitoring should be noted as a requirement and documented in the second column of the JTSA and PPE Assessment Form.

Step 6 - Develop Safeguards to Eliminate or Control Hazards Identified, or Choose Additional PPE to Eliminate Personal Hazards

This crucial step adds value to the analysis, and involves controlling hazards so that job steps will be performed safely. Safeguards should be documented in the third column of the JTSA and PPE Assessment Form. The process of controlling hazards should be carried out in the order specified in ***Exhibit 2.4-1***, Hierarchy of Controls for Hazard Reduction (see ***Section 2.4 of the SCS Health and Safety Management System Plan***), as follows:

- Elimination of the hazard from the work area.
- Substitution of a less hazardous material, process, or equipment.
- Engineering controls (machine guarding, automatic shutdowns, and ventilation systems).
- Warnings (alarms and/or signs).
- Administrative controls (job rotation, limit time of exposure, barricades, and training).
- Personal protective equipment (hearing plugs/muffs, respirators, gloves, and safety glasses).

If additional PPE is required above the site minimum for performance of the task, PPE selected must be documented in the PPE Selection columns of the JTSA and PPE Assessment Form.

If none of these options eliminates or controls hazards so that the task can be performed safely, the task must not be performed. At this point, the JTSA Team Leader and discussion group will assess other options for performing the job without completing that particular task.

Step 7 - Review Completed JTSA and PPE Assessment with All Personnel Involved

After the analysis is finished, the JTSA and PPE Assessment Form should be reviewed for completeness and accuracy. Any steps omitted or incorrect should be noted and the document revised.

Personnel who perform the job task but were not able to attend the meeting must review and understand the completed JTSA and PPE Assessment. The form should be attached to the Site or Project Health and Safety Plan and/or work permit, and distributed to the site and/or project team members. It is the responsibility of the site or Project Manager or Superintendent to ensure that this review takes place. Persons who reviewed the assessment will be identified on the first page of ***Exhibit SOP 4-1***.

Hazards that were not anticipated, and safeguards that did not work as well as intended, should be noted. The JTSA and PPE Assessment Form should be revised to reflect these observations.

EMPLOYEE TRAINING

All employees in OM&M, Construction, Energy, and Engineering Services will be trained to complete the procedure for hazardous job tasks.

Exhibit SOP 4-1. Job Task Safety Analysis and PPE Assessment Form

Job Task Safety Analysis Form			
Task Type (Check all that apply)	**OM&M** **Construction** **Energy** **Engineering Services**	**Task Description (include estimate of task duration in hours/day):**	**Location or Project:** **Date Revised:** **Project #/Revision #:**
Analysis Team Member	**Position Title**	**Reviewed by**	**Position Title**
Special Training Required			
Applicable SAFE Checklist(s): Specify type and category number			

This form is the certification that the hazard assessment has been performed for the workplace as required by 29 CFR 1910.132(d)(2).

Job Task Safety Analysis and PPE Assessment Form- Cont.			
Job Task Step	**Potential Environmental and Personal Hazards[1]**	**Critical Actions**	**PPE Required**
			Head Body Eye/face Foot Hand Respiratory Hearing
			Head Body Eye/face Foot Hand Respiratory Hearing
			Head Body Eye/face Foot Hand Respiratory Hearing
			Head Body Eye/face Foot Hand Respiratory Hearing

[1] See ***Table SOP 4-1*** (below) for examples of Environmental Hazards.
[2] See ***Table SOP 4-2*** (below) for examples of Personal Hazards.

Table SOP 4-1. Potential Environmental/Safety Hazards

Environmental Conditions	1. Is there adequate lighting? Provide portable lighting, flashlights, and hardhats with light attachments. 2. Are there sources of heat or cold stress? Cold stress: use insulated coveralls or clothing; provide heaters or blankets. Heat stress: provide plenty of ice and fluids; monitor body temperature and pulse; provide cooling vests; provide cooling fans or mistifiers. 3. Are there any radiation sources? Provide radiation protection; monitor for radiation. 4. Is there adequate ventilation to remove air contaminants? Provide ventilation fans or blowers. 5. Is adequate air monitoring conducted? Conduct personal or real-time monitoring. 6. Are there any biological hazards, such as ticks, spiders, snakes, chiggers, etc., potentially present in the area? Use DEET or other tick or insect sprays; cover exposed skin areas with clothing; tuck in pant leggings into boots.
Injurious Contact	1. Can an employee or clothing come in contact with, be struck by, or become caught between moving parts of machinery? Install guards or warning signs/barriers. 2. Are there any pinch points between two moving parts or objects? Provide guards, barriers, warning signs. 3. Is there sufficient room to work and not be in the line of fire or in a traffic area? Personnel provide traffic support, and use traffic cones. 4. Is there an object or machinery that can strike people? Provide barriers or use proper PPE. 5. Are energy sources controlled and subject to lockout/tagout? Provide lockout/tagout and check controls. 6. Are machines properly guarded? Use proper guards.
Overextension	***Exhibit L-2*** evaluates ergonomic hazards such as awkward postures, lifting, high hand force, repetitive motion, and repeated contact.
Slips, Trips, Falls	1. Is there a chance that ice, oil, water, or other slick material will accumulate on the working surfaces? Use shoe overlays or slip-resistant boots, and absorbents. 2. Is the area clear of debris and litter? Provide proper housekeeping; inspect area before starting task. 3. Are there any walking obstructions such as hidden ditches or hoses on the ground? Identify obstructions with tape or other warning devices. 4. Does the job require stairs, ladders, or other elevated surfaces? Provide railings or fall protection. 5. Is there a chance of fall from an elevated level? Provide railing or fall protection.

Table SOP 4-1 (continued)

Other Safety Hazards	1. Are correct tools for the job available? Evaluate tools required. 2. Is proper equipment for lifting and moving objects available? Provide manlifts, hoists, or cranes for lifting. 3. Is critical equipment maintained? Check maintenance records. 4. Is communication between groups adequate to ensure safe performance? Provide radios or cell phones to employees.
Drilling, Excavation, Confined Space, Operation of Heavy Machinery, Operating Power Tools	See appropriate SAFE Checklist for safe behaviors for each category.

Table SOP 4-2. Personal Hazards and Guidance on PPE Selection		
Personal System	**Potential Hazards**	**Recommended PPE**
Head	1. Potential for falling overhead objects? 2. Potential for contact with electrical conductors coming into contact with head?	Hardhats, ANSI Z-89.1 approved. Non-conductive Hardhats Class G or E, ANSI Z-89.1 approved.
Eye/Face	1. Exposed to flying particles or objects that can impact eye or face? 2. Exposed to flying sparks or molten metal? 3. Exposed to corrosive vapors or liquids? 4. Exposed to optical radiation?	Faceshield, ANSI-approved goggles; minimal protection is safety glasses with side shields. Faceshields or goggles. Faceshield or chemical splash-resistant goggles. Welder faceshield with adequate optical density shades.
Hand/Body	1. Exposed to possible cuts or abrasions? 2. Exposed to hot surfaces or heat sources? 3. Exposed to hazardous chemicals through dermal route?	Leather gloves or abrasion resistant gloves. Leather or other heat-resistant gloves/heat-reflective coveralls. Chemical-resistant gloves and coveralls appropriate for chemicals of concern.
Foot	1. Potential for objects falling or rolling over foot? 2. Potential for objects piercing foot? 3. Feet exposed to dangerous or corrosive chemicals? 4. Feet exposed to electrical hazard? 5. Exposed to tripping hazards and uneven surfaces?	Steel-toe boots, ASTM F2413-05 approved; metatarsal guards should be considered. Steel-toe and shank boots, ASTM F2413-05 approved. Chemical-resistant boots with steel-toe and shank. Non-conductive safety boots, ASTM F213-05 approved. Boots with high ankle support.
Hearing	1. Exposed above 80 dBA?	Hearing plugs or muffs with NRR sufficient to reduce exposures below 80 dBA.
Respiratory	1. Oxygen deficient or IDLH atmosphere, or unknown atmosphere? 2. Below 50 times PEL; above 10 times PEL, or corrosive to eye/face? 3. Above 10 times PEL, but below 50 times PEL, non-corrosive to eyes/face?	SCBA or supplied air with escape bottle. Full-face cartridge or filter respirators, PAPR. Half-face respirator.

SOP 6

SAFE PROCEDURES FOR FORKLIFT, HEAVY MACHINERY, AND AERIAL LIFT OPERATIONS

PURPOSE AND SCOPE

Operating and working near heavy machinery, such as forklifts, graders, backhoes, and aerial lifts, can create hazards for construction employees, personnel providing construction oversight, and OM&M technicians working on active landfill sites. This section describes the training and qualifications for employees who operate forklifts, heavy machinery, and aerial lifts and safe procedures for those working nearby or operating this equipment. The procedures apply to all employees who provide these services during the performance of work. By definition, heavy machinery includes forklifts, excavators, and other hydraulically operated equipment.

KEY POINTS

- Employees exposed to vehicular traffic will be provided, and must wear, high-visibility clothing with retro-reflective material.
- Back-up alarms must be audible from 200 feet away, or a flagger who is in clear view of the operator shall direct any backing operation.
- Equipment operators must be aware of workers on foot (see "Safe Procedures for Operating and Working Near Heavy Machinery," below.)
- All heavy equipment must be inspected each work day for malfunctions, utilizing the daily inspection form. All repairs must be made before vehicles are placed in service.
- Equipment inspections must also include inspecting seat belt operation. Seat belts must be in good working order. SCS requires the use of seat belts.
- Roll-over protection structures must be provided and used as applicable for the specific piece of equipment.

TRAINING REQUIREMENTS

New employees assigned to operate forklifts or other heavy equipment must be properly trained in safe operation of the equipment and demonstrate competence to operate the equipment. Training can be provided by experienced personnel, such as Construction Superintendents, Project Managers, or other authorized trainers. The Project Manager shall identify on the training section of the Job Task Safety Analysis form (see SOP 4) any special local or state requirements (e.g., operator licenses) to operate certain types of heavy equipment.

Trainees will not be allowed to operate any kind of heavy machinery without being directly supervised by a qualified person.

Trainees must understand:

- Operating instructions, warnings, and precautions for the types of forklifts or heavy machinery that the trainee will be authorized to operate.
- Differences in operation between forklifts or heavy machinery and automobiles.
- Forklift or heavy machinery controls and instrumentation: where they are located, what they do, and how they work.
- Engine or motor operation.
- Steering and maneuvering.
- Visibility (including restrictions due to loading).
- Fork and attachment adaptation, operation, and use limitations.
- Vehicle capacity and stability.
- Inspections or maintenance that operators are required to perform.
- Refueling and/or charging and recharging of batteries.
- Operating limitations and safety features such as control interlocks.
- Other operating instructions, warnings, or precautions listed in the operator's manual for the type of vehicle the trainee is being taught to operate.
- Surface conditions at the site of operation.
- Composition of loads to be carried and load stability.
- Load manipulation, stacking, and unstacking.
- Nearby pedestrian traffic.
- Narrow aisles and other restricted places where the vehicle is being operated.
- Hazardous (classified) locations near the site of operation.
- Ramps and other sloped surfaces that could affect stability.
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause buildup of carbon monoxide or diesel exhaust.
- Other unique or potentially hazardous environmental conditions that could affect safe operation.

Prior to operating a forklift (powered industrial truck), operators must complete training and demonstrate competency as follows: Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.

Forklift operators must be evaluated every three years and refresher training provided if deemed necessary by the evaluator. Refresher training on other types of heavy machinery will be required if the project superintendent or other supervisory personnel deem it necessary, based on observation of the employee's operation of the machinery. Training may be repeated more frequently if superintendent's observations or health and safety audits indicate that the machinery is being operated unsafely. Employees involved in an accident or serious "near-miss," and/or who operate machinery in new work environments presenting new or additional hazards, may also be required to attend refresher training.

SAFE PROCEDURES FOR OPERATING AND WORKING NEAR HEAVY MACHINERY

Operators

Operators or persons working near heavy machinery or forklifts must, at a minimum, wear reflective safety vests, hardhats, hearing protection, and ASTM-approved safety boots with adequate ankle support. Operators of heavy equipment with an enclosed, rollover protection system cab are not required to wear a hard hat while in the cab of such equipment. The three-point contact rule applies when operators mount or dismount equipment (i.e., maintaining at least two hands and one foot, or two feet and one hand, on the vehicle dismount steps).

Other procedures for operators include:

- Using a seat belt at all times when operating equipment.
- Using mirrors (if available) to look back while reversing or backing up.
- Lowering buckets or forks as much as possible while traveling.
- Always operating equipment at safe speeds.
- Remaining aware at all times of surroundings and ground personnel. It is likewise important that ground personnel maintain visual or verbal contact with operator, in order to ensure safety.
- For rental equipment, safe operating, maintenance, and inspection procedures shall be reviewed before any employee is allowed to operate the equipment. The safety interlocks that prevent inadvertent or accidental operation of controls shall be identified and reviewed with all operators. All safety guards shall be identified and reviewed with the operators.

- When an employee dismounts from the operating cab of the heavy machinery, the equipment should be turned off unless a positive safety interlock prevents any accidental or inadvertent operation of the operational levers that control the track or wheel movement, forks, backhoe bucket, and/or extended boom.

- Any damaged parts such as pins for backhoe buckets or earth-moving buckets should be replaced only with parts approved by the manufacturer or with replacement-in-kind parts. The rental equipment vendor may be requested to provide documentation that the replaced part(s) meet these requirements.

- Equipment shall only be used for its intended purpose. The cabs of heavy machinery equipment shall not be used to carry large pieces of pipe or other equipment. Equipment controls must be operated only from the operator's seat.

- Proper equipment should also always be used for sloped surfaces.

All Employees

Safe procedures for employees working near heavy equipment include the following:

- Maintain a safe distance from heavy equipment and forklifts by remaining aware of their locations and their potential travel routes.

- Never work downslope from heavy equipment.

- Stay out of the operator's blind spots, and stay outside the swing radius of equipment.

- Maintain good communication with operators through the use of agreed hand signals and/or radios.

- Make your presence known to the operator before approaching the equipment, and do not approach until you have made eye contact and you have been signaled by the operator that it is safe to approach.

SAFE WORK PRACTICES FOR AERIAL LIFTS

Aerial lifts include the following types of vehicle-mounted devices used to elevate employees to job sites aboveground:

- Extensible boom platforms.

- Aerial ladders.

- Articulating boom platforms.

- Vertical towers.

- A combination of any of the above devices.

Aerial equipment:

- May be made of metal, wood, fiberglass reinforced plastic (FRP), or other material.
- May be powered or manually operated.
- Are deemed to be aerial lifts whether or not they are capable of rotating about a substantially vertical axis.

Ladder Trucks and Tower Trucks

Before a truck is moved for highway travel, aerial ladders must be secured in the lower traveling position by the locking device on top of the truck cab and the manually operated device at the base of the ladder.

Extensible and articulating boom platforms

The following work rules are specific to extensible and articulating boom platforms:

- Only authorized persons who are trained in their operations can operate an aerial lift. Training can come from another employee familiar in the equipment’s operation, the supplier of the equipment, or an outside equipment training vendor. Lift controls shall be tested each day prior to use, to determine whether they are in safe working condition.
- A full body harness must be worn and a lanyard attached to the boom or basket when working from an aerial lift.
- Tying off to an adjacent pole, structure, or equipment while working from an aerial lift is not permitted.
- Employees must always stand firmly on the floor of the basket, and cannot sit or climb on the edge of the basket, or use planks, ladders, or other devices for a work position.
- Manufacturer's boom and basket load limit specifications must not be exceeded.
- Brakes must be set. Whenever outriggers are used, they must be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline, provided they can be safely installed.
- An aerial lift truck must not be moved when the boom is elevated in a working position with anyone in the basket unless the equipment is specifically designed to do so in accordance with the general requirements for aerial lifts (§1926.453[a][1] and [2]). Special care must be observed when moving aerial lifts on uneven ground.
- Articulating and extensible boom platforms primarily designed as personnel carriers shall have both platform (upper) and lower controls.

- Controls shall be plainly marked as to their function.
- Upper controls must be in or beside the platform, within easy reach of the operator.
- Lower controls must provide for overriding the upper controls.
- Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
- Climbers (spikes for climbing poles or trees) shall not be worn while performing work from an aerial lift.
- The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.
- Before moving an aerial lift for travel, the boom(s) shall be inspected to see that it is properly cradled and outriggers are in stowed position except as and if allowed for moving the lift with the boom elevated and someone in the basket (i.e., the equipment is specifically designed to be moved with someone in the basket).
- Use of aerial lifts requires a minimum of two employees present on site during the entire period someone is elevated in the basket.

SOP 8

SAFE PROCEDURES FOR DRILLING AND WELL INSTALLATION

PURPOSE AND SCOPE

This procedure outlines the safe work practices associated with well drilling and installation. The procedure applies to all SCS employees and contractors involved in these activities.

SAFE WORK PRACTICES

General

- Always complete a site-specific JTSA and PPE Assessment for drilling or well installation projects (see ***SOP 4***). The JTSA will be part of the site-specific health and safety plan (SSHSP).

- Excavation, well, or drilling permits may be required, and employees must comply with local permit requirements.

- The Construction Superintendent or Project Team Leader must implement safety precautions and PPE required per the JTSA and PPE Assessment. At a minimum, the PPE Assessment will indicate that employees wear protective equipment such as hard hats, safety glasses, safety work boots, safety vests, gloves, respirators, or hearing protection, as required. SCS employees will wear a four-gas personal air monitor during drilling and well installation projects associated with landfills.

- Drilling equipment shall be operated only by qualified (by training and experience and licensing, where applicable) personnel who are authorized by the contractor or SCS to operate the subject equipment. The drilling equipment shall be operated, inspected, and maintained as specified in the manufacturer's operating manual.

- Drilling equipment shall be equipped with two easily accessible emergency shutdown devices, one for the operator and one for the helper. Fire extinguishers shall be available on the cab of the drilling machine and readily accessible by the ground drilling crew.

- **Do not** approach an open borehole larger than 12 inches in diameter without appropriate fall protection. It is easy to lose your balance, particularly at boring locations on slopes; on a slope, approach the borehole from downslope (walking uphill).

Underground Utilities

- Underground utilities in the vicinity of the planned borehole or trench must be identified prior to breaking ground.

- Locations that contain underground utilities should be accessed to a depth of 3 feet using hand tools, such as a hand auger or post-hole digger.

Above-Ground Utilities

Job sites should be evaluated with respect to above-ground utilities, before beginning work, to determine the best placement for machinery during operations and the size and type of machinery to be used. The location of overhead high-voltage electrical power lines and telephone lines should be noted on the JTSA and SSHSP, if applicable (see ***SOP 4***). While utilizing drilling equipment, booms, or cranes when power lines are within 100 feet of work locations (including ingress and egress points):

- All operations must be cleared of power lines, telephone lines, video cables, guy wires, and other objects that may pose a hazard.
- Consider all overhead power lines to be energized until (1) the owner of the lines or the electric utility indicates that they are not energized, and (2) they have been visibly grounded.
- Do not use cage-type boom guards, insulating links, or proximity warning devices as a substitute for de-energizing and grounding lines or for maintaining safe clearance.
- Where it is difficult for the driller or crane operator to maintain safe clearance by visual means, designate a spotter to observe clearance and give immediate warning when the drill rig or crane approaches the limits of safe clearance.
- If power lines are not de-energized, operate drill rigs or cranes in the area ONLY if a safe minimum clearance is maintained, as follows:

Power Line Voltage Phase to Phase Kilovolts (kV)	Minimum Safe Clearance (Feet)
50 or below	10
Above 50 to 200	15
Above 200 to 350	20
Above 350 to 500	25
Above 500 to 750	35
Above 750 to 1,000	45
Above 1,000	As established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution.

Source: 29 CFR 1926.1408 Table A.

- This distance should consider the maximum sag and side swing of all conductors.
- If the power line voltage is not known, a minimum safe distance of 45 feet must be maintained.

- Drill rigs and cranes must have signs at the operator's station and on the outside of the equipment warning that electrocution may occur if the operator does not maintain a safe minimum clearance.

Moving Equipment

- Prior to bringing earth drilling equipment on the job site or before drilling equipment is moved, a survey shall be conducted to identify overhead electrical hazards and potential ground or terrain hazards, such as hazardous agents in the soil, or underground utilities. The location of any overhead or ground hazards shall be identified on a site layout plan of the project or SSHSP, and safe procedures for moving equipment must be described in the site-specific JTSA and discussed with the field crew.

- Earth drilling equipment shall not be moved with the mast up.

Drilling Activity Setup

For boreholes greater than 12 inches in diameter, the following requirements will apply:

- Create a controlled access zone no less than 10 feet around the edge of the borehole. The controlled access zone shall be flagged or otherwise clearly marked with high-visibility material or barriers.

