Addendum to Remedial Investigation/Feasibility Study and Cleanup Action Report

Ultra Custom Cleaners
2222 Northwest Bucklin Hill Road, Suite 105
Silverdale, Washington

CSID 14334
FSID 18955
VCP Project X0050

for
Bucklin Place, LLC

October 8, 2024

2101 4th Avenue, Suite 950
Seattle, Washington 98121
206.728.2674

GeoEngineers

Addendum to
Remedial Investigation/Feasibility Study
and Cleanup Action Report

Ultra Custom Cleaners
2222 Northwest Bucklin Hill Road, Suite 105
Silverdale, Washington

CSID 14334
FSID 18955
VCP Project X0050

File No. 22828-001-05
October 8, 2024

Prepared for:

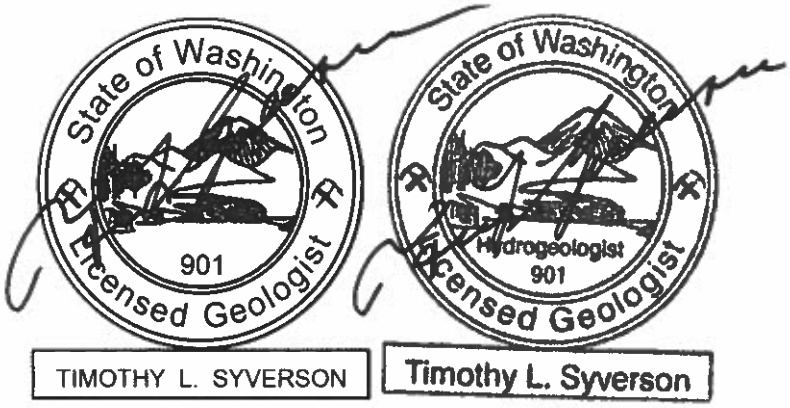
Bucklin Place, LLC
8192 NW Hidden Cove Road
Bainbridge Island, Washington 98110

Attention: Bill Matthews

Prepared by:

GeoEngineers, Inc.
2101 4th Avenue, Suite 950
Seattle, Washington 98121
206.728.2674

Ian D. Young, LG
Senior Geologist



Tim L. Syverson, LHG
Associate

IDY:TLS:mce

Table of Contents

List of Tables

List of Figures

Appendices

Executive Summary

This report is an addendum to supplement the Remedial Investigation/Feasibility Study and Cleanup Action Report (RI/FS/CAR) completed for the Ultra Custom Cleaners (UCC) Site, located at 2222 Northwest Bucklin Hill Road in Silverdale, Washington (referred to herein as the "Property"). The Site entered the Washington State Department of Ecology (Ecology) Expedited Voluntary Cleanup Program (VCP) in July 2024 (VCP Project X0050). This addendum is provided to respond to Ecology Expedited VCP comments regarding the RI/FS/CAR and presents additional information to further document the Site characterization, and the evaluation, selection and implementation of the cleanup action, including a focus on the current Site conditions relative to groundwater and the potential for soil vapor intrusion.

The UCC Site is listed on the Ecology Toxics Cleanup Program database of contaminated properties under Cleanup Site ID 14334 and Facility Site ID 18955. The current listed status for the Site is "Awaiting Cleanup." The cleanup action was performed by Bucklin Place LLC, the current property owner, to address the Ecology Model Toxics Control Act (MTCA) requirements.

Based on the environmental investigations conducted from 2016 to 2021, soil and groundwater at the Property contained concentrations of the volatile organic compound tetrachloroethene (PCE) greater than the MTCA Method A cleanup levels of 0.05 milligrams per kilogram (mg/kg) for soil and 5 micrograms per liter (µg/L) for groundwater. PCE was subsequently identified as the contaminant of concern for the Site.

An independent cleanup action was conducted at the Property in January 2022. The cleanup action consisted of monitoring well installation, remedial excavation and off-site permitted disposal of contaminated soil with PCE concentrations greater than the MTCA cleanup level from within the Property boundaries, bioremediation treatment and compliance groundwater monitoring and sampling.

GeoEngineers, Inc. (GeoEngineers) documented groundwater conditions and completed compliance groundwater monitoring and sampling at wells MW-1 through MW-6 between November 2021 and June 2023. As requested by the Expedited VCP in its comments, a supplemental compliance groundwater monitoring event was completed in July 2024 with groundwater sample collection intake at depths corresponding to depths at which PCE was detected in groundwater in 2016. The Expedited VCP requested the added sampling and methodology to prevent or minimize potential for sample dilution during purging of the wells. Based on the groundwater monitoring and analytical results for the samples collected during quarterly compliance groundwater monitoring and during the supplemental monitoring in July 2024, PCE and its chemical degradation products are no longer present in Site groundwater at concentrations greater than the MTCA Method A cleanup levels.

The results of sub-slab soil vapor sampling and analysis conducted in July 2024 confirmed that contaminants of concern are not present in soil vapor beneath the Site building at concentrations greater than MTCA Method B soil vapor screening levels, indicating that the vapor intrusion (VI) pathway is incomplete and that there is not a potential VI threat to building occupants.

As documented in this report and supplemented by this addendum, the cleanup action is complete per the Ecology MTCA requirements, and a No Further Action (NFA) determination is requested for the Site.

This Executive Summary should be used only in the context of the full report for which it is intended.

1.0 Remedial Investigation

1.1 INTRODUCTION

This report addendum documents the additional remedial investigation in support of the feasibility study and cleanup action completed to address the tetrachloroethene (PCE) contaminated soil and groundwater identified at the Ultra Custom Cleaners (UCC) Site located at 2222 NW Bucklin Hill Road in Silverdale, Washington ("Property" or "Site"). The Property is shown relative to surrounding physical features on the Vicinity Map, Figure 1. The Property is listed on the Washington State Department of Ecology (Ecology) Toxics Cleanup Program database of contaminated properties under Cleanup Site ID 14334 and Facility Site ID 18955. The current listed status for the Site is "Awaiting Cleanup."

GeoEngineers provided our Remedial Investigation/Feasibility Study (RI/FS) and Cleanup Action Report (CAR) to the Ecology Expedited Voluntary Cleanup Program (VCP) for review in May 2024 (GeoEngineers 2024) in preparation for application and intake to the program (VCP Project X0050). In July 2024, during program intake, the Expedited VCP responded to the request for regulatory closure (Ecology 2024) with comments requesting further action to complete the RI/FS and confirm cleanup of contamination at the Site. The Expedited VCP requested the following in their comments:

- Revision of tables, figures and appendices included in the RI/FS/CAR with additional information consistent with Ecology expectations for formatting and presentation of Site data.
- Further discussion of Site geology and hydrogeology.
- Conduct a supplemental groundwater sampling event with sample collection intake depth intervals that correspond to the depths at which contaminants had been encountered in groundwater during the initial investigation and discovery.
- Conduct a sub-slab soil vapor sampling event to evaluate the potential for vapor intrusion (VI) risk to occupants of the Site building due to the residual/post-remediation concentrations PCE in soil and groundwater.

This report addendum is provided to further document and supplement the Site characterization, and the evaluation of the cleanup action described in our RI/FS/CAR. This addendum provides additional information regarding the current Site conditions relative to groundwater, residual soil contamination and the potential for soil VI. This addendum was prepared in response to comments from the Ecology Expedited VCP regarding the RI/FS/CAR to support regulatory closure for the Site.

1.2 REVISED RI/FS/CAR TABLE, FIGURES AND APPENDICES

The Expedited VCP requested revisions to tables and figures included in the RI/FS/CAR to clarify the locations where data were collected relative to Site topography, geology, hydrogeology and current Property development. The tables and figures provided in RI/FS/CAR are included with this addendum for reference with the revisions and/or additions requested by the Expedited VCP as detailed below. The revised and/or added table and figures supersede or supplement those included in the RI/FS/CAR.

1.2.1 Table 3, Groundwater Chemical Analytical Data (revised)

Table 3, Groundwater Chemical Analytical Data, has been revised to include the screened intervals of the compliance monitoring wells and the approximate intake depths where grab groundwater samples were collected from temporary wells. The supplemental data added to revised Table 3 is discussed in Section 3.0.

1.2.2 Table 4, Sub-Slab Soil Vapor and Outdoor Air Chemical Analytical Data (added table)

Table 4, Sub-Slab Soil Vapor and Outdoor Air Chemical Analytical Data, has been added to include the data collected during the July 2024 sub-slab soil vapor sampling event. The data in Table 4 is discussed in Section 4.0.

1.2.3 Figure 2, Site Plan (revised)

Figure 2, Site Plan, has been revised to display all investigation sample locations, including soil, groundwater, soil vapor and indoor air sample locations. Soil confirmation sample locations from the January 2022 soil remedial excavation are not included on this figure.

1.2.4 Figure 3, Soil Analytical Results Summary (revised)

Figure 3, Soil Analytical Results Summary, has been revised to include the soil sample analytical results for the samples collected during monitoring well installation with the concentrations shown relative to the Ecology Model Toxic Control Act (MTCA) cleanup levels.

1.2.5 Figure 5, Groundwater Analytical Results Summary (added figure)

Figure 5, Groundwater Analytical Results Summary, has been added to present all of the groundwater sample analytical results for samples collected from both temporary well grab groundwater sample locations and the compliance groundwater monitoring wells, including the July 2024 supplemental compliance monitoring event. This figure also shows the surface topography of the Property to support the conceptual model for shallow groundwater flow at the Site. The information presented on Figure 5 is discussed in Section 3.0.

1.2.6 Figure 6, Sub-Slab Soil Vapor Analytical Results (added figure)

Figure 6, Sub-Slab Soil Vapor Analytical Results, has been added to present the sample analytical results for samples collected during the July 2024 sub-slab soil vapor sampling event. The data presented on Figure 6 is discussed in Section 4.0.

1.2.7 Monitoring Well Logs (revised)

The boring and well construction log for well MW-1 has been added to the boring/well logs for all Site wells, and the logs are included in Appendix A of this addendum.

2.0 Geology and Hydrogeology

Subsurface information for the Site from the previous investigation reports prepared by Landau Associates, Inc. (Landau) and data collected by GeoEngineers from 2017 to 2023 are provided in the RI/FS/CAR and summarized below with additional detail as requested in the comments provided by the Expedited VCP.

2.1.1 Soil Conditions

According to the United States Geological Survey (USGS) geomorphic map of the Kitsap Peninsula (Haugerud 2009), the ground surface of the Site and surrounding area are located on a hillside sloping downward to the west and southwest toward Dyes Inlet. The underlying soil is identified as "modified" Late Pleistocene unconsolidated Vashon lodgment glacial deposits consisting of unsorted and unstratified compacted silt, sand, pebbles and cobbles, commonly resembling concrete (Polenz, et al. 2013). The surface topography of the Property was modified during development and construction to be relatively level by creating a cut slope and retaining wall at the east perimeter of the Property parking lot (Figure 2).

Based on the Property construction history and investigations completed at the Site, soils at the Property consist of a thin layer (generally 3 feet or less in thickness) of sand and/or gravel fill over reworked native material composed generally of loose to medium dense sand with variable silt and gravel, overlying uniform compacted glacial deposits.

2.1.2 Groundwater Conditions

Six monitoring wells, including deep aquifer well MW-1 and shallow perched groundwater wells MW-2 through MW-6, were installed in 2018 and 2021 to evaluate and document groundwater conditions at the Site. Depths to groundwater, screened intervals and groundwater elevations are summarized in Table 3.

The documented depth to shallow groundwater has been generally consistent at depths ranging from approximately 5.5 to 6 feet below ground surface (bgs) at the northeast corner of the Property to approximately 7 to 7.5 feet bgs in the parking lot to the south of the Property building (elevations generally from approximately 39 feet to 42 feet). Locally, based on water levels measured in the existing monitoring wells, the shallow groundwater flow direction has fluctuated seasonally from the southwest to the south-southwest at a low hydraulic gradient of approximately 0.017 foot/foot.

As noted in the RI/FS/CAR, well MW-1 was constructed with a well screen set at a depth of 45 to 60 feet bgs to monitor the first deep groundwater zone encountered beneath the shallow perched groundwater zone. The deeper area-wide aquifer is under confined/artesian conditions and, since installation MW-1 has produced an elevated water level indicating approximately 8 feet of head.

3.0 Supplemental Compliance Groundwater Monitoring

The Expedited VCP comments noted that the PCE concentrations reported by Landau in 2016 for the shallow groundwater samples collected from temporary well screens in soil borings SB-3 and SB-5 were significantly higher (2 to 3 orders of magnitude) than the concentrations for the samples collected from the permanent monitoring wells during the groundwater compliance monitoring conducted between 2021 to 2023. In response to the Expedited VCP comment, GeoEngineers conducted a supplemental round of

compliance groundwater monitoring at the wells located in the parking area south of the Property building (MW-2, MW-3, MW-4 and MW-5) where contaminants had historically been detected in soil and groundwater.

GeoEngineers' standard field procedure for sampling volatile organic compounds (VOCs), including chlorinated solvents, such as PCE and its breakdown products which are heavier than water and generally sink in the water column, is to position the intake tubing for low-flow sampling in the lower portion of the monitoring well screened interval for both purging and sampling. The Expedited VCP comments speculate that the difference in contaminant concentrations between the temporary and permanent well samples might be attributed to sample dilution resulting from collection of groundwater samples at intake depths lower than the depths from which Landau collected their groundwater samples in 2016.

GeoEngineers reviewed the available information from the Landau 2016 field investigation and based on our review, the Landau temporary well screen and groundwater sampling intake were likely located approximately between 8 and 12 feet bgs. As requested by the Expedited VCP, GeoEngineers collected groundwater samples from Site wells at comparable depths to prevent or minimize sample dilution during purge. Based on our review of the Landau sampling procedures, GeoEngineers positioned the intake tubing for our additional low-flow sampling at a depth of 9 to 10 feet bgs to approximate the depth at which Landau encountered PCE in groundwater at SB-3 and SB-5.

On July 16, 2024, GeoEngineers conducted the supplemental groundwater monitoring and sampling at Site wells MW-2, MW-3, MW-4 and MW-5 in accordance with the Expedited VCP comment, and as noted above. Field procedures for the July 2024 sampling event are described in Appendix B.

3.1 GROUNDWATER CONDITIONS

The depth to the perched shallow groundwater at the Property in July 2024 ranged between 6.4 to 7.7 feet bgs (elevations generally from 39 feet to 40.5 feet) in the four existing monitoring wells (Table 3-1 below). The supplemental groundwater monitoring indicated a very shallow local groundwater gradient in the parking lot. Site-wide groundwater flow direction could not be documented due to the limited monitoring well network that did not include MW-6 located upgradient to the northeast and behind the Property building.

TABLE 3-1. MONITORING WELL AND GROUNDWATER DATA, JULY 2024

WELL ID	GROUND SURFACE ELEVATION (FEET)	TOP OF CASING ELEVATION (FEET)	WELL SCREEN ELEVATION (FEET BGS)	DEPTH TO GROUNDWATER (FEET BGS)	GROUNDWATER ELEVATION (FEET)
MW-2	46.67	46.28	6 to 16	7.04	39.63
MW-3	46.66	46.35	5 to 15	6.39	40.27
MW-4	46.89	46.50	5 to 15	7.67	39.22
MW-5	47.66	47.41	5 to 15	7.25	40.41

Note:
Datum = North American Vertical Datum of 1988 (NAVD88)

3.2 GROUNDWATER MONITORING CHEMICAL ANALYTICAL RESULTS

The groundwater monitoring included analysis of groundwater samples for PCE and its degradation products Trichloroethene (TCE), cis-1,2-Dichloroethene (DCE), trans-1,2-DCE, 1,1-DCE and vinyl chloride. The chemical analytical results for groundwater sampled at the Property are summarized in Table 3; laboratory reports are presented in Appendix C. The analytical results for the supplemental compliance groundwater sampling are presented in the following sections.

3.2.1 PCE

PCE trends include the following:

- **MW-2, MW-3 and MW-5**: PCE was not detected at a concentration greater than the laboratory reporting limit in the groundwater samples from these three monitoring wells.
- **MW-4**: PCE was detected at a concentration of 1.29 micrograms per liter (µg/L), which is less than the MTCA Method A cleanup level of 5 µg/L.

3.2.2 PCE Breakdown Products

Cis-1,2-DCE was detected only in the sample from MW-2 at a concentration 0.574 µg/L which is less than the MTCA Method B screening level of 16 µg/L. This detected concentration of cis-1,2-DCE is interpreted as a breakdown product of PCE resulting from the post-remedial excavation and bioremediation treatment.

TCE, trans-1,2-DCE, 1,1-DCE and vinyl chloride were not detected at concentrations greater than their laboratory reporting limits in any of the groundwater samples collected during the supplemental compliance groundwater sampling.

3.2.3 Summary

The laboratory analytical results for the groundwater samples collected during the supplemental compliance monitoring and sampling from depth intervals corresponding to samples collected from temporary well screens in 2016 were generally consistent with earlier compliance monitoring results. The comparison of the recent and previous sampling results did not indicate evidence of dilution of the groundwater samples during well purge and sampling.

Based on the July 2024 focused groundwater sampling and analysis, where groundwater samples were collected from depths corresponding to historical detections of PCE by Landau, ***PCE and its chemical degradation products are not present in Site groundwater at concentrations greater than their respective MTCA Method A or B cleanup levels***. These results are consistent with and support the conclusions regarding Site groundwater presented in our RI/FS/CAR.

4.0 Soil Vapor Sampling and Vapor Intrusion Evaluation

In response to the comment from the Expedited VCP, GeoEngineers conducted sub-slab soil vapor sampling within the building in the vicinity of the historical release and remedial excavation to assess the potential for vapor intrusion (VI) into the Property building due to the residual/post remediation concentrations of PCE in soil and in groundwater.

