RP # 3R-438

AGWMR

2018

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Scott Drewry	Title: Geologist
Signature: Scar Jan	Date:
OCD Only	
Received by:	Date:



April 21, 2020

ENTERPRISE PRODUCTS PARTNERS L.P. ENTERPRISE PRODUCTS GP, LLC (General Partner)

Return Receipt Requested** Submitted via email: <u>Cory.Smith@state.nm.us</u>

Mr. Cory Smith New Mexico Energy, Minerals & Natural Resources Department – Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

 RE: 2018 Annual Groundwater Monitoring Report (Ensolum, September 9, 2019) Enterprise Field Services, LLC
 Trunk 6C Pipeline - Kutz Wash Release (09/22/11) San Juan County, New Mexico [SW ¼, S26 T28N R11W (36.63202° N, 107.97400° W)] OCD RP: 3R-438; OCD Abatement Plan No. 131

Dear Mr. Smith:

Enterprise Products Operating LLC (Enterprise), on behalf of Enterprise Field Services LLC, is pleased to submit one hard copy** (and one electronic copy/USB) of the above-referenced report prepared by Ensolum, LLC (Ensolum) dated September 9, 2019. The report is associated with the Enterprise Trunk 6C pipeline release of natural gas and associated pipeline liquids that occurred on September 22, 2011, near the Kutz Wash in San Juan County, New Mexico (the "Site"). The activities detailed in the attached report include two semi-annual groundwater monitoring and sampling (SA-GWM&S) events that occurred between January 1, 2018 and December 31, 2018 (the "reporting period").

Data presented in the attached report indicate that dissolved-phase hydrocarbon (DPH), or constituent of concern (COC), concentrations remain at the Site in excess of the applicable Water Quality Control Commission (WQCC) *Groundwater Quality Standards* (*GQSs*). Additionally, with the possible exception of downgradient well MW-15, the DPH plume (MW-1 and MW-17) is currently delineated by monitor wells MW-2, MW-4, MW 6 and MW-11.

Based on the information presented in the attached report, Enterprise plans to: 1) continue SA-GWM&S activities at the site in order to evaluate the stability of COC concentrations in subsurface groundwater, and 2) conduct additional site-specific aquifer testing and evaluate in-situ remediation options to address remaining hydrocarbon impacts in the source area at the Site. Additionally, due to levels of DPH (COC) concentrations remaining below detection limits since 2013 (or since 2015 in MW-3), Enterprise respectfully requests: 1) the plugging and abandonment of, or 2) the suspension of sampling of the following wells pending the reduction of COCs in the plume below the WQCC GQSs: MW-3, MW-5, MW-7, MW-9, MW-12 and MW-13.

Enterprise appreciates the OCD's continued assistance and guidance in bringing closure to this Site. Should you have any questions, comments or concerns, or require additional information, please feel free to contact me any time at 713-381-8780, or at <u>gemiller@eprod.com</u>.

Sincerely,

Tregory E Miller

Gregory E. Miller, P.G. Supervisor, Environmental

Rodney M. Sartor, REM

Sr. Director, Environmental

cc: Mr. Kenneth Christensen – BLM, Farmington, NM (landowner) ec: Mr. Cory Smith – NMOCD, Aztec, NM Mr. Jim Griswold – NMOCD, Santa Fe, NM Ms. Liz Scaggs– Ensolum, Dallas, TX

** Please note that due to the COVID-19 pandemic and the current "Stay Home, Work Safe" order issued for Harris County Texas, all hard copies (and associated electronic copies on CD or USB drives) of the Subject document(s) will be mailed to each recipient once Enterprise staff are allowed to return to work. In the interim, an electronic copy will be emailed as the official submittal.

P.O. BOX 4324 HOUSTON, TEXAS 77210-4324 713.381.6500 1100 LOUISIANA STREET HOUSTON, TEXAS 77002-5227 www.epplp.com



TRUNK 6C KUTZ WASH PIPELINE RELEASE 2018 ANNUAL GROUNDWATER MONITORING REPORT

Property:

Trunk 6C Kutz Wash Pipeline Release SW ¼, S26 T28N R11W San Juan County, New Mexico

New Mexico EMNRD OCD RP No. 3R-438

September 9, 2019 Ensolum Project No. 05A1226011

Prepared for:

Enterprise Field Services, LLC P.O. Box 4324 Houston, Texas 77210-4324 Attn: Mr. Gregory E. Miller, P.G.

Prepared by:

Ranee Deechilly Staff Scientist

Liz Scaggs, P.G. Principal

Ensolum, LLC | Environmental & Hydrogeologic Consultants 606 South Rio Grande, Suite A | Aztec, NM 87410 | ensolum.com



TRUNK 6C KUTZ WASH PIPELINE RELEASE 2018 ANNUAL GROUNDWATER MONITORING REPORT EXECUTIVE SUMMARY

The Trunk 6C Kutz Wash pipeline release site, referred to hereinafter as the "Site", is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way in the southwest (SW) 1/4 of Section 26, Township 28 North, Range 11 West, in San Juan County, New Mexico (36.63202N, 107.97400W).