- Any person who enters inside the controlled access zone shall be required to wear a full-body harness with a lanyard that meets OSHA fall protection equipment requirements (see ***SOP-10***). The lanyard must be connected to an anchorage point that is able to support at least 5,000 pounds per person attached. The lanyard shall be designed to prevent the employee from falling in the hole. A self-retracting lifeline is recommended for use as part of the fall protection equipment.

- Before a person is allowed in the controlled access zone, all machinery and equipment within the swing radius of lanyard must be removed or turned off to prevent any person from having their lanyard entangled or snared by moving or operating equipment.

- If the lanyards are attached to a vehicle or moving equipment, the equipment or vehicle will be locked out/tagged out to ensure that the equipment or vehicle is not accidentally started while the employee is anchored. Preferably, the vehicle keys should be in the possession of the person wearing the fall protection equipment.

- A safety grate that provides at least 2 feet of overlap over the borehole corners or edges and is designed and constructed to hold at least twice the weight of the materials and equipment (including piping clamped to the center of the grate) placed on the grate will be available at all times during drilling activities. The grate should be used to cover any open boreholes when persons are within the controlled access zone.

- Equipment shall be set-up on stable ground and maintained level. Cribbing shall be used when necessary. Outriggers shall be extended per the manufacturer's specifications.

Drilling Operations

- Weather conditions shall be monitored. Operations shall cease when electrical storms or high winds are imminent.
- Persons working near drilling equipment shall not wear loose clothing, jewelry, or equipment that might become caught in moving machinery.
- Auger guides shall be used on hard surfaces. (If impractical due to type of drill rig being used [full-size and/or crane-mount], a risk assessment shall be performed by a qualified person and documented in the JTSA as to why this requirement is not practical. Additional precautions and/or controls shall be identified to ensure an equal level of safety.)
- The operator shall verbally alert employees and visually ensure employees are clear from dangerous parts of equipment before starting or engaging equipment.
- Hoists shall be used only for their designed intent and shall not be loaded beyond their rated capacity. Steps shall be taken to prevent two-blocking of hoists.
- The equipment manufacturer's procedures shall be followed if rope becomes caught in, or objects get pulled into, a cathead.
- Borehole depth measurements shall be collected when the drill bucket is located at the top of (but still within) the borehole.

Backfilling and Installation of Piping in Gas Wells

- Before installing piping or backfilling a gas well greater than 12 inches in diameter, place a safety grate on top of the borehole. The safety grate shall be placed on the borehole by either of the following methods:
    - Placing the drilling bucket on top of the borehole, then have employees place the grate at approximately a 45-degree angle against the drilling bucket. Once the grate is placed against the drilling bucket, remove the drilling bucket slowly and allow the grate to fall on top of the borehole.
    - Use an extended forklift, or similar piece of equipment, to place the safety grate on top of the borehole.
- Move the backfill materials as close to the borehole as possible. Limit the amount of lifting required to backfill the borehole by placing the materials at a height of between the knees and waist. Avoid any twisting of the back when backfilling borings with Bentonite or other materials.
- Minimize the generation of airborne dust by pouring water at the same time as backfilling with Bentonite, sand, or soil, or mix the Bentonite with water and then backfill the borehole. Respiratory protection from silica dust may be necessary.

- Keep all employees at a safe distance when lowering the gas well piping into the borehole.
- If employees are required to work over the borehole (e.g. to place a pipe centralizer), use a safety grate and provide ventilation fans to limit exposure to landfill gases.
- All unattended boreholes or boreholes not completed for the day will be covered by the following method:
    - Keep the safety grate on top of the borehole and place a piece of plywood on top of the grate, then
    - Put at least 6 inches of soil over the plywood and grate, and place the drilling bucket on top of the soil, plywood, and grate.
- Remove any borehole cover with the drilling bucket, forklift or other types of heavy machinery; DO NOT manually remove the cover unless a controlled access zone has been established and persons within 10 feet of the open borehole are wearing a full-body harness with a lanyard secured to an appropriate anchorage point, as required for any entry into the controlled access zone.

Landfills and Other Areas Where Combustible Gas May Be Present

- NO Smoking.
- Suspicious or dangerous cuttings, such as asbestos; unknown chemicals in containers punctured by drilling operations; military munitions; or medical wastes should always be noted during drilling projects. In such situations, it may be necessary to modify the JTSA and PPE assessment, if it did not anticipate the noted hazards. Solid waste or contaminated cuttings should never be handled with bare hands.
- SCS employees will wear a four-gas personal air monitor during drilling and well installation projects associated with landfills. Four-gas meters must be properly maintained and calibrated for detection of methane, hydrogen sulfide, carbon monoxide, and oxygen (see ***TSOP 207, Four-Gas Personal Monitors***). If such chemicals are identified at or above action levels specified in the SSHSP and JTSA, corrective measures (e.g., forced ventilation) must be taken, as necessary.
- Valves must be closed and pipes must be capped at the end of each work day to control emissions.

Drilling Equipment Checks

Drillers should visually inspect the following equipment at least daily:

- All control mechanisms, for adjustment, wear, and lubrication.
- Air and hydraulic systems, for deterioration or leakage.
- Rope and cable condition and pulley function.
- Hoist brakes, clutches, and operating levers condition and function.

- Kill switches.

SOP 11

SAFE PROCEDURES FOR FIRE PREVENTION AND FIRE EXTINGUISHERS

PURPOSE AND SCOPE

This section provides general information on fire prevention, as well as detailed information regarding how, when, and what type of equipment to use while attempting to extinguish incipient fires. Procedures described in this section apply to all SCS employees, including office and clerical staff.

PROCEDURES – FIRE PREVENTION

- Keep hallways, corridors, and exit areas clear of items that impede egress in an emergency (i.e., chairs, tables, boxes, equipment, etc.).
- Properly store combustible items. Do not accumulate unnecessary cardboard boxes, chemicals, and paper products.
- When stacking or storing items on shelves, the top of the items must be a minimum of 18” below sprinkler head deflectors.
- Avoid storage of flammable liquids outside of a flammable storage cabinet.
- Properly store compressed gas cylinders. See SOP 7 - Handling Compressed Gas Cylinders and Safely Using Compressed Air for more information.
- Segregate chemicals by hazard class. See Appendix B, Hazard Communication for more information.
- Purchase equipment that is approved by a testing organization, such as Underwriters Laboratories (UL).
- Keep electrical equipment, cords, and plugs in good condition. Arrange for an authorized factory representative or electrician to replace electrical cords or plugs that are in poor condition (i.e., frayed, cracked insulation, loose prongs, etc.).
- Do not overload electrical outlets.
- Report loose electrical wall receptacles, missing outlet faceplates, and exposed wires to your supervisor or Health and Safety Coordinator.
- Disconnect electrical equipment that could possibly overheat when unattended.
- Keep fire extinguishers charged, stored in their designated location, and ensure annual inspection.

- When using a space heater, allow a minimum of three (3) feet between the heater and combustible materials.

- Turn off the electrical and heat-producing appliances at the end of the day.

- Immediately report a suspected natural gas leak.

- Complete a Hot Work Permit when conducting hot work outside of a welding shop. See SOP 5 - Work Permits for more information.

- Refrain from open flames (i.e. candles, sterno burner, incense burner, etc.) unless they are an integral part of the work activity (i.e., Bunsen burners in laboratories, torches in welding shops, etc.). Do not leave open flames unattended. Do not store or use ordinary combustibles (i.e., papers, napkins, cloths, etc.) or flammable/combustible solvents (e.g., aerosols, paints, etc.) in the vicinity of open flames or hot surfaces.

- Do not let cooking oil or grease overheat. Use cooking aids that limit grease splattering. In commercial type kitchens, ensure regular inspection and servicing of the grease exhaust/fire extinguishing system. For small grease fires, attempt to extinguish by smothering with a pot lid. Do not use water on grease fires.

- Know how to safely exit the work area if a fire should occur. Have at least two (2) exit routes in mind and walk through them to assure your safe response. Always observe a fire alarm. Convene in the predetermined safe gathering location.

- Use appropriately designed tools for handling hot equipment or surfaces (do not improvise with dishtowels, rags, etc.).

PROCEDURES – FIRE EXTINGUISHERS

If fire is encountered in your office or building, follow procedures suggested by the acronym **RACEE**:

- **R**escue anyone in immediate danger and remove that person to a safe area.

- **A**ctivate the building fire alarm. Notify the local fire department (911) from a safe location and report the fire.

- **C**onfine the fire by closing all doors.

- **E**vacuate if fire is spreading beyond its point of origin; otherwise, fire could block your exit and endanger lives, particularly if you are unsure of how to use a fire extinguisher.

- **E**xtinguish the fire if you have activated the alarm and closed the doors, and only if it meets the following conditions: the fire is small and contained, you have clear exit in relation to the fire, and you have been trained regarding proper use of fire extinguishers within the last year.

Remember that fire can spread quickly. If you cannot extinguish fire in your area within 30 seconds, vacate the premises.

Choosing a Fire Extinguisher

- For ordinary fires involving solids (wood, paper, or cloth), use a water or dry chemical extinguisher labeled Class A or A/B or A/B/C. Do not use water on flammable liquids or in electrical fires.
- With fires involving flammable liquids, use a dry chemical or carbon dioxide extinguisher labeled Class B or A/B or B/C or A/B/C. Never use a water extinguisher.
- With fires involving active electrical equipment, use a dry chemical or carbon dioxide extinguisher labeled Class C or B/C or A/B/C. Never use a water extinguisher.
- With fires involving metals, use a graphite extinguisher labeled Class D, or buckets of sand (such as those kept in laboratories). Never use Class A, B, or C extinguishers on this type of fire.
- With fires involving cooking equipment (deep fat fryers, etc.), use a wet chemical extinguisher labeled Class K. Never use a water extinguisher.

Using a Fire Extinguisher

The acronym **PASS** can help you recall how to operate a fire extinguisher. While following the procedures, it's imperative that you keep a clear exit behind you, and stand 6 to 8 feet away from the blaze:

- **P**ull the pin to activate the handle.
- **A**im the nozzle at the base of the fire.
- **S**queeze the handle to expel the extinguishing agent (you can expect that when this substance first hits the fire, the fire may flare up briefly).
- **S**weep the extinguishing agent from side to side, pushing the fire away from you. .

Once the fire is out, carefully back away from the area, with the extinguisher ready, until conditions are safe. Never turn your back on a fire, as it could reignite.

Fighting a Fire

Fire extinguishers should only be used to fight fires when the fire department has been notified, when there is a clear exit behind the individual using an extinguisher, and when a fire is small, self-contained, and not spreading rapidly. The following rules provide guidance for handling fire-related emergencies:

- **Do not attempt to extinguish fires with a fire extinguisher until after the fire alarm has been activated, and never do so:**
  - If the fire is spreading beyond its point of origin.
  - If you don't know what is burning, and therefore are uncertain of what type of fire extinguisher to use.
  - If there is no escape exit behind the individual attempting to fight the fire.
  - If you might inhale toxic smoke.
  - If individuals fighting the fire are not thoroughly familiar with effective use of fire extinguishers.
  - If available fire extinguishers are not rated for the type of fire being fought.
  - If your instincts tell you not to… If you feel uncomfortable in the situation, for any reason, leave the building and let the fire department fight the fire.

EXTINGUISHER INSPECTION AND MAINTENANCE

Fire extinguishers should be visually inspected at least once per month by the owner of the building or by an SCS employee. Inspection should verify that pressure gauges or indicators show that fire extinguishers are fully charged and contain the correct pressure. For fire extinguishers in buildings, inspectors should guarantee that extinguishers have been placed in the right locations and are readily accessible and visible.

Fire extinguishers should receive annual maintenance; to be performed by a professional who has the training and certification necessary to maintain these devices in accordance with local, state, and national codes and regulations. Because SCS personnel have not been so trained, a professional must be contacted to perform this service. The maintenance of fire extinguishers should include thorough examination of the device's mechanical parts, expellant gas, and fire-extinguishing agent.

COMMERCIAL VEHICLES

Under Department of Transportation (DOT)/Federal Motor Carrier Safety Administration (FMCSA) regulations, all commercial motor vehicles (CMVs) must carry a fire extinguisher. The extinguisher must be securely mounted and readily accessible for use. The extinguisher must have a gauge or other indicator that shows whether the extinguisher is fully charged, and a label showing its Underwriters' Laboratories (UL) rating. CMVs must carry either:

- One extinguisher with a UL rating of 5 B:C or more; or
- Two extinguishers, each with a UL rating of 4 B:C or more.

SOP 12

SAFE PROCEDURES FOR HAND AND POWER TOOLS

PURPOSE AND SCOPE

This section describes hazards that can arise from the use of hand or power tools, safe work practices that can be implemented while using these tools, and Personal Protective Equipment (PPE: see ***Appendix E***) and guards required for power equipment. Although most hand and power tools are not complicated to operate, basic safety practices must be followed, and the tools must be kept in proper operating condition. The discussion applies to all SCS employees who use this equipment during the performance of their work.

SAFE WORK PRACTICES

Three strategies are essential for safe operation of hand and power tools:

- **Avoid Danger:** Inform yourself of situations or conditions to avoid while using hand and power tools, and learn to anticipate these situations before they can cause harm.

- **Protect Yourself:** Work safely and use PPE to protect yourself from hazards.

- **Defend Yourself:** Anticipate the unexpected, and understand how to remedy safety-related problems if they occur. **NEVER** leave running power tools unattended.

Avoiding Danger and Protecting Yourself

As an initial step, it is imperative that you understand how to operate equipment safely and are informed of its danger. Danger can be avoided or minimized if you:

- Do not use power tools if you are overly tired or under the influence of drugs or alcohol.
- Be alert at all times, especially during repetitive operations. Don't be tempted into carelessness due to a false sense of security. Tools are extremely unforgiving!
- Always wear safety glasses with side shields that comply with the ANSI Z71 standard.
- Wear a full face shield, while also wearing safety glasses, if the tool generates large amounts of flying debris and/or sparks.
- Wear proper hearing protection, as needed (see *Appendix H* for more information).
- Wear an appropriate dust mask or respirator (Voluntary Use), as appropriate, if work generates significant amounts of air suspended particulates.
- Avoid being struck by debris by properly positioning yourself and others relative to the task being performed.
- Avoid wearing loose clothing and/or jewelry.
- Tie back or confine long hair and/or long sleeves.

- Use the right tool for the job. It will do the job more efficiently and safer.
- Always read and understand the tool's operator's manual before starting any work.
  - Do not operate tools until you are trained in their proper use.
  - Know a tool's limitations and potential hazards.
  - Know how to operate all controls.
  - Learn to recognize problems.
  - Avoid contact with moving parts by understanding danger zones of every tool you use.
  - Never disable or remove a safety feature or guard.
  - Understand the tool's safety features and guards. Inspect safety features and guards before use.
  - If a safety feature or guard is missing or is not working, tag out the tool for repair and notify your supervisor.
- If a method of dust collection is available with the power tool, it should be used to reduce the risk of dust-related hazards.

Preventing Contact

To avoid injury, work habits can be modified to keep you from encountering the danger that tools can create:

- Use the power tool accessories only for the functions for which they were designed.
- Always move your hands back and away from tools.
- Never reach toward or across a tool.
- Never brush away sawdust, shavings, or turnings while the tool is running.
- Use clamps, vices, or other devices to hold and support the piece you're working on so you can have two hands free to control the tool.
- Try to predict where you and the tool would end up if you lost your balance or the tool slipped, and position yourself safely.
- Maintain control of a tool until it comes to a complete stop; do not set it down or swing it toward you.
- If a tool is too heavy to control comfortably, choose a lighter tool, get assistance from another employee to help control the tool, or use a manufacturer's specific rest or counterbalance to support the tool's weight. Do not force the tool to complete the task. Apply enough pressure to keep the bit or blade cutting smoothly. If the motor slows down, relieve the pressure. Too much pressure can damage the tool and cause you to lose control of the tool.
- Maintain accessories appropriately. Keep blades and bits sharp and clean.
- Use only accessories recommended by the tool manufacturer. Accessories that may be suitable for one tool may become hazardous when used on another tool.
- Do not touch the drill bit, blade, cutter or the workpiece immediately after operation; they may be very hot and may burn you.

Develop Proper Habits

Safe work habits will also help you to avoid danger, as follows:

- Make sure tools are turned off before plugging them in.
- Unplug tool or remove battery before changing accessories or making adjustments.
- When required, store batteries in the appropriate charger, away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects. These things can make a connection from one terminal to the other, shorting the battery terminals together and causing burns or fire.
- Use only grounded (three pronged plug) or double-insulated (a polarized plug that has one blade wider than the other) tools, and keep them dry.
- Never remove the ground prong or modify the polarized blade on plugs.
- Stay out of wet areas unless you and the tool are properly protected.
- Use a Ground Fault Circuit Interrupter (GFCI).
- Never use regular power tools when explosive quantities of vapors, dust, or gases are present. Monitor as necessary when using equipment or tools in these environments. Many hand and power tools have the potential to create sparks. See SOP 5 – Work Permits when working near hazardous materials or chemical processes, landfill gas systems, and confined spaces.

Inspecting and Maintaining Tools

Inspecting tools helps protect you from accidents. Proper maintenance keeps tools working safely and effectively. Regular inspection and maintenance of tools must be consistent with the manufacturer's requirements and will include, but not be limited to:

- Inspecting all handles, cords, switches, plugs, prongs, and guards.
- Looking for cracks in the casing and for loose screws.
- Making sure guards work correctly and don't stick.
- Checking grips and triggers, and be sure auxiliary handles are firmly attached.
- Looking for wear and other problems with padding and other anti-vibration features.
- Checking blades, bits, and other accessories to make sure they are the correct size and shape for the tool and job.
- If the inspection shows a defect(s), remove the tool from service, have the tool repaired a qualified service technician or replace it.
- Clean and lubricate tools as directed in the operator's manual.

Defending Yourself from Harm

"Defense" against danger involves anticipating or recognizing potentials for harm in the work environment, and developing habits to avoid the threat:

- Survey the area to make sure it's safe to proceed with work.
- Check the area for power lines, electric wires, pipes, and other mechanical hazards.
- Find out what's behind walls or other locations hidden from view.
- Make sure there's enough light.
- Clean the area to provide enough room to work.
- Pick up as you go.

Other guidance involving power tools depends on the tool's structure, its potential for danger, intended use, and other factors, as follows:

Power Cords

- Plug cords into a permanent or portable GFCI.
- Avoid connecting two extension cords together and never overload a receptacle.
- Secure cords to prevent damage to the cords and to avoid hazards for people in the area.
- Keep cords away from heat, water, oil, sharp edges, and moving parts.
- When using a power tool outdoors, use an appropriate outdoor extension cord (marked with "W-A" or "W").
- Never use the cord to carry a tool or to unplug it.
- Inspect cords for damaged or frayed conditions; do not use cords if damaged or frayed.
- Get the right type and length of extension cord for the job, based on the following chart:

Nameplate Amps	Cord Length in Feet			
	25'	50'	100'	150'
0-6	18	16	16	14
6-10	18	16	14	12
10-12	16	16	14	12
12-16	14	12	Not Recommended	

Saws

- Check the blade's alignment and tightness before plugging in and starting the saw.
- When changing blades, make sure the spindle and blade clamp areas are free from debris. Metal chips and sawdust may prevent the blade from being held firmly.
- Do not cut pieces so small that they cannot be properly secured.
- Remove nails, staples, loose knots, and any other cutting encumbrances before cutting.
- Use caution cutting material that is under tension, dirty, pitchy, knotty, or warped. These materials are most likely to create pinching conditions and possible kickback.
- Make sure your footing is secure and the cord is out of the way of the cut.
- After turning on the saw, let the blade reach full speed before beginning the cut.
- Use both hands to hold the saw, and don't force it through the cut. Be alert to the possibility of the blade binding and kickback occurring.
- Don't reach under or around the material you're cutting.
- Don't put down the saw until the motor has stopped.

    - Circular Saws

        - Adjust blades so that they project about 1/8 to ¼ inch beyond the material you're cutting.

- Reciprocating Saws
  - To minimize blade flexing and provide a smooth cut, use the shortest blade that will do the job but will extend beyond the workpiece throughout the stroke.
  - Always hold the shoe of the saw firmly against the material you are cutting. Blades may shatter if they impact the work or shoe. Do not use the saw without the shoe for secure control and to avoid damage to the tool and blade.
- Chain Saws
  - To reduce the risk of cut injuries, wear pants or chaps that contain pads of cut retardant material.
  - Chain saw noise may damage your hearing. Wear proper hearing protection devices to help protect your hearing.
  - Always wear gloves when handling and operating chainsaws. Heavy-duty, nonslip gloves improve your grip and help to protect your hands.
  - Check chain tension per the manufacturer's instructions.
  - Make sure that the chain is always sharp and the lubrication reservoir is full.
  - Start the saw on the ground or on another firm support. Drop starting is never allowed.
  - Start the saw at least 10 feet from the fueling area, with the chain's brake engaged.
  - Chain saws must be equipped with a protective device that minimizes chain saw kickback.
  - Be cautious of saw kick-back. To avoid kick-back, do not saw with the tip. If equipped, keep tip guard in place.
  - Shut off the saw and fit the chain guard (scabbard) over the chain and guide bar when carrying the saw on rough or uneven terrain.