4.1.1 Sub-Slab Soil Vapor Sampling

GeoEngineers conducted sub-slab soil vapor sampling at the Site in July 2024.

The selected soil vapor sample location was inside the doorway to Unit 105 near the building foundation and within the footprint of the area where the January 2022 remedial excavation was conducted. A permanent vapor pin sub-slab sampling port (SV-1, Figure 6) was installed through the building floor above the area near the two sidewall confirmation sample locations (EX-7 and EX-8) that indicated residual concentrations of PCE in soil following completion of the remedial excavation, as shown in Remedial Excavation and Analytical Results, Figure 4. The detected PCE concentrations in confirmation samples EX-7 and EX-8 were greater than the MTCA Method A cleanup level of 0.05 milligrams per kilogram (mg/kg). An ambient (outdoor) air sample (AA-1, Figure 6) was also collected from the roof of Suite 105 roof to represent both baseline conditions in the general vicinity of the tenant space and assess ambient air as a potential source of contamination that could impact air inside the building.

The soil vapor and ambient air samples were collected using methods consistent with Ecology VI guidance (Ecology 2009). The detailed sampling protocol is described in Appendix B.

4.1.2 Sub-Slab Soil Vapor Sample Chemical Analytical Results

The soil vapor and ambient air samples were submitted for chemical analysis for PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE and vinyl chloride and helium. The soil vapor chemical analytical results are summarized in Table 4. Laboratory reports are presented in Appendix C.

The analytical results for the July 2024 sub-slab soil vapor sampling identified the following:

- PCE was detected in the sub-slab soil vapor sample at a concentration of 129 micrograms per cubic meter (µg/m^3) which is less than the Method B soil gas screening level for cancer of 320 µg/m^3.
- TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE and vinyl chloride were all not detected at concentrations greater than their laboratory reporting limits.
- No analytes were detected in the ambient air sample at concentrations greater than their laboratory reporting limits.

4.1.3 Summary

Based on the analytical results for the sub-slab soil vapor and ambient air sampling conducted during the July 2024 investigation, ***contaminants of concern are not present in soil vapor beneath the Site building at concentrations greater than MTCA Method B soil vapor screening levels, indicating that the VI pathway is incomplete and that there is not a potential VI threat to building occupants***. These results support and supplement the VI evaluation included in our RI/FS/CAR.

5.0 Summary, Conclusions and Recommendations

5.1 REMEDIAL INVESTIGATION

The former UCC tenant space, located in Suite 105 of Bucklin Place, operated as a dry-cleaning facility from 1999 to March 2021 when Ultra Custom Cleaners ceased operation at the Property. The discovery of VOCs related to dry-cleaning operations in soil, groundwater and air at the UCC Site was reported to the Ecology Northwest Regional Office in August 2016.

Based on the environmental investigations conducted from 2016 to 2021, soil and groundwater at the Property were identified as containing concentrations of PCE greater than the MTCA Method A cleanup levels. Investigation results indicate that the dry-cleaning inventory and/or business supplies had contributed to elevated concentrations of PCE and TCE in indoor air, and that the baseline conditions within the UCC tenant space, empty of tenant dry-cleaning inventory and business supplies, and with the HVAC system in normal business-hours operation, were protective of workers and customers in a standard commercial setting.

PCE was identified as the contaminant of concern with published MTCA Method A cleanup levels of 0.05 mg/kg for soil and 5 µg/L for groundwater. The extent of PCE contamination in groundwater and the vertical extent of PCE contamination beneath the Suite 105 tenant space were recognized as data gaps prior to the cleanup action.

5.2 FEASIBILITY STUDY

The results of the Feasibility Study presented in the RI/FS/CAR document show that excavation and off-site disposal of PCE-containing soil was the most feasible and cost-effective cleanup remedy to meet the MTCA remedy selection criteria.

5.3 CLEANUP ACTION

The independent cleanup action conducted at the Property included the excavation and off-site permitted disposal of PCE-contaminated soil with concentrations greater than the applicable MTCA cleanup level from within the Property, bioremediation treatment and compliance groundwater monitoring.

Remedial excavation of soil with the highest concentrations of PCE was completed from inside the UCC Suite 105 tenant space between January 5 to 24, 2022. PCE was either not detected at concentrations greater than the laboratory reporting limits or was detected at concentrations less than the MTCA Method A cleanup level in 13 of the 15 confirmation soil samples collected. The cleanup action included the removal and permitted off-site disposal of PCE-contaminated soil from the Property under an Ecology-approved Contained-In Determination.

During the cleanup action and Property restoration, a bioremediation amendment was applied as part of backfilling of the remedial excavation to enhance the breakdown of residual PCE. An additional application of the amendment solution was also introduced to the remedial excavation backfill in August 2022 following the second quarter of compliance groundwater monitoring.

GeoEngineers documented groundwater conditions and completed compliance groundwater monitoring during an initial baseline monitoring event in November 2021 and between March 2022 and June 2023.

As requested by the Expedited VCP, GeoEngineers conducted a supplemental compliance groundwater monitoring event in July 2024 with the groundwater sample intake positioned to correspond to the depths where PCE was detected in groundwater in 2016 to prevent or minimize potential sample dilution during purging and sampling.

Based on the groundwater monitoring and analytical results for the samples collected during the quarterly compliance groundwater monitoring from March 2022 to June 2023, and during the supplemental monitoring in July 2024, PCE and its chemical degradation products are no longer present in Site groundwater at concentrations greater than the MTCA Method A cleanup levels.

GeoEngineers conducted sub-slab soil vapor sampling within the building in the vicinity of the historical release and remedial excavation to assess the potential for VI into the Property building due to the residual/post-remediation concentrations of PCE in soil and in groundwater. Based on the analytical results for the sub-slab soil vapor sample collected during the July 2024 investigation, contaminants of concern are not present in soil vapor beneath the Site building at concentrations greater than MTCA Method B soil vapor screening levels, indicating that there is not a potential VI threat to building occupants.

5.4 CONCLUSION

The cleanup action included the removal and appropriate off-site disposal of soil with PCE concentrations greater than the MTCA Method A cleanup level, bioremediation treatment to enhance the degradation of residual PCE and compliance groundwater monitoring. The excavation confirmation samples document that the soil at the base and most side walls of the remedial excavation meet the cleanup levels. Two confirmation soil samples collected from the sidewall of the southwestern portion corner of the remedial excavation contained residual concentrations of PCE that are greater than the MTCA Method A cleanup level. This area could not be excavated further due to the presence of building footings and the need to maintain the structural integrity of the building foundation.

The subsequent compliance groundwater monitoring events, including the supplemental monitoring and sampling in July 2024 requested by the Expedited VCP, demonstrate there is no longer PCE contamination in Property/Site groundwater at concentrations greater than MTCA cleanup level. As noted above, the laboratory analytical results for samples obtained during the supplemental compliance monitoring and focused groundwater sampling in July 2024 from depth intervals corresponding to samples collected from temporary well screens in 2016 were consistent with earlier results and did not indicate dilution of groundwater samples during well purging and sampling.

The results of sub-slab soil vapor sampling and analysis confirm that contaminants of concern are not present in soil vapor beneath the Site building at concentrations greater than MTCA Method B soil vapor screening levels, indicating that the VI pathway is incomplete and that there is not a potential VI threat to building occupants.

As documented in the RI/FS/CAR, and supplemented by this addendum report, the cleanup action is complete per the Ecology MTCA requirements, and a No Further Action (NFA) determination is requested for the Site.

6.0 References

GeoEngineers, Inc., 2024. Remedial Investigation/Feasibility Study and Cleanup Action Report, Ultra Custom Cleaners, 2222 NW Bucklin Hill Road, Silverdale, Washington. GEI File No 22828-001-05. May 31, 2024.

Haugerud, R.A., 2009, Preliminary Geomorphic Map of the Kitsap Peninsula, Washington: U.S. Geological Survey, Open-File Report 2009-1033.

Polenz, Michael, Petro, G.T., Contreras, T.A., Stone, K.A., Paulin, G.L., and Cakir, Recep, 2013. Geologic Map of the Seabeck and Poulsbo 7.5-minute Quadrangles, Kitsap and Jefferson Counties, Washington. Washington Division of Geology and Earth Resources, Map Series 2013-02.

Washington State Department of Ecology, 2009. Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action. Publication No. 09-09-047. Revised February 2016 and April 2018.

Washington State Department of Ecology, 2013. Model Toxics Control Act Regulation and Statute. Publication No. 94-06. Revised 2013.

Washington State Department of Ecology, 2024. Technical Memorandum, Ecology Comments on Ultra Custom Cleaners RI/FS/CAP Report dated May 31, 2024. July 1, 2024.

7.0 Limitations

We have prepared this report for the exclusive use of Bucklin Place, LLC and their authorized agents and regulatory agencies. This report is not intended for use by others and the information contained herein is not applicable to other sites. No other party may rely on the product of our services unless we agree in advance, and in writing, to such reliance. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

Our conclusions are based on our site observations, field screening results and chemical analysis of a limited number of discrete soil samples obtained from the Property. It is always possible that contaminants are present in locations that were not observed, sampled or tested.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Please refer to Appendix D, titled “Report Limitations and Guidelines for Use,” for additional information pertaining to the use of this report.

Tables

Table 1

Indoor Air Chemical Analytical Data

Ultra Custom Cleaners

2222 NW Bucklin Hill Road

Silverdale, Washington

Sample Location[1]	Laboratory ID	Sample Date	Sample Type	VOCs[2] (µg/m^3)			
				Vinyl Chloride	cis-1,2-Dichloroethene	Trichloroethene (TCE)	Tetrachloroethene (PCE)
Landau Associates, April 2016[3]							
IA-1	P1602080-001	4/19/2016	Indoor Air	0.18 U	0.18 U	**68**	**10**
IA-2	P1602080-002	4/19/2016	Indoor Air	0.14 U	0.14 U	**67**	**10**
AA-1	P1602080-003	4/19/2016	Ambient Air	0.17 U	0.17 U	**0.52**	**0.99**
Landau Associates, May 2016[4]							
IA-1	P1602491-004	5/11/2016	Indoor Air	0.23 U	0.23 U	**4.8**	**5.7**
Landau Associates, November 2016[5]							
IA-1	P1602188-001	11/2/2016	Indoor Air	0.21 U	0.21 U	**65**	**4.1**
AA-1	P1602188-003	11/2/2016	Ambient Air	0.18 U	0.18 U	**0.99**	0.18 U
GeoEngineers, June 2017[6]							
GIA-1	P1702869-002	6/12/2017	Indoor Air	0.14 U	0.14 U	**0.17**	**0.34**
GIA-2	P1702869-003	6/12/2017	Indoor Air	0.16 U	0.16 U	**0.19**	**0.37**
GAA-1	P1702869-001	6/12/2017	Ambient Air	0.13 U	0.13 U	**0.58**	0.13 U
Modified MTCA Method B Indoor Air Screening Level for Commercial Exposure Scenario[7]				NC	NC	2.7	42
EPA Region 9, Accelerated Response Action Level Commercial/Industrial 10-Hour Work Period[8]				NA	NA	7	NA
EPA Region 9 Urgent Response Action Level Commercial/Industrial 10-Hour Work Period[8]				NA	NA	21	NA
EPA Region 10 Short-Term, Not to be Exceeded Concentration, Commercial/Industrial 8-Hour Work Period[9]				NA	NA	8.8	NA

Notes:

[1] Approximate sample locations shown in Figure 2. GeoEngineers sample locations replicated previous Landau Associates sample locations.

[2] Volatile organic compounds (VOCs) analyzed by U.S. Environmental Protection Agency (EPA) Method TO-15.

[3] Landau Associates April 2016 sampling event conducted with exterior doors closed.

[4] Landau Associates May 2016 sampling event conducted with exterior doors open.

[3] Landau Associates November 2016 sampling event conducted following modifications to HVAC system and with exterior doors closed.

[6] GeoEngineers June 2017 sampling event following removal of all inventory and business supplies with HVAC system operating and with exterior doors closed.

[7] Model Toxics Control Act (MTCA) Method B Indoor Air Screening Level adjusted for commercial exposure scenario (adult only, 60 hrs/wk, 50 weeks/yr, 20 years).

[8] EPA Region 9 Response Action Levels and Recommendations to Address Near-Term Inhalation Exposures to TCE in Air from Subsurface Vapor Intrusion dated July 9, 2014.

[9] Office of Environmental Assessment (OEA) Recommendations regarding TCE Toxicity in Human Health Risk Assessments dated December 13, 2012 (EPA Region 10).

NA = Not applicable; no listed value; NC = Not calculated as analyte was not detected

U = Analyte not detected at the laboratory reporting limit shown

$\mu g/m^3$ = micrograms per cubic meter

"–" = not tested

Bolding indicates analyte was detected.

Shading indicates a concentration greater than one or more screening level.

Chemical analytical testing by ALS Environmental in Simi Valley, California.

Table 2

Site Soil Characterization, Field Screening and Chemical Analytical Data

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

Exploration Location[1]	Sample ID	Sample Date	Depth (feet bgs)	Field Screening[2]		VOCs[3] (mg/kg)					Comments
				Sheen	Headspace (ppm)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene	Vinyl Chloride	Other VOCs[4]	
Direct-push borings sampled by Landau Associates May 11, 2016											
SB-1	SB-1-(2.5-3.5)	5/11/2016	2.5	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND	
	SB-1-(6-7)	5/11/2016	6.0	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND	
SB-2	SB-2-(1.5-2.5)	5/11/2016	1.5	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND	
	SB-2-(10-11)	5/11/2016	10.0	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND	
SB-3	SB-3-(8-9)	5/11/2016	8.0	--	--	**0.029**	< 0.01	< 0.01	< 0.01	ND	
	SB-3-(12.5-13)	5/11/2016	12.5	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND	
SB-4	SB-4-(1-2)	5/11/2016	1.0	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND	
SB-5	SB-5-(3-4)	5/11/2016	3.0	--	--	**0.020**	< 0.01	< 0.01	< 0.01	ND	
	SB-5-(8-9)	5/11/2016	8.0	--	--	**0.031**	< 0.01	< 0.01	< 0.01	ND	
Direct-push borings sampled by GeoEngineers February 8, 2018											
B1	GEI-B1-1.5-2	2/8/2018	1.5	NS	6.5	< 0.0241	< 0.0193	< 0.0193	< 0.0241	ND	
	GEI-B1-3.5-4	2/8/2018	3.5	NS	8.2	< 0.0267	< 0.0214	< 0.0214	< 0.0267	ND	
B2	GEI-B2-1.5-2	2/8/2018	1.5	NS	8.7	< 0.0253	< 0.0202	< 0.0202	< 0.0253	ND	
	GEI-B2-3.5-4	2/8/2018	3.5	NS	5.3	< 0.0272	< 0.0218	< 0.0218	< 0.0272	ND	
B3	GEI-B3-3.5-4	2/8/2018	3.5	NS	7.5	**0.0905**	< 0.0200	< 0.0200	< 0.0249	ND	Removed during remedial excavation
	GEI-B3-5.5-6	2/8/2018	5.5	NS	2.4	**0.0653**	< 0.0232	< 0.0232	< 0.0290	ND	Removed during remedial excavation
B4	GEI-B4-1.5-2	2/8/2018	1.5	NS	4.6	< 0.0268	< 0.0215	< 0.0215	< 0.0268	ND	
B5	GEI-B5-3.5-4	2/8/2018	3.5	NS	4.8	< 0.0220	< 0.0176	< 0.0176	< 0.0220	ND	
	GEI-B5-5.5-6	2/8/2018	5.5	NS	3.6	**0.0373**	< 0.0214	< 0.0214	< 0.0267	ND	
B6	GEI-B6-1.5-2	2/8/2018	1.5	NS	2.6	< 0.0216	< 0.0173	< 0.0173	< 0.0216	ND	
	GEI-B6-3.5-4	2/8/2018	3.5	NS	12.2	**0.0475**	< 0.0208	< 0.0208	< 0.0260	ND	
	GEI-B6-5.5-6	2/8/2018	5.5	NS	6.4	< 0.0258	< 0.0207	< 0.0207	< 0.0258	ND	
Sonic boring sampled by GeoEngineers March 1, 2018											
MW1	GEI-MW1-14.5-15	3/1/2018	14.5	NS	< 1	< 0.0274	< 0.0219	< 0.0219	< 0.0274	ND	

