SITE ASSESSMENT REPORT

Property Identification:

LUST ID 36-97-4028
DAVE'S SHELL
645 N ADAMS STREET
MCMINNVILLE, OREGON 97128

Prepared For:

DANE WILLIAMS
AND
OREGON DEQ

Property Owner:

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1.0 INTRODUCTION

Alpha Environmental Services (Alpha) conducted a Supplemental Environmental Site Assessment at the property located at 645 N Adams Street, McMinnville, Oregon (the Property). The purpose of the investigation was to determine if there are impacts from the previously removed waste oil tank and evaluate possible vapor intrusion concerns with the former fuel tanks. This report summarizes the current scope of work, field investigation activities and laboratory analyses, and provides conclusions and recommendations.

1.1 Site Description

The Property consists of one Tax Lot R4420AD 00600 (149761) located in Township 4 South, Range 4 West, Section 20, Willamette Meridian. The parcel has a total of 0.26-acres. The western center of the property is occupied by the building, the eastern center by the former fuel canopy, the southern corner by a shed and storage area and the remainder of the site is used for parking. The site is currently occupied by Dave's Auto Service.

The vicinity of the Property can generally be described as commercial and residential. Current usage of the adjoining properties includes: north – NW 7th Street with commercial development beyond; south – apartment building; east – N Adams Street with commercial development beyond; and west – apartment building.

1.2 Current Zoning and Future Land Use

The zoning is General Commercial by the City of McMinnville. Currently the property is occupied by Dave's Auto Service. The future use of the property is anticipated to remain commercial.

1.3 Site Drainage

The majority of the developed areas of the property are covered with the building or impervious asphalt. Stormwater appears to sheet flow across the asphalt and collects in a catch basins directed to the municipal system or flows to the adjoining streets.

1.4 Sewer Connections

The property connected to the sanitary sewer and is serviced by the City of McMinnville.

1.5 Geology and Groundwater

The Property is situated within the Willamette Valley, which is a portion of the Puget Trough physiographic sub province of the Pacific Mountain System geological province of the State of Oregon. This area consists of fluviolacustrine sedimentary deposits. Underlying the area is unconsolidated silt, sand, gravel and clay. Generally, this specific area consists of fine-grained material, but gravel layers may also be found there to some extent. (Walker, et al., 1991).

According to the Water Resources Department (WRD) online database and groundwater monitoring wells in the area, static groundwater appears to be located approximately 15 to 30 feet below surface grade (bsg). The flow of groundwater typically imitates the surface topography and ordinarily flows from higher to lower elevations. The near surface flow may be influenced by stratigraphy, water bodies, rainfall, underground utilities and other subsurface features. Based on the regional topography, groundwater is anticipated to flow to the southwest.

The nearest major surface water in the vicinity of the Property is the Cozine Creek, located approximately 0.16 miles southwest of the Property.

2.0 PREVIOUS INVESTIGATIONS

2.1 Tank Decommissioning

The following has been reproduced from the Matrix Report completed by PetroCon Services, Inc. on October 7, 1997.

> Dave's Auto Service contracted with PetroCon Services, Inc. (PCS) to decommission by removal four underground storage tanks located at 645 N. Adams, McMinnville, Oregon.
>
> The tanks were decommissioned according to procedures set forth by existing state and federal laws and procedures established by the American Petroleum Institute "Removal and Disposal of Used Underground Storage Tanks" and "Cleaning Petroleum Storage Tanks" (API #1604 and API #2015).
>
> PCS and PCS site managers who perform UST removals are licensed by the Oregon Department of Environmental Quality (DEQ) to perform UST services in the State of Oregon.
>
> Prior to removal, each tank was triple rinsed using a vacuum truck supplied by Oil Rerefining Company Inc. The rinsate was then transported to their disposal facility for recycling.
>
> Carbon dioxide (crushed dry ice) was introduced into the four tanks through the fill pipe to purge the oxygen from the tank, eliminating the flammable atmosphere. The atmosphere within the tanks was monitored with an Industrial Scientific combustible gas/oxygen meter, model #CMX271. The oxygen level was measured and determined to pose no fire or explosion hazard (less than 5% oxygen). Prior to each use of the oxygen meter, the meter was field calibrated to Insure accurate readings.
>
> Native soils consisted of silty sands, poorly graded gravels and clay.
>
> Following the decommissioning of the underground storage tanks, visual and olfactory observations for petroleum contamination were made. There was some evidence of contamination noted below the tanks. Two soil samples were obtained at this time.
>
> The following sampling methodologies were employed in the collection of the soil samples:
>
> Discrete soil samples were collected from material which had been excavated with the bucket of the backhoe after contaminated soil removal. Surface soils in the backhoe bucket were scraped away to allow access to predominantly undisturbed soils from the areas samples. An eight ounce, clear glass sample jar, which had been previously cleaned to EPA specifications, was pressed into the undisturbed soils of the backhoe bucket. The jar was removed from the bucket and the soils were compressed into the jar until it was full to limit headspace and subsequent loss of volatiles.
>
> A new pair of disposable polyethylene gloves was worn by the sampler when each sample was collected. When the jar was filled completely, the threads and upper lip were cleaned of excess soil, and a teflon-line cap was screwed firmly into place. Sample jars were placed in a cooler at or below four degrees Celsius, and transported to Amtest Laboratories in Beaverton, Oregon, for analyses, Chain-of-Custody documentation was maintained throughout the sampling process.
>
> These two soil samples were submitted to Amtest Laboratories on February 14, 1997. Sample #213-1 tested positive for gasoline by method TPH-HCID. Sample #213-1 and #213-2 were then tested using method TPH-G. Sample #213-2 tested positive at 94 ppm; sample #213-1 tested positive at 2,020 ppm.
>
> A sample was submitted to USA Waste Services, Inc. for approval for soil disposal. On June 6, 1997 a total of 62.88 tons of contaminated soil was excavated, transported, and delivered for treatment at

Riverbend Landfill in McMinnville, Oregon. Following removal of the contaminated soils, samples were collected from the walls and floor of the excavation.

Sample #1-W tested positive at 27 ppm.; sample #2-M tested positive at 152 ppm.; sample #3-E tested positive 77 ppm. The rating for this site fell under Matrix Level II clean up requirements. Due to the elevated reading of sample #2-M and the inaccessibility to excavate the soils, Dave's Auto Service chose to close the remaining pocket of contamination in place. On July 18, 1997, a hand auger was used to obtain three soil samples from areas surrounding the pocket of contamination. These samples all tested non-detect by method TPH-G. Based on these results, it is estimated that the pocket of contamination does not exceed two cubic yards.

A matrix checklist and score sheet was filled out for this site. A site map is also attached showing sample locations as well as excavation limits. Based on the conclusions in this report, no further action is recommended for this site. The observations, interpretations, conclusions, and recommendations presented in this report are professional opinions based upon the data described in this report.

Conclusions are intended only for the purpose, site location, and project indicated and are specific to current site conditions. The conclusions are based on the assumption that site conditions do not deviate from those observed during this study and as described in this report.

Changes in the conditions of the subject property or neighboring properties, or changes in applicable standards which may occur with the passage of time, whether they result from natural processes, legislation, or the broadening of knowledge may affect the conclusion offered in this report. Accordingly, the observations and findings presented in this report may be invalidated by changes outside of our control.

According to DEQ records, on October 1, 1999, the 500-gallon waste oil tank was decommissioned by removal. Minor contamination was noted due to overfill and the material was temporarily stockpiled onsite. Samples were reportedly collected; however, the DEQ was not provided the results.

3.0 PURPOSE AND SCOPE

3.1 Purpose

The purpose of the current investigation was to determine if impacts are present from the former waste oil tank and evaluate possible vapor intrusion concerns with the former fuel tanks. Alpha relied upon the previous reports, maps and communication with the DEQ to develop the scope of work for this investigation. The general scope of work for this investigation consisted of the following activities:

- Contacting One Call Oregon for public locates to mark utility services entering the Property.
- A utility survey to determine the location of subsurface features prior to drilling.
- The advancement of three borings using a hand-driven direct-push GeoProbe sampler at the location of the former waste oil tank.
- The collection of soil from borings for visual observation and laboratory analysis.
- The collection of three soil vapor samples from near the former UST pit.
- The presentation of results for the investigation including findings, conclusions and recommendations.

3.2 Accepted Scope of Services

The assessment was performed according to the agreed-upon scope of services between Alpha and Dave Williams. The assessment was completed in general accordance with the authorized scope of work listed above.

4.0 FIELD INVESTIGATION AND SAMPLING PROCEDURES

4.1 Preliminary Field Work

Prior to sampling, Alpha filed a public utility locate request with One Call Oregon and utilities were marked by respective utility companies where they entered the Property.

Alpha subcontracted Pacific NW Locating to perform a utility survey of the Property in preparation for the drilling.

4.2 Boring Location Rationale

The boring locations were chosen based on the location of the former waste oil tank and the soil vapor sample locations were approved by the DEQ.

4.3 Drilling and Sampling Activities

Soil Samples

Field investigation and drilling activities were conducted on May 2, 2023 under the supervision of Mr. Jim Cooper, senior geologist for Alpha. The subsurface sampling consisted of the advancement of three shallow soil borings advanced by Alpha using a hand driven GeoProbe sampler. The borings were advanced to approximately 8 feet below surface grade (bsg).

Soil samples were collected using a single-use thin-walled polyethylene tube inserted inside a stainless-steel sampling tube. In between each boring, the push probe sampler, the outer tubing and inner sampling rods were decontaminated.

Soil lithology was observed and logged by slicing the disposable sample tube along the longitudinal axis. Soil samples were field screened for visual and olfactory signs of petroleum contamination along with headspace vapor screening for volatile organic compounds using a hand-held photoionization detection (PID) meter. Representative samples were placed in Ziplock storage back and left to equalize for approximately 5 to 10 minutes before readings were taken.

The soil samples were placed in laboratory-provided glass jars, capped with Teflon®-lined lids and placed in a cooler on ice. The soil samples were transported to Alpha's designated sample refrigerator until picked up by an Apex Laboratory courier.

Samples were handled under chain-of-custody protocol and analyzed by test method NWTPH-Gx (quantifies gasoline range petroleum hydrocarbons) and NWTPH-Dx (quantifies diesel and heavy oil range petroleum hydrocarbons).

Vapor Samples

Alpha completed the vapor sampling with the post run tubing method utilizing Geoprobe direct push rods to install the vapor point. The method to install vapor points involved advancing a 1.25-inch probe rod equipped with a Post Run Tubing (PRT) holder and expendable point to the target depth of approximately five feet. Once at the target depth, the expendable point on the bottom of the point holder was "popped" from the end of the rods, and the probe rods slowly removed from the boring until the bottom of the PRT holder was at a depth of approximately four feet above the base of the boring.

A leak test (performed with a vacuum pump and gauge) was performed on the connection between the tubing, the Summa canister and the purging valve to ensure that the tubing sample train and its connections in the system was airtight. At that point, a stainless steel PRT adapter equipped with Teflon tubing was lowered inside the rods and reverse-threaded into place on the PRT holder. A hydrated bentonite seal was placed around the connection between the rods and the surface to prevent interaction between the soil gas/soil vapor and the ambient air. The system was allowed to equalize for approximately 20-30 minutes. Prior to collecting

the sample, approximately two to three volumes of air were purged using a graduated syringe and a 3-way valve on the sampling train.

A 1-liter Summa canister was then be connected to the sampling train using disposable Teflon® tubing. A leak check was performed to determine if leaks were present during the test using isopropyl alcohol. The leak check compound was applied at each location where ambient air could enter the sampling system or where cross contamination could occur. These areas included: the base of the soil probe at the ground surface, the connection from the soil-gas probe to the sampling line, and any connections within the sampling line. The leak detection towels will be left in place for the entire duration of the sample collection. The Summa canister was equipped with flow regulators set to approximately 200 ml/minute.