Drills

- Tighten the chuck securely and remove the key.
- Never remove a fixed-position drill (concrete coring drill, drill press, etc.) from its mounting base.

- If the bit binds in the workpiece, release the trigger immediately. Unplug or remove the tool's battery, and then free the bit from the workpiece. Do not try to free a jammed bit by starting and stopping the tool. As you get close to breaking through the workpiece, reduce pressure and allow the bit to pass through the hole easily.

Grinding

- Wear heavy-duty nonslip gloves while using grinding machines.
- Check to see where sparks might fall.
- Keep the area clear of debris.
- Follow "hot-work" procedures when applicable. (See *SOP 5* for more information.)
- Allow the wheel to reach full speed.
- Move the work piece slowly across the wheel face. Or if using a portable grinder, move the grinder slowly across the work.
- Use locking pliers or a clamp to hold small pieces.

Pneumatic Tools

- Protect yourself and others from flying debris and noise.
- Protect hoses, filters, and gauges from damage.
- Never use compressed air to clean or blow away dust or debris unless the attached blow gun is regulated at 30 psi or less.
- Never point tools toward yourself or others.
- Never pull the trigger unless the tool's nose piece is directed at a safe work surface.

Gasoline and Diesel Powered Tools

- Fuel shall be stored and transported in approved flammable liquid containers.
- Before filling the tank for a fuel powered tool, turn off the engine and allow it to cool to prevent accidental ignition of vapors.
- Effectively ventilate an enclosed area to avoid inhalation of carbon monoxide.
- Have a fire extinguisher adjacent to the fueling operation.

SOP 19
SITE SANITATION AND DECONTAMINATION PROCEDURES

PURPOSE

All SCS work locations must address providing adequate potable water, toilet facilities, washing facilities, waste receptacles, and vermin control as required by law and explained in this SOP. In some cases, toilets and washing facilities may be located nearby (as described below). At some sites, change rooms, showers, and/or emergency showers may be needed.

This chapter also describes decontamination (decon) requirements, including planning, methods, and ways to prevent or limit contamination. In addition, this section provides general guidelines for checking the effectiveness of decontamination, disposing of wastes from decontamination, and emergency decontamination, and it presents a decision aid for evaluating the health and safety aspects of decontamination methods.

SANITATION REQUIREMENTS

Potable Water (Approved for Drinking)

An adequate supply of water must be provided in all places of employment. Specific additional requirements must be met when workplace temperatures exceed 80° F (see SOP 25, Avoidance and Prevention of Heat and Cold Stress).

- If individual water bottles are used, keep caps above any liquid level (e.g., from melting ice in a cooler), and if there is potential for confusing containers, mark them to avoid having more than one person drink from a given container.
- Shared bulk containers must be tightly closed and equipped with a tap. Such containers must be marked POTABLE WATER or DRINKING WATER and not used for any other purpose.
- Reusable containers are to be cleaned with 10:1 solution of water and bleach to prevent the spread of disease (colds, flu, or hepatitis).
- Potable water is not to be dipped from containers.
- Sanitary cups will be stored in sanitary containers. Single-service cups will be used only once. A common drinking cup is prohibited.
- Covered refuse containers or bags must be provided at the drinking station to collect used single-service cups and disposable bottles.

Non-Potable Water (for Work Operations, Firefighting, etc.):

- Outlets for non-potable water must be identified by signs and labeled UNSAFE or NON-POTABLE or otherwise labeled to indicate clearly that the water is unsafe and is not to be used for drinking, washing, or cooking.
- There must be no cross-connection, open or potential, between potable and non-potable water.

Toilets

Federal requirements for the minimum number of toilets are as follows:

- 20 employees or fewer: 1 toilet
- 20 or more but fewer than 200: 1 toilet per 40 workers
- 200 or more: 1 toilet per 50 workers

California and other states have different requirements, and sometimes the requirements differ depending on whether your work is considered construction or not. Contact a local vendor of portable toilets to find out about specific requirements for your job site.

If sewers are unavailable, options include:

- Privies
- Chemical toilets
- Recirculating toilets
- Combustion toilets

Toilets are not required at construction sites that are not normally occupied or for mobile construction crews, if employees have transportation to readily available nearby toilet facilities. "Readily available" means within 10 minutes.

Washing Facilities

Emergency Washing Facilities

Where the eyes or body of any person may be exposed to injurious or corrosive materials, suitable facilities for drenching the body or flushing the eyes with clean water shall be conspicuously and readily accessible (per federal OSHA 1910.151(c) and Cal/OSHA T8 1512(f)). For the purposes of this section, "corrosive material" means it has a pH less than 2 or greater than 11.5. The emergency shower and eye wash station must be plumbed to a continuously-running potable water supply, or it must be supplied by a 50-gallon container of potable water. The shower and eye wash station should be located so that employees do not have to walk more than 10 seconds (approximately 55 feet) to access the eye wash and shower.

Standard Washing Facilities

For standard washing facilities, these items must be provided:

- Hot and cold running water or tepid running water
- Hand soap or cleansing agents
- Hand drying materials, such as:
  - Individual hand towels
  - Warm blowers
  - Individual sections of continuous cloth toweling

Washing facilities are not required at sites that are not normally occupied or for mobile crews, if employees have transportation to readily available nearby washing facilities. "Readily available" means within 10 minutes.

Eating and Drinking Areas

If eating and/or breaks will be taken on site, then safe eating and/or break areas must be established. Eating and break areas will be maintained as follows:

- Containers for trash and garbage are to be provided and emptied at least daily.
- Housekeeping should be performed daily.
- No employee is allowed to consume food or beverages in rooms containing toilets or in areas exposed to toxic materials, and no food or beverages may be stored in these areas.

Do not enter an eating or drinking area while wearing contaminated PPE, and do not bring contaminated equipment into an eating or drinking area. Always wash your face and hands before eating or drinking.

Garbage cans in eating and drinking areas must be provided and used for the disposal of waste food. The receptacles must be made of smooth, corrosion-resistant, and easily-cleanable materials, or they must be disposable or have a disposable liner. The number, size, and location of such receptacles will encourage their use and will not result in overfilling. They must be emptied at least once each working day, unless unused, and must be maintained in a clean and sanitary condition. Receptacles must be provided with a solid, tight-fitting cover, unless sanitary conditions can be maintained without the use of a cover.

Change Rooms and Showers

Change rooms and showers help stop the spread of hazardous substances to off-site areas, such as an employee's home. Some projects must be evaluated for the need to provide a change room and shower. The project manager or superintendent will make this determination with their Health and Safety Coordinator, OM&M Safety Specialist, or the Corporate Health and Safety Director.

- **Change rooms** are required for sites where employees must change their clothes (i.e., take off their street clothes and change into work clothes) before donning PPE.
- **Change rooms and showers** are required at sites where cleanup operations are subject to the requirements of the HAZWOPER regulations (29 CFR 1910.120), provided the duration of work exceeds 6 months and the decontamination procedures to be followed create the potential for contamination of an employee's street clothes. Additionally, showers are required where skin contact with hazardous particles such as heavy metal dust (for example lead, inorganic arsenic, cadmium, hexavalent chromium, etc.) might occur or where a project's decontamination procedure indicates a need for showers.

Change rooms will include separate storage facilities for street clothes and work clothes. Showers and change rooms will be located outside the contaminated area. Requirements for showers include:

- For every shift, one shower per 10 employees of each gender
- Hot and cold water
- Soap or other cleaning agent
- Individual clean towels

Vermin Control

Every enclosed workplace must be constructed, equipped, and maintained, so far as is reasonably practicable, to prevent the entrance or harborage of rodents, insects, and other vermin. A continuing and effective extermination program will be instituted where the presence of vermin is detected.

DECONTAMINATION

Decontamination is the process of removing or neutralizing contaminants that have accumulated on personnel and equipment. It is critical to protecting the health and safety of SCS staff at project sites and limiting the spread of contaminants off the site.

Standard decontamination involves physical removal of contamination, followed by scrubbing with detergent and water, and rinsing with clean water. The process used at your site may be adapted to site conditions, so that it is appropriate for the items being cleaned and the contaminants being removed or neutralized.

Decontamination protects workers from hazardous substances on personal protective equipment (PPE), tools, vehicles, and other equipment; it minimizes the spread of hazardous substances into clean areas; it helps prevent mixing of incompatible chemicals; and it protects the community by preventing uncontrolled transportation of contaminants from the site. All personnel, clothing, equipment, and samples leaving the contaminated area of a site (generally referred to as the Exclusion Zone) must be decontaminated to remove any harmful chemicals or infectious organisms that may have adhered to them.

Decontamination Plan

Before starting work, the project site and scope of work must be considered to determine if a decontamination plan should be developed as part of the Site-Specific Health and Safety (SSHSP) plan. The decontamination plan will describe:

- The number and layout of decontamination stations.
- The decontamination equipment needed.
- Appropriate decontamination methods and procedures, including how to prevent contamination of clean areas.
- Methods for disposing of clothing and equipment that are not completely decontaminated.

The plan should be revised as needed based on assessments of the effectiveness of the decontamination practices and whenever the type of PPE or equipment changes, the site conditions change, or the site hazards are reassessed based on new information.

The decontamination area must be set up before any personnel or equipment may enter areas where they might be exposed to hazardous substances.

Prevention of Contamination

It is SCS standard practice to minimize contact with waste and thus the potential for becoming contaminated. Prevent contamination by the following actions:

- Prioritize work practices that minimize contact with hazardous substances (e.g., do not walk through areas of obvious contamination and do not directly touch potentially hazardous substances).
- Use remote sampling, handling, and container opening techniques (e.g., drum grapplers, infrared thermometer).
- Protect monitoring and sampling instruments by bagging. Make openings in the bags for sample ports and sensors that must contact site materials.
- Wear disposable outer garments and use disposable equipment where appropriate.
- Cover equipment and tools with a strippable coating which can be removed during decontamination.
- Encase the source of contaminants (e.g., with plastic sheeting or overpacks).

SCS Standard Operating Procedures maximize the effectiveness of worker protection. For example, following proper procedures for donning PPE will minimize the potential for contaminants to bypass the protective clothing or escape decontamination. All PPE fasteners should be used (i.e., zippers fully closed, all buttons used, all snaps closed, etc.). The sleeves and legs of outer clothing should be tucked under gloves and boots, and hoods (if not attached) should be worn outside the collar. A pair of tough outer gloves is often worn over the sleeves to protect inner chemical-protective gloves from tears, cuts, and abrasions. All junctures should be taped to prevent contaminants from running inside the gloves, boots, and jackets (or suits, if one-piece construction). Detailed guidance on the selection, use, and maintenance of PPE is provided in the SCS PPE program (see Appendix E for PPE other than respiratory and Appendix F for respiratory protection).

Prior to each use, check your PPE to verify that it has no cuts or punctures that could expose you to hazardous substances. Similarly, particular care should be taken to protect any skin injuries, such as cuts and scratches, that might otherwise allow chemicals or infectious agents on the wound to enter the body. Anyone with large areas of damaged skin should not work in contaminated areas until their skin heals.

All project personnel shall be trained in the Standard Operating Procedures for minimizing contact and maximizing worker protection. Compliance with these procedures will be required where they are necessary to reduce the risk of exposure to hazardous substance contamination.

Types of Contamination

Contaminants can be located either on the surface of personal protective equipment or permeated into the PPE material. Surface contaminants may be easy to detect and remove; however, contaminants that have permeated a material are difficult or impossible to detect and remove. If contaminants that have permeated a material are not removed by decontamination, they may continue to permeate to either surface of the material where they can cause an unexpected exposure.

Five major factors affect the extent of permeation:

- Contact time: The longer a contaminant is in contact with an object, the greater the probability and extent of permeation. For this reason, minimizing contact time is one of the most important objectives of a decontamination program.

- Concentration: Molecules flow from areas of high concentration to areas of low concentration. As concentrations of wastes increase, the potential for permeation of personal protective clothing increases.
- Temperature: An increase in temperature generally increases the permeation rate of contaminants.
- Size of contaminant molecules and pore space: Permeation increases as the contaminant molecule becomes smaller, and as the pore space of the material to be permeated increases.
- Physical state of wastes: As a rule, gases, vapors, and low-viscosity liquids tend to permeate more readily than high-viscosity liquids or solids.

These permeation factors should be considered when deciding whether decontamination is feasible (in some cases disposal may be a more efficient option) and when evaluating different methods of decontamination.

Decontamination Methods

- Physically remove contaminants.
- Inactivate contaminants by chemical detoxification or disinfection/sterilization.
- Use a combination of both physical and chemical means.

Many factors, such as cost, availability, and ease of implementation, influence the selection of a decontamination method. From a health and safety standpoint, two key questions must be considered:

- Is the decontamination method effective for the specific substances present?
- Does the method itself pose any health or safety hazards?

In many cases, gross contamination can be removed by physical means involving dislodging/displacement, rinsing, wiping off, and evaporation. Physical methods involving high pressure and/or heat should be used only on equipment, not personnel, and with caution since they can spread contamination and cause burns. Contaminants that can be removed by physical means can be categorized as follows:

- Loose contaminants: Dusts and vapors that cling to equipment and workers or become trapped in small openings, such as the weave of the clothing fabrics, can be removed with water or a liquid rinse. Removal of electrostatically attached materials can be enhanced by coating the clothing or equipment with anti-static solutions. These are available commercially as wash additives or anti-static sprays.
- Adhering contaminants: Adhesive qualities vary greatly with the specific contaminants and the temperature. For example, contaminants such as glues, cements, resins, and muds are difficult to remove by physical means. Physical removal methods for gross contaminants include scraping, brushing, and wiping. Removal of adhesive contaminants can be enhanced through certain methods such as solidifying, adsorption or absorption (e.g., with powdered lime or kitty litter), or melting.
- Volatile liquids: Volatile liquid contaminants can be removed from protective clothing or equipment by evaporation followed by a water rinse.

Physical removal of gross contamination should be followed by a wash/rinse process using cleaning solutions. These cleaning solutions normally utilize one or more of the following methods:

- Dissolving contaminants: Chemical removal of surface contaminants can be accomplished by dissolving them in a solvent. The solvent must be chemically compatible with the equipment being cleaned, so that the equipment or PPE is not damaged or dissolved. In addition, care must be taken in selecting, using, and disposing of any organic solvents that may be flammable or toxic. Organic solvents include alcohols, ethers, ketones, aromatics, straight chain alkanes, and common petroleum products.
- Surfactants: Surfactants help physical cleaning by loosening contaminants and by preventing redeposit of the contaminants. Household detergents are among the most common surfactants. Some detergents can be used with organic solvents to improve the dissolving and dispersal of contaminants into the solvent.
- Solidification: Solidifying liquid or gel contaminants can enhance their removal. The mechanisms of solidification are (1) moisture removal through the use of absorbents such as granular clay or powdered lime; and (2) chemical reactions via polymerization catalysts and chemical reagents.
- Rinsing: Rinsing can physically attract, dilute, and dissolve some contaminants. Multiple rinses with clean solutions remove more contaminants than a single rinse reusing the same volume of solution. Continuous rinsing with large volumes will remove even more contaminants than multiple rinses with a smaller volume.
- Disinfection/Sterilization: Chemical disinfectants are a practical means of inactivating infectious agents. Unfortunately, standard sterilization techniques are generally impractical for PPE. For this reason, disposable PPE is recommended for use with infectious agents.

Decontamination Effectiveness Testing

The effectiveness of any decontamination method should be assessed at the beginning of a program and periodically throughout the lifetime of the program. If contamination is not being removed or is penetrating protective clothing, the decontamination program must be revised.

The following methods may be useful in assessing the effectiveness of decontamination.

Visual Observation

There is no reliable test to immediately determine how effective decontamination is. In some cases, effectiveness can be estimated by visual observation.

- Natural light: Discolorations, stains, corrosive effects, visible dirt, or alterations in clothing fabric may indicate that contaminants have not been removed. However, not all contaminants leave visible traces; many contaminants can permeate clothing and are not easily observed.
- Ultraviolet light: Certain contaminants, such as polycyclic aromatic hydrocarbons (PAHs), which are common in many refined oils and solvent wastes, fluoresce and can be visually detected when exposed to ultraviolet light. Ultraviolet light can be used to observe contamination of skin, clothing, and equipment; however, certain areas of the skin may fluoresce naturally, thereby introducing an uncertainty into the test. Prior to utilizing this technique, you must obtain approval from the Corporate Health and Safety Director.

Wipe Sampling

Wipe testing provides after-the-fact information on the effectiveness of decontamination. In this procedure, a dry or wet cloth, glass fiber filter paper, or swab is wiped over the surface of the potentially contaminated object and then analyzed in a laboratory. Both the inner and outer surfaces of protective clothing should be tested if there is a potential for permeation. Skin may also be tested using wipe samples.

Cleaning Solution Analysis

Another way to test the effectiveness of decontamination procedures is to analyze for contaminants left in the cleaning solutions. Elevated levels of contaminants in the final rinse solution may suggest that additional cleaning and rinsing are needed, and the decontamination procedure should be revised.

Testing for Permeation

Testing for the presence of permeated chemical contaminants requires that pieces of the protective garments be sent to a laboratory for analysis.

Health and Safety Hazards

Decontamination can pose hazards under certain circumstances. Decontamination methods may:

- Be incompatible with the hazardous substances being removed (e.g., a decontamination method may react with contaminants to produce flammable vapors, excessive heat, or toxic products).
- Be incompatible with the clothing or equipment being decontaminated (e.g., some organic solvents can permeate and/or degrade protective clothing).
- Pose a direct health hazard to workers (e.g., vapors from chemical decontamination solutions may be hazardous if inhaled, or they may be flammable).

The decontamination plan must anticipate and minimize these hazards to the extent feasible. The chemical and physical compatibility of the decontamination solutions or other decontamination materials must be determined before they are used. Do not use any decontamination method that permeates, degrades, damages, or otherwise impairs the safe functioning of the PPE. If a decontamination method poses a hazard, measures must be taken to protect both decontamination personnel and the workers being decontaminated.

Disposal Methods

All equipment used for decontamination must be decontaminated and/or disposed of properly. Buckets, brushes, clothing, tools, and other contaminated equipment should be collected, placed in containers, and labeled. Also, all spent solutions and wash water should be collected and disposed of properly. Clothing that is not completely decontaminated should be placed in plastic bags, pending further decontamination and/or disposal.

Personal Protection

Decontamination workers who initially come in contact with personnel and equipment leaving a contaminated work area (e.g., the Exclusion Zone) will require more protection from contaminants than decontamination workers who are assigned to the last station in the decontamination line. In some cases, decontamination personnel should wear the same levels of PPE as workers in the Exclusion Zone. In other cases, decontamination personnel may be sufficiently protected by wearing one level lower protection (e.g., wearing Level C protection while decontaminating workers who are wearing Level B).

The level of protection required will vary with the contaminant and the decontamination method. For example, workers using a steam jet may need a different type of respiratory protection than other decontamination personnel because of the high moisture levels produced by steam jets. In some situations, the cleaning solutions used and wastes removed during decontamination may generate harmful vapors. Appropriate equipment and clothing for protecting decontamination personnel will be determined by the Health and Safety Coordinator, OM&M Safety Specialist, or designee, and in consultation with the Corporate Health and Safety Director as necessary, and will be listed in the decontamination plan.

All decontamination workers must be decontaminated themselves before entering the clean Support Zone. The extent of their decontamination should be appropriate for the contaminants they may have contacted and the type of work they performed.

Emergency Decontamination

In addition to routine decontamination procedures, emergency decontamination procedures must be established for use during evacuation and when a worker is injured or has a health emergency.

In an emergency, the primary concern is to prevent the loss of life or severe injury to personnel. If immediate medical treatment is required to save a life, decontamination should be delayed until the victim is stabilized. If decontamination can be performed without interfering with essential life-saving techniques or first aid, or if a worker has been contaminated with an extremely toxic or corrosive material that could cause severe injury or loss of life, decontamination must be performed immediately. In case of heat-related illness, protective clothing should be removed from the victim as soon as possible to reduce the heat stress. During an emergency, provisions must also be made for protecting medical personnel and disposing of contaminated clothing and equipment.

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SOP 24

AVOIDANCE OF SLIPS, TRIPS, AND FALLS

PURPOSE

This section describes ways to avoid and prevent accidents involving slipping, tripping, and falling in the workplace. These hazards have historically caused many injuries at SCS .With most of the suggestions provided below, common sense dictates safe practice. This discussion applies to all SCS employees.