Exploration Location[1]	Sample ID	Sample Date	Depth (feet bgs)	Field Screening[2]		VOCs[3] (mg/kg)					Comments
				Sheen	Headspace (ppm)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene	Vinyl Chloride	Other VOCs[4]	
Direct-push borings sampled by GeoEngineers July 23, 2021											
B7	GEI-B7-2-3	7/23/2021	2.0	NS	1.2	**0.0322**	< 0.0113	< 0.0141	< 0.0141	ND	Removed during remedial excavation
	GEI-B7-4-5	7/23/2021	4.0	NS	< 1	**0.0903**	< 0.0123	< 0.0154	< 0.0154	ND	Removed during remedial excavation
B8	GEI-B8-2-3	7/23/2021	2.0	NS	1.4	< 0.0234	< 0.0117	< 0.0146	< 0.0146	ND	
	GEI-B8-3-4	7/23/2021	4.0	NS	1.1	< 0.0285	< 0.0143	< 0.0178	< 0.0178	ND	
B9	GEI-B9-1.5-2.5	7/23/2021	1.5	NS	1.0	**0.0378**	< 0.0139	< 0.0174	< 0.0174	ND	Removed during remedial excavation
B10	GEI-B10-1.5-2.5	7/23/2021	1.5	NS	< 1	**0.0356**	< 0.0114	< 0.0143	< 0.0143	ND	Removed during remedial excavation
B11	GEI-B11-1.5-2.5	7/23/2021	1.5	NS	2.8	< 0.0278	< 0.0138	< 0.0172	< 0.0172	ND	
	GEI-B11-4-5	7/23/2021	4.0	NS	2.4	< 0.0287	< 0.0133	< 0.0167	< 0.0167	ND	
B12	GEI-B12-0-1	7/23/2021	0.0	NS	1.1	< 0.0245	< 0.0123	< 0.0153	< 0.0153	ND	
B15	GEI-B15-0.5-1.5	7/23/2021	0.5	NS	1.3	< 0.0223	< 0.0112	< 0.0140	< 0.0140	ND	
	GEI-B15-4-5	7/23/2021	4.0	NS	1.3	< 0.0237	< 0.0118	< 0.0148	< 0.0148	ND	
Grab soil samples collected by GeoEngineers during construction August 5, 2021											
UT1	EX-UT1-3-4	8/5/2021	3 - 4	NS	< 1	< 0.0365	< 0.0182	< 0.0228	< 0.0228	ND	
UT2	EX-UT2-1.5.2	8/5/2021	1.5 - 2	NS	< 1	< 0.0377	< 0.0189	< 0.0236	< 0.0236	ND	
	EX-UT2-3-4	8/5/2021	3 - 4	NS	< 1	< 0.0399	< 0.0200	< 0.0249	< 0.0249	ND	
Hollow stem auger borings sampled by GeoEngineers November 16 and 17, 2021											
MW2	MW-2-8-9	11/17/2021	8.0	--	--	< 0.0400	< 0.0200	< 0.0250	< 0.0250	ND	
	MW-2-14.5-15.5	11/17/2021	14.5	--	--	< 0.0403	< 0.0201	< 0.0252	< 0.0252	ND	
MW3	MW-3-8-9	11/16/2021	8.0	--	--	< 0.0259	< 0.0130	< 0.0162	< 0.0162	ND	
	MW-3-14-15	11/16/2021	14.0	--	--	< 0.0283	< 0.0141	< 0.0177	< 0.0177	ND	
MW4	MW-4-6.5-7.5	11/16/2021	6.5	--	--	**0.121**	< 0.0247	< 0.0309	< 0.0309	ND	
	MW-4-9.5-10.5	11/16/2021	9.5	--	--	< 0.0404	< 0.0202	< 0.0252	< 0.0252	ND	
	MW-4-14-15	11/16/2021	14.0	--	--	< 0.0416	< 0.0208	< 0.0260	< 0.0260	ND	
MW5	MW-5-6.5-7.5	11/16/2021	6.5	--	--	**0.0858**	< 0.0199	< 0.0249	< 0.0249	ND	
	MW-5-13.5-14.5	11/16/2021	13.5	--	--	< 0.0355	< 0.0177	< 0.0222	< 0.0222	ND	
MW6	MW-6-6.5-7.5	11/17/2021	6.5	--	--	< 0.0365	< 0.0182	< 0.0228	< 0.0228	ND	
	MW-6-11-12	11/17/2021	11.0	--	--	< 0.0348	< 0.0174	< 0.0217	< 0.0217	ND	

Exploration Location[1]	Sample ID	Sample Date	Depth (feet bgs)	Field Screening[2]		VOCs[3] (mg/kg)					Comments
				Sheen	Headspace (ppm)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene	Vinyl Chloride	Other VOCs[4]	
Remedial excavation confirmation samples collected by GeoEngineers January 14, 2022											
EX-1	EX-1-6	1/14/2022	6 - 7	NS	1.2	**0.026** J	< 0.02	< 0.03	< 0.02	ND	Base sample
EX-2	EX-2-6	1/14/2022	6 - 7	NS	2.7	**0.037**	< 0.02	< 0.03	< 0.02	ND	Base sample
EX-3	EX-3-6	1/14/2022	6 - 7	NS	3.8	**0.022** J	< 0.02	< 0.03	< 0.02	ND	Base sample
EX-4	EX-4-6	1/14/2022	6 - 7	NS	2.9	< 0.03	< 0.02	< 0.03	< 0.02	ND	Base sample
EX-5	EX-5-4	1/14/2022	4 - 5	NS	3.0	**0.023** J	< 0.02	< 0.03	< 0.02	ND	South sidewall
EX-6	EX-6-4	1/14/2022	4 - 5	NS	2.4	**0.030**	< 0.02	< 0.03	< 0.02	ND	South sidewall
EX-7	EX-7-4	1/14/2022	4 - 5	NS	1.4	**0.062**	< 0.02	< 0.03	< 0.02	ND	South sidewall
EX-8	EX-8-4	1/14/2022	4 - 5	NS	1.8	**0.074**	< 0.02	< 0.03	< 0.02	ND	South sidewall
EX-9	EX-9-4	1/14/2022	4 - 5	NS	< 1	< 0.03	< 0.02	< 0.03	< 0.02	ND	East sidewall
EX-10	EX-10-5	1/14/2022	5 - 6	NS	< 1	< 0.03	< 0.02	< 0.03	< 0.02	ND	North sidewall
EX-11	EX-11-5	1/14/2022	5 - 6	NS	1.1	< 0.03	< 0.02	< 0.03	< 0.02	ND	North sidewall
	EX-11-5 (DUP)	1/14/2022				< 0.03	< 0.02	< 0.03	< 0.02	ND	
EX-12	EX-12-5	1/14/2022	5 - 6	NS	< 1	< 0.03	< 0.02	< 0.03	< 0.02	ND	North sidewall
EX-13	EX-13-5	1/14/2022	5 - 6	NS	< 1	< 0.03	< 0.02	< 0.03	< 0.02	ND	North sidewall
EX-14	EX-14-3	1/14/2022	3 - 4	NS	<1	< 0.03	< 0.02	< 0.03	< 0.02	ND	West sidewall
EX-15	EX-15-3	1/14/2022	3 - 4	NS	< 1	< 0.03	< 0.02	< 0.03	< 0.02	ND	North sidewall
	EX-15-3 (DUP)	1/14/2022				< 0.03	< 0.02	< 0.03	< 0.02	ND	
MTCA Method A or Method B Cleanup Levels for Unrestricted Land Use						0.05	0.03	160[5]	240[5]	NA	

Notes:

[1] Approximate exploration locations shown on Figures 2, 3 and 5.

[2] Field screening methods are described in Appendix F of the RI/FS/CAR.

[3] Volatile organic compounds (VOCs) analyzed by U.S. Environmental Protection Agency (EPA) Method 8260.

[4] Only selected chlorinated solvents are shown; refer to laboratory reports in Appendix C for complete list of method analytes and detection limits.

[5] Model Toxics Cleanup Act (MTCA) Method B cleanup level for direct contact derived from Ecology's "CLARC Master Spreadsheet.xlsx" updated January 2020.

bgs = below pre-construction ground surface.

J = Result is less than the laboratory practical quantitation limit (PQL) but greater than the method detection limit (MDL); reported value is approximate.

mg/kg = milligrams per kilogram

NAVD88 = North American Vertical Datum of 1988

NA = No listed value

ND = Analytes not detected at laboratory reporting limits.

NS = no sheen

SS = slight sheen

ppm = parts per million

"--" = not tested

Bolding indicates analyte was detected.

Shading indicates that concentration exceeded Model Toxics Control Act (MTCA) cleanup level.

GeoEngineers' chemical analytical testing by Fremont Analytical in Seattle, Washington and Libby Environmental of Olympia, Washington.

Table 3

Groundwater Chemical Analytical Data

Ultra Custom Cleaners

2222 NW Bucklin Hill Road

Silverdale, Washington

Sample ID[1]	Sample Date	Screened Interval (from TOC)	Depth to Groundwater (from TOC)	Groundwater Elevation (feet NAVD88)	VOCs[2] (µg/L)					
					Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Other VOCs[3]
Grab groundwater sampled by Landau Associates May 11, 2016										
SB-2	5/11/2016	8 to 12[4]	--	--	< 2.0	< 2.0	< 2.0	< 2.0	< 0.20	ND
SB-3	5/11/2016	8 to 12[4]	--	--	**210**	< 2.0	< 2.0	< 2.0	< 0.20	ND
SB-5	5/11/2016	8 to 12[4]	--	--	**170**	< 2.0	< 2.0	< 2.0	< 0.20	ND
Grab groundwater sampled by GeoEngineers March 1, 2018										
GEI-MW1-180301	3/1/2018	10 to 15[4]	--	--	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	ND
Monitoring well sampled by GeoEngineers March 7, 2018										
GEI-MW1-180307	3/7/2018	45 to 60	0.00	< 46.46[5]	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	ND
Compliance Groundwater Monitoring										
MW-1										
MW-1-211121	11/21/2021	45 to 60	0.00	> 46.46[5]	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-1-220317	3/17/2022		0.00	> 46.46[5]	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-1-220628	6/28/2022		0.00	> 46.46[5]	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-1-221005	10/5/2022		0.00	> 46.46[5]	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-1-221212	12/12/2022		0.00	> 46.46[5]	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
GEI-MW1-032823	3/28/2023		0.00	> 46.46[5]	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-1-230620	6/20/2023		0.00	> 46.46[5]	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-2										
MW-2-211121	11/21/2021	6 to 16	6.91	39.76	**0.840**	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-2-220317	3/17/2022		6.97	39.70	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-2-220628	6/28/2022		6.96	39.71	**4.90**	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-2-221005	10/5/2022		7.47	39.20	**0.686**	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-2-221212	12/12/2022		6.82	39.85	**1.53**	< 0.400	< 0.500	< 0.350	< 0.200	--
GEI-MW2-032823	3/28/2023		6.68	39.99	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-2-230620	6/20/2023		6.90	39.77	**3.37**	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-2-240716	7/16/2024		7.04	39.63	< 0.500	< 0.500	**0.574**	< 0.500	< 0.200	--

Sample ID[1]	Sample Date	Screened Interval (from TOC)	Depth to Groundwater (from TOC)	Groundwater Elevation (feet NAVD88)	VOCs[2] (µg/L)					
					Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Other VOCs[3]
MW-3										
MW-3-211121	11/21/2021	5 to 15	5.96	40.70	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-3-220316	3/16/2022		5.94	40.72	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-3-220628	6/28/2022		5.98	40.68	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-3-221005	10/5/2022		6.91	39.75	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
-- [6]	12/12/2022		Well Inaccessible		--	--	--	--	--	--
GEI-MW3-032823	3/28/2023		5.71	40.95	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-3-230620	6/20/2023		6.13	40.53	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-3-240716	7/16/2024		6.39	40.27	< 0.500	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-4										
MW-4-211121	11/21/2021	5 to 15	6.25	40.64	**1.24**	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-4-220316	3/16/2022		6.68	40.21	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-4-220628	6/28/2022		6.72	40.17	**0.730**	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-4-221005	10/5/2022		7.41	39.48	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-4-221212	12/12/2022		7.62	39.27	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
GEI-MW4-032823	3/28/2023		6.29	40.60	**0.728**	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-4-230620	6/20/2023		7.12	39.77	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-4-240716	7/16/2024		7.67	39.22	**1.29**	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-5										
MW-5-211121	11/21/2021	5 to 15	6.37	41.29	**1.27**	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-5-220316	3/16/2022		6.76	40.90	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-5-220628	6/28/2022		6.25	41.41	**9.75**	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-5-221005	10/5/2022		7.78	39.88	**0.581**	**0.575**	< 0.500	< 0.500	< 0.200	--
MW-5-221212	12/12/2022		6.56	41.10	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
GEI-MW5-032823	3/28/2023		6.44	41.22	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-5-230620	6/20/2023		6.96	40.70	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-5-240716	7/16/2024		7.25	40.41	< 0.500	< 0.500	< 0.500	< 0.500	< 0.200	--

Sample ID[1]	Sample Date	Screened Interval (from TOC)	Depth to Groundwater (from TOC)	Groundwater Elevation (feet NAVD88)	VOCs[2] (µg/L)					
					Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Other VOCs[3]
MW-6										
MW-6-212221	11/21/2021	3 to 13	5.28	40.82	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-6-220316	3/16/2022		5.27	40.83	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-6-220628	6/28/2022		5.53	40.57	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-6-221005	10/5/2022		5.94	40.16	< 0.400	< 0.500	< 0.500	< 0.500	< 0.200	--
MW-6-221212	12/12/2022		5.37	40.73	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
GEI-MW6-032823	3/28/2023		5.28	40.82	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
MW-6-230620	6/20/2023		5.55	40.55	< 0.350	< 0.400	< 0.500	< 0.350	< 0.200	--
MTCA Method A or B Screening Level Protective of Drinking Water					5	5	16[7]	160[7]	0.2	--

Notes:

[1] Sample locations shown on Figures 2 and 4.

[2] Volatile Organic Compounds (VOCs) analyzed by U.S. Environmental Protection Agency (EPA) Method 8260C. Refer to laboratory report for individual analytes and detection limits.

[3] Only selected chlorinated solvents are shown; refer to laboratory reports for complete list of method analytes and detection limits.

[4] Sample collected from temporary well screen installed in perched groundwater zone during drilling.

[5] MW-1 screened in deep groundwater aquifer; groundwater under hydrostatic head and rising above TOC.

[6] MW-3 was not sampled during the December 2022 groundwater monitoring event due to damage to the monument.

[7] Method B Non-Cancer screening level.

µg/L = micrograms per liter

ND = Not Detected

TOC = top of casing

Bolding indicates analyte was detected.

Shading indicates exceedance of Model Toxics Control Act (MTCA) cleanup level.

GeoEngineers' chemical analytical testing by Fremont Analytical/Alliance Technical Group in Seattle, Washington.

Table 4

Sub-Slab Soil Vapor and Outdoor Air Chemical Analytical Data

Ultra Custom Cleaners

2222 NW Bucklin Hill Road

Silverdale, Washington

Sample Identification[1]	Sample Date	PID Screening Result (ppm)	Start Time	End Time	VOCs[2] (µg/m^3)						ASTM 1946 (%)
					Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1-Dichloroethene	cis 1,2 Dichloroethene	trans 1,2 Dichloroethene	Vinyl Chloride	Helium
Sub-slab soil vapor sampled by GeoEngineers October 20, 2023											
SV-1-240716	7/16/2024	0.0	10:09	10:19	**129**	< 0.215	< 0.159	< 0.793	< 0.793	< 0.511	ND
Outdoor air sampled by GeoEngineers October 20, 2023											
AA-1-240716	7/16/2024	0.0	9:23	10:39	< 13.6	< 0.215	< 0.159	< 0.793	< 0.793	< 0.511	--
Soil Gas Screening Levels											
Method B - Soil Gas Screening Level - Non-Cancer					610	30	3,000	610	610	1,500	NE
Method B - Soil Gas Screening Level - Cancer					320	11	NE	NE	NE	9.5	NE

Notes:

[1] Sample locations shown on Figures 2 and 6.

[2] Select Volatile Organic Compounds analyzed by U.S. Environmental Protection Agency (EPA) Method TO-15.

ASTM = ASTM International Standard Practices

ND = Not Detected

ND = Not Established

ppm = parts per million; NE = Not Established

RBCsv = risk-based concentration for soil vapor volatilization to indoor air

VOCs = volatile organic compounds

µg/m^3 = micrograms per cubic meter

"--" = not tested

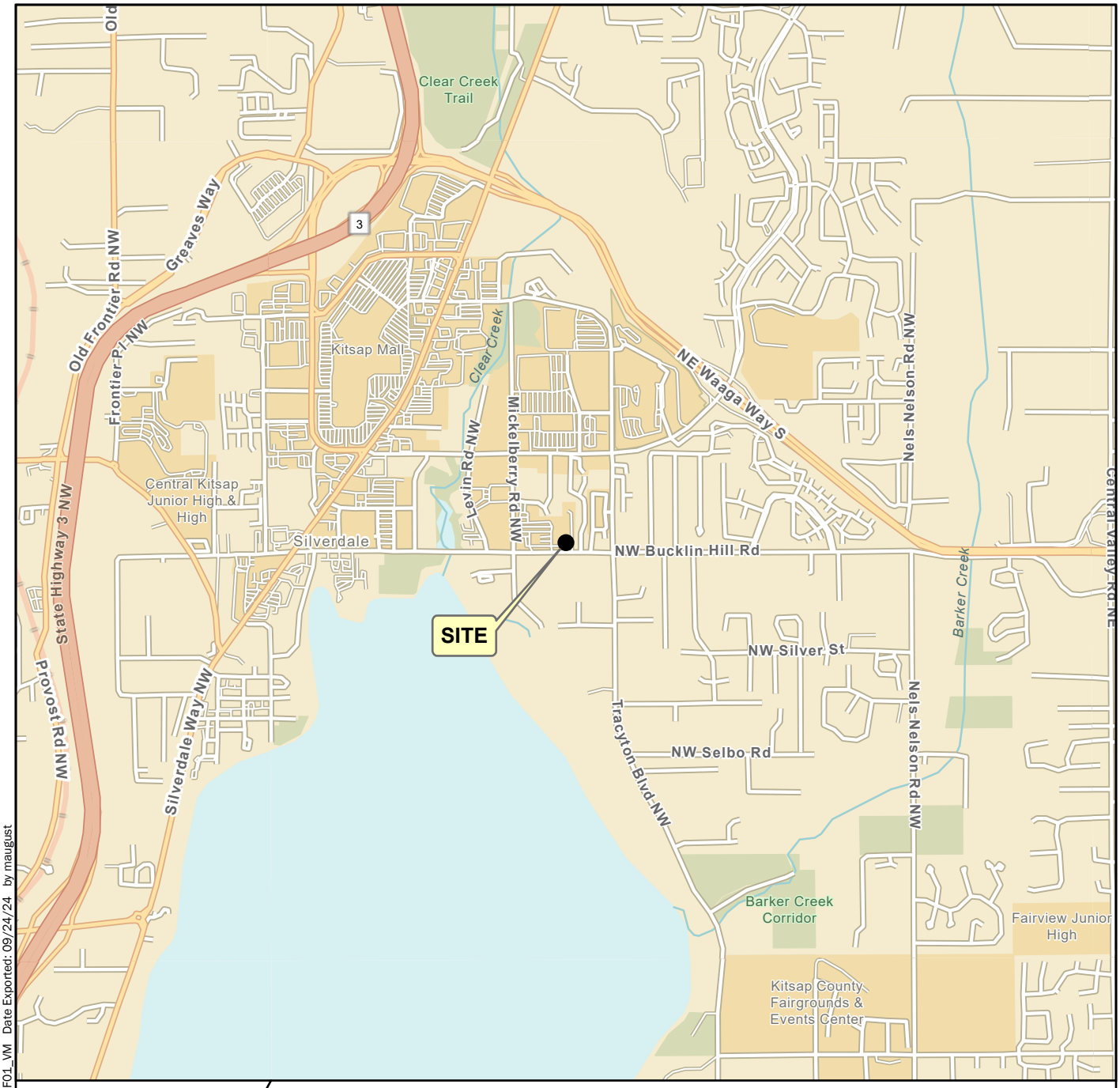
< = analyte not detected at a concentration greater than the listed laboratory reporting limit

Bold indicates the analyte was detected above the laboratory RDL.