The samples were shipped in the laboratory-provided protective packaging under chain-of-custody protocol to Pace Analytical Laboratory. The soil-gas samples were analyzed for RBDM VOCs and TPH by the TO-15 method.

4.4 Sampling Details

Identification	Purpose	Type	Drilling Depth	Sampled Media	Analysis
S1	Site Assessment	Direct-push	8’	Soil	NWTPH-Gx & Dx
S2	Site Assessment	Direct-push	8’	Soil	NWTPH-Gx & Dx
S3	Site Assessment	Direct-push	8’	Soil	NWTPH-Gx & Dx
S1 (Duplicate)	Site Assessment	Direct-push	8’	Soil	NWTPH-Gx & Dx
SG1	Site Assessment	Direct-push PRT	5’	Vapor	VOCs & TPH
SG2	Site Assessment	Direct-push PRT	5’	Vapor	VOCs & TPH
SG3	Site Assessment	Direct-push PRT	5’	Vapor	VOCs & TPH

4.5 Selection of Soil Samples for Chemical Analyses

Soil samples from select borings were collected from the depth interval with the greatest contamination, highest PID readings or based on field observations.

4.6 Boring Abandonment

After samples were collected, the borings were abandoned by filling with bentonite chips in accordance with the Oregon Water Resources Department (WRD) requirements.

5.0 QUALITY ASSURANCE & QUALITY CONTROL

For the project, all data used for closure purposes will comply with the DEQ's Quality Assurance Project Plan (QAPP) for the Underground Storage Tanks Programs, DEQ02-LQ-0002-QAPP, Version 3.1, dated June 20, 2016.

5.1 Field Equipment & Decontamination

Disposable field equipment used for this project include nitrile gloves, plastic spoons, drill core liners, Terra Core™ samplers and Ziplock bags. Reusable field equipment included a soil cutting knife.

Soil samples were field screened for gasoline/VOCs using a MiniRAE 2000 hand-held PID meter. The meter was calibrated by Life Safety on April 7, 2023. Prior to using in the field, the meter was calibrated with a fresh air check and subsequently checked using 100 ppm isobutylene. The meter readings were within 2% of the calibration standard.

Decontamination of Alpha supplied reusable field equipment included manual removal of particles, wash with Alconox solution, rinse with tap water, wash with Alconox solution and rinse with distilled water. In between each boring, the driller rinsed all sample tubing, cutting bits, etc. with a hot water pressure rinse.

5.2 Field Screening

The soil samples from the investigation were obtained directly from direct-push disposable liners. The liners were split open along the longitudinal axis and laid open for visual observation. Any obviously impacted soil was placed directly into both laboratory-provided jars and a Ziplock bag using new disposable nitrile gloves. The material in the Ziplock was checked using a PID meter. A new set of gloves was donned after any sample handling and between each interval of sample collected.

5.3 Sample Collection

Samples from the investigation were collected directly from direct-push disposable liners. For samples collected for gasoline/ VOC analysis, the sample of the soil was collected following EPA Method 5035A using a Terra Core™ sampling tool and placed in a pre-tared vial containing preservative with a septum-sealed screw cap. Once sealed, the sample was not exposed to the atmosphere until analysis was conducted. The sample collection process was completed in the least amount of time in order to minimize the loss of VOCs due to volatilization.

5.4 Sample Identification

Soil sample containers were labeled with the project name and number, the time of sampling, sampler's initials, sample designation and date. The chain of custody was completed, placed in a Ziplock bag and put to the cooler.

5.5 Field Duplicates

Field duplicates were collected at a rate of 1 per 20 analytical samples for the soil matrix sampled. The field duplicate for the soil sample was collected from the former waste oil tank. For non-VOCs, the sample was homogenized and then the field investigation and duplicate sample alternately collected. For gasoline/VOCs, two separate field plugs were taken side by side from the undisturbed sample, with as little time between samples as possible.

5.6 Field Duplicate Evaluation

The duplicate Relative Percent Difference (RPD) is a measure of the overall precision of the sampling and analytical program. Both the initial sample and duplicate sample had Non-Detect results for gasoline, diesel and heavy oil, so the RPD could not be calculated.

5.7 Sample Transport

The samples were packed in reusable ice with an appropriate temperature blank(s), which consisted of a 100-ml polyethylene bottle filled with clean water.

Containers were placed upright in the cooler and cushioned by bubble wrap. Ice packets were placed around and on top of the sample containers. The samples were transported by the geologist to Alpha's personnel protected sample refrigerator. A courier from Apex picked the samples up directly from Alpha's designated sample refrigerator and delivered the samples to Apex Laboratories in Tigard, Oregon. Delivery occurred within 24 hours of sampling and samples were kept refrigerated and/ or on ice during storage and transport.

Samples were handled under chain-of-custody protocol in which the custody form was signed and dated by the Alpha personnel. Upon pickup of the samples, personnel at Apex Laboratories examined and recorded the condition of the sample containers, signed the custody form, and transferred the samples to their coolers. A completed copy of the chain-of-custody form is included at the end of the laboratory analytical report.

The vapor samples were shipped in the laboratory-provided protective packaging under chain-of-custody protocol to Pace Analytical Laboratory.

6.0 SAMPLE ANALYTICAL RESULTS

6.1 Sample Results Evaluation

In order to evaluate the current and reasonably likely future risk to human health and the environment, Alpha compared the data from the current investigation to the Oregon Department of Environmental Quality (DEQ) risk-based decision making (RBDM) guidelines.

The RBDM process involves investigating potential sources of the contaminants and the environmental media in which they are contained (e.g., soil or groundwater), receptors (who could potentially be exposed to contaminants), and the exposure pathway (how a receptor might come in contact with contaminants [e.g., inhalation, ingestion or dermal contact]). If any of these elements is missing, the pathway is considered incomplete. This was accomplished by constructing a Conceptual Site Model (CSM).

Using the parameters listed above, the laboratory detected concentrations and/or the reporting limits were compared to DEQ risk-based concentrations (RBCs). An RBC is the concentration of a hazardous substance in soil, water, air or sediment that is determined to be protective of human health and the environment under specified exposure conditions.

The completed Conceptual Site Model (CSM) summary is presented in Section 7.3.

Based on the CSM and since contamination exists on the site, the following receptors and pathways are applicable for the site.

Potential Receptors:

Occupational & Residential

Selected Pathways for Receptor:

- Volatilization to outdoor air from soil
- Vapor intrusion into buildings from soil

Construction and Excavation Worker

Selected Pathways for Receptor:

- Dermal Contact, Ingestion & Inhalation from soils greater than 3 feet below surface
- Groundwater in excavation

6.2 Soil Findings

Petroleum Results

The analytical results indicate that gasoline, diesel and heavy oil were not detected in any of the samples from the former waste oil tank location, at or above the laboratory reporting limit.

A summary of the results for the soil analysis is presented in Table 1. Laboratory analytical reports are included as Appendix B.

Table 1 – Soil Sample Analytical Results – Petroleum

Sample No.	Location of Sample	Sample Depth in Feet	Petroleum		
			Gasoline	Diesel	Heavy Oil
			mg/kg	mg/kg	mg/kg
S1	West end of waste oil tank pit	7	*ND < 6.96*	*ND < 25.3*	*ND < 50.6*
S2	Center of waste oil tank pit	7	*ND < 7.17*	*ND < 25.8*	*ND < 51.6*
S3	East end of waste oil tank pit	7	*ND < 7.65*	*ND < 25.4*	*ND < 50.9*
S1 (Duplicate)	West end of waste oil tank pit	7	*ND < 7.33*	*ND < 25.9*	*ND < 51.9*
DEQ Risk-Based Screening Levels					
Volatilization to Outdoor Air (Occupational)			69,000	> Max	> Max
Volatilization to Outdoor Air (Residential)			5,900	> Max	> Max
Vapor Intrusion into Buildings (Occupational)			> Max	> Max	> Max
Vapor Intrusion into Buildings (Residential			94	> Max	> Max
Direct Contact (Construction Worker)			9,700	4,600	> Max

ND = Analyte Not Detected at or above laboratory reporting limit (See Laboratory Report) All reporting limits are below the RBCs.

> Max = The substance is deemed by the DEQ not to pose a risk in this scenario.

mg/kg = milligram per kilogram or parts per million (ppm)

6.3 Soil Vapor Findings

The laboratory analytical results indicate that several VOCs and Total Petroleum Hydrocarbons (TPH) were detected in samples. The detected concentrations were compared to the DEQ RBCs and the concentrations are below the Vapor Intrusion into Buildings RBCs for an occupational and residential receptors. A summary of the results for the soil vapor analysis is presented in Table 1. Only analytes that have a corresponding RBC are in the table below. The complete laboratory analytical report is included as Appendix B.

Table 2 – Soil Vapor Sample Analytical Results

	SG1	***SG2***	***SG3***	***RBC_{SV} (Occupational)***	***RBC_{SV} (Residential)***
Depth bsg (feet)	5	5	5	-	
	Result µg/m3	**Result** µg/m3	**Result** µg/m3	µg/m3	µg/m3
Benzene	**0.674**	**0.511**	**7.86**	52	12
Chloromethane	**1.77**	**1.56**	**1.63**	3,100	1,300
Ethylbenzene	**0.529**	**0.481**	**32.4**	160	37
Trichlorofluoromethane	**1.37**	**1.42**	*ND*	NITI	NITI
2-Propanol	**14.3**	**18.9**	**26.5**	Leak Detection Compound	Leak Detection Compound
Tetrachloroethylene (PCE)	**0.754**	*ND*	*ND*	1,600	360
Toluene	*ND*	**3.92**	**56.1**	730,000	170,000
Trichloroethylene (TCE)	**0.761**	**3.53**	*ND*	100	16
1,2,4-Trimethybenzene	**0.761**	**0.400**	**42.0**	8,800	2,100
1,3,5-Trimethybenzene	*ND*	*ND*	**16.3**	8,800	2,100
Xylenes	**2.55**	**2.34**	**185.7**	15,000	3,500
TPH	*ND*	*ND*	**2,420**	40,000	10,000

ND = Analyte Not Detected at or above laboratory reporting limit (See Appendix A for reporting limits). All reporting limits are below the RBCs.
µg/m3 = microgram per meter cubed
RBCsv = Soil-Gas risk-based concentration for Vapor Intrusion into Buildings – Occupational & Residential Pathway. Only anyltes with RBCs are listed above, for a complete list, see Appendix B.

7.0 RISK-BASED EVALUATIONS

7.1 Conceptual Site Models

A conceptual site model (CSM) describes the known or suspected sources of contamination, considers how the contaminants are likely to migrate (pathways), and identifies who is likely to be affected by the contaminants (receptors). In order for risk to be present at the site, a source must be present, a pathway must be complete and a receptor must be present.

The risk is evaluated for each contaminant of interest (COI) in order to determine whether risk is present at a site. Current conditions as well as anticipated future conditions are considered when developing the CSM.

7.2 Expected Future Use of the Site

The future use of the subject property, currently zoned general commercial by City of McMinnville, is not likely to change for the foreseeable future. There is residential zoning adjacent to the west of the property.