HAZARDS FROM SLIPPING

Slipping occurs when there is not enough friction or traction between feet and ground surface. The most common causes of slipping are:

- Wet surfaces.
- Worn shoe soles.
- Spills.
- Weather (hazards from ice and snow).

To avoid slipping on wet surfaces:

- Avoid (take detours around) the area of a floor that is wet. Standing water could also indicate or camouflage a missing drain or cover.

- For areas that are always wet, maintain proper drainage, or use a doormat to create slip-free transition areas between wet and dry surfaces. If possible, use non-skid strips, mats, gratings, and gritty floor coatings for these areas.

- For temporarily wet surfaces, dry surfaces when possible by mopping or cleaning one side of the space at a time, so people passing through the room will have a dry area on which to walk. Post warning signs for passersby to make them aware of wet areas.

- Walk with feet pointed outward, shorten strides to keep a center of balance, and wear slip-resistant footwear. This footwear usually has soft rubber soles and heels.

- Remember that wet shoes on dry floors can be just as slippery as dry shoes on a wet surface.

Worn Shoe Soles and Inclement Weather

Only shoes with good soles and treads that provide traction and ankle support should be worn. When ordering boots for fieldwork, sole patterns that give slip resistance appropriate for job tasks should be selected. Overshoes or shoe overlays provide proper traction in icy or snowy conditions. The effects of glare on snowy surfaces can make it difficult to see walking hazards;

consider wearing sunglasses to reduce the glare, and remember than in many circumstances the sunglasses must be ANSI-approved safety glasses. Work in snow and ice should be performed slowly, taking extra care when exiting vehicles to hold on to the vehicles for support.

Spills

Spills should be cleaned up immediately and the floor dried. If cleaning is not immediately possible, warning signs should be posted to draw attention to the spill area to warn people of the hazard. Walking surfaces and work areas should be well lit. If machinery leaks, a drip pan should be used to collect fluids, or absorbents to clean the walking surface. Suitable agents for cleaning grease and oil spills should also be used when necessary.

Other Hazards

Rugs secured to the floor or made with skid-resistant backing are optimal. When rugs with skid-resistant backing are not available, removing these rugs also removes dangers from slipping. Debris, including dust particles, or pieces of paper should likewise be removed. If irregular surfaces caused by loose gravel or sloping are encountered, employees should slow down and pay attention to the placement of their feet, and look for obstructions and holes.

In addition to these hazards, walking from one type of surface, such as from carpets to marble floors or from grass to gravel surfaces, can change the length of steps. Employees should adjust their steps and adapt balance until they can regain equilibrium and feel stable on the new surface. Slip-resistant shoes can be beneficial in preventing slips.

TRIP HAZARDS

Tripping occurs when feet strike an object that causes the loss of balance. Commonly, this happens from:

- Clutter and uncovered cables.
- Uneven walking surfaces.
- A hole or stump in the ground.
- Obstructed views of the walking surface.
- Poor lighting.
- Obstacles around corners.

Clutter and Uncovered Cables and Piping

Good housekeeping, which includes keeping floors and walkways free of clutter and obstacles, should regularly be practiced. **Nothing** should be put on walkways to cause an obstruction. Cords or cables should be routed around walkways, if possible, but if not, cables or cords should be covered and secured with heavy-duty tape or cable covers. Mats, rugs, or carpets should not have curled edges or wrinkles, and should be secured by tacking or taping them down. Warning signs or barriers should be posted around temporary piping laid on walking surfaces, to notify employees of possible tripping hazards posed by piping on the ground. In the office or other storage spaces, personnel should remember to close bottom drawers of file cabinets or tool carts as soon as they are finished with their work.

Uneven Walking Surfaces, Sloped Surfaces, and Holes and Stumps in the Ground

To avoid tripping, established walkways should be used as often as possible. Areas for walking can be scanned for obstacles and surface hazards, and footing secured while walking through wet grass, around holes or stumps, or in muddy areas. Canes or long sticks can also be used to identify holes or obstructions in areas with high grass.

When walking down sloped surfaces, use extreme caution, walk with knees bent, and take small steps to lessen the risk of a fall or trip. Employees should use canes or walking sticks to assist in walking up or down slope surfaces. Employees, whenever possible, should avoid walking up or down steep slopes and use switchback trails or established roadways to travel up or down steep slopes.

If you cannot go around an obstruction, try to step over it (instead of on it). Stumps, logs, rocks, piles of lumber, etc. can be slippery, and they may also contain animals, insects, and other biological hazards such as snakes.

Obstructed Views and Poor Lighting

Carrying small loads helps to reduce the risk of obstruction and the dangerous consequences from tripping or falling as described above. If employees are required to enter unlit areas, flashlights can be used and the pace of walking slowed. Sunglasses should be avoided in low-light areas, and, because eyes need time to adjust while personnel go from well-lit areas to dark spaces, this adjustment must be considered. To improve vision, burned-out light bulbs and faulty lighting should be replaced as soon as possible.

The use of respirators may limit the field of vision, and employees should be especially cautious when using respirators and be constantly aware of rocks or other soil debris when walking on landfills or field sites. Employees should stay on established walkways as much as possible, and the walkways should be maintained free of tripping hazards.

Obstacles Around Corners

Personnel in offices or buildings should walk carefully around corners and look for obstacles on the floor. Stay to the outside of corridors when rounding corners. Safety mirrors near corners help to show oncoming traffic or obstacles obscured by corners.

HAZARDS FROM FALLING

Falling from heights can cause serious injury or death. Employees should always use proper ladders and fall protection while working at heights greater than 4 feet (see ***SOP 10***). Makeshift ladders or chairs should **never** be used to reach for objects at elevated heights (see ***SOP 13***).

Additional Suggestions

To ensure safety on stairs, make sure one hand is free while climbing, and hold on to the handrail. Each step up or down should be made deliberately, planting your foot firmly before putting weight on it. Carrying large loads that block vision, or heavy items requiring the use of both hands while traveling down or up the stairs, should be avoided. When climbing up or down from heavy machinery or trucks, the use of the three-point of contact rule (three of your four limbs should be placed on hand or foot rails of machinery or vehicles while entering or exiting: this means one hand and two feet, or two hands and one foot). Walking backwards is also not advisable.

SOP 25

AVOIDANCE AND PREVENTION OF HEAT AND COLD STRESS, AND OTHER WEATHER-RELATED HAZARDS

PURPOSE

This section describes recommended methods to recognize, prevent, and measure heat and cold stress in the field, as well as engineering controls and work practices to avoid and prevent heat and cold stress. This procedure will also cover other weather-related hazards such as thunderstorms, tornados, and hurricanes. This discussion applies to all employees who work outdoors. Such employees are responsible for understanding and following the relevant requirements.

HEAT ILLNESS

Hazards of Heat Illness

Table 1 outlines the causes, symptoms and treatment methods for heat illness and other hazards encountered in hot environments.

Table 1. Heat Illness Hazards - Symptoms and Treatment

Heat Illness Hazard	Causes and Symptoms	Treatment
Sunburn	Mild sunburn is identified when exposed skin turns light pink. This can occur in a short period of time (as little as 15 minutes) in high UV conditions. As sunburn progresses, skin turns a deeper pink to bright red and is hot and painful to touch. Blisters can occur in very severe cases.	Cover exposed skin to protect it from exposure to the sun. Wear a broad-brimmed hat, ANSI approved sunglasses, and work under cover when possible. Sunscreen that provides adequate protection against both UVA and UVB rays should be used. Sunscreen should be applied about half an hour prior to sun exposure, and again just before working in the sun. Studies have shown that most people apply too little sunscreen. The SPF of sunscreen is reduced when it is applied too thinly. Personnel should reapply sunscreen periodically, especially if they perspire a great deal.

Heat Illness Hazard	Causes and Symptoms	Treatment
Heat Rash	Excessive sweating results in sweat ducts being plugged and creates skin inflammation. Symptoms include a prickly rash which can become infected.	• Rest in a cool area • Wash the skin • Allow skin to dry • Seek medical attention if rash becomes infected • Regularly cleanse and dry skin
Fainting	Sudden loss of consciousness which occurs when a non-acclimatized employee stands in heat for a long period of time, causing blood to pool in lower extremities, resulting in less blood flow to the brain.	• Rest in cool, shaded area for 5 minutes • Gradually adjust to working in heat • Move around to circulate blood
Heat Cramps	Occurs in tired muscles when the worker sweats profusely and drinks large quantities of water. Low salt level causes spasms, while high salt level causes cramps. Symptoms include painful cramping and spasms in the muscles.	• Rest in cool, shaded area for 5 minutes • Drink small quantities of water frequently, up to 4 cups per hour • Avoid caffeinated beverages and alcohol
Heat Exhaustion	Occurs when large amounts of fluid are lost by sweating. Symptoms resemble early heat stroke: – Physical weakness, fatigue, or feeling faint – Giddiness, irritability, or mental confusion – Nausea – Headache, dizziness, and/or lightheadedness – Person continues to sweat but body temperature is normal – Skin is moist and clammy – Person may vomit or lose consciousness	• Rest in shade or air-conditioned vehicle or room for a minimum of 15 minutes • Drink plenty of fluids (at least 5-7 ounces every 15 to 20 minutes) • Seek medical attention if severe • Use cooling vest or wet clothing if required

Heat Illness Hazard	Causes and Symptoms	Treatment
Heat Stroke	This is a life-threatening condition in which the body's temperature regulating system fails and sweating becomes inadequate to cool the body. Symptoms include: – Hot/dry skin – Red skin – Body temperature of 103°F or higher – Mental confusion or delirium – Convulsions or loss of consciousness	• Call 911 or your local emergency number immediately • Move the person to a cooler place. Quickly cool the body. Immerse the victim in a cool bath or briefly wrap wet sheets around the body and fan it. Wrapping the patient in wet towels or cloths can actually act as insulation and increase body temperature, so avoid keeping skin wrapped for prolonged periods. • Do not apply ice or very cold water to the victim's skin as this can cause vasoconstriction, preventing heat from escaping the body core. • Watch for signs of breathing problems. Keep the person lying down and continue to cool the body any way you can. If the victim refuses water or is vomiting, or if there are changes in the level of consciousness, do not give anything to eat or drink.

Preventive Measures

The following preventive measures and engineering controls shall be implemented when temperature exceeds **80°F**:

- Provide access to drinking water. Water will be fresh, pure, and suitably cool, and it will be provided free of charge to employees. During hot weather, the water will be cooler than the ambient temperature but not so cool as to cause discomfort that might discourage drinking it. Where drinking water is not plumbed or otherwise continuously supplied, drinking water containers will be brought to the site so that at least one quart per employee per hour is available throughout the shift. All water containers will be kept in sanitary condition. Individual water containers or bottled water provided to workers will be adequately identified to eliminate the possibility of drinking from a coworker's container or bottle.

Supervisor/designated person will monitor water containers every hour. Employees are encouraged to report low levels or dirty water to supervisor/designated person. Water containers will be refilled with cool water when the water level within a container drops below 50 percent.

- Supervisor/designated person will remind employees to drink water as often as possible, and will provide employees with additional water breaks.
- Every morning there will be a tailgate meeting to remind workers about the importance of frequent consumption of water and to take a cool-down rest break whenever necessary throughout the shift.
- Employees working in extreme heat conditions should avoid alcohol, caffeine, and heavy meals.
- Place water containers as close as possible to the workers.

Supervisors must take personal factors into consideration before assigning a task where there is a possibility of heat-related illness. Personal risk factors for heat illness include, an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

Shade will be available and will be provided when requested by an employee. Shade will be present when the temperature exceeds **80°F**. Shade areas will not expose employees to unsafe or unhealthy conditions and will not be situated such that the location might deter or discourage access or use. Shade areas will be open to the air or provided with ventilation or cooling.

Note: The interior of a vehicle may not be used to provide shade unless the vehicle is air-conditioned and the air conditioner is on. Whenever possible, SCS provides air-conditioned cabs for equipment operators. This will prevent heat illness and allow the operators to work for longer periods of time.

Enough shade structures will be available to accommodate all of the employees who are on a break at any point in time. During meal periods, there will be enough shade for all of the employees who choose to remain in the general area of work or in areas designated for recovery and rest periods. All employees on a recovery, rest break, or meal period will have full access to shade so they can sit in a normal posture without having to be in physical contact with each other.

Workers will be informed of the location of the shade structures and will be encouraged to take a 5 minute cool-down rest in the shade when they feel the need to do so to prevent overheating. An employee who takes a preventative cool-down rest break will:

- Be monitored and asked if he or she is experiencing symptoms of heat illness;

- Be encouraged to remain in the shade; and
- Not be ordered back to work until any signs or symptoms of heat illness have abated, but not less than 5 minutes in the shade. (See Table 1 for additional information.)

In situations where trees or other vegetation are used to provide shade, the thickness and shape of the shaded area will be evaluated by the supervisor or designated person to verify that sufficient shadow is being cast to protect employees.

- Employees may opt to take a "preventative cool-down rest" in the shade to help the body relieve excess heat. Water should be made available in the shade/rest area so that employees are encouraged to drink more water. The supervisor/designated person must monitor employees during the cool-down rest period and ask if they are experiencing any symptoms of heat illness, including simple fatigue.
    - If the employee exhibits or complains of any sign or symptom of heat illness, first aid procedures (as outlined in Table 1) should be initiated without delay.
- Take frequent breaks in cool or shaded areas, or in air-conditioned vehicles. To determine whether the frequency of breaks is adequate, one or more of the following heat illness monitoring methods should be performed, especially when wearing Personal Protective Equipment (PPE) that limits the evaporation of sweat:
    - **Heart Rate:** Monitor your heart rate for 30 seconds as soon as you stop working. If your heartbeat exceeds 110 beats per minute, increase your rest period by one-third. If your heartbeat continues to exceed 100 beats per minute at the next rest period, stop work for at least one hour.
    - **Oral Temperature:** Put a thermometer underneath your tongue for 3 minutes. If your temperature exceeds 99.6°F, increase your rest period by one-third. If your temperature exceeds 100.6°F, rest for at least one hour.
    - **Body Water Loss:** Measure body weight during the day. If your weight loss exceeds 1.5% of your body weight at the start of the day, increase your rest periods and drink additional fluids.
- The supervisor/designated person must monitor the weather (using http://www.nws.noaa.gov or an outdoor thermometer) prior to the start of each workday. Weather forecast information will be used to determine whether it will be necessary to make modifications to the work schedule, including such preventative measures as stopping work early, rescheduling the job, working at night or during the cooler hours of the day, or increasing the number of water and rest breaks. A determination will be made whether workers can be exposed to temperatures or humidity characterized as either "extreme caution" or "extreme danger" for heat illness. It is important to note that the temperature at which these warnings occur must be lowered as much as 15 degrees if the worker is in direct sunlight.

Communication

Effective communication must be maintained so that employees can contact a supervisor regarding heat illness. Communication is by voice, observation, or electronic means. A two-way radio, cell phone, or text-messaging device will be used only if reception in the area is reliable. Checks will be made to verify that these electronic devices are functional prior to each hot weather shift. All supervisors and employees in work crews carry cell phones, or other means of communication, to verify that emergency medical services can be called.

Supervisors will monitor employees under their direction for alertness and signs or symptoms of heat illness. If a supervisor cannot be available, he or she will assign a designee to monitor employees, or a "buddy system" will be implemented. The buddy system is where two or more workers monitor each other for alertness and signs or symptoms of heat illness.

Frequent communication via phone or two-way radio will be maintained with employees working alone or in smaller groups to monitor those employees for possible symptoms of heat illness. The employee(s) will be contacted regularly throughout the day, since an employee in distress may not be able to summon help on his or her own. As mentioned above, reception in the area must be reliable. In remote areas where there is no cell phone service, the employee will carry a mobile global positioning system device so that the supervisor/designated person can frequently check to see that the employee is on the move. If no movement is detected for a period of one hour, the supervisor/designated person will dispatch emergency personnel to the worksite.

High Heat Procedures

High Heat Procedures are additional preventive measures that can be used when the temperature equals or exceeds 95 degrees Fahrenheit. The following preventive measures and engineering controls shall be implemented when temperature exceeds **95°F**:

- Every morning there will be a tailgate meeting to review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest break whenever necessary throughout the shift.
- Supervisor/designated person will lead by example, and employees will be reminded throughout the work shift to drink plenty of water.
- Supervisors should have the employee takes a minimum ten minute net preventative cool-down rest period every two hours.
- Supervisor/designated person will observe employees for alertness and signs or symptoms of heat illness using one of the following methods: direct observation, buddy system, or regular communication by radio or cell phone.
- Procedures for maintaining effective communication are provided above (see Communication).

- One or more employees on each worksite must be selected to call for emergency medical services. If the designated employee is not available, an alternate employee must be chosen.
- In high heat conditions, consider the use of cooling vests, water-cooled garments, or wet clothing such as headbands or bandanas.

Acclimatization to Heat

People need time for their bodies to adjust to working in the heat. This truth applies to employees returning to work after a prolonged absence; moving from a cool to a hot climate; or working during the beginning stages of a heat wave.

New employees, or those employees who have been newly assigned to a high-heat area, will be closely observed by a supervisor/designated person for the first 14 days of work. The intensity of the work will be decreased during the two-week break-in period, and will include the scheduling of slower-paced, less physically demanding work during the hottest parts of the day, as well as the scheduling of the heaviest work activities for the coolest parts of the day. The supervisor/ designated person will be extra-vigilant with new employees and stay alert to the presence of heat illness symptoms. New employees will also be assigned a “buddy” or experienced coworker, to watch each other closely for signs or symptoms of heat illness.

Heat Wave Planning

For purposes of heat illness planning, “heat wave” means any day in which the predicted high temperature for the day will be at least **80°F** and at least **10°F** higher than the average high daily temperature in the preceding five days.

During a heat wave, all employees exposed to the heat will be closely observed by a supervisor or designee. The workday may be cut short or rescheduled (for example conducted at night or during cooler hours) to reduce the risk of heat illness. If schedule modifications are not feasible, workers will be provided with an increased number of water and rest breaks, and will be observed closely for signs and symptoms of heat illness.

Training

Employees who work in hot environments (exceeding **80°F**) will be trained in heat illness safety, including recognition, measurement and prevention measures, at least once every two years. All employees and supervisors will be trained prior to working outside. Training will include all aspects of implementing this Heat Illness Prevention Plan. The training will include the following elements:

- The environmental and personal risk factors for heat illness, as well as the added burden of heat load on the body caused by exertion, clothing, and personal protective equipment.
- Signs, symptoms and treatment of various heat-related illnesses and the fact that symptoms can progress quickly to become life threatening.

- The concept, importance, and methods of acclimatization.
- The importance of drinking small quantities of water frequently and taking breaks out of the heat.
- The employees' right to exercise their rights under the Heat Illness Prevention standard without retaliation.
- The employer’s responsibility to provide drinking water, shade, cool-down rests, and access to first aid
- The employees' right to exercise their rights under the Heat Illness Prevention standard without retaliation.
- PPE available to alleviate heat stress.
- The importance of promptly reporting signs of heat illness in yourself or coworkers.
- How we respond to signs or symptoms of possible heat illness.
- How to contact emergency services, effectively report the work location to emergency responders, and, if necessary, safely move an employee to where they can be reached by emergency responders. The training must include how a person is designated to be available to ensure that emergency procedures are invoked when appropriate.

Anyone familiar with heat illness prevention and response (and the elements listed above) can lead the training.

When the temperature is expected to reach or exceed 95 degrees Fahrenheit, pre-shift tailgate or toolbox meetings should be held to review heat illness and the high heat procedures (see High Heat Procedures, above).

Supervisors will be trained prior to being assigned to supervise other workers. Supervisor heat illness training will include the elements listed above, plus the following points:

- Supervisor responsibilities and how to implement this Heat Illness Prevention Plan.
- The right of employees to exercise their rights under this standard without retaliation.
- How to observe employees for alertness and signs or symptoms of heat illness.
- The steps supervisors must follow when employees exhibit symptoms consistent with heat illness.
- How to monitor weather reports, respond to hot weather advisories, and periodically use a thermometer to modify work schedules, to increase number of water and rest breaks, or cease work early if necessary.

To be effective, training must be understood by employees and given in a language the employees understand.

Summary of Supervisor Responsibilities

As described above, supervisors have the following responsibilities related to heat illness prevention and response:

- Provide water, shade, cool-down rests, and access to first aid
- Remind workers throughout the day to drink plenty of water
- Monitor the supply of drinking water and replenish it with fresh, pure, and suitably cool water
- Monitor workers for signs and symptoms of heat illness, including communicating with work crews and solo workers
- Monitor any worker taking a preventative cool-down rest break, encourage the worker to remain in the shade, and allow any signs or symptoms of heat illness to abate before sending the person back to work, but allow not less than 5 minutes in the shade
- Monitor weather to respond to hot weather advisories and periodically use a thermometer to modify work schedules, or increase number of water and rest breaks, or cease work early if necessary
- Lead pre-shift tailgate meetings to review heat illness and the high heat procedures

COLD STRESS

The hazards of cold weather may include freezing rain, sleet, snow, frostbite, hypothermia, and dangerous driving conditions.