Shading indicates exceedance of Model Toxics Control Act (MTCA) Method B, Cancer screening level.

GeoEngineers' chemical analytical testing by Fremont Analytical/Alliance Technical Group in Seattle, Washington.

Figures



Source(s):
- ESRI

Coordinate System: NAD 1983 UTM Zone 10N

Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

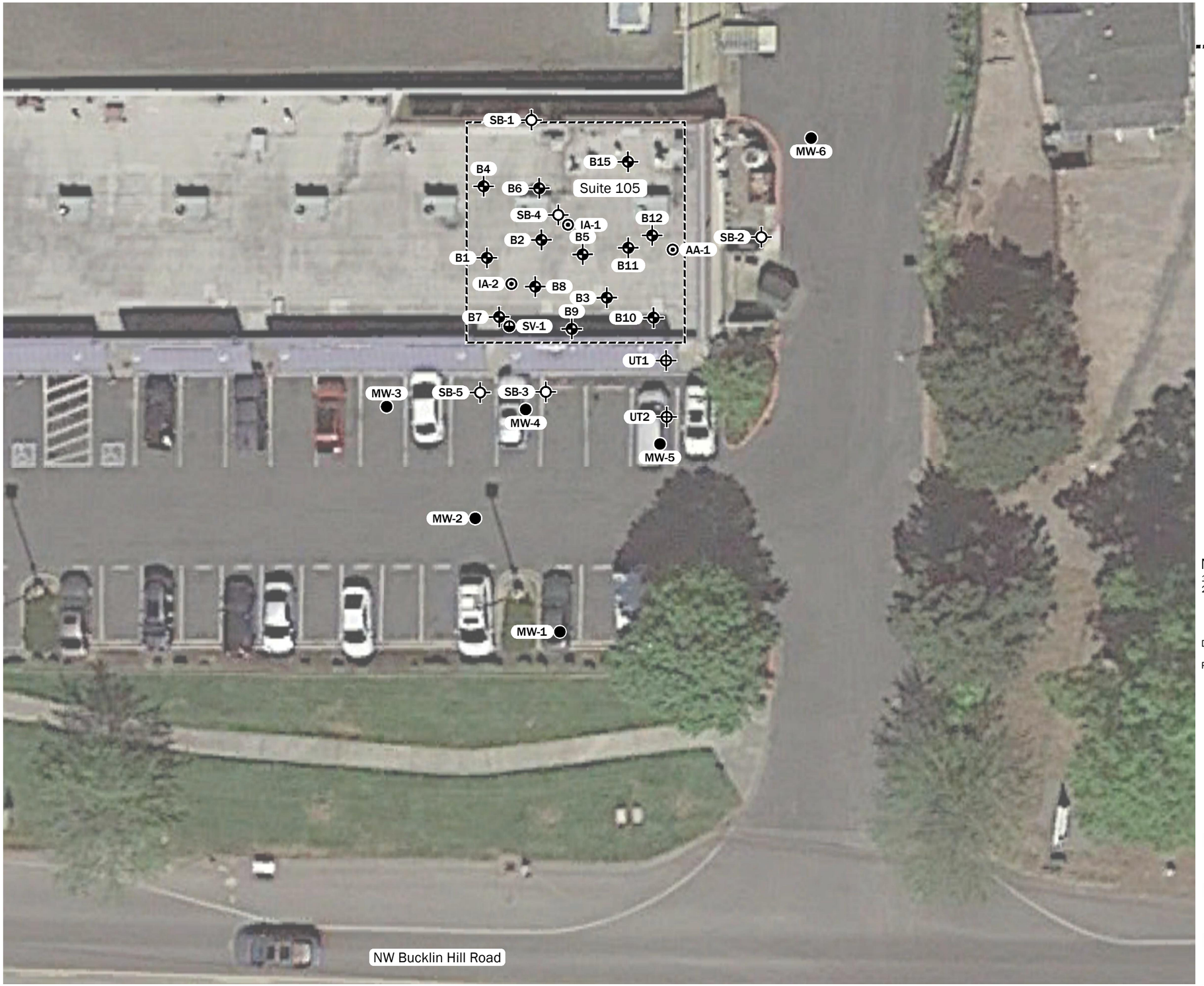
Vicinity Map

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 1

P:\22\22828001\GIS\22828001_Project\22828001_Project.aprx\22828001_F01_VM Date Exported: 09/24/24 by maugust



Legend

- Study Area
- SV-1 — Soil Vapor Sample by GeoEngineers, 2024
- MW-1 — Monitoring Well by GeoEngineers, Inc., 2018 and 2021
- B-1 — Soil Boring by GeoEngineers, 2018 and 2021
- UT1 — Grab Sample Location (GeoEngineers, 2021)
- IA-1 — Air Sample by GeoEngineers, 2017
- SB-2 — Soil Boring by Landau Associates, 2016
- AA-1 — Air Sample by Landau Associates, 2016

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Aerial from Google Earth Pro., Dated May 2019..

Projection: Washington State Plane, North Zone, NAD83, US Foot

N

0 20

Feet

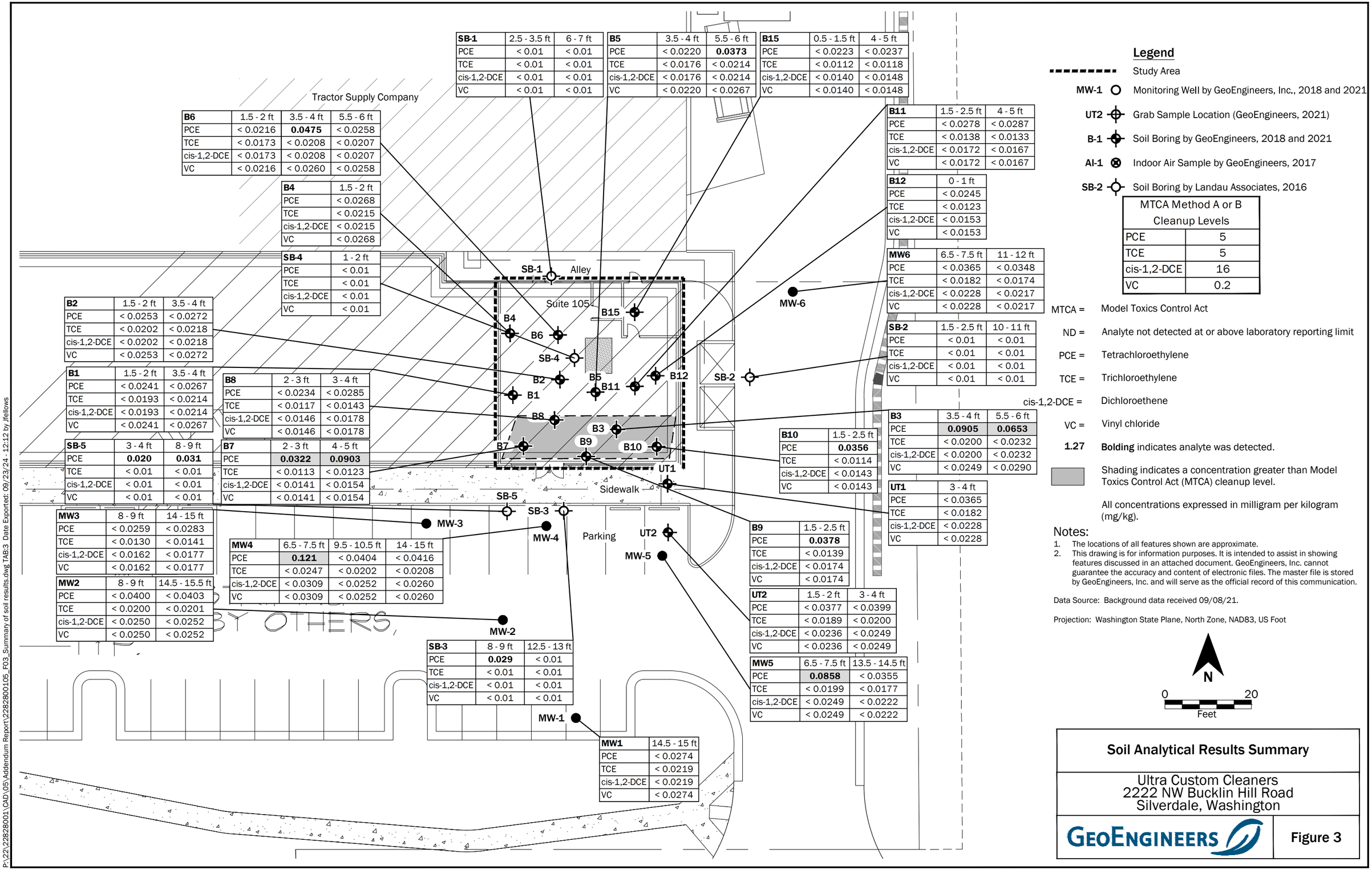
Site Plan

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 2

P:\22\22828001\CAD\05\Addendum Report\22828001105_F02_Site Plan.dwg TAB:F02 Date Exported: 09/19/24 - 10:29 by Jfellows



SB-1	2.5 - 3.5 ft	6 - 7 ft
PCE	< 0.01	< 0.01
TCE	< 0.01	< 0.01
cis-1,2-DCE	< 0.01	< 0.01
VC	< 0.01	< 0.01

B5	3.5 - 4 ft	5.5 - 6 ft
PCE	< 0.0220	**0.0373**
TCE	< 0.0176	< 0.0214
cis-1,2-DCE	< 0.0176	< 0.0214
VC	< 0.0220	< 0.0267

B15	0.5 - 1.5 ft	4 - 5 ft
PCE	< 0.0223	< 0.0237
TCE	< 0.0112	< 0.0118
cis-1,2-DCE	< 0.0140	< 0.0148
VC	< 0.0140	< 0.0148

B6	1.5 - 2 ft	3.5 - 4 ft	5.5 - 6 ft
PCE	< 0.0216	**0.0475**	< 0.0258
TCE	< 0.0173	< 0.0208	< 0.0207
cis-1,2-DCE	< 0.0173	< 0.0208	< 0.0207
VC	< 0.0216	< 0.0260	< 0.0258

B4	1.5 - 2 ft
PCE	< 0.0268
TCE	< 0.0215
cis-1,2-DCE	< 0.0215
VC	< 0.0268

SB-4	1 - 2 ft
PCE	< 0.01
TCE	< 0.01
cis-1,2-DCE	< 0.01
VC	< 0.01

B11	1.5 - 2.5 ft	4 - 5 ft
PCE	< 0.0278	< 0.0287
TCE	< 0.0138	< 0.0133
cis-1,2-DCE	< 0.0172	< 0.0167
VC	< 0.0172	< 0.0167

B12	0 - 1 ft
PCE	< 0.0245
TCE	< 0.0123
cis-1,2-DCE	< 0.0153
VC	< 0.0153

MW6	6.5 - 7.5 ft	11 - 12 ft
PCE	< 0.0365	< 0.0348
TCE	< 0.0182	< 0.0174
cis-1,2-DCE	< 0.0228	< 0.0217
VC	< 0.0228	< 0.0217

SB-2	1.5 - 2.5 ft	10 - 11 ft
PCE	< 0.01	< 0.01
TCE	< 0.01	< 0.01
cis-1,2-DCE	< 0.01	< 0.01
VC	< 0.01	< 0.01

B2	1.5 - 2 ft	3.5 - 4 ft
PCE	< 0.0253	< 0.0272
TCE	< 0.0202	< 0.0218
cis-1,2-DCE	< 0.0202	< 0.0218
VC	< 0.0253	< 0.0272

B1	1.5 - 2 ft	3.5 - 4 ft
PCE	< 0.0241	< 0.0267
TCE	< 0.0193	< 0.0214
cis-1,2-DCE	< 0.0193	< 0.0214
VC	< 0.0241	< 0.0267

B8	2 - 3 ft	3 - 4 ft
PCE	< 0.0234	< 0.0285
TCE	< 0.0117	< 0.0143
cis-1,2-DCE	< 0.0146	< 0.0178
VC	< 0.0146	< 0.0178

SB-5	3 - 4 ft	8 - 9 ft
PCE	**0.020**	**0.031**
TCE	< 0.01	< 0.01
cis-1,2-DCE	< 0.01	< 0.01
VC	< 0.01	< 0.01

B7	2 - 3 ft	4 - 5 ft
PCE	**0.0322**	**0.0903**
TCE	< 0.0113	< 0.0123
cis-1,2-DCE	< 0.0141	< 0.0154
VC	< 0.0141	< 0.0154

B3	3.5 - 4 ft	5.5 - 6 ft
PCE	**0.0905**	**0.0653**
TCE	< 0.0200	< 0.0232
cis-1,2-DCE	< 0.0200	< 0.0232
VC	< 0.0249	< 0.0290

B10	1.5 - 2.5 ft
PCE	**0.0356**
TCE	< 0.0114
cis-1,2-DCE	< 0.0143
VC	< 0.0143

UT1	3 - 4 ft
PCE	< 0.0365
TCE	< 0.0182
cis-1,2-DCE	< 0.0228
VC	< 0.0228

MW3	8 - 9 ft	14 - 15 ft
PCE	< 0.0259	< 0.0283
TCE	< 0.0130	< 0.0141
cis-1,2-DCE	< 0.0162	< 0.0177
VC	< 0.0162	< 0.0177

MW2	8 - 9 ft	14.5 - 15.5 ft
PCE	< 0.0400	< 0.0403
TCE	< 0.0200	< 0.0201
cis-1,2-DCE	< 0.0250	< 0.0252
VC	< 0.0250	< 0.0252

MW4	6.5 - 7.5 ft	9.5 - 10.5 ft	14 - 15 ft
PCE	**0.121**	< 0.0404	< 0.0416
TCE	< 0.0247	< 0.0202	< 0.0208
cis-1,2-DCE	< 0.0309	< 0.0252	< 0.0260
VC	< 0.0309	< 0.0252	< 0.0260

B9	1.5 - 2.5 ft
PCE	**0.0378**
TCE	< 0.0139
cis-1,2-DCE	< 0.0174
VC	< 0.0174

UT2	1.5 - 2 ft	3 - 4 ft
PCE	< 0.0377	< 0.0399
TCE	< 0.0189	< 0.0200
cis-1,2-DCE	< 0.0236	< 0.0249
VC	< 0.0236	< 0.0249

SB-3	8 - 9 ft	12.5 - 13 ft
PCE	**0.029**	< 0.01
TCE	< 0.01	< 0.01
cis-1,2-DCE	< 0.01	< 0.01
VC	< 0.01	< 0.01

MW5	6.5 - 7.5 ft	13.5 - 14.5 ft
PCE	**0.0858**	< 0.0355
TCE	< 0.0199	< 0.0177
cis-1,2-DCE	< 0.0249	< 0.0222
VC	< 0.0249	< 0.0222

MW1	14.5 - 15 ft
PCE	< 0.0274
TCE	< 0.0219
cis-1,2-DCE	< 0.0219
VC	< 0.0274

Legend

- Study Area
- MW-1 — Monitoring Well by GeoEngineers, Inc., 2018 and 2021
- UT2 — Grab Sample Location (GeoEngineers, 2021)
- B-1 — Soil Boring by GeoEngineers, 2018 and 2021
- AI-1 — Indoor Air Sample by GeoEngineers, 2017
- SB-2 — Soil Boring by Landau Associates, 2016

MTCA Method A or B Cleanup Levels	
PCE	5
TCE	5
cis-1,2-DCE	16
VC	0.2

MTCA = Model Toxics Control Act

ND = Analyte not detected at or above laboratory reporting limit

PCE = Tetrachloroethylene

TCE = Trichloroethylene

cis-1,2-DCE = Dichloroethene

VC = Vinyl chloride

1.27 **Bolding** indicates analyte was detected.

Shading indicates a concentration greater than Model Toxics Control Act (MTCA) cleanup level.

All concentrations expressed in milligram per kilogram (mg/kg).

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Background data received 09/08/21.

Projection: Washington State Plane, North Zone, NAD83, US Foot

N

0 20

Feet

Soil Analytical Results Summary

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 3

P:\22\22828001\CAD\05\Addendum Report\22828001105_F03_Summary of soil results.dwg TAB:3 Date Exported: 09/23/24 - 12:12 by jfellows

Legend

- EX-1 ◉ Confirmation Soil Sample Location
- Limits of Remedial Excavation
- Approximate Former Location of Dry Cleaning Machine

MTCA Method A Cleanup Levels	
PCE	0.05
TCE	0.03

MTCA = Model Toxics Control Act

ND = Analyte not detected at or above laboratory reporting limit

PCE = Tetrachloroethylene

TCE = Trichloroethylene

1.27 **Bolding** indicates analyte was detected.