7.3 Conceptual Site Model Summary

Potentially Exposed Population	Exposure Route, Medium and Exposure Point	Pathway Selected?	Potential Risk from This Pathway?	Reason for Selection or Exclusion
CURRENT AND FUTURE LAND USE: **OCCUPATIONAL;** IMPACTED MEDIUM: **SOIL**				
Adults (Occupational)	Soil Ingestion, Dermal Contact or Inhalation from on-site soils above 3 feet (RBC_{ss})	No	**No**	The pathway is incomplete because contaminated soils are not within 3 feet of the surface.
Adults (Construction & Excavation Workers)	Soil Ingestion, Dermal Contact or Inhalation from on-site soils below 3 feet (RBC_{ss}).	Yes	**No**	The pathway is complete; however, no petroleum was detected.
Adults (Occupational & Residential)	Volatilization to Outdoor Air (RBC_{so})	Yes	**No**	The pathway is complete; however, the detect vapor concentrations are below the RBCs.
Adults (Occupational & Residential)	Vapor Intrusion into Buildings (RBC_{si})	Yes	**No**	The pathway is complete; however, the detect vapor concentrations are below the RBCs.
Adults (Occupational)	Soil Leaching to Groundwater (RBC_{sw})	No	**No**	The pathway is not complete since drinking water is supplied by the municipal system.

7.4 Ecological Receptors

Surface water or sediments were not encountered at the site. The nearest surface water is Cozine Creek, located approximately 0.16 miles southwest from the Property. No ecological risk is anticipated as it can be demonstrated that:

- Contaminated soils are only present at a depth greater than three feet below the ground surface.
- Surface water has not been affected, nor is it likely to be affected in the future as a result of the release.
- Groundwater does not appear to be impacted and if it was, is not reasonably likely to discharge to surface waters or otherwise reach the surface in a manner that might result in contact with ecological receptors.

8.0 FINDINGS, CONCLUSIONS, RISK EVALUATION AND RECOMMENDATIONS

Alpha has conducted a Site Assessment Investigation at the Property located at 645 N Adams Street, McMinnville, Oregon. The assessment was performed in accordance with the agreed-upon scope of services. Based on the evaluation of the current findings of this assessment, the following findings, conclusions and recommendations have been developed.

8.1 Findings

Former Waste Oil Tank

- According to DEQ records, the waste oil tank was decommissioned by removal in 1999.
- Soil sample analytical results indicate that gasoline, diesel and heavy oil were not detected in any of the samples from the former waste oil tank location, at or above the laboratory reporting limit.

Vapor Sampling for Former USTs

- According to DEQ records, the four fuel tanks were decommissioned by removal in 1997.
- After soil removal, low concentrations of petroleum were detected in confirmation samples. The owner opted to leave impacted soil in place, and it is estimated to be less than two cubic yards.
- The laboratory analytical results indicate that low concentrations of several VOCs and TPH were detected in vapor samples collected around the former tank pit. The detected concentrations were compared to the DEQ RBCs and the concentrations are below the Vapor Intrusion into Buildings RBCs for an occupational and residential receptors.

8.2 Conclusions

Former Waste Oil Tank

- The tank has been properly decommissioned in accordance with DEQ regulations and soil samples confirm the tank did not leak.

Vapor Sampling for Former USTs

- The vapor sampling results confirm that remaining impacts are below the DEQ RBCs.

8.3 Risk Evaluation

Based on the findings and conclusions discussed above, there is not a potential vapor intrusion risk from the remaining impacted soil that could pose an adverse risk to site occupants or neighboring residents.

8.4 Recommendations

Alpha does not recommend further evaluation of the Property at this time. Based on the analytical results and comparison with current DEQ RBCs, it is our opinion that the site is a candidate for an NFA determination by the DEQ.

Basis for NFA recommendation:

- The waste oil tank has been properly decommissioned and no impacts were encountered in the former area.
- The USTs have been properly decommissioned and soil vapors to not pose a risk to site occupants or neighboring residential properties.

9.0 LIMITATIONS & USE RELIANCE

The investigation considered the past activities and operations conducted on the Property and adjacent properties to identify the potential for releases to have occurred or other reasons to conclude that there is a presence or likely presence of substances relevant to the objectives of the investigation. Alpha makes every attempt to fulfill the user's objectives which dictate the thresholds of concern or confidence desired in the conclusions to be derived from this assessment.

There is a possibility that, even with the proper application of these methodologies, there may exist at the Property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. The methodologies of this assessment are not intended to produce all inclusive or comprehensive results, but rather to provide the client and interested parties with an indication of subsurface environmental conditions in specifically targeted areas of the property at this time.

9.1 Limitations and Exceptions

In preparing the investigation sampling plans and reports, Alpha has relied upon certain information and representations contained in the historical documents provided to Alpha and the verbal statements of other consultants, field data (soil/groundwater) and additional information provided to Alpha. Therefore, this report is limited to the conclusions drawn based on information obtained and assumptions made during the review process and analytical results for this investigation.

Alpha relied upon the information and did not attempt to independently re-verify its accuracy or completeness, except as discussed. Potential inconsistencies or omissions of a nature that might call into question the validity of the information were not detected. To the extent that the conclusions in this report are based in whole or in part on such information, they are contingent on its validity. Alpha assumes no responsibility for any consequence arising from any information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available to Alpha.

Within the limitations of the agreed-upon scope of services or the time and budgeting restraints imposed by the client, this investigation has been undertaken and performed in a professional manner, in accordance with generally accepted engineering practices, using the degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No representations or warranties are made concerning the nature or quality of the air, soil, water, building materials, or any other substance on the Property (including the potential for any substance to migrate into a structure), other than the immediate subject sampling areas as stated in this report. The investigation is a screening and is not intended to be a definitive investigation of existing or potential adverse environmental impacts; thus, it is possible that such an impact exists on the Property or adjacent properties, but was not identified during the investigation. The investigation is not intended to satisfy the level of inquiry that may be necessary to support remedial solutions for a site. Conclusions in this report represent professional judgments based upon the information evaluated during the course of the assessment, not scientific certainties.

9.2 Use Reliance

This report has been prepared for the express use of Dave Williams, his representatives and the Oregon DEQ. The client and/or Users of this report and its legal counsel may release all or parts of this report to third parties; however, in using this report, such third parties agree that they shall have no legal recourse against Alpha or its parent or subsidiaries, and shall indemnify and defend Alpha from and against all claims arising out of or in conjunction with such use or reliance. This report does not constitute legal advice. In addition, Alpha makes no determination or recommendations regarding the decision to purchase, sell, or provide financing for this Property.

10.0 SIGNATURES OF ENVIROMENTAL PROFESSIONALS

Alpha is providing the client with the results of our investigation for the Property located at 645 N Adams Street, McMinnville, Oregon. Alpha completed the investigation of the Property in a professional manner according with generally accepted engineering practices, using the degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances.

The environmental consultants listed below exercised professional judgment based on knowledge of the manner in which releases commonly occur in connection with commercial or industrial activities and operations similar to those currently or historically conducted on or adjacent to the Property.

The consultants also possess applicable education, professional training, licensing and relevant experience to conduct the environmental investigation and other activities in accordance with the relevant standards and to develop opinions and conclusions regarding target analytes in the environmental media.

Alpha appreciates the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact our office at 503-292-5346.

Jim Cooper, R.G.
Senior Geologist

REGISTERED PROFESSIONAL
OREGON
JIM L. COOPER
G2203
GEOLOGIST

Phillip Brewer
Principal

ALPHA ENVIRONMENTAL SERVICES, INC.

11.0 REFERENCES

American Society for Testing and Materials, *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*, ASTM Designation: E 1903-19

Oregon Department of Environmental Quality, *File Review Documents*, accessed via Public Records Request, 2023.

State of Oregon Water Resources Department, Agency Resources, *Online Well Log Search and Groundwater Level Data*, accessed via website.

United States Geological Survey, *7.5 Minute Topographic Quadrangle of McMinnville, OR*, 1986.

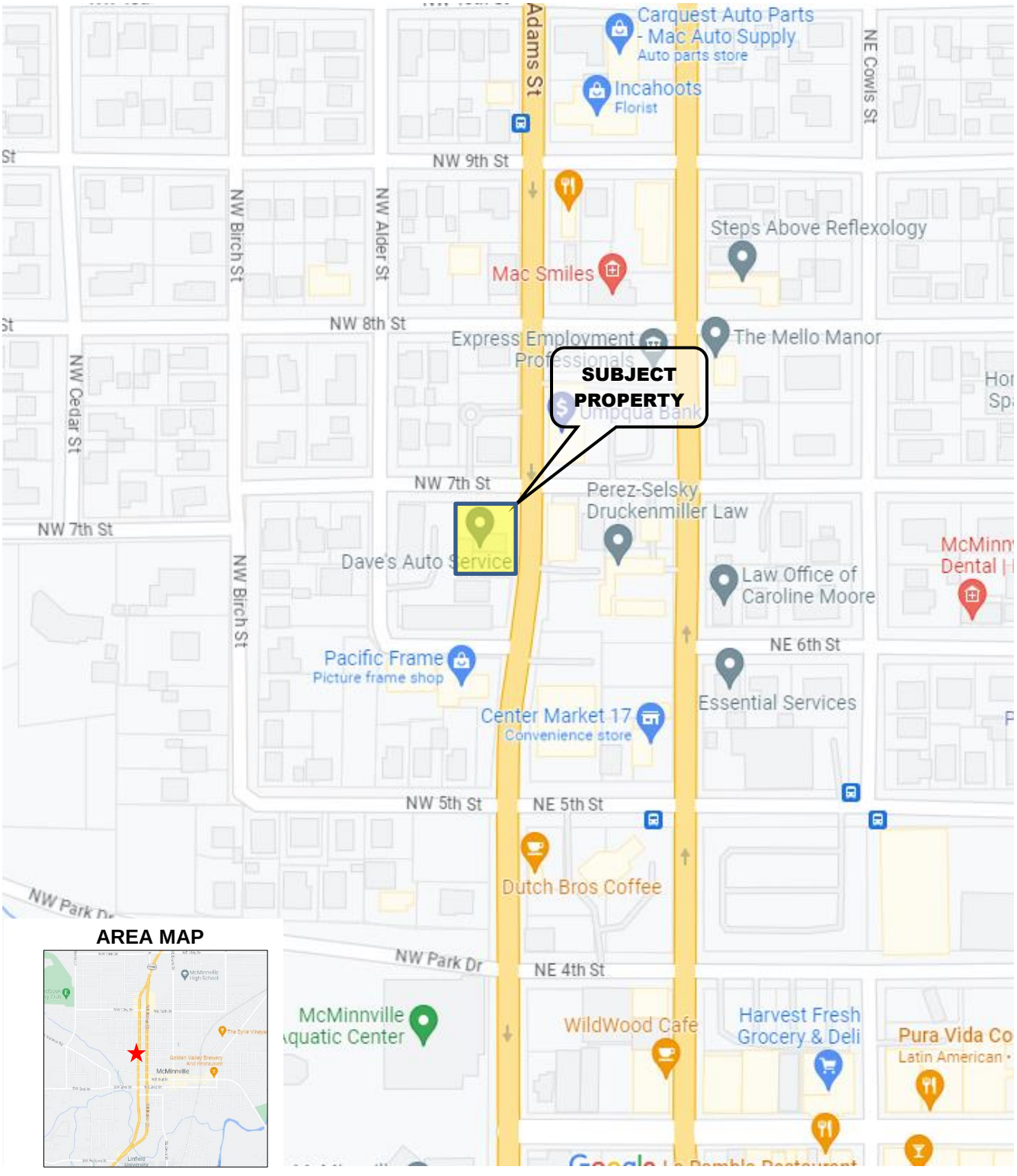
Walker, 1991. *Geological Map of Oregon*, United States Geological Survey, Walker, G.W. and MacLeod, N.S., 1991.