Cold-Related Illness

When we work in cold temperatures, there is a potential for cold-related illness to occur. There are several types of cold-related illness and injury, including frostbite and hypothermia. A description of each is listed below, along with basic first aid procedures that can be utilized.

Frostbite

Description: Frostbite is literally the freezing of body tissue (usually skin). Fingers, toes, ears, and the nose are the areas that are most vulnerable to frostbite.

There are three degrees of frostbite, including:

- Frostnip, which usually affects the face, ears, or fingertips. While the skin may feel numb, frostnip does not lead to permanent tissue damage;

- Superficial frostbite, in which the outer skin is affected; and
- Deep frostbite, in which the skin and underlying tissue freezes. Permanent damage is possible, depending on how long and how deeply the tissue is frozen.

Frostbite is caused by either prolonged exposure to cold temperatures or shorter exposure to very cold temperatures.

Many people with frostnip or frostbite experience numbness. "Pins and needles" sensation, severe pain, itching and burning are all common when the affected area is warmed and blood starts flowing again. Skin may look white, grayish-yellow, or even black (with severe frostbite), and it may feel hard, waxy, and numb. Blistering is also common.

Treatment and First Aid: Get out of the cold, and take off wet clothing as soon as possible. Also, remove all restrictive jewelry or clothing. Immerse the affected area in warm, but not hot, water. If water is not available, warm the tissue with body heat. For example, warm your hands by tucking them into your armpits and warm your nose, ears, or face by covering them with dry hands.

Do not:

- Thaw frostbitten tissue if there is a chance that it will refreeze before you get medical attention (increases the likelihood of permanent damage);
- Rub or massage frostbitten skin or disturb blisters (which can further damage tissue); or
- Use direct dry heat (like heating pads or a campfire) to thaw frostbitten tissue.

Many people with frostbite may also experience hypothermia (body temperature that is too low), which can be lethal (see description, below). This is why it is so important to seek medical attention immediately.

Hypothermia

Description: Hypothermia can occur in cold work environments. Prolonged exposure to cold temperatures can cause the body's core temperature to drop. Blood flow to the outer limbs is reduced as the body attempts to keep the core warm.

Treatment and First Aid: Treatment and First Aid for Hypothermia include the following:

- The patient should be removed from the cold environment and placed in a warm shelter away from the wind. Wet clothing should be removed and replaced with a warm, dry covering including head covering.
- Emergency medical services should be activated (call 911 if available) as soon as possible.

- The patient's breathing should be monitored; if it becomes dangerously slow or stops, CPR should be initiated.

- Rough handling or jerking of the patient should be minimized if the person is lethargic or unconscious. This can cause an already irritable heart to develop abnormalities (e.g., a heart attack).

- Rewarming should be started by applying warm compresses to the chest, neck, and groin. Hot water should not be used. Because there may be associated frostbite, direct heat should not be applied to the body. Instead, warm blankets and body-to-body contact may be needed as a first aid measure.

- The severity of hypothermia and the patient's mental status and ability to function will determine what further treatment is necessary. Passive rewarming with warm clothing in a warm environment may be all that is required for a conscious person who is shivering.

- Active rewarming may be considered for patients who do not respond to passive rewarming methods, and who are showing signs of confusion. Warmed intravenous fluids, warming blankets, and warmed humidified air may be provided in the hospital.

Preventive Measures

The following measures should be taken to prevent cold stress ailments:

- Wear appropriate clothing for the weather. When appropriate, wear insulated coveralls and a hat.

- Prepare for the worst when performing outdoor tasks if cold weather is a possibility.

- Wear mittens or protective gloves, or wear mittens alone if protective gloves are not required. Wearing two pairs of socks is advised, with wool recommended for the outer layer.

- Move your body or perform warm-up exercises. Increasing physical activity will help your body stay warm. Wiggle fingers and toes if they start to feel numb.

- Don't smoke. Smoking constricts blood vessels and increases the risk for frostbite.

Training

Employees who work in cold environments should be trained in the recognition, treatment and prevention of cold stress. Anyone familiar with cold stress symptoms, first aid, and prevention can lead the training, which can be conducted as a part of a project tailgate safety session (e.g., when cold weather is expected).

OTHER WEATHER-RELATED SAFETY ISSUES

Weather-related safety issues can arise from thunderstorms, lightning, tornados, high winds, and floods. The following precautions should be followed when these conditions are encountered.

Thunderstorms and Lightning

- Postpone activities. Before working outdoors, check the forecast for thunderstorms. Consider postponing activities to avoid being caught in a dangerous situation.

- Actively monitor the weather. Look for signs of a developing thunderstorm, such as darkening skies, flashes of lightning or increasing wind.

- Get to a safe place. If you can hear thunder (even a distant rumble), you can be struck by lightning. Remember the "30-30 Rule": If you hear thunder within 30 seconds of seeing lightning, seek shelter immediately and remain sheltered until 30 minutes after the last sign of lightning/thunder. Fully enclosed buildings with wiring and plumbing provide the best protection. Sheds, picnic shelters, tents or covered porches do not protect you from lightning. If a sturdy building is not nearby, get into a hard-topped metal vehicle and close all the windows.

- Keep away from electrical equipment, wiring and water pipes.

- If you are caught outdoors during a thunderstorm, adhere to the following rules:

    - Avoid open areas and stay away from isolated tall trees, towers, or utility poles. Lightning tends to strike the taller objects in the area; if you are stuck in a thunderstorm, crouch with feet together, hands on knees.

    - Stay away from metal conductors such as wires or fences. Ungrounded metal does not attract lightning, but lightning can travel long distances through it.

Tornadoes and High Winds

- The safest place to be is in an underground shelter, basement, or safe room.

- If no underground shelter or safe room is available, a small, windowless interior room or hallway on the lowest level of a sturdy building is the safest alternative.

- Mobile trailers are not safe during tornadoes. Abandon mobile trailers and go to the nearest sturdy building or shelter immediately.

- If you are caught outdoors, seek shelter in a basement, shelter or sturdy building. If you cannot quickly walk to a shelter:

    - Immediately get into a vehicle, buckle your seatbelt and try to drive to the closest sturdy shelter.

- If flying debris occurs while you are driving, pull over and park. Use the following options as a last resort:
    - Stay in the car with your seatbelt on. Put your head down below the windows, and cover it with your hands or a blanket, if possible.
    - If you can safely get considerably lower than the level of the roadway, exit your car and lie in that area, covering your head with your hands.

- Drilling activities and the use of manlifts shall not be conducted when sustained wind speeds exceed 25 miles per hour, or when wind gusts threaten the stability of equipment.

Flash Floods

- Avoid driving, walking, or swimming in flood waters.
- Stay away from water, storm drains, ditches, ravines, or culverts during flash flood warnings. Moving water only six inches deep can knock you off your feet.
- If you come upon flood waters, turn around and travel to higher ground or find an alternative route.

Appendix G

Operation, Maintenance, and Monitoring Plan

A site specific OM&M plan for the monitoring of probes and indoor sensors will be prepared for LEA review upon approval of development plans from both County and City agencies. The OM&M Plan will specify procedures to ensure that sensors are properly functioning and will be included in the Final PCLU Plan and will be provided to occupants of the proposed development prior to occupancy.

DRAFT (FOR CONSTRUCTION PURPOSES)

Appendix H

Evacuation Plan

A site specific evacuation plan for occupants of the property will be prepared for LEA review upon approval of development plans from both County and City agencies. The evacuation plan will be included in the Final PCLU plan.

DRAFT (FOR CONSTRUCTION PURPOSES)

Appendix I

Regulatory Correspondence

DRAFT (FOR CONSTRUCTION PURPOSES)

Sieg, Jeff

From:	Weerasekera, Dan <DWeerasekera@ochca.com>
Sent:	Monday, May 22, 2023 11:49 AM
To:	Robert A. Walker
Cc:	Lane, Christine; Cheng, Darwin; Shamel, Massoud; Rajagopal, Shyamala; Robinson, Lauren; Levine, Steve@CalRecycle; Mindermann, Wes@CalRecycle; Dawn.Liang@CalRecycle.ca.gov; Healy, Robert@CalRecycle; cindy.li@waterboards.ca.gov; joanne.lee@waterboards.ca.gov; Shaffer, Gregory@DTSC; jennifer.le@costamesaca.gov; ACHIS, PATRICK; Sieg, Jeff; 'cora@govsol.com'; Montoya, Thierry; Jackson, Emily [OCWR]; Mehrnoosh.Behrooz@waterboards.ca.gov
Subject:	Newport Avenue Station 1 (SWIS No. 30-CR-0071) - LEA Response to the Draft Post Closure Land Use Plan
Attachments:	Newport Ave Stn LF - LEA Response Letter to PCLU Plan 05-22-2023 Final.pdf

This email originated from outside of SCS Engineers. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning Mr. Walker, please see the attached response to the Draft Post Closure Land Use Plan that was submitted to the Orange County Health Care Agency – Environmental Health Division on March 3, 2023. Let me know if you have any questions.

Thanks

OC health CARE AGENCY

Dan Weerasekera
Hazardous Materials Specialist III
Land and Water Quality Section
Environmental Health Division

Office: (714) 433-6255
1241 E. Dyer Road, Suite #120, Santa Ana, CA 92705
Mailing Address: PO Box 25400, Santa Ana, CA 92799
www.ochealthinfo.com

CLAYTON CHAU, MD, PhD, MASL
AGENCY DIRECTOR

REGINA CHINSIO-KWONG, DO
CHIEF OF PUBLIC HEALTH SERVICES/
COUNTY HEALTH OFFICER

CHRISTINE LANE, REHS
DIRECTOR
ENVIRONMENTAL HEALTH

MAIL: PO BOX 25400
SANTA ANA, CA 92799
OFFICE: 1241 E. DYER RD, STE 120
SANTA ANA, CA 92705
TELEPHONE: (714) 433-6000
FAX: (714) 754-1732
E-MAIL: ehealth@ochca.com

PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION

May 22, 2023

Walker Group Ventures
Robert Walker, CEO
100-11100 Cambie Road
Richmond, BC V6X 1K9
Canada

Sent via email: rwalker@mbcollision.ca

Subject: **Final Draft Post Closure Land Use Plan dated February 28, 2023 prepared by SCS Engineers for Newport Avenue Station No. 1 located at 2750-2770 Bristol Street, Costa Mesa, CA (SWIS No. 30-CR-0071)**

Dear Mr. Walker:

The Environmental Health Division of the Orange County Health Care Agency is the certified local enforcement agency (LEA) for Orange County and is authorized and obligated to enforce solid waste laws and regulations pursuant to California Public Resource Code (PRC) Sections 43209 and 45000 et seq., and Title 14 of the California Code of Regulations (14 CCR) § 18080 et seq.

The LEA has reviewed the final Draft Post Closure Land Use (PCLU) Plan that was submitted to the LEA by SCS Engineers on March 3, 2023, for the subject property noted above (hereinafter referred to as the "Site"). Based on this review, the PCLU Plan is incomplete, and the LEA is unable to make a determination pursuant to 27 CCR § 21190. You must complete the items listed below that are required in order for the LEA to be able to complete its review of the PCLU Plan and make a determination as per 27 CCR § 21190.

1. **Solid Waste Information System (SWIS)** - The SWIS database for the subject disposal site listed as 30-CR-071 should be changed to No. 30-CR-0071 throughout the PCLU Plan document.

2. **Site Investigations** - A comprehensive assessment of the Site (from past investigations) showing the lateral extent of the waste footprint must be prepared and summarized as an appendix to the revised PCLU Plan. A site map showing all boring locations, boring logs, and a cumulative summary table with all compiled analytical data must be included in the revised PCLU Plan.

    - **Background and Current Conditions** - The PCLU Plan states, "No significant concentrations of petroleum hydrocarbons, volatile organic compounds (VOCs), or metals were identified." It further states that none of the VOCs detected exceed their DTSC-Recommended Screening Levels, calculated using an attenuation factor (AF) of 0.005 for commercial/industrial land use. However, the Landfill Gas Assessment Report dated February 24, 2023, prepared by SCS Engineers states an AF of 0.0005 was used. Therefore, it is confusing to the LEA which AF SCS Engineers is using to predict indoor air risk during the PCLU Plan review. As pointed out in the March 31, 2023 letter, the LEA used an AF of 0.03 to predict indoor air risk based on DTSC/SWRCB Supplemental Guidance for Screening and Evaluating Vapor Intrusion (February 2023). Therefore, this comment serves as notice to you that the LEA deems that the concentrations of petroleum hydrocarbons and VOCs in the subsurface soils at the Site, in the vicinity of the proposed building, are above residential and commercial screening levels (RSLs) based on using the correct attenuation factor of 0.03 (as explained in more detail in the letter dated March 31, 2023).

3. **Geotechnical Report** - The Geotechnical Engineering Investigation of the Site by Norcal Engineering was conducted in July 2020. Since that engineering investigation was conducted, the Site was demolished by the removal of the existing building, the concrete and the soil beneath the concrete was excavated to 8-10 feet that were all part of the landfill cover. During the 1st and 2nd quarter 2023 Site inspections, the LEA observed water filled foundation trenches that were damaged and collapsed due to recent rain. Therefore, the LEA requires an updated geotechnical report or, in the alternative an attestation from a geotechnical engineer that indicates that (i) the foundation for the proposed structures at the Site was designed adequately with a soil compaction rate that meets the requirement of 27 CCR § 21190(e)(4) (i.e., "buildings and utilities shall be constructed to mitigate the effects of differential settlement.") and (ii) the existing soil condition underneath the foundation at the Site is stable fill under the anticipated design loads for the proposed structure without any settlement concerns in light of the building demolition, the excavation of the concrete and the soil beneath the concrete to 8-10 feet, and the observed damage and collapse of the foundation trenches due to recent rain.

4. **Site Cover Inspections and Maintenance** - The PCLU Plan states, "To verify that the integrity and effectiveness of the final cover is maintained, the Site will be visually inspected on a semi-annual basis (during the dry weather [between April 15th and November 14th] and during the wet weather [between November 15th and April 14th]) for changes in its condition. The objective will be to maintain final grades and cover integrity to prevent ponding and minimize infiltration." However, the PCLU Plan does not provide details of the current cover to indicate whether the cover meets the requirements of 27 CCR § 21140 and § 21190. You must include in the PCLU Plan how the Site's waste is currently capped, what compromises the cover, what is the thickness of the cover, and what is the type of the cover's soil makeup.

5. **Landfill Gas Control and Monitoring** - The PCLU Plan states, "Methane monitoring of the passive ventilation conveyance piping will be conducted on a quarterly basis under the oversight of the LEA." As a side note, you must submit to the LEA a copy of the quarterly monitoring and inspection report for review. The PCLU Plan fails to explain if the methane sensors in the building will be inspected and maintained based on an operation, maintenance, and monitoring (OM&M) manual that describes how they will remain operational. You must prepare an OM&M manual for the methane gas control system and submit it for LEA's review and approval prior to building occupancy. The LEA also recommends that a copy of the approved OM&M manual is provided to the property owner, who will be responsible for its implementation.

6. **On-Site Structure Monitoring** - The subject document states, "The vent risers will be tested for methane concentrations using a landfill gas meter (GEM5000 or similar). Monitoring of the

passive ventilation system via the sampling port will be completed every quarter to verify the absence of landfill gas parameters for the first year following project completion." You must also state and identify in the PCLU Plan that gas samples will be collected from the vent risers and analyzed for VOC constituents quarterly.

7. **Health and Safety Plan** - The PCLU Plan states, "excavation of soils during development activities at the Site have not encountered refuse and the soil that has been excavated did not contain COCs such as VOCs, SVOCs, or metals at or above background levels. Based on these observations it is not anticipated that the limited trenching required to complete redevelopment will encounter materials that require specialized health and safety training." Based on the soil gas samples collected and reported by SCS Engineers in the "Landfill Soil Gas Assessment Report dated February 2023", the LEA believes there is a potential risk of release of soil gas VOCs/SVOCs during excavation and encounter with these constituents during the field investigations. Therefore, the LEA recommends a Site-specific employee health and safety training when preparing the contractor's health and safety plan prior to any further soil excavation at the Site.

8. **Evacuation Plan -** The PCLU Plan states, "Prior to building occupancy, an emergency evacuation plan will be prepared for future tenants in the event that elevated concentrations of combustible gas, such as methane, is detected by alarm sensors within the future structure." You must submit to the LEA for review and approval of the emergency evacuation plan prior to the building occupancy.

The LEA also reviewed the following document:

- Jones Cahl Associates' (JCA) 2750 Bristol Ave, Costa Mesa Construction Design Sheets 1-10 (March 18, 2022)
- AHT Architect's No. 1 Collision Luxury Automotive Repair Facility Design package (February 22, 2022), and
- Methane Specialists design package, "Methane Gas Control System" (July 2022, revised March 3, 2023)

Based on this review:

1. The PCLU Plan did not contain electrical or mechanical drawings submitted in Appendix C building design package to ensure that utility placement follows the requirements of 27 CCR § 21190. The drawing specifications for these two design areas should consider the Methane Gas Control System details and include adding explosion proof fittings to the electrical conduits entering the building from the subsurface. Therefore, you must submit the final drawings with the revised PCLU Plan to the LEA for review and approval.

2. The LEA recommends the use of either a wind turbine or venturi vent caps be placed on top of the methane gas vent to enhance the passive aspiration of subsurface gases through the methane gas ventilation system to reduce any likely buildup of methane gas or VOCs under the building slab.

3. The design plans must include a section on membrane testing for proper sealing prior to placement of the 2-inch sand layer via smoke test or other vendor approved leak detection process to ensure proper seals of the membrane both at joints and penetrations.

Please note that the LEA requests that you submit the deficient items listed above (that is, items the LEA has stated must be submitted) and does not mean that the LEA's review and determination as to the PCLU Plan will be delayed. Instead, it means the LEA cannot fully assess the PCLU Plan and make a final determination pursuant to 27 CCR § 21190 with the items listed above missing in the current draft PCLU Plan SCS Engineering submitted to the LEA on March 3, 2023.

Please note you are still required to conduct monthly monitoring of the probes and submit data to the LEA to adequately assess soil gas data for the Site to ensure compliance with 27 CCR § 20921. To date, no data past the initial 30 days has been provided to the LEA for review. All available monthly sampling data for March/April 2023 must be submitted with the revised PCLU Plan.

If you have any questions, please contact Dan Weerasekera by phone at (714) 433-6255 or by email at dweerasekera@ochca.com.

Sincerely,

Dan Weerasekera
Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Division

cc: Christine Lane, Director, Orange County Health Care Agency Environmental Health
Darwin Cheng, Assistant Director, Orange County Health Care Agency Environmental Health
Massoud Shamel, Senior Deputy County Counsel, Orange County
Shyamala Rajagopal, Orange County Health Care Agency Environmental Health – LEA
Lauren Robinson, Orange County Health Care Agency Environmental Health – LEA
Steve Levine, Senior Staff Counsel, CalRecycle
Wes Mindermann, CalRecycle – Engineering Support Branch
Dawn Liang, CalRecycle – Engineering Support Branch
Robert Healy, CalRecycle – Engineering Support Branch
Cindy Li, Santa Ana Regional Water Quality Control Board
Joanne Lee, Santa Ana Regional Water Quality Control Board
Mona Behrooz, Santa Ana Regional Water Quality Control Board
Gregory Shaffer, DTSC
Jennifer Le, Director, City of Costa Mesa – Development Services Department
Patrick Achis, Asst. Planner, City of Costa Mesa – Development Services Department
Jeff Sieg, SCS Engineers
Coralee Newman, Government Solutions
Thierry Montoya, Attorney at Law, Alvarado Smith
Emily Jackson, OC Waste & Recycling
CalRecycle/LEA Portal

June 5, 2023
File No. 01222204.00

Dan Weeraskera
Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Care Division
Orange County Health Care Agency

Subject: **Response to OCHCA/LEA letter dated May 22, 2023 regarding submittal requirements for Final Draft Post Closure Land Use Plan for property located at 2750-2770 Bristol Street, Costa Mesa, California 92626**

Dear Mr. Weeraskera:

This letter has been prepared by SCS Engineers (SCS) in response to the Local Enforcement Agency (LEA) letter, dated May 22, 2023, requiring additional information for the previously submitted Final Draft Post Closure Land Use Plan (PCLU) Plan, dated February 28, 2023, prepared by SCS. Below is an itemized list of where the required and requested information can be found in the revised Final Draft PCLU Plan.

LEA Comment
1. Solid Waste Information System (SWIS) - The SWIS database for the subject disposal site listed as 30-CR-071 should be changed to No. 30-CR-0071 throughout the PCLU Plan document.

SCS Response:
Correction has been made throughout the PCLU Plan.