Shading indicates a concentration greater than Model Toxics Control Act (MTCA) cleanup level.

All concentrations expressed in milligram per kilogram (mg/kg).

Suite 105

EX13	5 - 6 ft
PCE	ND
TCE	ND

EX12	5 - 6 ft
PCE	ND
TCE	ND

EX15	3 - 4 ft
PCE	ND
TCE	ND

EX11	5 - 6 ft
PCE	ND
TCE	ND

EX10	5 - 6 ft
PCE	ND
TCE	ND

EX14	3 - 4 ft
PCE	ND
TCE	ND

EX4	6 - 7 ft
PCE	ND
TCE	ND

EX3	6 - 7 ft
PCE	**0.022**
TCE	ND

EX2	6 - 7 ft
PCE	**0.037**
TCE	ND

EX1	6 - 7 ft
PCE	**0.026**
TCE	ND

EX9	4 -5 ft
PCE	ND
TCE	ND

EX8	4 -5 ft
PCE	**0.074**
TCE	ND

EX7	4 -5 ft
PCE	**0.062**
TCE	ND

EX6	4 -5 ft
PCE	**0.030**
TCE	ND

EX5	4 -5 ft
PCE	**0.023**
TCE	ND

EX13 EX12 EX15 EX11 EX10 EX14 EX4 EX3 EX2 EX1 EX9 EX8 EX7 EX6 EX5

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Background data received 9/08/21.

Projection: WA State Plane, North Zone, NAD83, US Foot

N

0 5

Feet

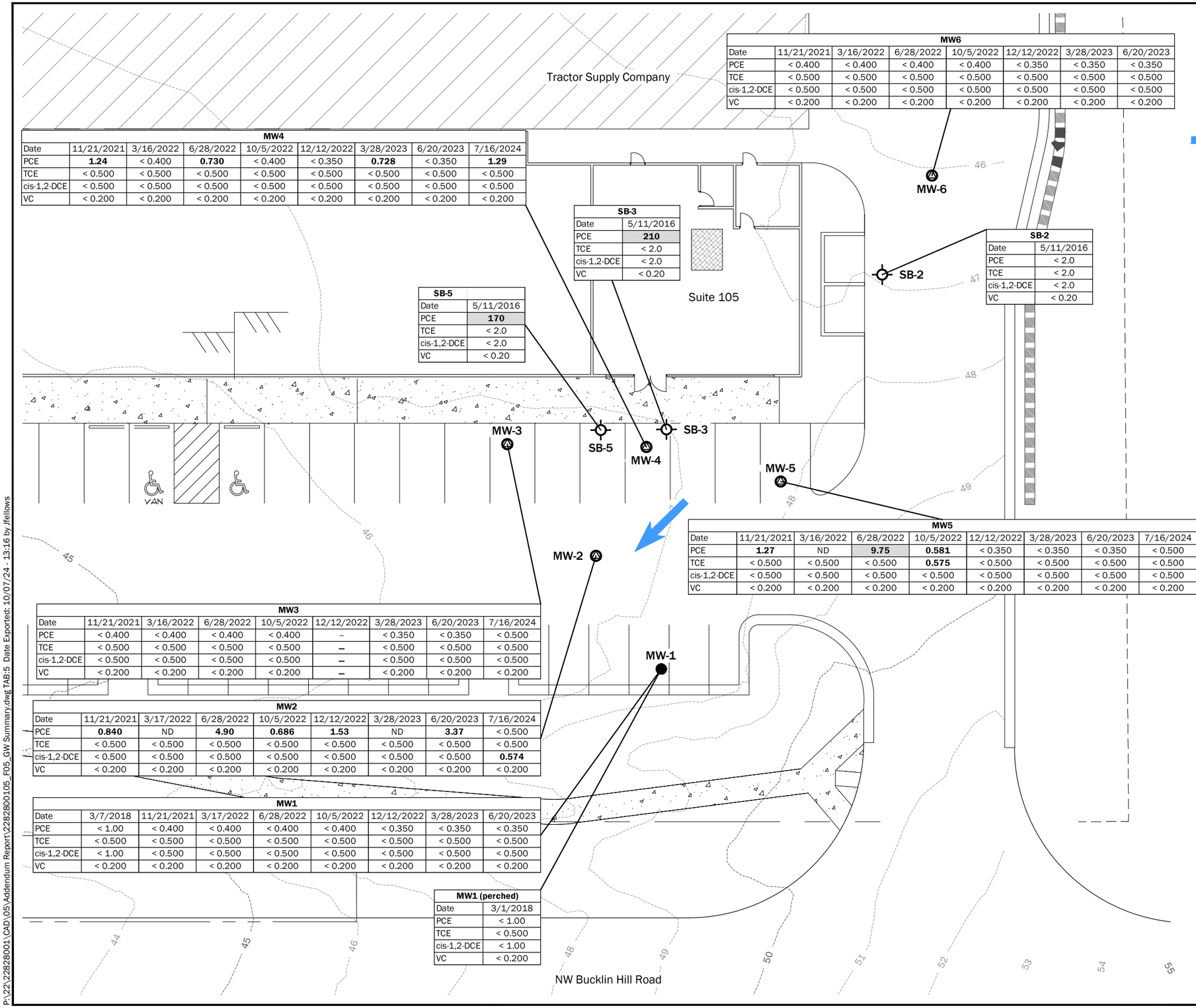
Remedial Excavation and Analytical Results

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 4

P:\22\22828001\CAD\05\Addendum Report\22828001005_F04_Remedial Excavation and Results.dwg TAB:4 Date Exported: 09/24/24 - 11:02 by lwitkowski



MW6

Date	11/21/2021	3/16/2022	6/28/2022	10/5/2022	12/12/2022	3/28/2023	6/20/2023
PCE	< 0.400	< 0.400	< 0.400	< 0.400	< 0.350	< 0.350	< 0.350
TCE	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
cis-1,2-DCE	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
VC	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200

MW4

Date	11/21/2021	3/16/2022	6/28/2022	10/5/2022	12/12/2022	3/28/2023	6/20/2023	7/16/2024
PCE	**1.24**	< 0.400	**0.730**	< 0.400	< 0.350	**0.728**	< 0.350	**1.29**
TCE	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
cis-1,2-DCE	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
VC	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200

SB-3

Date	5/11/2016
PCE	**210**
TCE	< 2.0
cis-1,2-DCE	< 2.0
VC	< 0.20

SB-2

Date	5/11/2016
PCE	< 2.0
TCE	< 2.0
cis-1,2-DCE	< 2.0
VC	< 0.20

SB-5

Date	5/11/2016
PCE	**170**
TCE	< 2.0
cis-1,2-DCE	< 2.0
VC	< 0.20

MW5

Date	11/21/2021	3/16/2022	6/28/2022	10/5/2022	12/12/2022	3/28/2023	6/20/2023	7/16/2024
PCE	**1.27**	ND	**9.75**	**0.581**	< 0.350	< 0.350	< 0.350	< 0.500
TCE	< 0.500	< 0.500	< 0.500	**0.575**	< 0.500	< 0.500	< 0.500	< 0.500
cis-1,2-DCE	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
VC	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200

MW3

Date	11/21/2021	3/16/2022	6/28/2022	10/5/2022	12/12/2022	3/28/2023	6/20/2023	7/16/2024
PCE	< 0.400	< 0.400	< 0.400	< 0.400	–	< 0.350	< 0.350	< 0.500
TCE	< 0.500	< 0.500	< 0.500	< 0.500	–	< 0.500	< 0.500	< 0.500
cis-1,2-DCE	< 0.500	< 0.500	< 0.500	< 0.500	–	< 0.500	< 0.500	< 0.500
VC	< 0.200	< 0.200	< 0.200	< 0.200	–	< 0.200	< 0.200	< 0.200

MW2

Date	11/21/2021	3/17/2022	6/28/2022	10/5/2022	12/12/2022	3/28/2023	6/20/2023	7/16/2024
PCE	**0.840**	ND	**4.90**	**0.686**	**1.53**	ND	**3.37**	< 0.500
TCE	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
cis-1,2-DCE	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	**0.574**
VC	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200

MW1

Date	3/7/2018	11/21/2021	3/17/2022	6/28/2022	10/5/2022	12/12/2022	3/28/2023	6/20/2023
PCE	< 1.00	< 0.400	< 0.400	< 0.400	< 0.400	< 0.350	< 0.350	< 0.350
TCE	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
cis-1,2-DCE	< 1.00	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
VC	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200

MW1 (perched)

Date	3/1/2018
PCE	< 1.00
TCE	< 0.500
cis-1,2-DCE	< 1.00
VC	< 0.200

Legend

MW-1 Monitoring Well by GeoEngineers, Inc., 2018 and 2021

SB-2 Temporary Well Screen Sample, Landau Associates, Inc., 2016

Approximate Former Location of Dry Cleaning Machine

Interpreted General Groundwater Flow Direction

MTCA Method A or B Cleanup Levels	
PCE	5
TCE	5
cis-1,2-DCE	16
VC	0.2

MTCA = Model Toxics Control Act

ND = Analyte not detected at or above laboratory reporting limit

PCE = Tetrachloroethylene

TCE = Trichloroethylene

cis-1,2-DCE = Dichloroethene

VC = Vinyl chloride

1.27 **Bolding** indicates analyte was detected.

Shading indicates a concentration greater than Model Toxics Control Act (MTCA) cleanup level.

All concentrations expressed in micrograms per liter (µg/L).

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Background data received 9/08/21.

Projection: WA State Plane, North Zone, NAD83, US Foot

N

0 20

Feet

Groundwater Analytical Results Summary

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 5

P:\22\22828001\CAD\05\Addendum Report\22282800105_F05_GW Summary.dwg TAB:5 Date Exported: 10/07/24 - 13:16 by Jfellows

Legend

- **EX-1** Confirmation Soil Sample Location
- **SV-1** Soil Vapor Sample by GeoEngineers, 2024
- **AA-1** Air Sample by Landau Associates, 2016
- Limits of Remedial Excavation
- Approximate Former Location of Dry Cleaning Machine

MTCA Method B Screening Levels for Cancer	
PCE	320
TCE	11
cis-1,2-DCE	NE
trans-1,2-DCE	NE
1,1-DCE	NE
Vinyl Chloride	9.5

AA-1	
Date	7/16/2024
PCE	< 13.6
TCE	< 0.215
cis-1,2-DCE	< 0.793
trans-1,2-DCE	< 0.793
1,1-DCE	< 0.159
Vinyl Chloride	< 0.511

SV-1	
Date	7/16/2024
PCE	**129**
TCE	< 0.215
cis-1,2-DCE	< 0.793
trans-1,2-DCE	< 0.793
1,1-DCE	< 0.159
Vinyl Chloride	< 0.511

MTCA = Model Toxics Control Act

ND = Analyte not detected at or above laboratory reporting limit

PCE = Tetrachloroethylene

TCE = Trichloroethylene

1.27 **Bolding** indicates analyte was detected.

All concentrations expressed in micrograms per cubic meter (µg/m^3).

Suite 105

AA-1

EX13 EX12 EX15 EX11 EX10 EX14 EX9 EX4 EX3 EX2 EX1 SV-1 EX8 EX7 EX6 EX5

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Background data received 9/08/21.

Projection: WA State Plane, North Zone, NAD83, US Foot

N

0 5

Feet

Sub-Slab Soil Vapor Analytical Results

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 6

P:\22\22828001\CAD\05\Addendum Report\22828001O5_F06_Sub-Slab Soil Vapor Analytical Results.dwg TAB:6 Date Exported: 09/24/24 - 11:01 by lwitkowski

Appendices

Appendix A
Monitoring Well Logs

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED 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
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINES (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, ROCK FLOUR, 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% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

Sampler Symbol Descriptions

- Modified California Sampler (6-inch sleeve) or Dames & Moore
- Standard Penetration Test (SPT)
- Shelby tube
- Piston
- Direct-Push
- Bulk or grab
- Continuous Coring

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

"P" indicates sampler pushed using the weight of the drill rig.

"WOH" indicates sampler pushed using the weight of the hammer.

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	SOD	Sod/Forest Duff
	TS	Topsoil

Groundwater Contact

- Measured groundwater level in exploration, well, or piezometer
- Measured free product in well or piezometer

Graphic Log Contact

- Distinct contact between soil strata
- Approximate contact between soil strata

Material Description Contact

- Contact between geologic units
- Contact between soil of the same geologic unit

Laboratory / Field Tests

%F	Percent fines
%G	Percent gravel
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DD	Dry density
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
Mohs	Mohs hardness scale
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PL	Point load test
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
UU	Unconsolidated undrained triaxial compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

Key to Exploration Logs

GeoEngineers

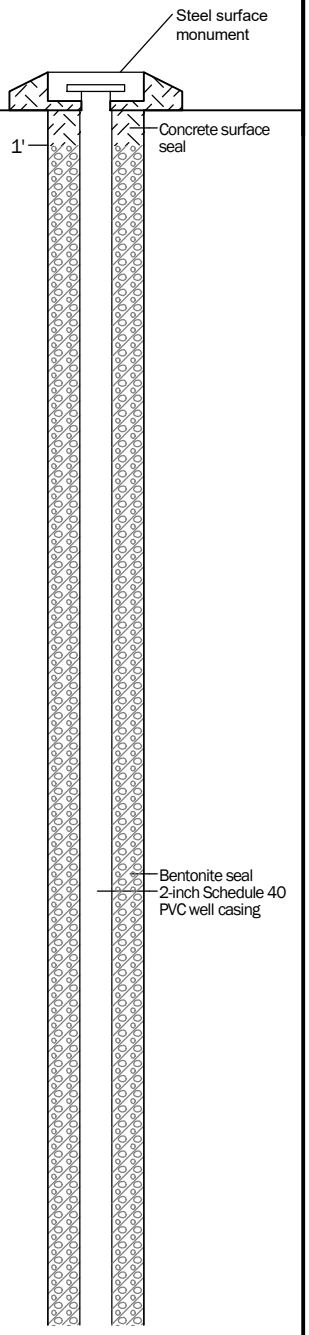
Figure A-1

Drilled Start 3/1/2018 End 3/2/2018	Total Depth (ft) 70	Logged By PDR Checked By IDY	Driller Cascade Drilling	Drilling Method Sonic Drilling	
Hammer Data NA		Drilling Equipment Boart Longyear mini-sonic		A 2-in well was installed on 3/2/2018 to a depth of 70 ft.	
Surface Elevation (ft) 50 Vertical Datum NAVD88		Top of Casing Elevation (ft)		Groundwater Date Measured: 3/2/2018	Depth to Water (ft): 19.20 — Elevation (ft): 30.80
Easting (X) 1185458 Northing (Y) 242814		Horizontal Datum WA State Plane North NAD83 (feet)			

Notes:

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
45	0								AC	Approximately 6 inches of asphalt concrete pavement		
									NR	Air knife to 10 feet to clear utilities - no recovery		
	5											
40	10					GEI-MW1-10-10.5			ML	Gray silt with fine sand, occasional coarse sand and fine gravel (dense, wet) (no free water)	NS	<1
									SM	Gray silty fine to medium sand with occasional fine gravel (dense, wet) (no free water)		
35	15					GEI-MW1-14.5-15				Grades to fine to coarse sand with less silt	NS	<1
									SP	Gray fine to coarse sand with trace silt (dense, moist to wet)		
									SM	Gray silty fine sand (dense, moist)		
30	20		24			GEI-MW1-18.5-19	▼		SP-SM	Gray fine to coarse sand with silt and occasional fine gravel (dense, moist) Perched groundwater encountered at approximately 19.2 feet	NS	<1
			60						NR	No recovery, drilling becomes very hard		
25	25					GEI-MW1-25-26			ML	Gray silt with fine to medium sand (soft, wet)	NS	<1
									SP-SM	Gray fine to coarse sand with silt (dense, wet)		
20	30		24			GEI-MW1-29-30			SM	Gray silty fine to coarse sand and fine to coarse gravel (very dense, moist) (till)	NS	<1
			72			GEI-MW1-32-33			SM	Gray silty fine to coarse sand and fine gravel (very dense, moist) (till)	NS	<1
15	35										NS	<1

WELL LOG



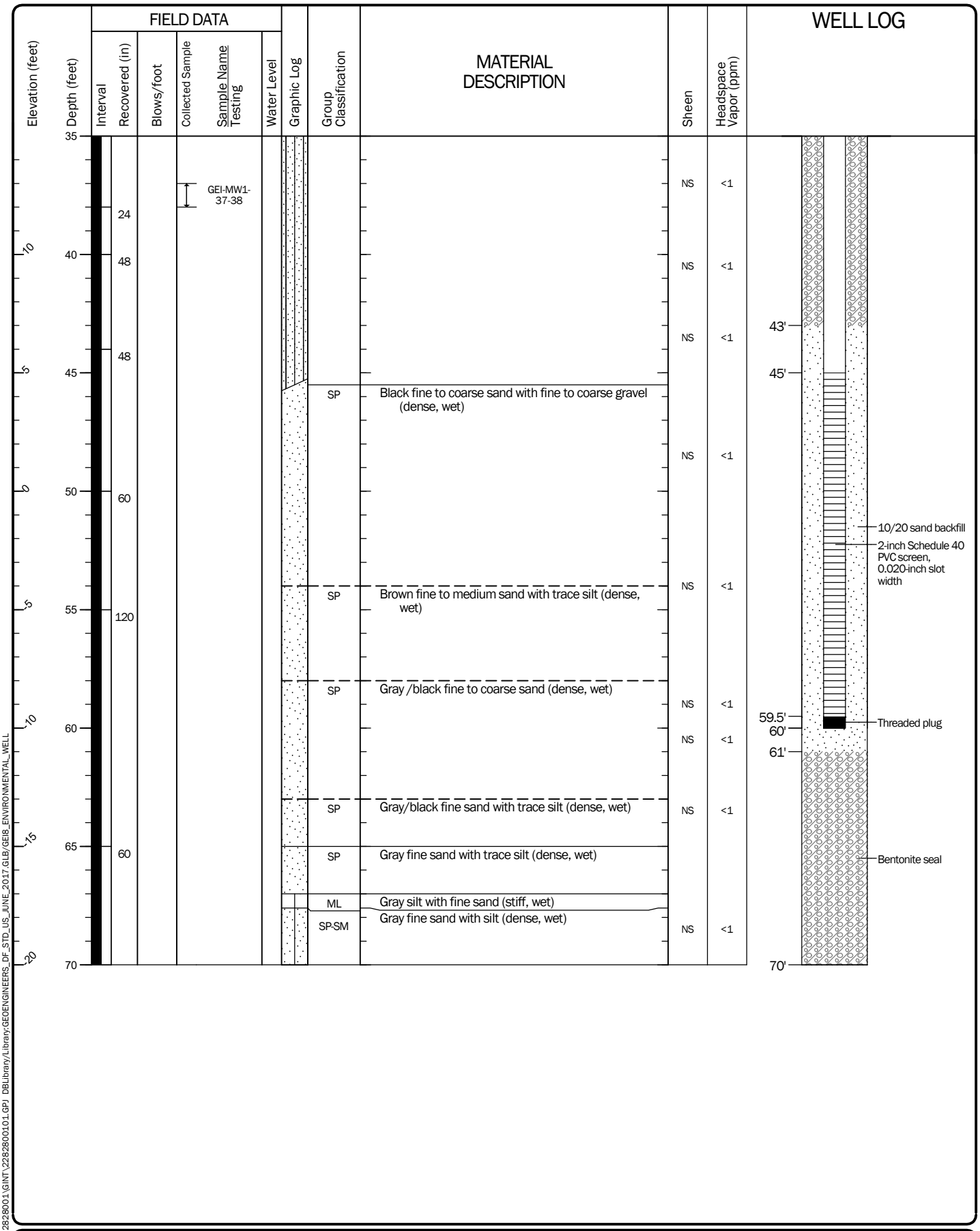
Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Aerial Imagery. Vertical approximated based on Google Earth.