12.0 ACRONYMS

ASTM	American Society for Testing and Materials
bsg	below surface grade
CSM	Conceptual Site Model
DEQ	Department of Environmental Quality (Oregon)
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
HCID	Hydrocarbon Identification
ND	Not Detected at or Above Laboratory Reporting Limits
PID	Photoionization Detector
PVC	Poly Vinyl Chloride
ppb	parts per billion
ppm	parts per million
RBCs	Risk-based Concentrations
RBDM	Risk-based Decision Making
RCRA	Resource Conservation & Recovery Act
RECs	Recognized Environmental Conditions
TPH	Total Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds
WRD	Water Resources Department (Oregon)

FIGURES:

VICINITY MAP
TOPOGRAPHIC MAP
SITE OVERVIEW & VAPOR SAMPLING MAP
WASTE OIL TANK SAMPLING MAP



SOURCE: Google Maps

DRAWING NOT TO SCALE

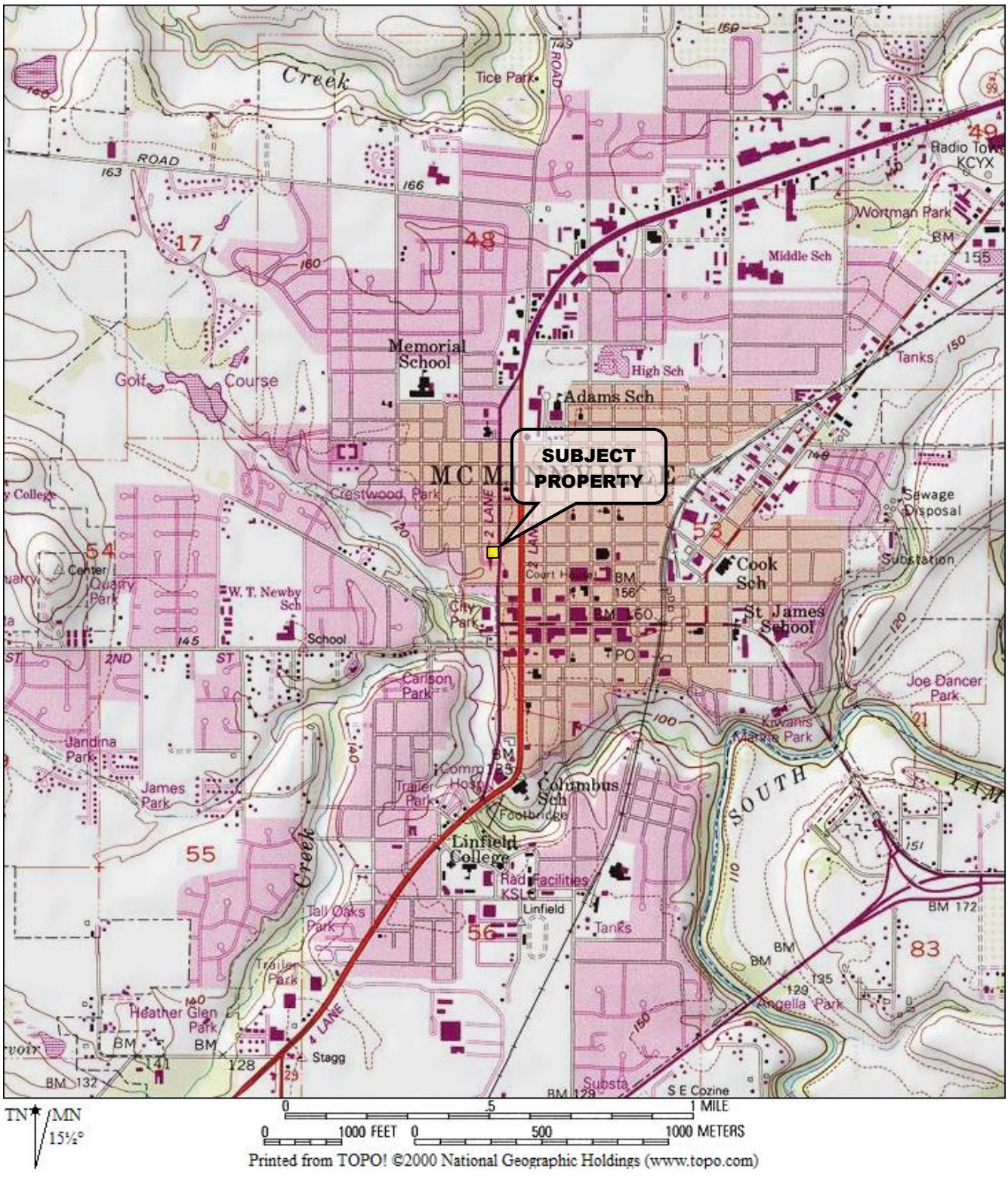
Alpha environmental
11080 SW ALLEN BLVD, STE 100
BEAVERTON, OREGON 97005
(503) 292-5346

FIGURE 1: SITE VICINITY MAP

645 N ADAMS STREET
NCMINNVILLE, OREGON 97128

PROJECT NO: 23-53144

N



SOURCE: USGS 7.5 Minute Topographic Map – McMinnville, OR Quadrangle, 1992

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BEAVERTON, OREGON 97005
(503) 292-5346

FIGURE 2: TOPOGRAPHIC MAP

645 N ADAMS STREET
MCMINNVILLE, OREGON 97128

PROJECT NO: 23-53144

N

LEGEND

- PROPERTY BOUNDARY
- FORMER WASTE OIL TANK LOCATION
- FORMER UST LOCATIONS
- SOIL VAPOR SAMPLING LOCATIONS

FIGURE 3: SITE OVERVIEW & VAPOR SAMPLING MAP

645 N ADAMS STREET
MCMINNVILLE, OREGON 97128

NOTES

MAP SYMBOLS DENOTE LOCATIONS AND MAY NOT BE TO SCALE

GOOGLE MAPS BASE IMAGE MAY BE SKEWED BY SATELLITE POSITION

PROJECT NO: 23-53144

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11080 SW ALLEN BVLD, STE 100
BEAVERTON, OREGON 97005
(503) 292-5346

LEGEND

PROPERTY BOUNDARY

SOIL SAMPLE LOCATIONS
- Samples were analyzed by NWTPH-Dx & Gx & all results ND

FIGURE 4: WASTE OIL TANK SAMPLING MAP

645 N ADAMS STREET
MCMINNVILLE, OREGON 97128

NOTES

MAP SYMBOLS DENOTE LOCATIONS AND MAY NOT BE TO SCALE

GOOGLE MAPS BASE IMAGE MAY BE SKEWED BY SATELLITE POSITION: IMAGE DATE 2021

PROJECT NO: 23-53144

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11080 SW ALLEN BVLD, STE 100
BEAVERTON, OREGON 97005
(503) 292-5346

APPENDIX A:

SITE PHOTOGRAPHS

SITE PHOTOGRAPHS

PHOTOGRAPH NO. 1 – View of Building.

PHOTOGRAPH NO. 2 – Location of former waste oil tank.

PHOTOGRAPH NO. 3 – Sampling waste oil tank location with GeoProbe sampler and jack hammer.

PHOTOGRAPH NO. 4 – Location of SG1 west of former UST pit.

PHOTOGRAPH NO. 5 – Location of SG2 near corner of building and southwest of former UST pit.

PHOTOGRAPH NO. 6 – Location of SG3 between van and truck and east of former UST pit.

APPENDIX B:

ANALYTICAL LABORATORY REPORTS

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Tuesday, May 9, 2023

Jim Cooper
Alpha Environmental
11080 SW Allen Blvd, Suite 100
Beaverton, OR 97005

RE: A3E0935 - Default- Env Dept. - 645 N Adams St 23-53144

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A3E0935, which was received by the laboratory on 5/2/2023 at 5:35:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: cobrien@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Default Cooler	2.8 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Cameron O'Brien, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23-53144 S1	A3E0935-01	Soil	05/02/23 09:50	05/02/23 17:35
23-53144 S2	A3E0935-02	Soil	05/02/23 10:31	05/02/23 17:35
23-53144 S3	A3E0935-03	Soil	05/02/23 11:05	05/02/23 17:35
23-53144 S1 DUPLICATE	A3E0935-04	Soil	05/02/23 09:50	05/02/23 17:35

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
23-53144 S1 (A3E0935-01)				**Matrix: Soil**		**Batch: 23E0325**		
Diesel	ND	---	25.3	mg/kg dry	1	05/09/23 01:08	NWTPH-Dx	
Oil	ND	---	50.6	mg/kg dry	1	05/09/23 01:08	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 99 %*		*Limits: 50-150 %*	*1*	*05/09/23 01:08*	*NWTPH-Dx*	
23-53144 S2 (A3E0935-02)				**Matrix: Soil**		**Batch: 23E0325**		
Diesel	ND	---	25.8	mg/kg dry	1	05/09/23 01:29	NWTPH-Dx	
Oil	ND	---	51.6	mg/kg dry	1	05/09/23 01:29	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 199 %*		*Limits: 50-150 %*	*1*	*05/09/23 01:29*	*NWTPH-Dx*	*S-06*
23-53144 S3 (A3E0935-03)				**Matrix: Soil**		**Batch: 23E0325**		
Diesel	ND	---	25.4	mg/kg dry	1	05/09/23 01:49	NWTPH-Dx	
Oil	ND	---	50.9	mg/kg dry	1	05/09/23 01:49	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 99 %*		*Limits: 50-150 %*	*1*	*05/09/23 01:49*	*NWTPH-Dx*	
23-53144 S1 DUPLICATE (A3E0935-04)				**Matrix: Soil**		**Batch: 23E0325**		
Diesel	ND	---	25.9	mg/kg dry	1	05/09/23 02:10	NWTPH-Dx	
Oil	ND	---	51.9	mg/kg dry	1	05/09/23 02:10	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 77 %*		*Limits: 50-150 %*	*1*	*05/09/23 02:10*	*NWTPH-Dx*	

Apex Laboratories

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
23-53144 S1 (A3E0935-01)				**Matrix: Soil**		**Batch: 23E0199**		
Gasoline Range Organics	ND	---	6.96	mg/kg dry	50	05/04/23 16:16	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*97 %*	*Limits: 50-150 %*	*1*	*05/04/23 16:16*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*	*1*	*05/04/23 16:16*	*NWTPH-Gx (MS)*	
23-53144 S2 (A3E0935-02)				**Matrix: Soil**		**Batch: 23E0199**		
Gasoline Range Organics	ND	---	7.17	mg/kg dry	50	05/04/23 16:42	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*97 %*	*Limits: 50-150 %*	*1*	*05/04/23 16:42*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*05/04/23 16:42*	*NWTPH-Gx (MS)*	
23-53144 S3 (A3E0935-03)				**Matrix: Soil**		**Batch: 23E0199**		
Gasoline Range Organics	ND	---	7.65	mg/kg dry	50	05/04/23 17:08	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*100 %*	*Limits: 50-150 %*	*1*	*05/04/23 17:08*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*107 %*	*50-150 %*	*1*	*05/04/23 17:08*	*NWTPH-Gx (MS)*	
23-53144 S1 DUPLICATE (A3E0935-04)				**Matrix: Soil**		**Batch: 23E0199**		
Gasoline Range Organics	ND	---	7.33	mg/kg dry	50	05/04/23 17:34	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*95 %*	*Limits: 50-150 %*	*1*	*05/04/23 17:34*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*	*1*	*05/04/23 17:34*	*NWTPH-Gx (MS)*	

Apex Laboratories

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
23-53144 S1 (A3E0935-01)				**Matrix: Soil**		**Batch: 23E0198**		
% Solids	**75.0**	---	1.00	%	1	05/05/23 05:16	EPA 8000D	
23-53144 S2 (A3E0935-02)				**Matrix: Soil**		**Batch: 23E0198**		
% Solids	**75.0**	---	1.00	%	1	05/05/23 05:16	EPA 8000D	
23-53144 S3 (A3E0935-03)				**Matrix: Soil**		**Batch: 23E0198**		
% Solids	**74.4**	---	1.00	%	1	05/05/23 05:16	EPA 8000D	
23-53144 S1 DUPLICATE (A3E0935-04)				**Matrix: Soil**		**Batch: 23E0198**		
% Solids	**75.7**	---	1.00	%	1	05/05/23 05:16	EPA 8000D	