LEA Comment
2. Site Investigations - A comprehensive assessment of the Site (from past investigations) showing the lateral extent of the waste footprint must be prepared and summarized as an appendix to the revised PCLU Plan. A site map showing all boring locations, boring logs, and a cumulative summary table with all compiled analytical data must be included in the revised PCLU Plan.

SCS Response:
A Site map showing all boring locations including an approximation of the lateral extent of buried debris, compilation of boring logs and cumulative summary tables are provided in Appendix E of the revised PCLU Plan.

LEA Comment
- *Background and Current Conditions - The PCLU Plan states, "No significant concentrations of petroleum hydrocarbons, volatile organic compounds (VOCs), or metals were identified." It further states that none of the VOCs detected exceed their DTSC-Recommended Screening Levels, calculated using an attenuation factor (AF) of 0.005 for commercial/industrial land use. However, the Landfill Gas Assessment Report dated February 24, 2023, prepared by SCS Engineers states an AF of 0.0005 was used. Therefore, it is confusing to the LEA which AF SCS Engineers is using to predict indoor air risk during the PCLU Plan review. As pointed out in the March 31, 2023 letter, the LEA used an AF of 0.03 to predict indoor air risk based on*

DTSC/SWRCB Supplemental Guidance for Screening and Evaluating Vapor Intrusion (February 2023). Therefore, this comment serves as notice to you that the LEA deems that the concentrations of petroleum hydrocarbons and VOCs in the subsurface soils at the Site, in the vicinity of the proposed building, are above residential and commercial screening levels (RSLs) based on using the correct attenuation factor of 0.03 (as explained in more detail in the letter dated March 31, 2023).

<u>SCS Response:</u>
The use of a 0.03 attenuation factor (AF) for evaluation of soil vapor migration in California is controversial within the environmental community. Published literature and a study conducted by DTSC have shown that AFs on the order 0.001 or lower are more appropriate for buildings in California, particularly for newer buildings. The AF of 0.0005, as recommended in the DTSC Vapor Intrusion Guidance (2011) for future construction, was used in the evaluation of potential vapor intrusion risks. The statement of using an AF of 0.005 was a typographical error. Further discussion regarding attenuation factors and documented studies by DTSC is provided as additional lines of evidence for the use of a less conservative AF in <u>Section 3</u> of the PCLU Plan.

<u>LEA Comment:</u>
3. Geotechnical Report - The Geotechnical Engineering Investigation of the Site by Norcal Engineering was conducted in July 2020. Since that engineering investigation was conducted, the Site was demolished by the removal of the existing building, the concrete and the soil beneath the concrete was excavated to 8-10 feet that were all part of the landfill cover. During the 1st and 2nd quarter 2023 Site inspections, the LEA observed water filled foundation trenches that were damaged and collapsed due to recent rain. Therefore, the LEA requires an updated geotechnical report or, in the alternative an attestation from a geotechnical engineer that indicates that (i) the foundation for the proposed structures at the Site was designed adequately with a soil compaction rate that meets the requirement of 27 CCR § 21190(e)(4) (i.e., "buildings and utilities shall be constructed to mitigate the effects of differential settlement.") and (ii) the existing soil condition underneath the foundation at the Site is stable fill under the anticipated design loads for the proposed structure without any settlement concerns in light of the building demolition, the excavation of the concrete and the soil beneath the concrete to 8-10 feet, and the observed damage and collapse of the foundation trenches due to recent rain.

<u>SCS Response:</u>
NorCal Engineering, the geotechnical engineer of record, conducted an inspection of the Site and provided a letter report stating that limited earthwork (scarification of surfaces 1 to 2 feet and recompaction will be required. A letter from Norcal Engineering, dated May 25, 2023, is attached to this letter and is provided in Appendix C (pages 885 and 886) in the Revised PCLU Plan. A discussion of the geotechnical engineer's recommendation is summarized in Section 3.1 of the PCLU Plan.

<u>LEA Comment:</u>
4. Site Cover Inspections and Maintenance - The PCLU Plan states, "To verify that the integrity and effectiveness of the final cover is maintained, the Site will be visually inspected on a semi-annual basis (during the dry weather [between April 15th and November 14th] and during the wet weather [between November 15th and April 14th]) for changes in its condition. The objective will be to maintain final grades and cover integrity to prevent ponding and minimize infiltration." However, the PCLU Plan does not provide details of the current cover to indicate whether the cover meets the requirements of 27 CCR § 21140 and § 21190. You must include in the PCLU Plan how the Site's waste is currently capped, what compromises the cover, what is the thickness of the cover, and what is the type of the cover's soil makeup.

SCS Response:
The current status of the surface cover at the Site is discussed in Section 3 of the PCLU Plan. A description of the proposed redevelopment and appropriate capping of the Site is discussed in Section 5 of the PCLU Plan. A discussion of routine inspections to confirm efficacy of Site cover and maintenance is discussed in Section 6 of the PCLU Plan.

LEA Comment:
5. Landfill Gas Control and Monitoring - The PCLU Plan states, "Methane monitoring of the passive ventilation conveyance piping will be conducted on a quarterly basis under the oversight of the LEA." As a side note, you must submit to the LEA a copy of the quarterly monitoring and inspection report for review. The PCLU Plan fails to explain if the methane sensors in the building will be inspected and maintained based on an operation, maintenance, and monitoring (OM&M) manual that describes how they will remain operational. You must prepare an OM&M manual for the methane gas control system and submit it for LEA's review and approval prior to building occupancy. The LEA also recommends that a copy of the approved OM&M manual is provided to the property owner, who will be responsible for its implementation.

SCS Response:
A discussion regarding Landfill Gas Control and Monitoring is provided in Section 6.4.1 of the PCLU Plan which includes acknowledgement that the results will be submitted to the LEA for review. SCS concurs that and OM&M plan be prepared to provide instruction to facility operator and/owners or their subcontractor to ensure that sensors are maintained and in working order. An OM&M plan will be prepared for LEA review prior to building occupancy, following approvals from the State, County, and City. The OM&M plan will additionally be provided in Appendix G of the PCLU Plan.

LEA Comment:
6. On-Site Structure Monitoring - The subject document states, "The vent risers will be tested for methane concentrations using a landfill gas meter (GEM5000 or similar). Monitoring of the passive ventilation system via the sampling port will be completed every quarter to verify the absence of landfill gas parameters for the first year following project completion." You must also state and identify in the PCLU Plan that gas samples will be collected from the vent risers and analyzed for VOC constituents quarterly.

SCS Response:
Collection of vapor samples from vent risers for additional analysis of VOCs has been included in Section 6.4.2 of the PCLU Plan.

LEA Comment:
7. Health and Safety Plan - The PCLU Plan states, "excavation of soils during development activities at the Site have not encountered refuse and the soil that has been excavated did not contain COCs such as VOCs, SVOCs, or metals at or above background levels. Based on these observations it is not anticipated that the limited trenching required to complete redevelopment will encounter materials that require specialized health and safety training." Based on the soil gas samples collected and reported by SCS Engineers in the "Landfill Soil Gas Assessment Report dated February 2023", the LEA believes there is a potential risk of release of soil gas VOCs/SVOCs during excavation and encounter with these constituents during the field investigations. Therefore, the LEA recommends a Site-specific employee health and safety training when preparing the contractor's health and safety plan prior to any further soil excavation at the Site.

SCS Response:
A site-specific Health and Safety Plan has prepared and is attached in Appendix F of the PCLU Plan.

LEA Comment:
8 Evacuation Plan - The PCLU Plan states, "Prior to building occupancy, an emergency evacuation plan will be prepared for future tenants in the event that elevated concentrations of combustible gas, such as methane, is detected by alarm sensors within the future structure." You must submit to the LEA for review and approval of the emergency evacuation plan prior to the building occupancy.

SCS Response:
An evacuation plan will be prepared for LEA review and approval prior to building occupancy. Additionally, the evacuation plan will be appended to the PCLU Plan in Appendix H.

Additional LEA Comment:
1. The PCLU Plan did not contain electrical or mechanical drawings submitted in Appendix C building design package to ensure that utility placement follows the requirements of 27 CCR § 21190. The drawing specifications for these two design areas should consider the Methane Gas Control System details and include adding explosion proof fittings to the electrical conduits entering the building from the subsurface. Therefore, you must submit the final drawings with the revised PCLU Plan to the LEA for review and approval.

SCS Response:
Specification sheets from electrical and mechanical engineers have been incorporated into Appendix C. As shown, in the specification sheets, contactors have acknowledge the use of the designs from Methane Specialists regarding utilities and penetrations, including explosion proof fittings. A letter of response prepared by Methane Specialist is attached to this letter and included in Appendix C, pages 953 and 954, of the PCLU Plan.

Additional LEA Comment:
2. The LEA recommends the use of either a wind turbine or venturi vent caps be placed on top of the methane gas vent to enhance the passive aspiration of subsurface gases through the methane gas ventilation system to reduce any likely buildup of methane gas or VOCs under the building slab.

SCS Response:
Addressed in the response letter from Methane Specialists (attached) and in their revised plans in Appendix C of the PCLU Plan.

Additional LEA Comment:
3 The design plans must include a section on membrane testing for proper sealing prior to placement of the 2-inch sand layer via smoke test or other vendor approved leak detection process to ensure proper seals of the membrane both at joints and penetrations.

SCS Response:
Addressed in the response letter from Methane Specialists (attached) and in their revised plans in Appendix C of the PCLU Plan.

Please contact either of the undersigned if you have any questions.

Thank you,

Jeffrey T. Sieg, P.G.
Project Director
SCS Engineers

Kenneth H. Lister, Ph.D., CEG, CHg
Senior Technical Advisor
SCS Engineers

Attachments:
Norcal Geotechnical Letter
Methane Specialist Letter

NorCal Engineering
Soils and Geotechnical Consultants
Los Alamitos, California 90720
(562) 799-9469 Fax (562) 799-9459

May 25, 2023

Project Number 21887-20

Kunzik and Sara Construction
1699 La Costa Meadows Drive, Suite 102
San Marcos, California 92078

Attn: Ms. Jessica Shaughnessy

RE: **Site Reconnaissance** - Proposed No. 1 Collision Center Automobile Repair Development - Located at 2750 Bristol Street, in the City of Costa Mesa, California

Dear Ms. Shaughnessy:
Pursuant to your request, this firm provided a recent site reconnaissance to observe the current geotechnical conditions of the graded building pad at the above referenced project. All site grading was performed in accordance with our recommendations and stated in our grading report titled "Report of Geotechnical Observation and Testing of Rough Grading Operations" dated August 18, 2022.

Recently, all construction operations have been terminated since September 2022 and the surface of the graded building pad has been exposed to severe weathering and erosion over this time and will require remedial grading to restart construction operations. It is recommended that the upper 1 to 2 feet will require to be removed and/or scarified to competent approved soils, moisture conditioned and recompacted to a minimum of 90% of the laboratory standard prior to pouring foundations, pavement or placement of additional fill soils.

It is recommended that site inspections be performed by a representative of this firm during all grading and construction of the development to verify the findings and recommendations are followed. Any unusual conditions which may be encountered in the course of the project development may require the need for additional study and revised recommendations.

We appreciate this opportunity to be of service to you. If you have any further questions, please do not hesitate to contact the undersigned.

Respectfully submitted,
NORCAL ENGINEERING

REGISTERED PROFESSIONAL ENGINEER
KEITH D. TUCKER
No. 841
Exp. 12/31/2024
GEOTECHNICAL
STATE OF CALIFORNIA

Keith D. Tucker
Project Engineer
R.G.E. 841

Scott D. Spensiero
Project Manager

METHANE
SPECIALISTS

5210 Lewis Road,
Suite 1,
Agoura Hills, CA - 91301

TEL: 805.987.5356

methanespecialists.com

May 25, 2023

County of Orange California
OC Health Care Agency
1241 E. Dyer Rd STE 120
Santa Ana, CA 92705
Tel: (714) 433-6000
Email: ehealth@ochca.com

Project: **No. 1 Collision**
2750 Bristol St
Costa Mesa, CA 92626

Subject: **OC Health Care Agency Comments dated May 22, 2023**

Dear: To whom it may concern

This letter is in response to the OC Health Care Agency Comments dated May 22, 2023, written by Dan Weerasekera regarding methane specialists comments under section "Based on Review" comments 1.,2., and 3.

1. GC-9.0 Trench Dam and Seal-Off Details for the explosion proof EYS fittings (Detail D and F) in reference to any electrical conduits entering the building from the subsurface (Hazardous Area to a Non-Classified Hazardous Area)

2. GC-4.0 and GC-7.0 Detail A show a Whirly Bird vent riser cap.

3. GC-5.0 Foundation Protection Notes Detail F. All methane membrane installed will be smoke tested following the completion of installation. See additional note on GC-1.0

Sincerely,

Chris Conahan

Chris Conahan
Principal

Sieg, Jeff

From:	Rajagopal, Shyamala <SRajagopal@ochca.com>
Sent:	Monday, July 17, 2023 10:29 AM
To:	Robert A. Walker; Thierry Montoya (tmontoya@alvaradosmith.com); Coralee Newman; Sieg, Jeff
Cc:	Lane, Christine; Robinson, Lauren; Shamel, Massoud; Weerasekera, Dan; Levine, Steve@CalRecycle; Liang, Dawn@CalRecycle; Healy, Robert@CalRecycle
Subject:	RE: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - Revised PCLUP (SWIS No. 30-CR-0071)
Attachments:	CalRecycle and LEA Additional Comments on Revised Draft PCLU Plan 7.17.2023 Final.pdf

This email originated from outside of SCS Engineers. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Jeff:
As a follow-up to the action items (#1 through #3) listed below based on discussions from the meeting held with the LEA last week on July 13th, attached are the additional comments from CalRecycle/LEA's review. If you have any questions, please contact me or Dan Weerasekera of the LEA or Bob Healy of CalRecycle – CIA group.

Thank you,
Shyamala Rajagopal

OC health CARE AGENCY

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste – Local Enforcement Agency (LEA)
Environmental Health Division

Office: (714) 433-6270 **Cell:** (714) 614-0498
Email: srajagopal@ochca.com
1241 E. Dyer Road, Suite #120, Santa Ana, CA 92705
Mailing Address: PO Box 25400, Santa Ana, CA 92799
www.ochealthinfo.com

From: Rajagopal, Shyamala
Sent: Thursday, July 13, 2023 5:29 PM
To: Robert A. Walker <rwalker@mbcollision.ca>; Thierry Montoya (tmontoya@alvaradosmith.com) <tmontoya@alvaradosmith.com>; Coralee Newman <cora@govsol.com>; JSieg@SCSEngineers.com
Cc: Lane, Christine <clane@ochca.com>; Robinson, Lauren <lrobinson@ochca.com>; Shamel, Massoud <massoud.shamel@coco.ocgov.com>; Weerasekera, Dan <dweerasekera@ochca.com>; Rajagopal, Shyamala <srajagopal@ochca.com>; Levine, Steve@CalRecycle <Steve.Levine@CalRecycle.ca.gov>; Liang, Dawn@CalRecycle <Dawn.Liang@CalRecycle.ca.gov>; Healy, Robert@CalRecycle <Robert.Healy@calrecycle.ca.gov>
Subject: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - Revised PCLUP (SWIS No. 30-CR-0071)

Hello,
Thank you all for attending today's meeting with the Solid Waste – Local Enforcement Agency (LEA) held at the Orange County Environmental Health Division office to discuss the Revised Draft Post Closure Land Use (PCLU) Plan and path

forward on this subject site. Based on the meeting, I want to summarize the action items discussed to move forward with the *conditional approval* of the proposed project and PCLU Plan:

1. Based on responses provided by SCS Engineers (Jeff Sieg) by email on July 7, 2023, to comments submitted by the LEA on June 16, 2023, it was concurred that the existing map in the Revised Draft PCLU Plan showing the lateral extent of the waste is adequate and additional delineation to the west of the Site will not be necessary at this time.

2. CalRecycle staff (Bob Healy) to review the borings logs and the site maps provided at today's meeting to address the cover issue and verify if the data supports the statement in the PCLU Plan. If upon review, CalRecycle requires additional information and/or work, the LEA will inform the Walker Group team. Please note this could delay the *conditional approval* of the PCLU Plan depending on whether the required information and/or work could be completed concurrently with any construction activity at the Site.

3. LEA to provide additional comments (from CalRecycle/LEA's review) to SCS Engineers (Jeff Sieg) by email as stated in the email from LEA to SCE Engineers dated June 16, 2023.

4. SCS Engineers (Jeff Sieg) to provide clarification/responses to the forthcoming comments to be submitted by email. The responses may be submitted as a Revised PCLU Plan or added to the PCLU Plan as an Appendix. To the extent the responses do change the draft PCLU Plan, e.g., monitoring of X is increases from once a month to twice a month, the Appendix must specifically make a note of that for the LEA to track how the draft PCLU Plan is changed. If upon review of the responses provided as a the Revised PCLU Plan or included as an Appendix, the LEA determines that additional information and/or work is needed, the LEA will notify the Walker Group team. This could delay the conditional approval of the PCLU Plan depending on whether the required information and/or work could be completed concurrently with any construction at the Site.

5. The Stipulation Agreement to be drafted and finalized by LEA and submitted to Walker Group's attorney for review to move forward

If you have any questions, please reach out to me or Dan Weerasekera of the Solid Waste Program – LEA.

Thank you,
Shyamala Rajagopal

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste – Local Enforcement Agency (LEA)
Environmental Health Division
Office: (714) 433-6270 **Cell:** (714) 614-0498
Email: srajagopal@ochca.com
1241 E. Dyer Road, Suite #120, Santa Ana, CA 92705
Mailing Address: PO Box 25400, Santa Ana, CA 92799
www.ochealthinfo.com

July 21, 2023
File No. 01222204.00

Dan Weeraskera
Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Care Division
Orange County Health Care Agency

Subject: Response to OCHCA/LEA email attachment on July 17, 2023, regarding "Additional Comments on the on the Revised Final Draft Post Closure Land Use Plan" for property located at 2750-2770 Bristol Street, Costa Mesa, California 92626

Dear Mr. Weeraskera:

This letter has been prepared by SCS Engineers (SCS) in response to the Local Enforcement Agency (LEA) email on July 17, 2023, requesting additional clarification of the previously submitted Final Draft Post Closure Land Use Plan (PCLU) Plan, dated February 28, 2023, prepared by SCS.

1 LEA Comment

- *Page 6, Section 3.0 – Background and Current Conditions*

Page 8, Section 3.1 – Landfill Cover
Page 10, Section 4.0 – Proposed Site Improvements
Section 3.1 states, site is currently "capped" with engineered fill soil to a depth of approximately 8 feet below grade surface. The statement in Section 3.0/4.0 that the upper 8 feet of soil is engineered and compacted fill that is overlying the proposed building location and the former waste footprint is not supported by text and boring logs. Please provide the geotechnical report or design drawings and specifications used to verify that this soil layer exists and/or is designed into the grading plan.

SCS Response:

Grading activities and re-compaction of fill soils were conducted in accordance with the Geotechnical Engineering Investigation report prepared by NorCal Engineering and provided in Appendix C of the PCLU Plan. Soil materials 10 feet beyond the perimeter of the building were over excavated and re-compacted under oversight and satisfaction of the Geotechnical Engineer. Norcal provided a letter, dated June 30, 2023, stating that site grading was performed in accordance with its recommendations. Further, the balance of the site was determined to be previously graded and compacted to provide structural support for former developments. The NorCal Engineering letter has been attached to this response letter.

2 LEA Comment

- *Page 7, Section 3.0 – Background and Current Conditions*

The LEA does not support with the reasoning and explanation provided in the Draft PCLU Plan regarding the use of attenuation factor (AF) 0.03 vs. 0.0005 at the Site for select volatile organic compounds, as stated in previous correspondence letters in response to the landfill gas assessment report dated February 2023. The risk-based values calculated using Department of Toxic Substances Control (DTSC) Health and Ecological Risk Office (HERO) Note No. 3 although conservative, the OC Env. Health Division uses DTSC-recommended soil screening levels for evaluating soil vapor intrusion of *existing or future buildings. It is the LEA's position that AF of 0.03 is the recommended DTSC guidance though conservative in approach. Further, 0.0005 is the AF used for groundwater and not soil vapor concentrations to predict indoor air risk, as explained in previous correspondence letters from the LEA. Also, use of AF 0.005 vs. 0.0005 mentioned in Page 8 of the PCLU needs clarification.*

<u>SCS Response:</u>
SCS used an attenuation factor of 0.0005 for future building use as presented in the DTSC 2011 Vapor Intrusion Guidance. The use of an attenuation factor of 0.0005 is also presented in the DTSC Final Draft supplemental Guidance for VOCs in groundwater. This seems to be causing some confusion, so to be clear the use of the 0.0005 attenuation factor is derived from the value presented by the DTSC 2011 Vapor Intrusion Guidance for future commercial/industrial use NOT the 0.0005 attenuation factor present in the Final Draft Supplemental Guidance. Although the numbers are the same, the reference as to where the numbers are derived is different.