Log of Monitoring Well GEI-MW1

GeoEngineers

Project: Bucklin Place Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-01

Figure A-2
Sheet 1 of 2



Date:9/19/24 Path:P:\22\22828001\GINT\2282800101.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Log of Monitoring Well GEI-MW1 (continued)

GeoEngineers

Project: Bucklin Place Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-01

Figure A-2
Sheet 2 of 2

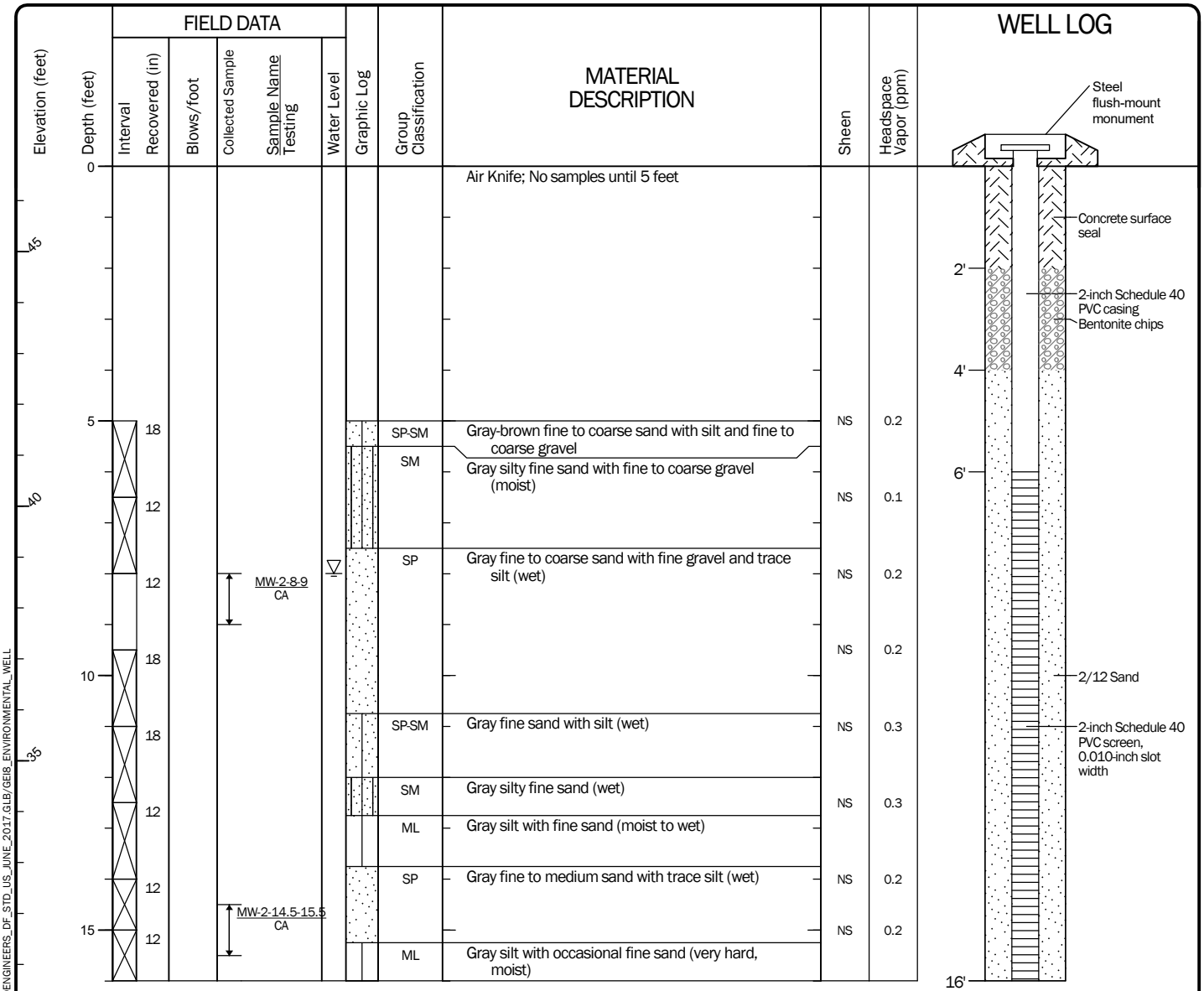
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	11/17/2021	11/17/2021	16	PDR	IDY	Cascade Drilling	Hollow-stem Auger

Hammer Data	Autohammer 300 (lbs) / (in) Drop	Drilling Equipment	Mobile B-57
Surface Elevation (ft) Vertical Datum	46.674 NAVD88	Top of Casing Elevation (ft)	46.28
Easting (X) Northing (Y)	1185448.992 242836.602	Horizontal Datum	WA State Plane North NAD83 (feet)

DOE Well I.D.: BNC 559
A 2-in well was installed on 11/17/2021 to a depth of 16 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
11/17/2021	8.00	38.67

Notes:



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Survey from True North Land Surveying dated February 11, 2022.. Vertical approximated based on Same survey.

Log of Monitoring Well MW-2

GeoEngineers

Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-05

Figure A-3
Sheet 1 of 1

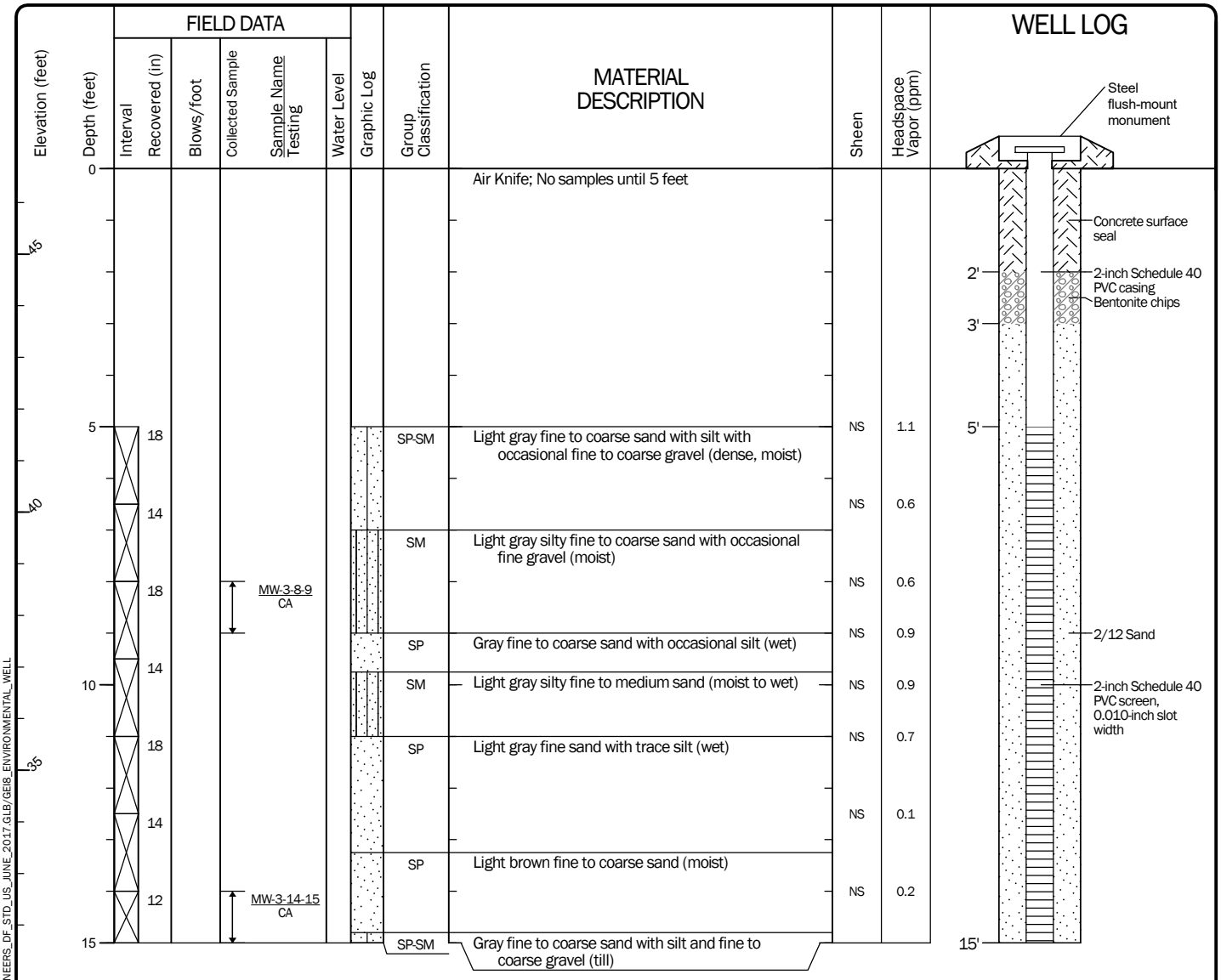
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	11/16/2021	11/16/2021	15	PDR	IDY	Cascade Drilling	Hollow-stem Auger

Hammer Data	Autohammer 300 (lbs) / (in) Drop	Drilling Equipment	Mobile B-57
Surface Elevation (ft) Vertical Datum	46.656 NAVD88	Top of Casing Elevation (ft)	46.35
Easting (X) Northing (Y)	1185431.29 242858.901	Horizontal Datum	WA State Plane North NAD83 (feet)

DOE Well I.D.: BNC 556
A 2-in well was installed on 11/16/2021 to a depth of 15 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)

Notes:



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Survey from True North Land Surveying dated February 11, 2022.. Vertical approximated based on Same survey.

Log of Monitoring Well MW-3

GeoEngineers

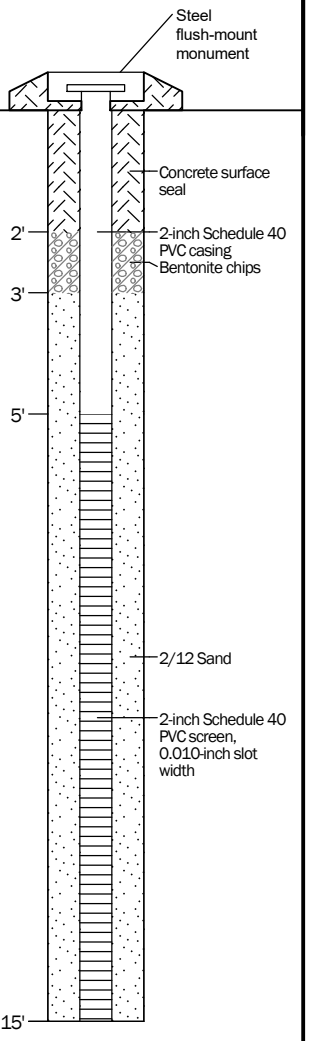
Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-05

Figure A-4
Sheet 1 of 1

Drilled Start 11/16/2021 End 11/16/2021	Total Depth (ft) 15	Logged By PDR Checked By IDY	Driller Cascade Drilling	Drilling Method Hollow-stem Auger	
Hammer Data: Autohammer 300 (lbs) / (in) Drop		Drilling Equipment: Mobile B-57		DOE Well I.D.: BNC 558 A 2-in well was installed on 11/16/2021 to a depth of 15 ft.	
Surface Elevation (ft) Vertical Datum: 46.888 NAVD88		Top of Casing Elevation (ft): 46.50		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)	
Easting (X) Northing (Y): 1185459.054 242858.335		Horizontal Datum: WA State Plane North NAD83 (feet)			

Notes:

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0									Air Knife; No samples until 5 feet		
45												
	5		12						SP-SM	Gray fine to coarse sand with silt and occasional fine to coarse gravel (moist)	NS	0.2
40			12			MW-4-6.5-7.5 CA			SM	Gray silty fine to coarse sand with occasional fine gravel (moist)	NS	0.7
			12						SP-SM	Brown fine sand with silt (wet)	NS	0.1
	10		18			MW4-9.5-10.5 CA					NS	0.1
35			18						SM	Gray silty fine sand interbedded with occasional medium to coarse sand (very dense, moist)	NS	0.1
			0						ML	Gray silt (moist)	NS	0.1
			12			MW4-14-15 CA					NS	0.1
	15								SM	Gray silt with fine to medium sand (dense, moist)		



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Survey from True North Land Surveying dated February 11, 2022.. Vertical approximated based on Same survey.

Log of Monitoring Well MW-4

GeoEngineers

Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-05

Figure A-5
Sheet 1 of 1

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	11/16/2021	11/16/2021	15	PDR	IDY	Cascade Drilling	Hollow-stem Auger

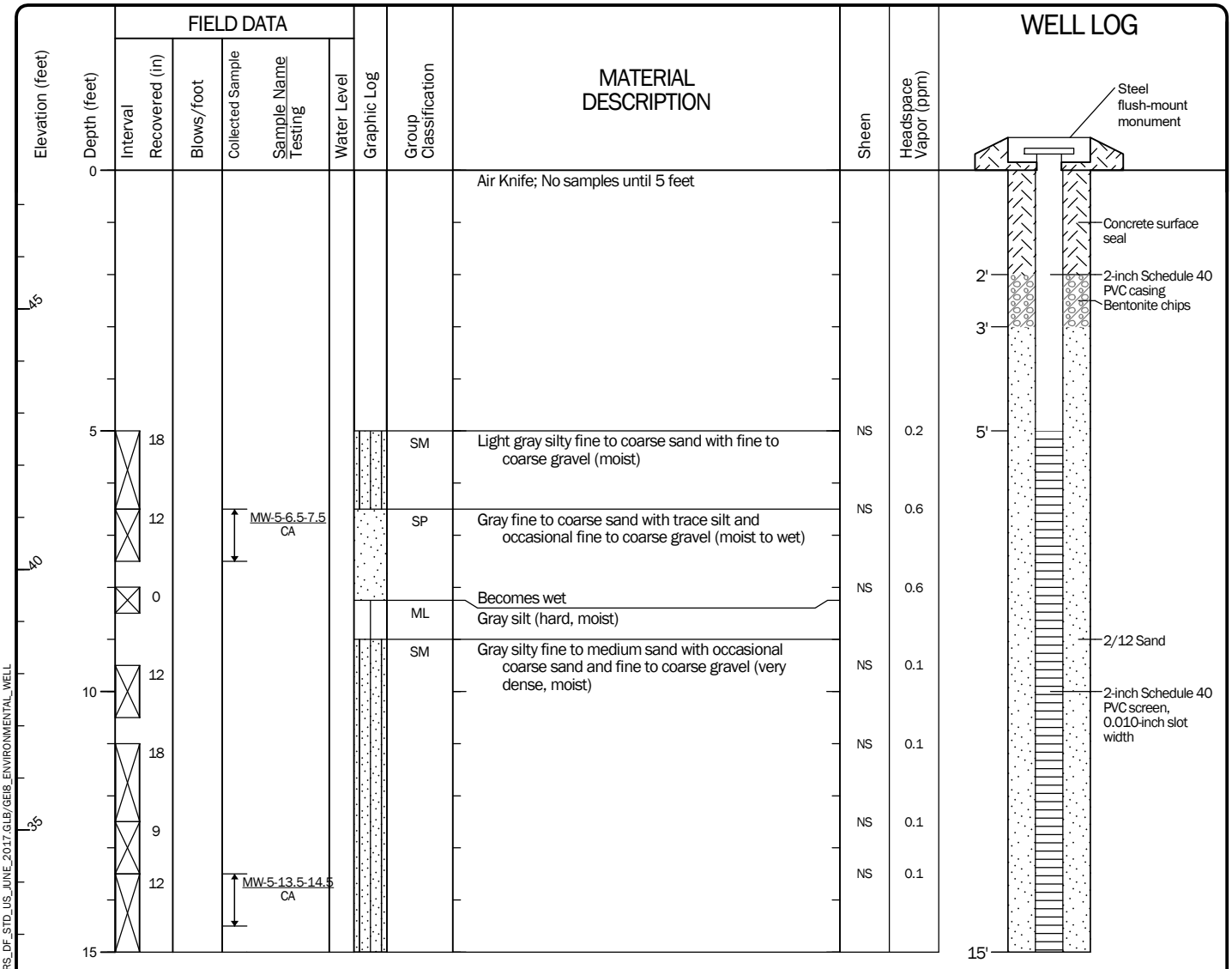
Hammer Data	Autohammer 300 (lbs) / (in) Drop	Drilling Equipment	Mobile B-57
Surface Elevation (ft) Vertical Datum	47.658 NAVD88	Top of Casing Elevation (ft)	47.41
Easting (X) Northing (Y)	1185485.881 242851.444	Horizontal Datum	WA State Plane North NAD83 (feet)

DOE Well I.D.: BNC 557
A 2-in well was installed on 11/16/2021 to a depth of 15 ft.