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Cameron O'Brien, Project Manager

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ORELAP ID: **OR100062**

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E0325 - EPA 3546 (Fuels)									Soil			
Blank (23E0325-BLK1)		Prepared: 05/08/23 09:56		Analyzed: 05/08/23 21:44								
NWTPH-Dx												
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (23E0325-BS1)		Prepared: 05/08/23 09:56		Analyzed: 05/08/23 22:04								
NWTPH-Dx												
Diesel	127	---	20.0	mg/kg wet	1	125	---	101	38 - 132%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 106 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
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ORELAP ID: **OR100062**

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E0199 - EPA 5035A									Soil			
Blank (23E0199-BLK1)		Prepared: 05/04/23 10:53		Analyzed: 05/04/23 14:32								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	5.00	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 92 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*103 %*		*50-150 %*			*"*					
LCS (23E0199-BS2)		Prepared: 05/04/23 10:53		Analyzed: 05/04/23 13:51								
NWTPH-Gx (MS)												
Gasoline Range Organics	23.2	---	5.00	mg/kg wet	50	25.0	---	93	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 94 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*102 %*		*50-150 %*			*"*					

Apex Laboratories

Cameron O'Brien, Project Manager

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E0198 - Total Solids (Dry Weight) - 2022												**Soil**

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23E0325							
A3E0935-01	Soil	NWTPH-Dx	05/02/23 09:50	05/08/23 09:56	10.55g/5mL	10g/5mL	0.95
A3E0935-02	Soil	NWTPH-Dx	05/02/23 10:31	05/08/23 09:56	10.34g/5mL	10g/5mL	0.97
A3E0935-03	Soil	NWTPH-Dx	05/02/23 11:05	05/08/23 09:56	10.57g/5mL	10g/5mL	0.95
A3E0935-04	Soil	NWTPH-Dx	05/02/23 09:50	05/08/23 09:56	10.19g/5mL	10g/5mL	0.98

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23E0199							
A3E0935-01	Soil	NWTPH-Gx (MS)	05/02/23 09:50	05/02/23 09:50	6.3g/5mL	5g/5mL	0.79
A3E0935-02	Soil	NWTPH-Gx (MS)	05/02/23 10:31	05/02/23 10:31	6.05g/5mL	5g/5mL	0.83
A3E0935-03	Soil	NWTPH-Gx (MS)	05/02/23 11:05	05/02/23 11:05	5.66g/5mL	5g/5mL	0.88
A3E0935-04	Soil	NWTPH-Gx (MS)	05/02/23 09:50	05/02/23 09:50	5.77g/5mL	5g/5mL	0.87

Percent Dry Weight

Prep: Total Solids (Dry Weight) - 2022

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23E0198							
A3E0935-01	Soil	EPA 8000D	05/02/23 09:50	05/04/23 10:46			NA
A3E0935-02	Soil	EPA 8000D	05/02/23 10:31	05/04/23 10:46			NA
A3E0935-03	Soil	EPA 8000D	05/02/23 11:05	05/04/23 10:46			NA
A3E0935-04	Soil	EPA 8000D	05/02/23 09:50	05/04/23 10:46			NA

Apex Laboratories

Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: **OR100062**

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

S-06 Surrogate recovery is outside of established control limits.

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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ANALYTICAL REPORT

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation)
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Cameron O'Brien, Project Manager

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Apex Laboratories, LLC
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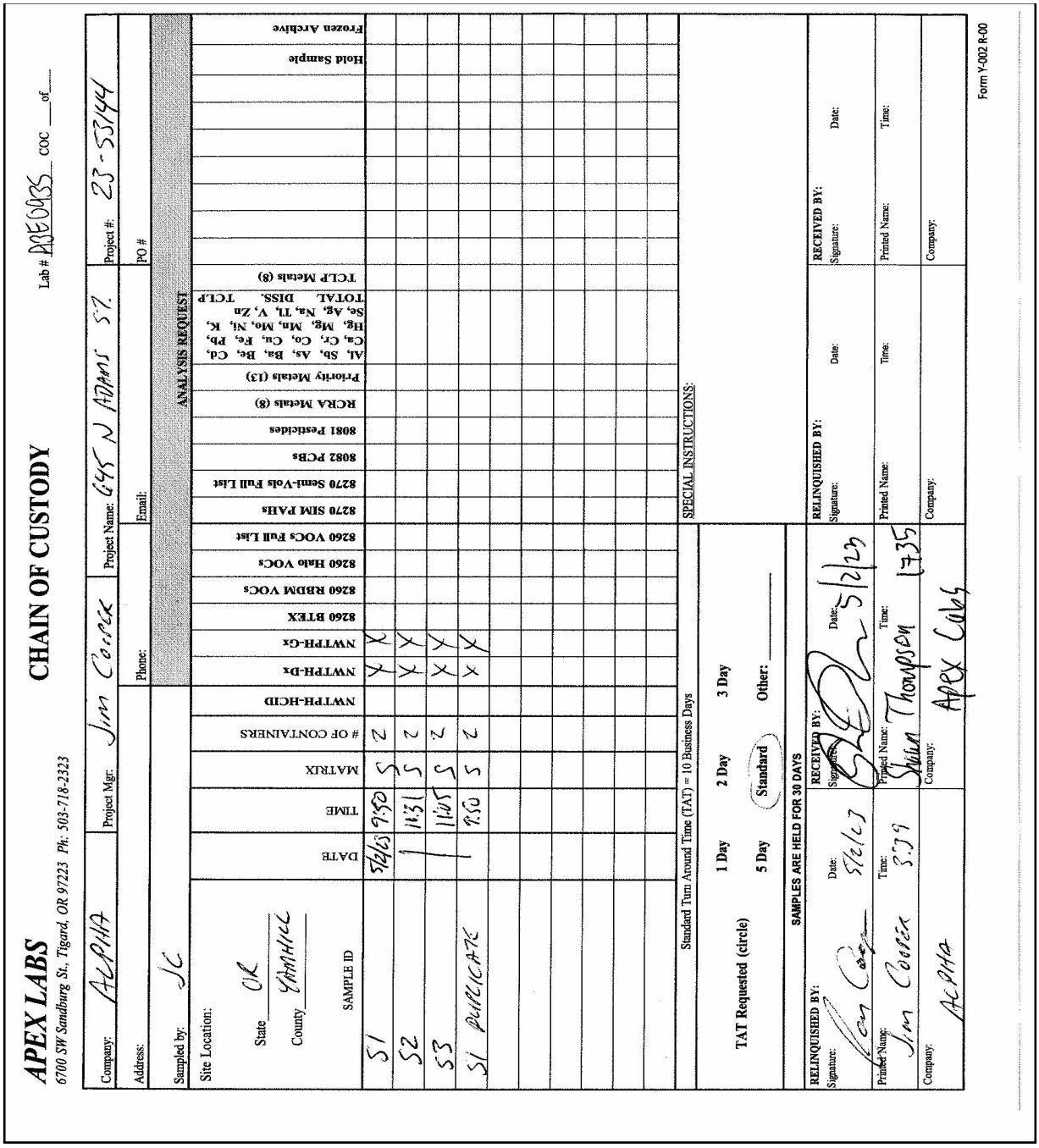
ANALYTICAL REPORT

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**



APEX LABS — 6700 SW Sandburg St., Tigard, OR 97223 PH: 503-718-2323

CHAIN OF CUSTODY — Lab # A3E0935 COC ___ of ___

Company: ALPHA | Project Mgr: Jim Cooper | Project Name: 645 N Adams St. | Project #: 23-53144

Address: | Phone: | Email: | PO #

Sampled by: JC

Site Location: State OR County Yamhill

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
S1	5/8/23	9:50	S	2		X	X														
S2		11:31	S	2		X	X														
S3		11:05	S	2		X	X														
S1 DUPLICATE		9:50	S	2		X	X														

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: ____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: 5/8/23 Time: 3:39 Printed Name: Jim Cooper Company: Alpha

RECEIVED BY: Signature: Date: 5/8/23 Time: 1735 Printed Name: Shilan Thompson Company: Apex Labs

RELINQUISHED BY: Signature: Date: Time: Printed Name: Company:

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Form Y-002 R-00

Apex Laboratories

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Alpha Environmental	Project: **Default- Env Dept.**	
11080 SW Allen Blvd, Suite 100	Project Number: **645 N Adams St 23-53144**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Jim Cooper**	**A3E0935 - 05 09 23 1307**

APEX LABS COOLER RECEIPT FORM

Client: ALPHA ENVIRONMENTAL Element WO#: A3E0935

Project/Project #: 645 N. ADAMS ST. 23-53144

Delivery Info:

Date/time received: 5/2/23 @ 1735 By: SAT

Delivered by: Apex X Client ESS FedEx UPS Radio Morgan SDS Evergreen Other

Cooler Inspection Date/time inspected: 5/2/23 @ 1800 By: SAT

Chain of Custody included? Yes X No

Signed/dated by client? Yes X No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.8						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Gel						
Condition (In/Out):	IN						

Cooler out of temp? (Y/(N)) Possible reason why:

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

Sample Inspection: Date/time inspected: 5/2/23 @ 18:12 By: AAW

All samples intact? Yes X No Comments:

Bottle labels/COCs agree? Yes X No Comments: No date/time on containers

COC/container discrepancies form initiated? Yes No X

Containers/volumes received appropriate for analysis? Yes X No Comments:

Do VOA vials have visible headspace? Yes No NA X

Comments

Water samples: pH checked: Yes No NA X pH appropriate? Yes No NA X

Comments:

Additional information:

Labeled by: AAW Witness: RMP Cooler Inspected by: AAW

Form Y-003 R-00

Apex Laboratories

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Cameron O'Brien, Project Manager