As pointed out by the LEA, page 8 of the PCLU Plan also stated an attenuation factor of 0.005 was mentioned, this was an error. This page will be corrected to make a recommendation using the attenuation factor of 0.0005 in the Final PCLU Plan.

SCS is aware of the confusion within the current regulatory paradigm as to when or when not to use an attenuation factor of 0.03 as presented in the Final Draft Supplemental Guidance: Screening and Evaluating Vapor Intrusion released by DTSC and the California Water Resources Control Boards in February 2023. In the PCLU Plan, SCS provided additional lines of evidence (LOE) to dismiss the use of the 0.03 attenuation factor and pointed out that the formerly used attenuation factor of 0.0005 for new commercial construction is overly conservative for the Site, as the Site will be installing mitigation measures such as, passive ventilation and impervious membrane beneath the building slab. While SCS believes they made a valid argument against the use of the 0.03 attenuation factor we can only further point out the disclaimer within the Final Draft Supplemental Guidance that states "This document is guidance and is not regulation or a water quality control plan or policy, therefore, use of this Supplemental Guidance is optional."

<u>3 LEA Comment</u>

- *Page 11, Section 4.3 – Site Drainage*

Clarify if new site grading is anticipated or does this reflect existing grading?

<u>SCS Response:</u>
The discussion of Site grading and drainage discussed in Section 4.3 of the PCLU Plan is the planned future design as presented in the civil engineering plans included in Appendix C of the PCLU Plan.

<u>4 LEA Comment:</u>

- *Page 11, Section 4.5 – Perimeter Gas Network Monitoring*

Correct and/or clarify the statement that only the western portion of the Site is located within the footprint of the former landfill; the landfill footprint is on the eastern side of the Site.

<u>SCS Response:</u>
This is an error that will be corrected in the Final PCLU Plan. To clarify only the eastern portion of the Site is located within the footprint of the former landfill. The western portion of the Site is outside of the footprint of the landfill.

<u>5 LEA Comment:</u>

- *Page 16, Section 6.4 – Landfill Gas Control and Monitoring*

Update the monitoring schedule for the passive ventilation system to be weekly for the first month, monthly for the next two months, and then if no methane is detected in any of those events, to be done quarterly.

SCS Response:
As discussed in a meeting held on July 13, 2023, with representative of the Walker Group, LEA, and CalRecycle, an operations, maintenance, and monitoring plan (OM&M Plan) will be provided to the LEA for review approximately 45 days following the conditional approval of the Draft PCLU Plan. The OM&M Plan will incorporate the recommendations presented by the LEA comments above regarding frequency of monitoring. Upon LEA review and approval of the OM&M plan, the details and specifications will be included into the text of the Final PCLU Plan under Section 6.4 and Appendix G.

6 LEA Comment:
- *Page 16, Section 6.4.1 – Proposed LFG Mitigation and Monitoring Systems*

Indicate that the monitoring and inspection of the gas sensors/alarms will be conducted at least on a monthly basis by the property owner/representative. The sensors will also be inspected when the LEA conducts its quarterly inspection.

SCS Response:
As stated in the comment above, upon conditional approval of the Draft PCLU Plan, SCS will prepare an OM&M Plan for review and approval by the LEA. Monitoring frequency to be conducted by the owner/representative will be addressed to follow the recommendation presented. As for the statement that, "the sensors will also be inspected when the LEA conducts its quarterly inspection," I cannot speak as to the LEA's planned inspections, frequency, of schedule; however, we can state in the PCLU Plan that the LEA will be provided access to the Site to conduct their additional routine inspections.

7 LEA Comment:
Page 17, Section 6.4.2 – On-Site Structure Monitoring
Indicate that the monitoring schedule of the passive ventilation system, via sampling port, will be completed weekly for the first month, monthly for the next two months, and then if no methane is detected in any of those events, to be done quarterly.

SCS Response:
The requested monitoring schedule of the passive ventilation system to be completed weekly for the first month, monthly for the following two months, and quarterly thereafter will be included in the Final PCLU Plan and in the OM&M Plan (Appendix G), which, as stated, will be provided to the LEA for review prior to submittal of the Final PCLU Plan.

8 LEA Comment:
Page 17, Section 6.4.4 – Contingency Measures/Reporting and Control of Excessive Gas Concentrations The remediation plan should be submitted in a shorter timeframe. For example: submit a remedial plan of action to the LEA for approval within two (2) weeks of detection; implement the plan within 30 days of approval from the LEA.

SCS Response:
To confirm with your request the follow verbiage will be included in the Final PCLU Plan, "If testing confirms the presence of elevated combustible gas levels is landfill-related and a safety hazard exists, a remediation plan will be prepared and submitted to the LEA for approval within two weeks of detection and will be implemented within 30 days of approval from the LEA. The plan shall describe the nature of the hazard and proposed remedy. The specific mitigation measures to be employed will be a function of site-specific conditions and hazards (i.e., geology, utility locations, and gas generation potential), and

will be developed by personnel familiar with combustible gas hazards and controls. If viable, an appropriate remediation system that meets the criteria of Title 27 20939 will be installed following remedial actions."

9 LEA Comment:
Appendix C – Design and Engineering Plans, Geotechnical Engineering Investigation Report dated August 2020, NorCal Engineering.

- *Page 9, Section 8.1 – Site Grading Recommendations*

Was this all implemented and done as specified and called out? Is there an as-built report for the site grading?

SCS Response:
As stated in comment 1 of this response letter, Norcal provided a June 30, 2023, letter stating that site grading was performed in accordance with their recommendations. Further, the balance of the site was determined to be previously graded and compacted to provide structural support for former developments. The NorCal Engineering letter has been attached to this response letter. With respect to an as-built report for the Site grading, as the LEA is aware, complete grading activities and earthwork were subject to the LEA's cease and desist directive prior to completion. Currently, additional earthwork will be required to rehabilitate the building pad and remainder of the Site. An as-built report will be prepared following completion of grading activities.

10 LEA Comment:
- *Page 14, Section 8.10 – Utility Trench and Excavation Backfill*

Indicate where or add where it is specified that utility trench plugs shall be placed when entering the building footprint.

SCS Response:
General details and specification for the installation of utility trench plugs are provided in the Methane Gas Control system design plans (specifically sheet GC-9.0) on Page 967 in Appendix C of the Final Draft PCLU Plan. Other utility contractors have specified that any utilities entering the building will be required to follow the Methane Gas Control Plans.

11 LEA Comment:
- *Methane Gas Control System Plans, Page GC-4.2, View A, Page 6 of 13 – Should extend the vent above the building roof with a whirligig vent cap.*

SCS Response:
Whirligig vent caps have been included in the revised methane plans. Several of the vent risers are to be terminated above the occupied areas through the walls. All exposed vent ports are specified to be 10 feet above grade, 10-foot minimum away from, or at least 3 feet above any openable window, door, opening intake, or vent shaft. The area above these wall mounted vent risers is exposed rooftop parking. The City of Costa Mesa requested that several of the vent risers be installed as wall mounted. If roof mounting is a requirement by the LEA please specify, and the plans will be revised.

12 LEA Comment:
- *Methane Gas Control System Plans, Page GC-9.0, Page 13 of 13 – Clarify that the trench dams will be constructed of soil bentonite, bentonite slurry, clay, or other known low permeability material.*

SCS Response:
On Page GC-9.0, Page 13 of the Methane Gas Control System Plans in Section C, Notes, Item 2-part A specifies that the trench dam shall consist of a slurry of sand, cement, and powdered bentonite.

13 LEA Comment:
Methane Gas Control System Plans, Page 958, Sheet GC-4, Detail C – Add an actual phone # on the "Riser Sign" for the City of Costa Mesa Fire Department (assuming that is who would be contacted if high gas readings are recorded.).

SCS Response:
We will have that revision made to the Methane Gas Control Plans.

14 LEA Comment:
Appendix E – Compilation of Previous Investigations, Data Tables, and Boring Logs
This section was reviewed by CalRecycle/LEA to evaluate if there is sufficient information to determine the depth of the cover outside of the proposed building location. Based on the past site assessments conducted, it was concluded that there are a few data gaps to the northeast, east, southeast, and west outside of the building footprint.

Following the review of past boring logs, LEA/CalRecycle staff had a virtual meeting with SCS Engineers (Jeff Sieg) on July 14, 2023, to discuss the rationale and possible borings/test pits. Locations to the east, southeast, and northeast are primarily to determine the thickness of the landfill cap while a boring/test pit to the west is to characterize if waste is present or just fill material and if waste is found to be present, to also determine the thickness of the landfill soil cap. The agreed upon locations of these borings/test pits have been sent to SCS Engineers by the LEA under separate email attachment on the same date, July 14, 2023.

Explain how this information will be tested and provided to the LEA and CalRecycle?

SCS Response:

As discussed in the meeting with SCS and LEA/CalRecycle on July 14, 2023, SCS will prepare a workplan for your review which will include conducting test pits for the visual observation of soil cover in the eastern portion of the Site and an evaluation cover depth in the western portion of the Site. As stated, a workplan will be prepared for review and approval by the LEA/CalRecycle, which will provide additional detail.

Please contact me if you have any questions.

Thank you,

Jeffrey T. Sieg

Jeffrey T. Sieg, P.G.
Sr. Project Manager
SCS Engineers

Attachments:
NorCal Letter

// NorCal Engineering
Soils and Geotechnical Consultants
10641 Humbolt Street Los Alamitos, CA 90720
(562) 799-9469 Fax (562) 799-9459

June 30, 2023 Project Number 21887-22

Kunzik and Sara Construction
1699 La Costa Meadows Drive, Suite 102
San Marcos, California 92078

Attn: Mr. Matt Sara

RE: **Geotechnical Assessment** - Proposed No. 1 Collision Center Automobile Repair Facility - Located at 2750 and 2770 Bristol Street, in the City of Costa Mesa, California

Dear Mr. Sara:
It has been brought to attention that the site was previously documented as a former landfill area. The project site is underlain by undocumented fill placed several years ago during the development of Costa Mesa by the filling of wetlands and grading of terraces.

This firm provided a Geotechnical Engineering Investigation report dated August 4, 2020 which documents the site underlain by deep fill soils to depths ranging between 10 and 25 feet in depth. These fills classified as a brown to dark brown, silty CLAY to a silty SAND with intermingled lenses of sandy silt and silty sand with fragments of asphalt and concrete. The fill was noted to be stiff/dense to very dense and moist. A natural undisturbed soil classifying as a brown, silty to sandy CLAY to a yellow brown to grey brown medium to coarse grained, SAND to a silty SAND was encountered beneath the fill soils. The native soils were observed to be stiff to medium dense to dense and moist to wet.

It was our recommendation that the existing undocumented fill may be left in-place provided that the upper 5 feet below the proposed building pad and 5 feet below proposed bottom of foundations be removed to competent material, the exposed surface scarified to a depth of 12 inches, brought to within 2% of optimum moisture content and compacted to a minimum of 90% of the laboratory standard prior to placement of any additional compacted fill soils. This firm also recommended that a stiffened foundation system be utilized for the proposed structure to mitigate seismic-induced settlements.

All site grading was recently performed in accordance with our grading report titled "Report of Geotechnical Observation and Testing of Rough Grading Operations" dated August 18, 2022. Based upon our evaluations, the proposed development is acceptable from a geotechnical engineering standpoint and the building structure will be safe from excessive settlements under the anticipated design loadings and conditions and is suitable for its intended use.

It is our professional opinion that the previous car wash facility that occupied the property since the mid 1990's had been graded in accordance with the city/county building department. During site grading operations, the excavation of the existing fill soils that were observed by this firm consisted of soils that appeared to have been previously graded and compacted to provide structural support for development.

We appreciate this opportunity to be of service to you. If you have any further questions, please do not hesitate to contact the undersigned.

Respectfully submitted,
NORCAL ENGINEERING

REGISTERED PROFESSIONAL ENGINEER
KEITH D. TUCKER
No. 841
Exp. 12/31/2024
GEOTECHNICAL
STATE OF CALIFORNIA

Keith D. Tucker
Project Engineer
R.G.E. 841

Scott D. Spensiero
Project Manager

Sieg, Jeff

From: Rajagopal, Shyamala <SRajagopal@ochca.com>
Sent: Wednesday, July 26, 2023 4:14 PM
To: Sieg, Jeff; Robert A. Walker; Thierry Montoya (tmontoya@alvaradosmith.com); Coralee Newman
Cc: Lane, Christine; Robinson, Lauren; Shamel, Massoud; Weerasekera, Dan; Levine, Steve@CalRecycle; Liang, Dawn@CalRecycle; Healy, Robert@CalRecycle; Rajagopal, Shyamala

Subject: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - LEA Comments to Revised PCLUP (SWIS No. 30-CR-0071)

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Jeff,

As discussed during our meeting on July 13, 2023, CalRecycle had additional comments on the Draft PCLU Plan, and it was agreed that you will respond to those comments by a letter/email and include it as an Appendix to the Revised PCLU Plan. As noted in the email chain below, the LEA provided you with those comments on July 17, 2023, and received your responses to the additional comments dated July 21, 2023, on July 24, 2023. Based on the review of the responses, below are LEA/CalRecycle's questions that require clarification:

- #5 SCS Response – Page 16, Section 6.4 – Landfill Gas Control and Monitoring / #6 SCS Response – Page 16, Section 6.4.1 – Proposed LFG Mitigation and Monitoring Systems
  There should be a section in the forthcoming O&M Plan that will address training of staff regarding steps to take if an alarm were to sound and whom to contact if a situation arises.

- #9 SCS Response – Page 9, Section 8.1 – Site Grading Recommendations
  The as-built report should be submitted to the LEA withing 45 days following completion of grading activities.

  Appendix C – Design and Engineering Plans
- #11 SCS Response – Methane Gas Control System Plans, Page GC-4.2, View A, Page 6 of 13
  The LEA prefers the vent risers to be installed as roof mounted; vents should be on roof tops to allow better exposure to wind and air currents and at least 10-feet away from openable windows, doors, HVAC air intakes or vent shafts.

- #12 SCS Response – Page GC-9.0, Page 13 of the Methane Gas Control System Plans in Section C, Notes, Item 2-part A
  This response in Detail C "Notes" is acceptable. However, it conflicts with Detail B "Trench Dam" on this page that refers to the use of "...native soil backfill compacted with at least 90% relative compaction....", needs to be reviewed and corrected.

  Appendix E – Compilation of Previous Investigations, Data Tables, and Boring Logs
- #14 SCS Response – A workplan to be prepared and submitted which will include conducting test pits for visual determination of landfill cover on the eastern, northeastern, and southeastern portion of the Site and evaluate both, cover depth and depth of waste, if present, in the western portion of the Site.

Please correct or provide responses for the above questions either by email or letter.

In addition, please submit to the LEA a revised PCLU Plan that includes all edits made to the previously submitted Draft PCLU Plan dated February 28, 2023 (revised June 2, 2023) based on our communications (e.g., letters, emails, etc.). If you prefer, as we discussed during our meeting on July 13, 2023, you may include those edits in a consolidated fashion as an appendix to the Draft PCLU Plan dated February 28, 2023 (revised June 2, 2023). Please note the that the edits (whether submitted as part of a revised PCLU Plan or an appendix thereto) should include LEA comments submitted by email on June 16, 2023 and July 17, 2023, the comments you submitted to the LEA on July 24, 2023 (dated July 21, 2023), and any additional clarifications requested as part of this email, above.

Once the LEA has all the comments and responses in a consolidated fashion, either as part of a revised PCLU Plan or as an appendix to the revised PCLU Plan, the LEA will then be able to review the document (which the LEA has done already except for additional clarifications as requested in this email) and provide a determination (i.e., conditional approval or rejection).

Please let me know if you have any questions or require clarification. You may also contact Dan Weerasekera of the LEA or Bob Healy of CalRecycle – CIA group with any specific questions on the project.

Thank you,
Shyamala Rajagopal

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste – Local Enforcement Agency (LEA)
Environmental Health Division

Office: (714) 433-6270 **Cell:** (714) 614-0498
Email: srajagopal@ochca.com
1241 E. Dyer Road, Suite #120, Santa Ana, CA 92705
Mailing Address: PO Box 25400, Santa Ana, CA 92799
www.ochealthinfo.com

From: Sieg, Jeff <JSieg@SCSEngineers.com>
Sent: Monday, July 24, 2023 12:08 PM
To: Rajagopal, Shyamala <SRajagopal@ochca.com>; Robert A. Walker <rwalker@mbcollision.ca>; Thierry Montoya (tmontoya@alvaradosmith.com) <tmontoya@alvaradosmith.com>; Coralee Newman <cora@govsol.com>
Cc: Lane, Christine <CLane@ochca.com>; Robinson, Lauren <LRobinson@ochca.com>; Shamel, Massoud <Massoud.Shamel@coco.ocgov.com>; Weerasekera, Dan <DWeerasekera@ochca.com>; Levine, Steve@CalRecycle <Steve.Levine@CalRecycle.ca.gov>; Liang, Dawn@CalRecycle <Dawn.Liang@CalRecycle.ca.gov>; Healy, Robert@CalRecycle <robert.healy@calrecycle.ca.gov>
Subject: RE: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - Revised PCLUP (SWIS No. 30-CR-0071)

Attention: This email originated from outside the County of Orange. Use caution when opening attachments or links.

Shyamala,

Attached is SCS's response to comments from your letter dated July 17, 2023. Please let me know if you have any questions.

I will also be submitting a workplan for additional evaluation of soil cover as requested by Dan of LEA and Bob Healy of Calrecycle.

Please let me know if you have any questions or require clarification.

Thank you,
Jeff Sieg
SCS Engineers
(562) 572-4461

From: Rajagopal, Shyamala <SRajagopal@ochca.com>
Sent: Monday, July 17, 2023 10:29 AM
To: Robert A. Walker <rwalker@mbcollision.ca>; Thierry Montoya (tmontoya@alvaradosmith.com) <tmontoya@alvaradosmith.com>; Coralee Newman <cora@govsol.com>; Sieg, Jeff <JSieg@SCSEngineers.com>
Cc: Lane, Christine <CLane@ochca.com>; Robinson, Lauren <LRobinson@ochca.com>; Shamel, Massoud <Massoud.Shamel@coco.ocgov.com>; Weerasekera, Dan <DWeerasekera@ochca.com>; Levine, Steve@CalRecycle <Steve.Levine@CalRecycle.ca.gov>; Liang, Dawn@CalRecycle <Dawn.Liang@CalRecycle.ca.gov>; Healy, Robert@CalRecycle <robert.healy@calrecycle.ca.gov>
Subject: RE: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - Revised PCLUP (SWIS No. 30-CR-0071)

This email originated from outside of SCS Engineers. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Jeff:
As a follow-up to the action items (#1 through #3) listed below based on discussions from the meeting held with the LEA last week on July 13th, attached are the additional comments from CalRecycle/LEA's review. If you have any questions, please contact me or Dan Weerasekera of the LEA or Bob Healy of CalRecycle – CIA group.

Thank you,
Shyamala Rajagopal

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste – Local Enforcement Agency (LEA)
Environmental Health Division
Office: (714) 433-6270 **Cell:** (714) 614-0498
Email: srajagopal@ochca.com
1241 E. Dyer Road, Suite #120, Santa Ana, CA 92705
Mailing Address: PO Box 25400, Santa Ana, CA 92799
www.ochealthinfo.com

From: Rajagopal, Shyamala
Sent: Thursday, July 13, 2023 5:29 PM
To: Robert A. Walker <rwalker@mbcollision.ca>; Thierry Montoya (tmontoya@alvaradosmith.com) <tmontoya@alvaradosmith.com>; Coralee Newman <cora@govsol.com>; JSieg@SCSEngineers.com
Cc: Lane, Christine <clane@ochca.com>; Robinson, Lauren <lrobinson@ochca.com>; Shamel, Massoud <massoud.shamel@coco.ocgov.com>; Weerasekera, Dan <dweerasekera@ochca.com>; Rajagopal, Shyamala <srajagopal@ochca.com>; Levine, Steve@CalRecycle <Steve.Levine@CalRecycle.ca.gov>; Liang, Dawn@CalRecycle <Dawn.Liang@CalRecycle.ca.gov>; Healy, Robert@CalRecycle <Robert.Healy@calrecycle.ca.gov>
Subject: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - Revised PCLUP (SWIS No. 30-CR-0071)

Hello,
Thank you all for attending today's meeting with the Solid Waste – Local Enforcement Agency (LEA) held at the Orange County Environmental Health Division office to discuss the Revised Draft Post Closure Land Use (PCLU) Plan and path

forward on this subject site. Based on the meeting, I want to summarize the action items discussed to move forward with the *conditional approval* of the proposed project and PCLU Plan:

1. Based on responses provided by SCS Engineers (Jeff Sieg) by email on July 7, 2023, to comments submitted by the LEA on June 16, 2023, it was concurred that the existing map in the Revised Draft PCLU Plan showing the lateral extent of the waste is adequate and additional delineation to the west of the Site will not be necessary at this time.