Groundwater

Date Measured	Depth to Water (ft)	Elevation (ft)

Notes:



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Survey from True North Land Surveying dated February 11, 2022.. Vertical approximated based on Same survey.

Log of Monitoring Well MW-5

GeoEngineers

Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-05

Figure A-6
Sheet 1 of 1

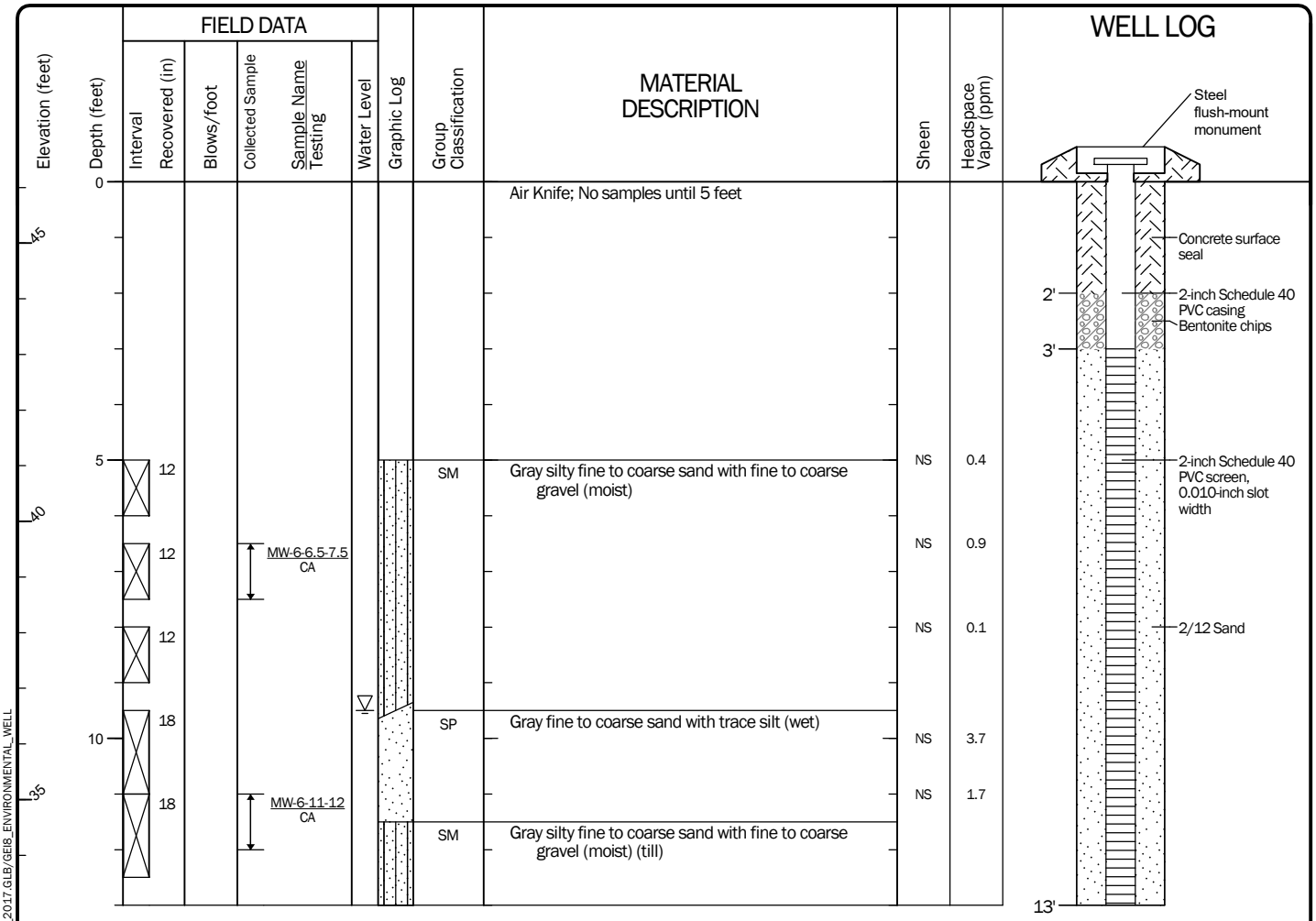
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	11/17/2021	11/17/2021	13	PDR	IDY	Cascade Drilling	Hollow-stem Auger

Hammer Data	Autohammer 300 (lbs) / (in) Drop	Drilling Equipment	Mobile B-57
Surface Elevation (ft) Vertical Datum	46.101 NAVD88	Top of Casing Elevation (ft)	45.60
Easting (X) Northing (Y)	1185516.078 242912.528	Horizontal Datum	WA State Plane North NAD83 (feet)

DOE Well I.D.: BNC 560
A 2-in well was installed on 11/17/2021 to a depth of 13 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
11/17/2021	9.50	36.60

Notes:



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Survey from True North Land Surveying dated February 11, 2022.. Vertical approximated based on Same survey.

Log of Monitoring Well MW-6

GeoEngineers

Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-05

Figure A-7
Sheet 1 of 1

Appendix B
Field Procedures

Appendix B
Field Procedures

GROUNDWATER MONITORING

Depth to Groundwater

The depths to the groundwater table relative to ground surface were measured using an electric water level indicator (e-tape). The e-tape was cleaned with an Alconox® solution wash and a distilled water rinse prior to use in each well to avoid any potential cross contamination between wells on site. Well lids and caps were removed 20 minutes prior to depth to water measurements to allow for atmospheric equilibration.

Groundwater Sampling

Groundwater samples were obtained using a low-flow sampling method and a peristaltic pump with new plastic tubing. The length of the plastic tubing was measured before placing in the well so that the intake port would correspond to a depth of approximately 9 to 10 feet. Purge rates ranged from 100 to 300 milliliters (mL) per minute and a groundwater sample was collected after parameters stabilized to within 10 percent variation. The laboratory-provided sample containers were filled completely to eliminate headspace. The water samples were placed on ice in a cooler during transport to Alliance Technical Group in Seattle, Washington. Chain-of-custody (COC) procedures were followed in transporting the water samples to the testing laboratory.

SUB-SLAB SOIL VAPOR SAMPLING

The sub-slab soil vapor sample was collected inside Suite 105 using a vapor pin sampling device. The vapor pin was installed following the manufacturers' standard operating procedures (SOPs) which were generally as follows:

- Drill a 5/8-inch-diameter hole through the slab and approximately 1 inch into the underlying soil to form a void.
- Remove the drill bit, brush the hole with the bottle brush and remove the loose cuttings with the vacuum.
- Place the lower end of sampling device assembly into the drilled hole. Place the small hole located in the handle of the extraction/installation tool over the sampling device to protect the barb fitting and cap and tap the sampling device into place using a dead blow hammer. Make sure the extraction/installation tool is aligned parallel to the sampling device to avoid damaging the barb fitting.
- During installation, the silicone sleeve forms a slight bulge between the slab and the sample device shoulder creating a seal. Place a protective cap on sampling device to prevent vapor loss prior to sampling.
- Allow at least 60 minutes for the sub-slab soil vapor conditions to equilibrate prior to sampling.
- Following soil vapor sample collection, the vapor pin sampling device will be removed, and the hole will be patched with concrete.

A sub-slab soil vapor sample was collected at the sample location 48 hours following installation of the vapor pin using the following protocol:

- New fluoropolymer (Teflon®) tubing was connected to the sub-slab soil vapor probe, using the barb fitting on the top of the sampling device.
- The tubing (above ground) was connected to a sampling manifold.
- Shut-in Test: The sampling manifold was vacuum-tested by briefly introducing a vacuum to the aboveground portion of the sampling train (i.e., the soil vapor probe where it enters the ground surface, the 1.0-liter Summa canister and associated tubing, and manifold) and checked for loss of vacuum. If vacuum loss was observed, connections and fittings in the sample train were checked and adjusted, then vacuum-tested again. This test was repeated until the sampling train demonstrated that tightness had been achieved.
- Leak Test: A tracer gas shroud (clear plastic bag) was placed around the entire sample train (that is, the soil gas probe where it enters the ground surface, the Summa canister and associated tubing and manifold) and sealed.
- During the July 2024 sampling event, the shroud was charged (filled) with a tracer gas (spec-grade 99.995 percent helium gas) and the tracer gas concentration within the shroud was measured using a hand-held monitor (e.g., Ion/Gascheck G3, or equivalent, which is capable of measuring helium in air to a concentration of 0.5 percent) prior to, during and after completion of the sampling event. Helium detections in the Summa canister indicate that some ambient air was collected during the soil vapor sampling. To charge the shroud, a Teflon tube with a ball valve was inserted under the shroud to connect with the compressed helium bottle. This same tube was used to monitor the helium concentration within the shroud periodically throughout the sampling process. The purpose of the periodic monitoring is to make sure helium is in contact with the sample train and the ground surface while the soil gas sample is collected. According to the California Environmental Protection Agency's (Cal-EPA/DTSC) July 2015 "Advisory, Active Soil Gas Investigations" guidance document, an ambient leak up to 5 percent is acceptable when conducting quantitative leak testing (Cal-EPA/DTSC 2015). Washington State Department of Ecology's (Ecology) October 2009 "Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action" does not include a specific criteria for leak testing, but it does reference a previous version of the Cal-EPA/DTSC guidance (Ecology 2009).
- Sample Train Purge: The sampling train (aboveground and belowground components) was purged using a multi-gas meter (oxygen, methane and carbon dioxide). Purge volumes were calculated based on the flow rate of the purge pump and the volume of the soil gas probe and sample train. After purging three sampling train volumes, the helium concentration within the sampling train were measured and recorded; if the helium concentration in the sample train is greater than or equal to 5 percent of the helium concentration in the shroud, the fittings would be checked and tightened, and the previous purging and measurement tests repeated.
- The soil gas samples were obtained using a 1-liter evacuated Summa canister (with approximately 30 inches of mercury vacuum set by the laboratory), with a regulated flow rate of less than or equal to approximately 200 milliliters per minute. Also, vacuums induced on the vapor probe of less than 100 inches of water were maintained during sample collection. The canister was filled with soil gas for approximately 5 to 7 minutes or until a vacuum equivalent of approximately 5 inches of mercury

remained in the Summa canister, whichever occurred first. The initial and final canister vacuum was recorded on a soil gas sampling field form as well as shut-in test and helium readings.

- The canisters and flow regulators were pre-set and provided by an analytical laboratory subcontractor.
- Summa canisters were submitted to the analytical laboratory for chemical analysis of focused chlorinated volatile organic compounds (PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE and vinyl chloride) by United States Environmental Protection Agency (EPA) Method TO-15, and helium by Modified ASTM International (ASTM) D-1946 to Alliance Technical Group in Seattle, Washington. COC procedures were followed in transporting the water samples to the testing laboratory.

Appendix C
Chemical Analytical Laboratory Reports

Appendix C
Chemical Analytical Laboratory Reports

ANALYTICAL METHODS

Chain-of-custody (COC) procedures were followed during the transport of the field samples to the analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference and laboratory quality control records are included in this appendix. The analytical results are also summarized in the text and tables of this report.

ANALYTICAL DATA REVIEW

The laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the validity of the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report.

ANALYTICAL DATA REVIEW SUMMARY

No quality control exceptions were noted by the testing laboratory.

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

GeoEngineers
Ian Young
2101 4th Ave, Suite 950
Seattle, WA 98121

RE: Bucklin Place, 22828-001-05
Work Order Number: 2407254

July 23, 2024

Attention Ian Young:

Fremont Analytical, Inc, an Alliance Technical Group company, received 4 sample(s) on 7/16/2024 for the analyses presented in the following report.

Volatile Organic Compounds by EPA 8260D

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes
Project Manager

Date: *07/23/2024*

CLIENT: GeoEngineers
Project: Bucklin Place
Work Order: 2407254

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2407254-001	MW-2-240716	07/16/2024 1:35 PM	07/16/2024 4:28 PM
2407254-002	MW-3-240716	07/16/2024 12:50 PM	07/16/2024 4:28 PM
2407254-003	MW-4-240716	07/16/2024 11:57 AM	07/16/2024 4:28 PM
2407254-004	MW-5-240716	07/16/2024 11:10 AM	07/16/2024 4:28 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2407254**

Date: **7/23/2024**

CLIENT: GeoEngineers

Project: Bucklin Place

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: GeoEngineers
Project: Bucklin Place

Lab ID: 2407254-001 **Collection Date:** 7/16/2024 1:35:00 PM
Client Sample ID: **MW-2-240716** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA 8260D				Batch ID: 44578		Analyst: FG
Vinyl chloride	ND	0.200		µg/L	1	7/19/2024 9:04:32 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 9:04:32 PM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 9:04:32 PM
cis-1,2-Dichloroethene	0.574	0.500		µg/L	1	7/19/2024 9:04:32 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	7/19/2024 9:04:32 PM
Tetrachloroethene (PCE)	ND	0.500		µg/L	1	7/19/2024 9:04:32 PM
Surr: Dibromofluoromethane	101	82.4 - 122.4		%Rec	1	7/19/2024 9:04:32 PM
Surr: Toluene-d8	99.3	81.4 - 121.4		%Rec	1	7/19/2024 9:04:32 PM
Surr: 1-Bromo-4-fluorobenzene	101	80.1 - 120.1		%Rec	1	7/19/2024 9:04:32 PM

Lab ID: 2407254-002 **Collection Date:** 7/16/2024 12:50:00 PM
Client Sample ID: **MW-3-240716** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA 8260D				Batch ID: 44578		Analyst: FG
Vinyl chloride	ND	0.200		µg/L	1	7/19/2024 7:33:28 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 7:33:28 PM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 7:33:28 PM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 7:33:28 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	7/19/2024 7:33:28 PM
Tetrachloroethene (PCE)	ND	0.500		µg/L	1	7/19/2024 7:33:28 PM
Surr: Dibromofluoromethane	101	82.4 - 122.4		%Rec	1	7/19/2024 7:33:28 PM
Surr: Toluene-d8	99.3	81.4 - 121.4		%Rec	1	7/19/2024 7:33:28 PM
Surr: 1-Bromo-4-fluorobenzene	100	80.1 - 120.1		%Rec	1	7/19/2024 7:33:28 PM

CLIENT: GeoEngineers
Project: Bucklin Place

Lab ID: 2407254-003 **Collection Date:** 7/16/2024 11:57:00 AM
Client Sample ID: **MW-4-240716** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA 8260D				Batch ID: 44578		Analyst: FG
Vinyl chloride	ND	0.200		µg/L	1	7/19/2024 8:03:53 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 8:03:53 PM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 8:03:53 PM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 8:03:53 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	7/19/2024 8:03:53 PM
Tetrachloroethene (PCE)	1.29	0.500		µg/L	1	7/19/2024 8:03:53 PM
Surr: Dibromofluoromethane	102	82.4 - 122.4		%Rec	1	7/19/2024 8:03:53 PM
Surr: Toluene-d8	99.7	81.4 - 121.4		%Rec	1	7/19/2024 8:03:53 PM
Surr: 1-Bromo-4-fluorobenzene	101	80.1 - 120.1		%Rec	1	7/19/2024 8:03:53 PM

Lab ID: 2407254-004 **Collection Date:** 7/16/2024 11:10:00 AM
Client Sample ID: **MW-5-240716** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA 8260D				Batch ID: 44578		Analyst: FG
Vinyl chloride	ND	0.200		µg/L	1	7/19/2024 8:34:15 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 8:34:15 PM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 8:34:15 PM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	7/19/2024 8:34:15 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	7/19/2024 8:34:15 PM
Tetrachloroethene (PCE)	ND	0.500		µg/L	1	7/19/2024 8:34:15 PM
Surr: Dibromofluoromethane	101	82.4 - 122.4		%Rec	1	7/19/2024 8:34:15 PM
Surr: Toluene-d8	99.2	81.4 - 121.4		%Rec	1	7/19/2024 8:34:15 PM
Surr: 1-Bromo-4-fluorobenzene	101	80.1 - 120.1		%Rec	1	7/19/2024 8:34:15 PM

Work Order: 2407254
CLIENT: GeoEngineers
Project: Bucklin Place

QC SUMMARY REPORT

Volatile Organic Compounds by EPA 8260D

Sample ID: **LCS-44578** SampType: **LCS** Units: **µg/L** Prep Date: **7/19/2024** RunNo: **93142**
Client ID: **LCSW** Batch ID: **44578** Analysis Date: **7/19/2024** SeqNo: **1944585**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	21.6	0.200	20.00	0	108	80	120				
1,1-Dichloroethene	19.6	0.500	20.00	0	98.0	80	120				
trans-1,2-Dichloroethene	20.0	0.500	20.00	0	99.8	80	120				
cis-1,2-Dichloroethene	19.6	0.500	20.00	0	98.1	80	120				
Trichloroethene (TCE)	20.7	0.500	20.00	0	103	80	120				
Tetrachloroethene (PCE)	21.1	0.500	20.00	0	106	80	120				
Surr: Dibromofluoromethane	25.3		25.00		101	82.4	122.4				
Surr: Toluene-d8	25.5		25.00		102	81.4	121.4				
Surr: 1-Bromo-4-fluorobenzene	24.7		25.00		98.9	80.1	120.1				