ANALYTICAL REPORT

May 16, 2023

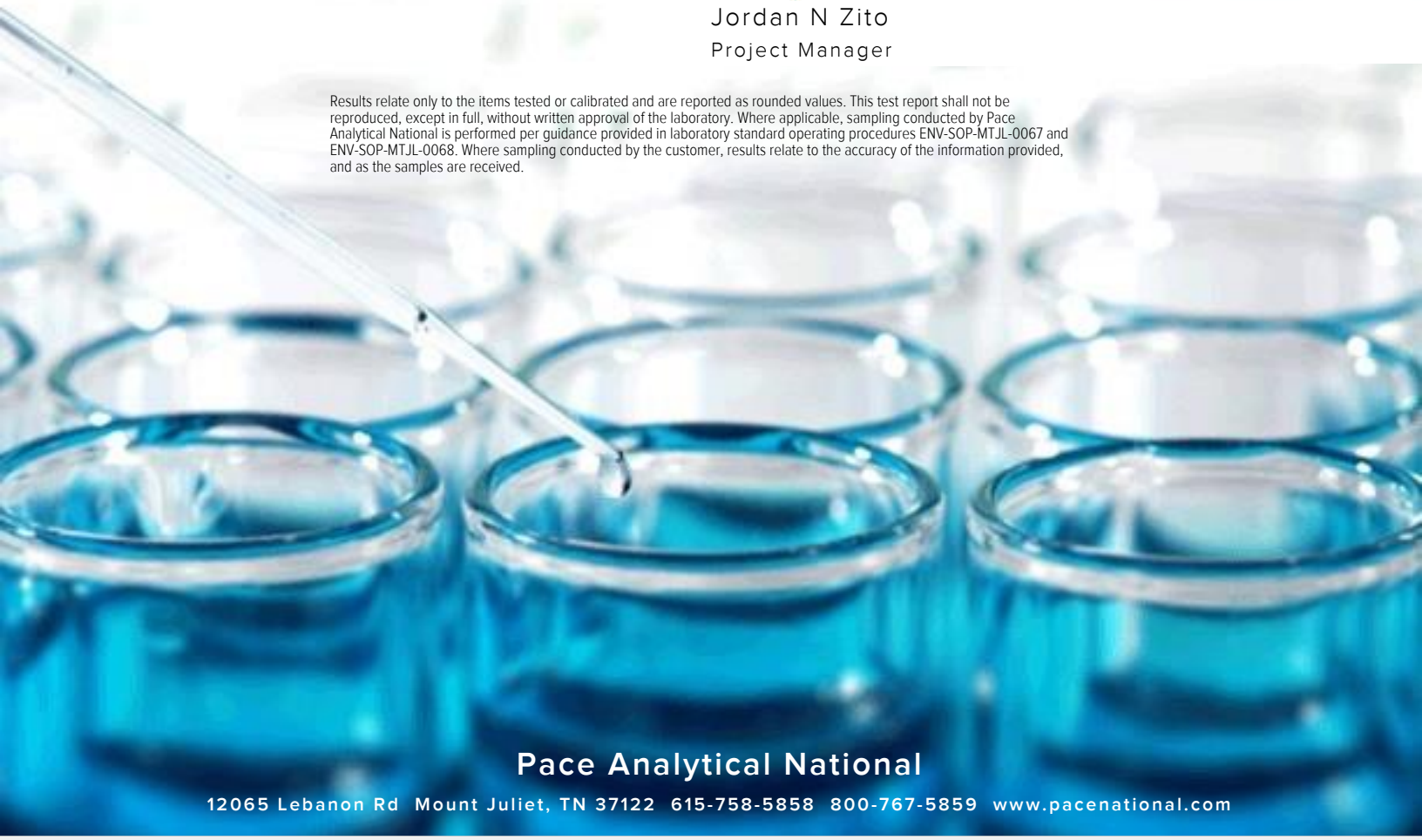
Alpha Environmental Services, Inc

Sample Delivery Group:	L1611920
Samples Received:	05/03/2023
Project Number:	23-53144
Description:	645 N Adams st

Report To: Jim Cooper
11080 SW Allen Blvd.
Suite 100
Beaverton, OR 97005

Entire Report Reviewed By:

Jordan N Zito
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

SAMPLE SUMMARY

SG1 L1611920-01 Air

Collected by: Jim Cooper
Collected date/time: 05/02/23 10:51
Received date/time: 05/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2058196	1	05/11/23 15:19	05/11/23 15:19	DAH	Mt. Juliet, TN

SG2 L1611920-02 Air

Collected by: Jim Cooper
Collected date/time: 05/02/23 11:38
Received date/time: 05/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2058196	1	05/11/23 16:08	05/11/23 16:08	DAH	Mt. Juliet, TN

SG3 L1611920-03 Air

Collected by: Jim Cooper
Collected date/time: 05/02/23 12:04
Received date/time: 05/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2058196	1	05/11/23 16:57	05/11/23 16:57	DAH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jordan N Zito
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL ug/m3	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
TPH (GC/MS) Low Fraction	8006-61-9	101	164	826	U		1	WG2058196
Acetone	67-64-1	58.10	1.39	2.97	17.1		1	WG2058196
Allyl chloride	107-05-1	76.53	0.357	0.626	U		1	WG2058196
Benzene	71-43-2	78.10	0.228	0.639	0.674		1	WG2058196
Benzyl Chloride	100-44-7	127	0.311	1.04	U		1	WG2058196
Bromodichloromethane	75-27-4	164	0.471	1.34	U		1	WG2058196
Bromoform	75-25-2	253	0.757	6.21	U		1	WG2058196
Bromomethane	74-83-9	94.90	0.381	0.776	U		1	WG2058196
1,3-Butadiene	106-99-0	54.10	0.230	4.43	U		1	WG2058196
Carbon disulfide	75-15-0	76.10	0.317	0.622	U		1	WG2058196
Carbon tetrachloride	56-23-5	154	0.461	1.26	0.465	J	1	WG2058196
Chlorobenzene	108-90-7	113	0.385	0.924	U		1	WG2058196
Chloroethane	75-00-3	64.50	0.263	0.528	U		1	WG2058196
Chloroform	67-66-3	119	0.349	0.973	U		1	WG2058196
Chloromethane	74-87-3	50.50	0.213	0.413	1.77		1	WG2058196
2-Chlorotoluene	95-49-8	126	0.427	1.03	U		1	WG2058196
Cyclohexane	110-82-7	84.20	0.259	0.689	1.73		1	WG2058196
Dibromochloromethane	124-48-1	208	0.618	1.70	U		1	WG2058196
1,2-Dibromoethane	106-93-4	188	0.554	1.54	U		1	WG2058196
1,2-Dichlorobenzene	95-50-1	147	0.770	1.20	U		1	WG2058196
1,3-Dichlorobenzene	541-73-1	147	1.09	1.20	U		1	WG2058196
1,4-Dichlorobenzene	106-46-7	147	0.335	1.20	U		1	WG2058196
1,2-Dichloroethane	107-06-2	99	0.283	0.810	U		1	WG2058196
1,1-Dichloroethane	75-34-3	98	0.290	0.802	U		1	WG2058196
1,1-Dichloroethene	75-35-4	96.90	0.302	0.793	U		1	WG2058196
cis-1,2-Dichloroethene	156-59-2	96.90	0.311	0.793	U		1	WG2058196
trans-1,2-Dichloroethene	156-60-5	96.90	0.267	0.793	U		1	WG2058196
1,2-Dichloropropane	78-87-5	113	0.351	0.924	U		1	WG2058196
cis-1,3-Dichloropropene	10061-01-5	111	0.313	0.908	U		1	WG2058196
trans-1,3-Dichloropropene	10061-02-6	111	0.331	0.908	U		1	WG2058196
1,4-Dioxane	123-91-1	88.10	0.300	0.721	U		1	WG2058196
Ethanol	64-17-5	46.10	0.500	4.71	38.3		1	WG2058196
Ethylbenzene	100-41-4	106	0.362	0.867	0.529	J	1	WG2058196
4-Ethyltoluene	622-96-8	120	0.384	0.982	0.496	J	1	WG2058196
Trichlorofluoromethane	75-69-4	137.40	0.460	1.12	1.37		1	WG2058196
Dichlorodifluoromethane	75-71-8	120.92	0.678	0.989	2.31		1	WG2058196
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.608	1.53	U		1	WG2058196
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.622	1.40	U		1	WG2058196
Heptane	142-82-5	100	0.425	0.818	1.06		1	WG2058196
Hexachloro-1,3-butadiene	87-68-3	261	1.12	6.73	U		1	WG2058196
n-Hexane	110-54-3	86.20	0.726	2.22	1.36	J	1	WG2058196
Isopropylbenzene	98-82-8	120.20	0.382	0.983	U		1	WG2058196
Methylene Chloride	75-09-2	84.90	0.340	0.694	1.31		1	WG2058196
Methyl Butyl Ketone	591-78-6	100	0.544	5.11	U		1	WG2058196
2-Butanone (MEK)	78-93-3	72.10	0.240	3.69	3.39	J	1	WG2058196
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.313	5.12	U		1	WG2058196
Methyl methacrylate	80-62-6	100.12	0.359	0.819	U		1	WG2058196
MTBE	1634-04-4	88.10	0.233	0.721	U		1	WG2058196
Naphthalene	91-20-3	128	1.83	3.30	U		1	WG2058196
2-Propanol	67-63-0	60.10	0.649	3.07	14.3		1	WG2058196
Propene	115-07-1	42.10	0.160	2.15	U		1	WG2058196
Styrene	100-42-5	104	0.335	0.851	U		1	WG2058196
1,1,2,2-Tetrachloroethane	79-34-5	168	0.511	1.37	U		1	WG2058196
Tetrachloroethylene	127-18-4	166	0.553	1.36	0.754	J	1	WG2058196
Tetrahydrofuran	109-99-9	72.10	0.216	0.590	U		1	WG2058196
Toluene	108-88-3	92.10	0.328	1.88	U		1	WG2058196

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL ug/m3	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	1.10	4.66	U		1	WG2058196
1,1,1-Trichloroethane	71-55-6	133	0.400	1.09	U		1	WG2058196
1,1,2-Trichloroethane	79-00-5	133	0.422	1.09	U		1	WG2058196
Trichloroethylene	79-01-6	131	0.364	1.07	0.761	J	1	WG2058196
1,2,4-Trimethylbenzene	95-63-6	120	0.375	0.982	0.515	J	1	WG2058196
1,3,5-Trimethylbenzene	108-67-8	120	0.382	0.982	U		1	WG2058196
2,2,4-Trimethylpentane	540-84-1	114.22	0.621	0.934	0.752	J	1	WG2058196
Vinyl chloride	75-01-4	62.50	0.243	0.511	U		1	WG2058196
Vinyl Bromide	593-60-2	106.95	0.373	0.875	U		1	WG2058196
Vinyl acetate	108-05-4	86.10	0.408	0.704	U		1	WG2058196
m&p-Xylene	1330-20-7	106	0.585	1.73	1.78		1	WG2058196
o-Xylene	95-47-6	106	0.359	0.867	0.767	J	1	WG2058196
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*			*93.9*		*60.0-140*	WG2058196