2. CalRecycle staff (Bob Healy) to review the borings logs and the site maps provided at today's meeting to address the cover issue and verify if the data supports the statement in the PCLU Plan. If upon review, CalRecycle requires additional information and/or work, the LEA will inform the Walker Group team. Please note this could delay the *conditional approval* of the PCLU Plan depending on whether the required information and/or work could be completed concurrently with any construction activity at the Site.

3. LEA to provide additional comments (from CalRecycle/LEA's review) to SCS Engineers (Jeff Sieg) by email as stated in the email from LEA to SCE Engineers dated June 16, 2023.

4. SCS Engineers (Jeff Sieg) to provide clarification/responses to the forthcoming comments to be submitted by email. The responses may be submitted as a Revised PCLU Plan or added to the PCLU Plan as an Appendix. To the extent the responses do change the draft PCLU Plan, e.g., monitoring of X is increases from once a month to twice a month, the Appendix must specifically make a note of that for the LEA to track how the draft PCLU Plan is changed. If upon review of the responses provided as a the Revised PCLU Plan or included as an Appendix, the LEA determines that additional information and/or work is needed, the LEA will notify the Walker Group team. This could delay the conditional approval of the PCLU Plan depending on whether the required information and/or work could be completed concurrently with any construction at the Site.

5. The Stipulation Agreement to be drafted and finalized by LEA and submitted to Walker Group's attorney for review to move forward

If you have any questions, please reach out to me or Dan Weerasekera of the Solid Waste Program – LEA.

Thank you,
Shyamala Rajagopal

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste – Local Enforcement Agency (LEA)
Environmental Health Division

Office: (714) 433-6270 **Cell:** (714) 614-0498
Email: srajagopal@ochca.com
1241 E. Dyer Road, Suite #120, Santa Ana, CA 92705
Mailing Address: PO Box 25400, Santa Ana, CA 92799
www.ochealthinfo.com

July 27, 2023
File No. 01222204.00

Dan Weeraskera
Hazardous Materials Specialist
Solid Waste Local Enforcement Agency
Environmental Health Care Division
Orange County Health Care Agency

Subject: Response to OCHCA/LEA email dated July 26, 2023, regarding Clarification to Additional Comments on the on the Revised Final Draft Post Closure Land Use Plan for property located at 2750-2770 Bristol Street, Costa Mesa, California 92626

Dear Mr. Weeraskera:

This letter has been prepared by SCS Engineers (SCS) in response to the Local Enforcement Agency (LEA) email on July 26, 2023, requesting additional clarification of the previously submitted Final Draft Post Closure Land Use Plan (PCLU) Plan, dated February 28, 2023, and response to comments letter dated July 21, 2023, each prepared by SCS.

1 LEA Comment

- *#5 SCS Response – Page 16, Section 6.4 – Landfill Gas Control and Monitoring / #6 SCS Response – Page 16, Section 6.4.1 – Proposed LFG Mitigation and Monitoring Systems*

There should be a section in the forthcoming O&M Plan that will address training of staff regarding steps to take if an alarm were to sound and whom to contact if a situation arises.

SCS Response:
As discussed in the July 21, 2023 letter response to comments, an operations, maintenance, and monitoring plan (OM&M Plan) will be provided to the LEA for review approximately 45 days following the conditional approval of the Draft PCLU Plan. In addition to previous recommendations, the current recommendation of including a section to address staff training and response to alarms will be incorporated into the OM&M plan.

As previously stated in the July 21, 2023 letter, "Upon LEA review and approval of the OM&M plan, the details and specifications will be included into the text of the Final PCLU Plan under Section 6.4 and Appendix G."

2 LEA Comment

- *#9 SCS Response – Page 9, Section 8.1 – Site Grading Recommendations*

The as-built report should be submitted to the LEA within 45 days following completion of grading activities.

SCS Response:
An as-built report will be prepared following grading activities at the Site, which will be provided to the LEA within 45 days of grading completion and included in the Final PCLU Plan.

3 LEA Comment
Appendix C – Design and Engineering Plans

- #11 SCS Response – Methane Gas Control System Plans, Page GC-4.2, View A, Page 6 of 13

The LEA prefers the vent risers to be installed as roof mounted; vents should be on roof tops to allow better exposure to wind and air currents and at least 10-feet away from openable windows, doors, HVAC air intakes or vent shafts.

SCS Response:
Methane Gas Control Plans will be revised and vent lines will be extended to vent above the roof tops as requested. Draft plans will be provided to LEA for review within 45 days of the conditional approval of the Draft PCLU Plan.

4 LEA Comment

- #12 SCS Response – Page GC-9.0, Page 13 of the Methane Gas Control System Plans in Section C, Notes, Item part A.
  This response in Detail C "Notes" is acceptable. However, it conflicts with Detail B "Trench Dam" on this page that refers to the use of "...native soil backfill compacted with at least 90% relative compaction....", needs to be reviewed and corrected.

SCS Response:
The notes section of the Methane Mitigation Plans Page GC-9.0, Page 13 Section C and call outs of the Trench Dam Section Part B specify the use of a cement bentonite slurry. However, we recognize that Utility Trench Dams notes in Part B, Item 3 provide verbiage that conflicts with the other details and/or notes and will be modified to specify the use of a cement bentonite slurry.

5 LEA Comment

- #14 SCS Response – A workplan to be prepared and submitted which will include conducting test pits for visual determination of landfill cover on the eastern, northeastern, and southeastern portion of the Site and evaluate both, cover depth and depth of waste, if present, in the western portion of the Site.

SCS Response:
We are currently preparing a workplan for the additional evaluation of landfill cover at the Site in accordance with conversations between SCS, LEA and CalRecycle on July 14, 2023. The workplan will be submitted to the LEA for their approval by August 3, 2023. The activities will be conducted as directly requested by the LEA and CalRecycle during the July 14, 2023 meeting.

Please contact me if you have any questions.

Thank you,

Jeffrey T. Sieg

Jeffrey T. Sieg, P.G.
Sr. Project Manager
SCS Engineers

Sieg, Jeff

From:	Rajagopal, Shyamala <SRajagopal@ochca.com>
Sent:	Friday, July 28, 2023 1:38 PM
To:	Sieg, Jeff; Robert A. Walker; Thierry Montoya (tmontoya@alvaradosmith.com); Coralee Newman
Cc:	Lane, Christine; Robinson, Lauren; Shamel, Massoud; Weerasekera, Dan; Levine, Steve@CalRecycle; Liang, Dawn@CalRecycle; Healy, Robert@CalRecycle; Rajagopal, Shyamala
Subject:	Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - LEA Comments to Revised PCLUP (SWIS No. 30-CR-0071)
Attachments:	Response to LEA Comments (July 27, 2023).pdf; Revised Final Draft Post Closure Land Use Plan 2750 Bristol 7-27-23.pdf

This email originated from outside of SCS Engineers. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Jeff,
The LEA is satisfied with SCS Engineers' attached responses from yesterday dated July 27, 2023, and has no further comments on the Draft PCLU Plan (for Construction Purposes). Based on the review of the submitted revisions to the Revised PCLU Plan (see attachment), please submit the complete Revised PCLU Plan (for Construction Purpose) document with all Appendices A through I included for the LEA records. As discussed today morning, include LEA comments along with SCS responses to "Appendix I – Regulatory Correspondence" and cite Appendix I in the text of the PCLU Plan.

The LEA is currently working on the letter conditionally accepting the PCLU Plan with the Stipulation in place prior to Walker Group proceeding with construction at the Site. Your patience is appreciated.

If you have any questions, please contact me or Dan Weerasekera of the Solid Waste – LEA.

Thank you,
Shyamala Rajagopal

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste – Local Enforcement Agency (LEA)
Environmental Health Division
Office: (714) 433-6270 **Cell:** (714) 614-0498
Email: srajagopal@ochca.com
1241 E. Dyer Road, Suite #120, Santa Ana, CA 92705
Mailing Address: PO Box 25400, Santa Ana, CA 92799
www.ochealthinfo.com

From: Sieg, Jeff <JSieg@SCSEngineers.com>
Sent: Thursday, July 27, 2023 5:00 PM
To: Rajagopal, Shyamala <SRajagopal@ochca.com>; Robert A. Walker <rwalker@mbcollision.ca>; Thierry Montoya (tmontoya@alvaradosmith.com) <tmontoya@alvaradosmith.com>; Coralee Newman <cora@govsol.com>
Cc: Lane, Christine <CLane@ochca.com>; Robinson, Lauren <LRobinson@ochca.com>; Shamel, Massoud <Massoud.Shamel@coco.ocgov.com>; Weerasekera, Dan <DWeerasekera@ochca.com>; Levine, Steve@CalRecycle

<Steve.Levine@CalRecycle.ca.gov>; Liang, Dawn@CalRecycle <Dawn.Liang@CalRecycle.ca.gov>; Healy, Robert@CalRecycle <robert.healy@calrecycle.ca.gov>
Subject: RE: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - LEA Comments to Revised PCLUP (SWIS No. 30-CR-0071)

Attention: This email originated from outside the County of Orange. Use caution when opening attachments or links.

Shyamala,

Per our discussion this afternoon, attached is a response to the LEA comments from yesterday. All the comments have been addressed. Changes will need to be made moving forward but these should cause no delay in moving forward with a conditional approval which will allow construction to commence at the Site. Also as you have requested I have attached a revised PCLU Plan that specifies it is draft for construction purposes. Additionally, an appendix has been added to the PCLU Plan for regulatory correspondences regarding comments and revisions that have or need to be made shortly following your departments conditional approval of the PCLU Plan Revised July 27, 2023 (draft for construction purposes).

As you know we would like the conditional approval as soon as possible to get construction activities moving forward.

Please let me know if you have any questions.

Thank you,
Jeff Sieg
SCS Engineers
(562) 572-4461

From: Rajagopal, Shyamala <SRajagopal@ochca.com>
Sent: Wednesday, July 26, 2023 4:14 PM
To: Sieg, Jeff <JSieg@SCSEngineers.com>; Robert A. Walker <rwalker@mbcollision.ca>; Thierry Montoya (tmontoya@alvaradosmith.com) <tmontoya@alvaradosmith.com>; Coralee Newman <cora@govsol.com>
Cc: Lane, Christine <CLane@ochca.com>; Robinson, Lauren <LRobinson@ochca.com>; Shamel, Massoud <Massoud.Shamel@coco.ocgov.com>; Weerasekera, Dan <DWeerasekera@ochca.com>; Levine, Steve@CalRecycle <Steve.Levine@CalRecycle.ca.gov>; Liang, Dawn@CalRecycle <Dawn.Liang@CalRecycle.ca.gov>; Healy, Robert@CalRecycle <robert.healy@calrecycle.ca.gov>; Rajagopal, Shyamala <SRajagopal@ochca.com>
Subject: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - LEA Comments to Revised PCLUP (SWIS No. 30-CR-0071)

This email originated from outside of SCS Engineers. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Jeff,

As discussed during our meeting on July 13, 2023, CalRecycle had additional comments on the Draft PCLU Plan, and it was agreed that you will respond to those comments by a letter/email and include it as an Appendix to the Revised PCLU Plan. As noted in the email chain below, the LEA provided you with those comments on July 17, 2023, and received your responses to the additional comments dated July 21, 2023, on July 24, 2023. Based on the review of the responses, below are LEA/CalRecycle's questions that require clarification:

- #5 SCS Response – Page 16, Section 6.4 – Landfill Gas Control and Monitoring / #6 SCS Response – Page 16, Section 6.4.1 – Proposed LFG Mitigation and Monitoring Systems
  There should be a section in the forthcoming O&M Plan that will address training of staff regarding steps to take if an alarm were to sound and whom to contact if a situation arises.

- #9 SCS Response – Page 9, Section 8.1 – Site Grading Recommendations
  The as-built report should be submitted to the LEA withing 45 days following completion of grading activities.

  Appendix C – Design and Engineering Plans
- #11 SCS Response – Methane Gas Control System Plans, Page GC-4.2, View A, Page 6 of 13
  The LEA prefers the vent risers to be installed as roof mounted; vents should be on roof tops to allow better exposure to wind and air currents and at least 10-feet away from openable windows, doors, HVAC air intakes or vent shafts.

- #12 SCS Response – Page GC-9.0, Page 13 of the Methane Gas Control System Plans in Section C, Notes, Item 2-part A
  This response in Detail C "Notes" is acceptable. However, it conflicts with Detail B "Trench Dam" on this page that refers to the use of "...native soil backfill compacted with at least 90% relative compaction....", needs to be reviewed and corrected.

  Appendix E – Compilation of Previous Investigations, Data Tables, and Boring Logs
- #14 SCS Response – A workplan to be prepared and submitted which will include conducting test pits for visual determination of landfill cover on the eastern, northeastern, and southeastern portion of the Site and evaluate both, cover depth and depth of waste, if present, in the western portion of the Site.

Please correct or provide responses for the above questions either by email or letter.

In addition, please submit to the LEA a revised PCLU Plan that includes all edits made to the previously submitted Draft PCLU Plan dated February 28, 2023 (revised June 2, 2023) based on our communications (e.g., letters, emails, etc.). If you prefer, as we discussed during our meeting on July 13, 2023, you may include those edits in a consolidated fashion as an appendix to the Draft PCLU Plan dated February 28, 2023 (revised June 2, 2023). Please note the that the edits (whether submitted as part of a revised PCLU Plan or an appendix thereto) should include LEA comments submitted by email on June 16, 2023 and July 17, 2023, the comments you submitted to the LEA on July 24, 2023 (dated July 21, 2023), and any additional clarifications requested as part of this email, above.

Once the LEA has all the comments and responses in a consolidated fashion, either as part of a revised PCLU Plan or as an appendix to the revised PCLU Plan, the LEA will then be able to review the document (which the LEA has done already except for additional clarifications as requested in this email) and provide a determination (i.e., conditional approval or rejection).

Please let me know if you have any questions or require clarification. You may also contact Dan Weerasekera of the LEA or Bob Healy of CalRecycle – CIA group with any specific questions on the project.

Thank you,
Shyamala Rajagopal

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste – Local Enforcement Agency (LEA)
Environmental Health Division

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Email: srajagopal@ochca.com
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Mailing Address: PO Box 25400, Santa Ana, CA 92799
www.ochealthinfo.com

From: Sieg, Jeff <JSieg@SCSEngineers.com>
Sent: Monday, July 24, 2023 12:08 PM
To: Rajagopal, Shyamala <SRajagopal@ochca.com>; Robert A. Walker <rwalker@mbcollision.ca>; Thierry Montoya (tmontoya@alvaradosmith.com) <tmontoya@alvaradosmith.com>; Coralee Newman <cora@govsol.com>
Cc: Lane, Christine <CLane@ochca.com>; Robinson, Lauren <LRobinson@ochca.com>; Shamel, Massoud <Massoud.Shamel@coco.ocgov.com>; Weerasekera, Dan <DWeerasekera@ochca.com>; Levine, Steve@CalRecycle <Steve.Levine@CalRecycle.ca.gov>; Liang, Dawn@CalRecycle <Dawn.Liang@CalRecycle.ca.gov>; Healy, Robert@CalRecycle <robert.healy@calrecycle.ca.gov>
Subject: RE: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - Revised PCLUP (SWIS No. 30-CR-0071)

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Shyamala,

Attached is SCS's response to comments from your letter dated July 17, 2023. Please let me know if you have any questions.

I will also be submitting a workplan for additional evaluation of soil cover as requested by Dan of LEA and Bob Healy of Calrecycle.

Please let me know if you have any questions or require clarification.

Thank you,
Jeff Sieg
SCS Engineers
(562) 572-4461

From: Rajagopal, Shyamala <SRajagopal@ochca.com>
Sent: Monday, July 17, 2023 10:29 AM
To: Robert A. Walker <rwalker@mbcollision.ca>; Thierry Montoya (tmontoya@alvaradosmith.com) <tmontoya@alvaradosmith.com>; Coralee Newman <cora@govsol.com>; Sieg, Jeff <JSieg@SCSEngineers.com>
Cc: Lane, Christine <CLane@ochca.com>; Robinson, Lauren <LRobinson@ochca.com>; Shamel, Massoud <Massoud.Shamel@coco.ocgov.com>; Weerasekera, Dan <DWeerasekera@ochca.com>; Levine, Steve@CalRecycle <Steve.Levine@CalRecycle.ca.gov>; Liang, Dawn@CalRecycle <Dawn.Liang@CalRecycle.ca.gov>; Healy, Robert@CalRecycle <robert.healy@calrecycle.ca.gov>
Subject: RE: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - Revised PCLUP (SWIS No. 30-CR-0071)

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Hello Jeff:
As a follow-up to the action items (#1 through #3) listed below based on discussions from the meeting held with the LEA last week on July 13th, attached are the additional comments from CalRecycle/LEA's review. If you have any questions, please contact me or Dan Weerasekera of the LEA or Bob Healy of CalRecycle – CIA group.

Thank you,
Shyamala Rajagopal

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste – Local Enforcement Agency (LEA)
Environmental Health Division

Office: (714) 433-6270 **Cell:** (714) 614-0498
Email: srajagopal@ochca.com
1241 E. Dyer Road, Suite #120, Santa Ana, CA 92705
Mailing Address: PO Box 25400, Santa Ana, CA 92799
www.ochealthinfo.com

From: Rajagopal, Shyamala
Sent: Thursday, July 13, 2023 5:29 PM
To: Robert A. Walker <rwalker@mbcollision.ca>; Thierry Montoya (tmontoya@alvaradosmith.com) <tmontoya@alvaradosmith.com>; Coralee Newman <cora@govsol.com>; JSieg@SCSEngineers.com
Cc: Lane, Christine <clane@ochca.com>; Robinson, Lauren <lrobinson@ochca.com>; Shamel, Massoud <massoud.shamel@coco.ocgov.com>; Weerasekera, Dan <dweerasekera@ochca.com>; Rajagopal, Shyamala <srajagopal@ochca.com>; Levine, Steve@CalRecycle <Steve.Levine@CalRecycle.ca.gov>; Liang, Dawn@CalRecycle <Dawn.Liang@CalRecycle.ca.gov>; Healy, Robert@CalRecycle <Robert.Healy@calrecycle.ca.gov>
Subject: Newport Ave. Station No. 1 Landfill at Bristol Street, Costa Mesa, CA - Revised PCLUP (SWIS No. 30-CR-0071)

Hello,
Thank you all for attending today's meeting with the Solid Waste – Local Enforcement Agency (LEA) held at the Orange County Environmental Health Division office to discuss the Revised Draft Post Closure Land Use (PCLU) Plan and path forward on this subject site. Based on the meeting, I want to summarize the action items discussed to move forward with the *conditional approval* of the proposed project and PCLU Plan:

1. Based on responses provided by SCS Engineers (Jeff Sieg) by email on July 7, 2023, to comments submitted by the LEA on June 16, 2023, it was concurred that the existing map in the Revised Draft PCLU Plan showing the lateral extent of the waste is adequate and additional delineation to the west of the Site will not be necessary at this time.

2. CalRecycle staff (Bob Healy) to review the borings logs and the site maps provided at today's meeting to address the cover issue and verify if the data supports the statement in the PCLU Plan. If upon review, CalRecycle requires additional information and/or work, the LEA will inform the Walker Group team. Please note this could delay the *conditional approval* of the PCLU Plan depending on whether the required information and/or work could be completed concurrently with any construction activity at the Site.

3. LEA to provide additional comments (from CalRecycle/LEA's review) to SCS Engineers (Jeff Sieg) by email as stated in the email from LEA to SCE Engineers dated June 16, 2023.

4. SCS Engineers (Jeff Sieg) to provide clarification/responses to the forthcoming comments to be submitted by email. The responses may be submitted as a Revised PCLU Plan or added to the PCLU Plan as an Appendix. To the extent the responses do change the draft PCLU Plan, e.g., monitoring of X is increases from once a month to twice a month, the Appendix must specifically make a note of that for the LEA to track how the draft PCLU Plan is changed. If upon review of the responses provided as a the Revised PCLU Plan or included as an Appendix, the LEA determines that additional information and/or work is needed, the LEA will notify the Walker Group team. This could delay the conditional approval of the PCLU Plan depending on whether the required information and/or work could be completed concurrently with any construction at the Site.

5. The Stipulation Agreement to be drafted and finalized by LEA and submitted to Walker Group's attorney for review to move forward

If you have any questions, please reach out to me or Dan Weerasekera of the Solid Waste Program – LEA.

Thank you,
Shyamala Rajagopal

Shyamala Rajagopal
Supervising Hazardous Materials Specialist
Solid Waste – Local Enforcement Agency (LEA)
Environmental Health Division

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