Sample ID: **MB-44578** SampType: **MBLK** Units: **µg/L** Prep Date: **7/19/2024** RunNo: **93142**
Client ID: **MBLKW** Batch ID: **44578** Analysis Date: **7/19/2024** SeqNo: **1944328**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200									
1,1-Dichloroethene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
cis-1,2-Dichloroethene	ND	0.500									
Trichloroethene (TCE)	ND	0.500									
Tetrachloroethene (PCE)	ND	0.500									
Surr: Dibromofluoromethane	24.8		25.00		99.1	80	120				
Surr: Toluene-d8	24.8		25.00		99.2	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	80	120				

Sample ID: **2407266-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **7/19/2024** RunNo: **93142**
Client ID: **BATCH** Batch ID: **44578** Analysis Date: **7/19/2024** SeqNo: **1944330**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200						0		30	
1,1-Dichloroethene	ND	0.500						0		30	
trans-1,2-Dichloroethene	ND	0.500						0		30	

Work Order: 2407254
CLIENT: GeoEngineers
Project: Bucklin Place

QC SUMMARY REPORT

Volatile Organic Compounds by EPA 8260D

Sample ID: **2407266-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **7/19/2024** RunNo: **93142**
Client ID: **BATCH** Batch ID: **44578** Analysis Date: **7/19/2024** SeqNo: **1944330**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	ND	0.500						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
Tetrachloroethene (PCE)	ND	0.500						0		30	
Surr: Dibromofluoromethane	24.1		25.00		96.4	82.4	122.4		0		
Surr: Toluene-d8	24.4		25.00		97.7	81.4	121.4		0		
Surr: 1-Bromo-4-fluorobenzene	24.8		25.00		99.0	80.1	120.1		0		

Sample ID: **2407254-002AMS** SampType: **MS** Units: **µg/L** Prep Date: **7/19/2024** RunNo: **93142**
Client ID: **MW-3-240716** Batch ID: **44578** Analysis Date: **7/19/2024** SeqNo: **1944594**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	24.4	0.200	20.00	0	122	65.6	156				
1,1-Dichloroethene	24.4	0.500	20.00	0	122	70.6	153				
trans-1,2-Dichloroethene	22.7	0.500	20.00	0	113	66.9	153				
cis-1,2-Dichloroethene	21.1	0.500	20.00	0	105	66.3	143				
Trichloroethene (TCE)	20.6	0.500	20.00	0	103	61.9	146				
Tetrachloroethene (PCE)	24.0	0.500	20.00	0	120	71	146				
Surr: Dibromofluoromethane	25.4		25.00		102	82.4	122.4				
Surr: Toluene-d8	25.6		25.00		102	81.4	121.4				
Surr: 1-Bromo-4-fluorobenzene	25.0		25.00		100	80.1	120.1				

Alliance TECHNICAL GROUP

Sample Log-In Check List

Client Name:	GEI	Work Order Number:	2407254
Logged by:	Clare Griggs	Date Received:	7/16/2024 4:28:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	2.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 7/16/24 | Page: | of:

Laboratory Project No (internal): 2407254

Project Name: Bucklin Place

Special Remarks:

Client: GeoEngineers

Project No: 22328-001-05

Address: 17425 NE Union Hill Rd #250

Collected by: M. Ysaguirre

City, State, Zip: Redmond, WA 98052

Location: Silverdale, WA

Telephone:

Report To (PM): Ian Young

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

Email(s): Iyoung@geoengineers.com

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	MW-2-240716	7/16/24	1335	H_2O	3	X											Short list VOCs: PCE, TCE, cis-/trans-DCE, 1,1-DCE, & vinyl chloride.
2	MW-3-240716	"	1250	"	"	X											"
3	MW-4-240716	"	~~1110~~ 1157	"	"	X											"
4	MW-5-240716	"	1110	"	"	X											"
5																	
6																	
7																	
8																	
9																	
10																	

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☐ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day ☐ _____ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Michael Ysaguirre	7/16/24 1620	x	Gittein-Gipson	7/16/24 4:28
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

GeoEngineers
Ian Young
2101 4th Ave, Suite 950
Seattle, WA 98121

RE: Bucklin Place, 22828-001-05
Work Order Number: 2407255

July 23, 2024

Attention Ian Young:

Fremont Analytical, Inc, an Alliance Technical Group company, received 2 sample(s) on 7/16/2024 for the analyses presented in the following report.

Helium by GC/TCD
Volatile Organic Compounds by EPA TO-15

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

Date: *07/23/2024*

CLIENT: GeoEngineers
Project: Bucklin Place
Work Order: 2407255

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2407255-001	SV-1-240716	07/16/2024 10:09 AM	07/16/2024 4:28 PM
2407255-002	AA-1-240716	07/16/2024 9:23 AM	07/16/2024 4:28 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Original

Case Narrative

WO#: **2407255**

Date: **7/23/2024**

CLIENT: GeoEngineers
Project: Bucklin Place

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2407255**
Date Reported: **7/23/2024**

Client: GeoEngineers
Project: Bucklin Place
Lab ID: 2407255-001
Client Sample ID: **SV-1-240716**

Collection Date: 7/16/2024 10:09:00 AM
Matrix: Soil Gas

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Helium by GC/TCD					Batch ID: R93145	Analyst: CO
Helium	ND	0.300	D	%	1.5	7/19/2024 11:45:00 AM

NOTES:
Pressurized with nitrogen

Client: GeoEngineers
WorkOrder: 2407255
Project: Bucklin Place

Client Sample ID: SV-1-240716
Lab ID: 2407255-001A
Sample Type: Summa Canister
Date Sampled: 7/16/2024
Date Received: 7/16/2024

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
Volatile Organic Compounds by EPA TO-15								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	07/18/2024	LB
cis-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	07/18/2024	LB
Tetrachloroethene (PCE)	19.0	129	2.00	13.6		EPA-TO-15	07/18/2024	LB
trans-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	07/18/2024	LB
Trichloroethene (TCE)	<0.0400	<0.215	0.0400	0.215		EPA-TO-15	07/18/2024	LB
Vinyl chloride	<0.200	<0.511	0.200	0.511		EPA-TO-15	07/18/2024	LB
Surr: 4-Bromofluorobenzene	102 %Rec	--	70-130	--		EPA-TO-15	07/18/2024	LB

Client Sample ID: AA-1-240716
Lab ID: 2407255-002A
Sample Type: Summa Canister
Date Sampled: 7/16/2024
Date Received: 7/16/2024

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
Volatile Organic Compounds by EPA TO-15								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	07/18/2024	LB
cis-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	07/18/2024	LB
Tetrachloroethene (PCE)	<2.00	<13.6	2.00	13.6		EPA-TO-15	07/18/2024	LB
trans-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	07/18/2024	LB
Trichloroethene (TCE)	<0.0400	<0.215	0.0400	0.215		EPA-TO-15	07/18/2024	LB
Vinyl chloride	<0.200	<0.511	0.200	0.511		EPA-TO-15	07/18/2024	LB
Surr: 4-Bromofluorobenzene	102 %Rec	--	70-130	--		EPA-TO-15	07/18/2024	LB

Work Order: 2407255
CLIENT: GeoEngineers
Project: Bucklin Place

QC SUMMARY REPORT

Helium by GC/TCD

Sample ID: **LCS-R93145**	SampType: **LCS**			Units: **%**		Prep Date: **7/19/2024**		RunNo: **93145**		
Client ID: **LCSW**	Batch ID: **R93145**					Analysis Date: **7/19/2024**		SeqNo: **1944344**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Helium	4.93	0.200	5.000	0	98.6	80	120				

Sample ID: **MB-R93145**	SampType: **MBLK**			Units: **%**		Prep Date: **7/19/2024**		RunNo: **93145**		
Client ID: **MBLKW**	Batch ID: **R93145**					Analysis Date: **7/19/2024**		SeqNo: **1944345**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Helium	ND	0.200									

Sample ID: **2407255-001AREP**	SampType: **REP**			Units: **%**		Prep Date: **7/19/2024**		RunNo: **93145**		
Client ID: **SV-1-240716**	Batch ID: **R93145**					Analysis Date: **7/19/2024**		SeqNo: **1944343**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Helium	ND	0.300						0		30	D

NOTES:
Pressurized with nitrogen

Work Order: 2407255
CLIENT: GeoEngineers
Project: Bucklin Place

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **LCS-R93084** SampType: **LCS** Units: **ppbv** Prep Date: **7/17/2024** RunNo: **93084**
Client ID: **LCSW** Batch ID: **R93084** Analysis Date: **7/17/2024** SeqNo: **1943439**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	2.23	0.0500	2.000	0	111	70	130				
1,1-Dichloroethene (DCE)	2.14	0.0100	2.000	0	107	70	130				
trans-1,2-Dichloroethene	2.13	0.0500	2.000	0	107	70	130				
cis-1,2-Dichloroethene	2.15	0.0500	2.000	0	107	70	130				
Trichloroethene (TCE)	2.29	0.0100	2.000	0	114	70	130				
Tetrachloroethene (PCE)	2.18	0.500	2.000	0	109	70	130				
Surr: 4-Bromofluorobenzene	4.12		4.000		103	70	130				

Sample ID: **MB-R93084** SampType: **MBLK** Units: **ppbv** Prep Date: **7/18/2024** RunNo: **93084**
Client ID: **MBLKW** Batch ID: **R93084** Analysis Date: **7/18/2024** SeqNo: **1943440**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0500									
1,1-Dichloroethene (DCE)	ND	0.0100									
trans-1,2-Dichloroethene	ND	0.0500									
cis-1,2-Dichloroethene	ND	0.0500									
Trichloroethene (TCE)	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.500									
Surr: 4-Bromofluorobenzene	3.88		4.000		97.0	70	130				

Sample ID: **2407255-001AREP** SampType: **REP** Units: **ppbv** Prep Date: **7/18/2024** RunNo: **93084**
Client ID: **SV-1-240716** Batch ID: **R93084** Analysis Date: **7/18/2024** SeqNo: **1943449**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200						0		25	
1,1-Dichloroethene (DCE)	ND	0.0400						0		25	
trans-1,2-Dichloroethene	ND	0.200						0		25	
cis-1,2-Dichloroethene	ND	0.200						0		25	
Trichloroethene (TCE)	ND	0.0400						0		25	
Tetrachloroethene (PCE)	19.0	2.00						18.98	0.358	25	
Surr: 4-Bromofluorobenzene	16.2		16.00		102	70	130		0		

Work Order: 2407255
CLIENT: GeoEngineers
Project: Bucklin Place

QC SUMMARY REPORT

Volatile Organic Compounds by EPA TO-15

Sample ID: **2407255-001AREP** SampType: **REP** Units: **ppbv** Prep Date: **7/18/2024** RunNo: **93084**
Client ID: **SV-1-240716** Batch ID: **R93084** Analysis Date: **7/18/2024** SeqNo: **1943449**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample Log-In Check List

Client Name:	GEI	Work Order Number:	2407255
Logged by:	Morgan Wilson	Date Received:	7/16/2024 4:28:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☐	No ☐	NA ☑
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☐	No ☐	NA ☑
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Air Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
An Atlantic Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Date: 7/16/24 Page: of:

Laboratory Project No (Internal): 2407255

Project Name: Bucklin Place

Special Remarks:

Client: GeoEngineers

Project No: 22828-001-05

Address: 17425 NE Union Hill Rd #250

Location: Silverdale, WA

City, State, Zip: Redmond, WA 98052

Collected by: M. Ysaguirre

Telephone:

Reports to (PM): Ian Young

Disposal: Samples will be disposed of one week after report is submitted unless otherwise requested. ☐ Retain volume (specify above) ☐ Return to client

Fax:

Email (PM): Iyoung@geoengineers.com

	Sample Name	Canister / Flow Reg Serial #	Sample Type (Matrix) *	Container Type **	Expected Fill Time / Flow Rate	Sample Start Date & Time	Field Initial Sample Pressure (" Hg)	Sample End Date & Time	Field Final Sample Pressure (" Hg)	Analysis: Full list VOCs TO15	Select VOCs TO15 ***	APH TO15	Siloxanes TO15	Sulfur TO15	Major Gases 3C	Helium 3C Mod	VOCs 8260	GX/BTEX 8260		Comments
1	SV-1-240716	11018 / FC-1 or SC-CHAM-XX-150	Soil Gas	1L	200mL/min	7/16/24 1009	-30	7/16/24 1019	-5		X					X				Short list VOCs TO-15: PCE, TCE, cis-/trans-DCE, 1,1-DCE, & vinyl chloride
2	AA-1-240716	10374 / 14379	Ambient Air	1L	1hr	7/16/24 1023	-30	7/16/24 1039	-5		X									
3																				
4																				
5																				

* Matrix Codes: AA = Ambient Air OA = Outdoor Air IA = Indoor Air S = Subslab / Soil Gas SVE = SVE RNG = Biogas / Landfill / Digester

** Container Codes: BV = 1 Liter Bottle Vac 6L = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag

*** Select one: ☐ BTEXN & APH ☐ PCE & Breakdown ☐ Other, specify in comments

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Turn-Around Time:
☐ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day ☐ specify

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Michael Ysaguirre	7/16/24 1620	x	Griffin Gipson	7/16/24 4:28
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		

Air Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
An Atlantic Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Date: 7/16/24 Page: of:

Laboratory Project No (Internal): 2407255

Project Name: Bucklin Place

Special Remarks:
Update per MY
LR 7/17/24

Client: GeoEngineers

Project No: 22828-001-05

Address: 17425 NE Union Hill Rd #250

Location: Silverdale, WA

City, State, Zip: Redmond, WA 98052

Collected by: M. Ysaguirre

Telephone:

Reports to (PM): Ian Young

Disposal: Samples will be disposed of one week after report is submitted unless otherwise requested. ☐ Retain volume (specify above) ☐ Return to client

Fax:

Email (PM): Iyoung@geoengineers.com

	Sample Name	Canister / Flow Reg Serial #	Sample Type (Matrix) *	Container Type **	Expected Fill Time / Flow Rate	Sample Start Date & Time	Field Initial Sample Pressure (" Hg)	Sample End Date & Time	Field Final Sample Pressure (" Hg)	Analysis: Full list VOCs TO15	Select VOCs TO15 ***	APH TO15	Siloxanes TO15	Sulfur TO15	Major Gases 3C	Helium 3C Mod	VOCs 8260	GX/BTEX 8260		Comments
1	SV-1-240716	11018 / FC-1 or SC-CHAM-XT-150	Soil Gas	1L	200mL/min	7/16/24 1009	-30	7/16/24 1019	-5		X					X				Short list VOCs TO-15: PCE, TCE, cis-/trans-DCE, 1,1-DCE, & vinyl chloride
2	AA-1-240716	10374 / 14379	Ambient Air	1L	1hr	7/16/24 ~~1023~~ 9:23AM	-30	7/16/24 1039	-5		X									
3																				
4																				
5																				

* Matrix Codes: AA = Ambient Air OA = Outdoor Air IA = Indoor Air S = Subslab / Soil Gas SVE = SVE RNG = Biogas / Landfill / Digester

** Container Codes: BV = 1 Liter Bottle Vac 6L = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag

*** Select one: ☐ BTEXN & APH ☐ PCE & Breakdown ☐ Other, specify in comments

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Turn-Around Time:
☐ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day specify

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Michael Ysaguirre	7/16/24 1620	x	Griffin Gipson	7/16/24 4:28
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		

Appendix D
Report Limitations and Guidelines for Use

Appendix D
Report Limitations and Guidelines for Use[1]

This Appendix provides information to help you manage your risks with respect to the use of this report.

READ THESE PROVISIONS CLOSELY

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

ENVIRONMENTAL SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES, PERSONS AND PROJECTS

This report has been prepared for the exclusive use of Bucklin Place, LLC. This report may be provided to regulatory agencies for review. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except Bucklin Place, LLC should rely on this environmental report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

THIS ENVIRONMENTAL REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

This report has been prepared for excavation activities at the Ultra Custom Cleaners in Silverdale, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- Not prepared for you,
- Not prepared for your project,
- Not prepared for the specific site explored, or
- Completed before important project changes were made.

[1] Developed based on material provided by GBA, GeoProfessional Business Association; www.geoprofessional.org.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

RELIANCE CONDITIONS FOR THIRD PARTIES

Our report was prepared for the exclusive use of Bucklin Place, LLC. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with Bucklin Place, LLC and generally accepted environmental practices in this area at the time this report was prepared.

ENVIRONMENTAL REGULATIONS ARE ALWAYS EVOLVING

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

UNCERTAINTY MAY REMAIN AFTER COMPLETION OF REMEDIAL ACTIVITIES

Remediation activity completed in a portion of a site cannot wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from widely-spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

SUBSURFACE CONDITIONS CAN CHANGE

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

SOIL AND GROUNDWATER END USE

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on site in instances that we were not aware of or could not control.

MOST ENVIRONMENTAL FINDINGS ARE PROFESSIONAL OPINIONS

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

GEOTECHNICAL, GEOLOGIC AND GEOENVIRONMENTAL REPORTS SHOULD NOT BE INTERCHANGED

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

BIOLOGICAL POLLUTANTS

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria and viruses, and/or any of their byproducts.

If Bucklin Place, LLC desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.