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL ug/m3	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
TPH (GC/MS) Low Fraction	8006-61-9	101	164	826	U		1	WG2058196
Acetone	67-64-1	58.10	1.39	2.97	19.0		1	WG2058196
Allyl chloride	107-05-1	76.53	0.357	0.626	U		1	WG2058196
Benzene	71-43-2	78.10	0.228	0.639	0.511	J	1	WG2058196
Benzyl Chloride	100-44-7	127	0.311	1.04	U		1	WG2058196
Bromodichloromethane	75-27-4	164	0.471	1.34	U		1	WG2058196
Bromoform	75-25-2	253	0.757	6.21	U		1	WG2058196
Bromomethane	74-83-9	94.90	0.381	0.776	U		1	WG2058196
1,3-Butadiene	106-99-0	54.10	0.230	4.43	U		1	WG2058196
Carbon disulfide	75-15-0	76.10	0.317	0.622	U		1	WG2058196
Carbon tetrachloride	56-23-5	154	0.461	1.26	U		1	WG2058196
Chlorobenzene	108-90-7	113	0.385	0.924	U		1	WG2058196
Chloroethane	75-00-3	64.50	0.263	0.528	U		1	WG2058196
Chloroform	67-66-3	119	0.349	0.973	U		1	WG2058196
Chloromethane	74-87-3	50.50	0.213	0.413	1.56		1	WG2058196
2-Chlorotoluene	95-49-8	126	0.427	1.03	U		1	WG2058196
Cyclohexane	110-82-7	84.20	0.259	0.689	1.50		1	WG2058196
Dibromochloromethane	124-48-1	208	0.618	1.70	U		1	WG2058196
1,2-Dibromoethane	106-93-4	188	0.554	1.54	U		1	WG2058196
1,2-Dichlorobenzene	95-50-1	147	0.770	1.20	U		1	WG2058196
1,3-Dichlorobenzene	541-73-1	147	1.09	1.20	U		1	WG2058196
1,4-Dichlorobenzene	106-46-7	147	0.335	1.20	U		1	WG2058196
1,2-Dichloroethane	107-06-2	99	0.283	0.810	U		1	WG2058196
1,1-Dichloroethane	75-34-3	98	0.290	0.802	U		1	WG2058196
1,1-Dichloroethene	75-35-4	96.90	0.302	0.793	U		1	WG2058196
cis-1,2-Dichloroethene	156-59-2	96.90	0.311	0.793	U		1	WG2058196
trans-1,2-Dichloroethene	156-60-5	96.90	0.267	0.793	U		1	WG2058196
1,2-Dichloropropane	78-87-5	113	0.351	0.924	U		1	WG2058196
cis-1,3-Dichloropropene	10061-01-5	111	0.313	0.908	U		1	WG2058196
trans-1,3-Dichloropropene	10061-02-6	111	0.331	0.908	U		1	WG2058196
1,4-Dioxane	123-91-1	88.10	0.300	0.721	U		1	WG2058196
Ethanol	64-17-5	46.10	0.500	4.71	93.5		1	WG2058196
Ethylbenzene	100-41-4	106	0.362	0.867	0.481	J	1	WG2058196
4-Ethyltoluene	622-96-8	120	0.384	0.982	0.384	J	1	WG2058196
Trichlorofluoromethane	75-69-4	137.40	0.460	1.12	1.42		1	WG2058196
Dichlorodifluoromethane	75-71-8	120.92	0.678	0.989	2.27		1	WG2058196
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.608	1.53	0.774	J	1	WG2058196
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.622	1.40	U		1	WG2058196
Heptane	142-82-5	100	0.425	0.818	0.957		1	WG2058196
Hexachloro-1,3-butadiene	87-68-3	261	1.12	6.73	U		1	WG2058196
n-Hexane	110-54-3	86.20	0.726	2.22	1.33	J	1	WG2058196
Isopropylbenzene	98-82-8	120.20	0.382	0.983	U		1	WG2058196
Methylene Chloride	75-09-2	84.90	0.340	0.694	3.10		1	WG2058196
Methyl Butyl Ketone	591-78-6	100	0.544	5.11	U		1	WG2058196
2-Butanone (MEK)	78-93-3	72.10	0.240	3.69	3.16	J	1	WG2058196
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.313	5.12	U		1	WG2058196
Methyl methacrylate	80-62-6	100.12	0.359	0.819	U		1	WG2058196
MTBE	1634-04-4	88.10	0.233	0.721	U		1	WG2058196
Naphthalene	91-20-3	128	1.83	3.30	U		1	WG2058196
2-Propanol	67-63-0	60.10	0.649	3.07	18.9		1	WG2058196
Propene	115-07-1	42.10	0.160	2.15	U		1	WG2058196
Styrene	100-42-5	104	0.335	0.851	U		1	WG2058196
1,1,2,2-Tetrachloroethane	79-34-5	168	0.511	1.37	U		1	WG2058196
Tetrachloroethylene	127-18-4	166	0.553	1.36	U		1	WG2058196
Tetrahydrofuran	109-99-9	72.10	0.216	0.590	U		1	WG2058196
Toluene	108-88-3	92.10	0.328	1.88	3.92		1	WG2058196

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL ug/m3	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	1.10	4.66	U		1	WG2058196
1,1,1-Trichloroethane	71-55-6	133	0.400	1.09	U		1	WG2058196
1,1,2-Trichloroethane	79-00-5	133	0.422	1.09	U		1	WG2058196
Trichloroethylene	79-01-6	131	0.364	1.07	3.53		1	WG2058196
1,2,4-Trimethylbenzene	95-63-6	120	0.375	0.982	0.400	J	1	WG2058196
1,3,5-Trimethylbenzene	108-67-8	120	0.382	0.982	U		1	WG2058196
2,2,4-Trimethylpentane	540-84-1	114.22	0.621	0.934	U		1	WG2058196
Vinyl chloride	75-01-4	62.50	0.243	0.511	U		1	WG2058196
Vinyl Bromide	593-60-2	106.95	0.373	0.875	U		1	WG2058196
Vinyl acetate	108-05-4	86.10	0.408	0.704	U		1	WG2058196
m&p-Xylene	1330-20-7	106	0.585	1.73	1.47	J	1	WG2058196
o-Xylene	95-47-6	106	0.359	0.867	0.711	J	1	WG2058196
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*			*95.0*		*60.0-140*	WG2058196

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL ug/m3	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
TPH (GC/MS) Low Fraction	8006-61-9	101	164	826	2420		1	WG2058196
Acetone	67-64-1	58.10	1.39	2.97	141		1	WG2058196
Allyl chloride	107-05-1	76.53	0.357	0.626	U		1	WG2058196
Benzene	71-43-2	78.10	0.228	0.639	7.86		1	WG2058196
Benzyl Chloride	100-44-7	127	0.311	1.04	U		1	WG2058196
Bromodichloromethane	75-27-4	164	0.471	1.34	U		1	WG2058196
Bromoform	75-25-2	253	0.757	6.21	U		1	WG2058196
Bromomethane	74-83-9	94.90	0.381	0.776	U		1	WG2058196
1,3-Butadiene	106-99-0	54.10	0.230	4.43	14.7		1	WG2058196
Carbon disulfide	75-15-0	76.10	0.317	0.622	U		1	WG2058196
Carbon tetrachloride	56-23-5	154	0.461	1.26	U		1	WG2058196
Chlorobenzene	108-90-7	113	0.385	0.924	U		1	WG2058196
Chloroethane	75-00-3	64.50	0.263	0.528	U		1	WG2058196
Chloroform	67-66-3	119	0.349	0.973	U		1	WG2058196
Chloromethane	74-87-3	50.50	0.213	0.413	1.63		1	WG2058196
2-Chlorotoluene	95-49-8	126	0.427	1.03	U		1	WG2058196
Cyclohexane	110-82-7	84.20	0.259	0.689	20.5		1	WG2058196
Dibromochloromethane	124-48-1	208	0.618	1.70	U		1	WG2058196
1,2-Dibromoethane	106-93-4	188	0.554	1.54	U		1	WG2058196
1,2-Dichlorobenzene	95-50-1	147	0.770	1.20	U		1	WG2058196
1,3-Dichlorobenzene	541-73-1	147	1.09	1.20	U		1	WG2058196
1,4-Dichlorobenzene	106-46-7	147	0.335	1.20	U		1	WG2058196
1,2-Dichloroethane	107-06-2	99	0.283	0.810	U		1	WG2058196
1,1-Dichloroethane	75-34-3	98	0.290	0.802	U		1	WG2058196
1,1-Dichloroethene	75-35-4	96.90	0.302	0.793	U		1	WG2058196
cis-1,2-Dichloroethene	156-59-2	96.90	0.311	0.793	U		1	WG2058196
trans-1,2-Dichloroethene	156-60-5	96.90	0.267	0.793	U		1	WG2058196
1,2-Dichloropropane	78-87-5	113	0.351	0.924	U		1	WG2058196
cis-1,3-Dichloropropene	10061-01-5	111	0.313	0.908	U		1	WG2058196
trans-1,3-Dichloropropene	10061-02-6	111	0.331	0.908	U		1	WG2058196
1,4-Dioxane	123-91-1	88.10	0.300	0.721	U		1	WG2058196
Ethanol	64-17-5	46.10	0.500	4.71	66.0		1	WG2058196
Ethylbenzene	100-41-4	106	0.362	0.867	32.4		1	WG2058196
4-Ethyltoluene	622-96-8	120	0.384	0.982	43.5		1	WG2058196
Trichlorofluoromethane	75-69-4	137.40	0.460	1.12	U		1	WG2058196
Dichlorodifluoromethane	75-71-8	120.92	0.678	0.989	2.08		1	WG2058196
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.608	1.53	U		1	WG2058196
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.622	1.40	U		1	WG2058196
Heptane	142-82-5	100	0.425	0.818	25.2		1	WG2058196
Hexachloro-1,3-butadiene	87-68-3	261	1.12	6.73	U		1	WG2058196
n-Hexane	110-54-3	86.20	0.726	2.22	21.2		1	WG2058196
Isopropylbenzene	98-82-8	120.20	0.382	0.983	U		1	WG2058196
Methylene Chloride	75-09-2	84.90	0.340	0.694	U		1	WG2058196
Methyl Butyl Ketone	591-78-6	100	0.544	5.11	U		1	WG2058196
2-Butanone (MEK)	78-93-3	72.10	0.240	3.69	43.6		1	WG2058196
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.313	5.12	2.49	J	1	WG2058196
Methyl methacrylate	80-62-6	100.12	0.359	0.819	U		1	WG2058196
MTBE	1634-04-4	88.10	0.233	0.721	U		1	WG2058196
Naphthalene	91-20-3	128	1.83	3.30	U		1	WG2058196
2-Propanol	67-63-0	60.10	0.649	3.07	26.5		1	WG2058196
Propene	115-07-1	42.10	0.160	2.15	U		1	WG2058196
Styrene	100-42-5	104	0.335	0.851	U		1	WG2058196
1,1,2,2-Tetrachloroethane	79-34-5	168	0.511	1.37	U		1	WG2058196
Tetrachloroethylene	127-18-4	166	0.553	1.36	U		1	WG2058196
Tetrahydrofuran	109-99-9	72.10	0.216	0.590	96.7		1	WG2058196
Toluene	108-88-3	92.10	0.328	1.88	56.1		1	WG2058196

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL ug/m3	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	1.10	4.66	U		1	WG2058196
1,1,1-Trichloroethane	71-55-6	133	0.400	1.09	U		1	WG2058196
1,1,2-Trichloroethane	79-00-5	133	0.422	1.09	U		1	WG2058196
Trichloroethylene	79-01-6	131	0.364	1.07	U		1	WG2058196
1,2,4-Trimethylbenzene	95-63-6	120	0.375	0.982	42.0		1	WG2058196
1,3,5-Trimethylbenzene	108-67-8	120	0.382	0.982	16.3		1	WG2058196
2,2,4-Trimethylpentane	540-84-1	114.22	0.621	0.934	U		1	WG2058196
Vinyl chloride	75-01-4	62.50	0.243	0.511	U		1	WG2058196
Vinyl Bromide	593-60-2	106.95	0.373	0.875	U		1	WG2058196
Vinyl acetate	108-05-4	86.10	0.408	0.704	U		1	WG2058196
m&p-Xylene	1330-20-7	106	0.585	1.73	128		1	WG2058196
o-Xylene	95-47-6	106	0.359	0.867	57.7		1	WG2058196
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*			*95.8*		*60.0-140*	WG2058196

Method Blank (MB)

(MB) R3924461-3 05/11/23 10:37

Analyte	MB Result ug/m3	MB Qualifier	MB MDL ug/m3	MB RDL ug/m3
TPH (GC/MS) Low Fraction	U		164	826
Acetone	U		1.39	2.97
Allyl Chloride	U		0.357	0.626
Benzene	U		0.228	0.639
Benzyl Chloride	U		0.311	1.04
Bromodichloromethane	U		0.471	1.34
Bromoform	U		0.757	6.21
Bromomethane	U		0.381	0.776
1,3-Butadiene	U		0.230	4.43
Carbon disulfide	U		0.317	0.622
Carbon tetrachloride	U		0.461	1.26
Chlorobenzene	U		0.385	0.924
Chloroethane	U		0.263	0.528
Chloroform	U		0.349	0.973
Chloromethane	U		0.213	0.413
2-Chlorotoluene	U		0.427	1.03
Cyclohexane	U		0.259	0.689
Dibromochloromethane	U		0.618	1.70
1,2-Dibromoethane	U		0.554	1.54
1,2-Dichlorobenzene	U		0.770	1.20
1,3-Dichlorobenzene	U		1.09	1.20
1,4-Dichlorobenzene	U		0.335	1.20
1,2-Dichloroethane	U		0.283	0.810
1,1-Dichloroethane	U		0.290	0.802
1,1-Dichloroethene	U		0.302	0.793
cis-1,2-Dichloroethene	U		0.311	0.793
trans-1,2-Dichloroethene	U		0.267	0.793
1,2-Dichloropropane	U		0.351	0.924
cis-1,3-Dichloropropene	U		0.313	0.908
trans-1,3-Dichloropropene	U		0.331	0.908
1,4-Dioxane	U		0.300	0.721
Ethanol	0.613	J	0.500	4.71
Ethylbenzene	U		0.362	0.867
4-Ethyltoluene	U		0.384	0.982
Trichlorofluoromethane	U		0.460	1.12
Dichlorodifluoromethane	U		0.678	0.989
1,1,2-Trichlorotrifluoroethane	U		0.608	1.53
1,2-Dichlorotetrafluoroethane	U		0.622	1.40
Heptane	U		0.425	0.818
Hexachloro-1,3-butadiene	U		1.12	6.73

Method Blank (MB)

(MB) R3924461-3 05/11/23 10:37

Analyte	MB Result ug/m3	MB Qualifier	MB MDL ug/m3	MB RDL ug/m3
n-Hexane	U		0.726	2.22
Isopropylbenzene	U		0.382	0.983
Methylene Chloride	U		0.340	0.694
Methyl Butyl Ketone	U		0.544	5.11
2-Butanone (MEK)	U		0.240	3.69
4-Methyl-2-pentanone (MIBK)	U		0.313	5.12
Methyl Methacrylate	U		0.359	0.819
MTBE	U		0.233	0.721
Naphthalene	U		1.83	3.30
2-Propanol	U		0.649	3.07
Propene	0.267	J	0.160	2.15
Styrene	U		0.335	0.851
1,1,2,2-Tetrachloroethane	U		0.511	1.37
Tetrachloroethylene	U		0.553	1.36
Tetrahydrofuran	U		0.216	0.590
Toluene	U		0.328	1.88
1,2,4-Trichlorobenzene	U		1.10	4.66
1,1,1-Trichloroethane	U		0.400	1.09
1,1,2-Trichloroethane	U		0.422	1.09
Trichloroethylene	U		0.364	1.07
1,2,4-Trimethylbenzene	U		0.375	0.982
1,3,5-Trimethylbenzene	U		0.382	0.982
2,2,4-Trimethylpentane	U		0.621	0.934
Vinyl chloride	U		0.243	0.511
Vinyl Bromide	U		0.373	0.875
Vinyl acetate	U		0.408	0.704
m&p-Xylene	U		0.585	1.73
o-Xylene	U		0.359	0.867
(S) 1,4-Bromofluorobenzene	*93.0*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3924461-1 05/11/23 09:01 • (LCSD) R3924461-2 05/11/23 09:49

Analyte	Spike Amount ug/m3	LCS Result ug/m3	LCSD Result ug/m3	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/MS) Low Fraction	777	768	768	98.9	98.9	70.0-130			0.000	25
Acetone	8.91	9.53	9.67	107	109	70.0-130			1.49	25
Allyl Chloride	11.7	14.7	14.3	125	122	70.0-130			2.59	25
Benzene	12.0	12.7	13.0	106	108	70.0-130			2.24	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3924461-1 05/11/23 09:01 • (LCSD) R3924461-2 05/11/23 09:49

Analyte	Spike Amount ug/m3	LCS Result ug/m3	LCSD Result ug/m3	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzyl Chloride	19.5	20.0	19.9	103	102	70.0-152			0.519	25
Bromodichloromethane	25.2	26.4	26.8	105	106	70.0-130			1.26	25
Bromoform	38.8	43.5	43.0	112	111	70.0-130			0.957	25
Bromomethane	14.6	17.2	17.0	118	117	70.0-130			1.59	25
1,3-Butadiene	8.30	9.49	9.43	114	114	70.0-130			0.702	25
Carbon disulfide	11.7	12.3	12.2	105	105	70.0-130			0.254	25
Carbon tetrachloride	23.6	24.4	24.8	103	105	70.0-130			1.53	25
Chlorobenzene	17.3	18.8	19.3	108	111	70.0-130			2.91	25
Chloroethane	9.89	12.1	12.3	122	124	70.0-130			1.52	25
Chloroform	18.3	18.7	19.2	103	105	70.0-130			2.56	25
Chloromethane	7.75	8.16	8.18	105	106	70.0-130			0.253	25
2-Chlorotoluene	19.3	21.0	20.3	109	105	70.0-130			3.25	25
Cyclohexane	12.9	13.4	13.9	104	108	70.0-130			3.78	25
Dibromochloromethane	31.9	33.9	34.5	106	108	70.0-130			1.99	25
1,2-Dibromoethane	28.8	30.8	31.3	107	109	70.0-130			1.73	25
1,2-Dichlorobenzene	22.5	25.2	24.5	112	109	70.0-130			2.66	25
1,3-Dichlorobenzene	22.5	24.7	24.2	109	107	70.0-130			1.72	25
1,4-Dichlorobenzene	22.5	24.0	23.6	107	105	70.0-130			1.77	25
1,2-Dichloroethane	15.2	15.8	16.3	104	107	70.0-130			3.03	25
1,1-Dichloroethane	15.0	15.7	16.0	104	107	70.0-130			2.28	25
1,1-Dichloroethene	14.9	15.5	15.2	104	102	70.0-130			1.55	25
cis-1,2-Dichloroethene	14.9	15.3	15.7	103	105	70.0-130			2.05	25
trans-1,2-Dichloroethene	14.9	15.7	15.6	105	105	70.0-130			0.253	25
1,2-Dichloropropane	17.3	18.6	18.8	107	108	70.0-130			0.990	25
cis-1,3-Dichloropropene	17.0	18.3	18.4	108	108	70.0-130			0.494	25
trans-1,3-Dichloropropene	17.0	17.8	18.2	105	107	70.0-130			2.02	25
1,4-Dioxane	13.5	14.2	14.6	105	108	70.0-140			2.76	25
Ethanol	7.07	7.41	7.54	105	107	55.0-148			1.77	25
Ethylbenzene	16.3	18.6	18.8	114	115	70.0-130			1.16	25
4-Ethyltoluene	18.4	20.0	19.4	109	106	70.0-130			2.74	25
Trichlorofluoromethane	21.1	23.2	23.0	110	109	70.0-130			0.487	25
Dichlorodifluoromethane	18.5	15.1	14.7	81.3	79.2	64.0-139			2.66	25
1,1,2-Trichlorotrifluoroethane	28.7	29.9	29.9	104	104	70.0-130			0.000	25
1,2-Dichlorotetrafluoroethane	26.2	27.4	27.4	105	105	70.0-130			0.000	25
Heptane	15.3	15.7	16.2	103	106	70.0-130			3.07	25
Hexachloro-1,3-butadiene	40.0	45.0	45.0	113	113	70.0-151			0.000	25
n-Hexane	13.2	13.9	14.3	105	108	70.0-130			2.75	25
Isopropylbenzene	18.4	21.6	21.5	117	117	70.0-130			0.457	25
Methylene Chloride	13.0	13.7	13.9	105	107	70.0-130			1.51	25
Methyl Butyl Ketone	15.3	15.6	15.8	102	103	70.0-149			1.56	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3924461-1 05/11/23 09:01 • (LCSD) R3924461-2 05/11/23 09:49

Analyte	Spike Amount ug/m3	LCS Result ug/m3	LCSD Result ug/m3	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl Ethyl Ketone	11.1	11.5	11.7	104	106	70.0-130			2.03	25
4-Methyl-2-pentanone (MIBK)	15.4	16.3	16.2	106	106	70.0-139			0.504	25
Methyl Methacrylate	15.4	15.8	16.2	103	105	70.0-130			2.56	25
MTBE	13.5	14.4	14.4	106	107	70.0-130			0.500	25
Naphthalene	19.6	21.7	21.6	110	110	70.0-159			0.242	25
2-Propanol	9.22	10.0	10.2	109	110	70.0-139			1.22	25
Propene	6.46	6.54	6.73	101	104	64.0-144			2.85	25
Styrene	16.0	18.2	18.0	114	113	70.0-130			0.941	25
1,1,2,2-Tetrachloroethane	25.8	27.6	27.0	107	105	70.0-130			2.26	25
Tetrachloroethylene	25.5	28.5	29.0	112	114	70.0-130			1.65	25
Tetrahydrofuran	11.1	11.5	11.9	104	107	70.0-137			3.54	25
Toluene	14.1	15.3	15.1	109	107	70.0-130			1.24	25
1,2,4-Trichlorobenzene	27.8	31.5	31.5	113	113	70.0-160			0.000	25
1,1,1-Trichloroethane	20.4	20.7	21.4	101	105	70.0-130			3.36	25
1,1,2-Trichloroethane	20.4	22.8	22.3	112	109	70.0-130			2.17	25
Trichloroethylene	20.1	21.1	21.6	105	107	70.0-130			2.51	25
1,2,4-Trimethylbenzene	18.4	19.8	19.3	107	105	70.0-130			2.26	25
1,3,5-Trimethylbenzene	18.4	19.6	19.2	106	104	70.0-130			2.03	25
2,2,4-Trimethylpentane	17.5	18.7	18.9	107	108	70.0-130			0.993	25
Vinyl chloride	9.59	11.2	11.1	117	115	70.0-130			1.38	25
Vinyl Bromide	16.4	19.3	18.9	118	115	70.0-130			2.29	25
Vinyl acetate	13.2	14.6	14.8	111	112	70.0-130			0.957	25
m&p-Xylene	32.5	36.9	37.1	113	114	70.0-130			0.703	25
o-Xylene	16.3	18.6	18.3	114	113	70.0-130			1.65	25
(S) 1,4-Bromofluorobenzene				*95.8*	*93.7*	*60.0-140*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Alpha Environmental Services, Inc

11080 SW Allen Blvd.

Suite 100

Billing Information:
Jim Cooper
11080 SW Allen Blvd.

Ste. 100
Beaverton, OR 97005

Report To:
Jim Cooper

Email To:
jim@alphaenvironmental.net

Project Description: 645 N ADAMS ST

City/State Collected: McMINNVILLE, OR

Please Circle: PT MT CT ET

Phone: **503-292-5346**

Client Project # 23-53144

Lab Project # **ALPHAENVBOR-AIR**

Collected by (print): Jim Cooper

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Three Day
___ Next Day ___ Five Day
___ Two Day

Date Results Needed

Sample ID	Can #	Flow Cont. #	Collection Date	Collection Time	Canister Pressure/Vacuum Initial	Canister Pressure/Vacuum Final
SG1	10898	9281	5/1/23	10:51	28	5
SG2	12370	22475	5/2/23	11:38	29	5
SG3	10550	10993	5/2/23	12:04	30	5

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N
If Applicable
VOA Zero Headspace: Y N
Pres.Correct/Check: Y N

Analysis
TO-15 Summa

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE
MT JULIET, TN
12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1611920

A152

Acctnum: ALPHAENVBO
Template: T181995
Prelogin: P994707
PM: 942 - Jordan N Zito
PB: SW 4/26/23
Shipped Via: FedEX Ground

Rem./Contaminant	Sample # (lab only)
	-01
	-02
	-03

Remarks:

Samples returned via: __ UPS __ FedEx __ Courier __ _____

Tracking #

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	5/2/23	3:11			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/3/23	Time: 0900

Condition: (lab use only)

COC Seal Intact: ____ Y ____ N ____ NA

NCF:

5/3-NCF-L1611920 ALPHAENVBOR

R5

Time estimate: oh **Time spent:** oh

Members

Hailey Melson (responsible) JZ Jordan Zito

Due on *6 May 2023 8:00 AM* for target *Done*

- [ ] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [ ] Sample IDs on containers do not match IDs on COC
- [x] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

Comments

Hailey Melson — *3 May 2023 3:18 PM*

Client did not mark analysis. Currently logged per P#.

Jordan Zito — *3 May 2023 5:27 PM*

OK as logged

Hailey Melson — *4 May 2023 8:06 AM*

Done