On September 22, 2011, a pipeline release of natural gas and associated pipeline liquids was discovered at the Site and the pipeline was subsequently repaired. A Site assessment conducted by Animas Environmental Services, LLC (AES) during October 2011 identified total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total petroleum hydrocarbon (TPH) concentrations in "test hole" excavation soil and groundwater that exceeded the New Mexico Energy, Minerals and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels (RALs)* for soils and the New Mexico Water Quality Control Commission (WQCC) *Groundwater Quality Standards (GQSs)* for groundwater.

During November 2011, AES advanced eight (8) soil borings at the Site to further delineate the extent of hydrocarbon affected soil and potentially impacted groundwater. Resulting soil and groundwater analytical data indicated constituent of concern (COC) concentrations above the New Mexico EMNRD OCD *RALs* and WQCC *GQSs*.

During September 2012, AES advanced nine (9) additional soil borings/monitoring wells on-Site, to further evaluate the extent of dissolved phase COCs in groundwater. Based on laboratory analytical results, COCs were not identified in soil above the New Mexico EMNRD OCD *RALs* at these soil boring/monitoring well locations. However, COCs were identified in groundwater above the WQCC *GQSs*. On October 16, 2013, four (4) soil borings/monitoring wells were advanced by AES. Soil and groundwater samples collected from soil boring/monitoring well MW-10 exhibited COC concentrations above the New Mexico EMNRD OCD *RALs* at the set of the New Mexico EMNRD OCD *RALs* at the set of the New Mexico EMNRD OCD and groundwater samples collected from soil boring/monitoring wells MW-10 exhibited COC concentrations above the New Mexico EMNRD OCD *RALs* and WQCC *GQSs*.

On October 28, 2013, an additional leak was discovered in the vicinity of the original release and the pipeline was subsequently repaired and placed back in service. AES collected 20 discrete soils samples from the pipeline repair excavation and the resulting analytical data identified COC concentrations above the New Mexico EMNRD OCD *RALs*. In addition, aquifer pumping tests were conducted in four (4) wells by AES to estimate hydraulic conductivity. The reported estimate for hydraulic conductivity averaged 5.27E-03 centimeters per second (cm/sec) using drawdown analysis and 8.81E-03 cm/sec using recovery analysis.

During September 2016, Apex TITAN, Inc. (Apex) advanced five (5) soil borings at the Site. Three (3) of the five (5) soil borings were completed as groundwater monitoring wells. COCs were identified in soil above the New Mexico EMNRD OCD *RALS* at soil borings/monitoring wells MW-15, MW-17, and SB-18A. In addition, COC concentrations were identified in groundwater above the WQCC *GQSs* in monitoring well MW-17. Semi-annual groundwater monitoring events are ongoing at the Site.

The objectives of the 2018 groundwater monitoring events were to further evaluate the concentrations of COCs in groundwater over time at the Site.

Findings and recommendations based on the 2018 Site activities are as follows:

- The groundwater flow direction at the Site is generally towards the northwest, with an approximate average gradient of 0.008 feet per foot (ft/ft) across the Site.
- Based on analytical results for the groundwater samples collected from monitoring wells MW-1, MW-15 and MW-17 during the June and December 2018, BTEX constituent concentrations were identified



in groundwater above New Mexico WQCC standards. The analytical results for the groundwater samples collected from the remaining monitoring wells during the June and December 2018 did not identify BTEX constituent concentrations above the applicable WQCC *GQSs*.

• Except for monitoring well MW-1 and MW-17, which have exhibited relatively consistent COC concentrations, results from the sampling events at the Site demonstrate generally declining COC concentrations in groundwater.

Ensolum offers the following recommendations:

- Report the groundwater monitoring results to the New Mexico EMNRD OCD;
- Continue semi-annual groundwater monitoring at the Site; and,
- Implement additional Site-specific aquifer testing.

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Appendix B:	Tables	Groundwater Analytical Summary

Table 1	Groundwater Analytical Summary
Table 2	Groundwater Elevations

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Appendix C: Laboratory Data Sheets &
Chain of Custody Documentation
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TRUNCK 6C KUTZ WASH PIPELINE RELASE 2018 ANNUAL GROUNDWATER MONITORING REPORT

New Mexico EMNRD OCD RP No. 3R-438

Ensolum Project No. 05A1226011

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Trunk 6C Kutz Wash Pipeline Release (Site)
Location:	36.63202° North, 107.97400° West Southwest (SW) ¼ of Sections 26, Township 28 North, Range 11 West San Juan County, New Mexico
Property:	United States Bureau of Land Management (BLM)
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On September 22, 2011, a pipeline release of an unknown volume of natural gas and associated liquids was discovered at the Site and the pipeline was subsequently repaired. Animas Environmental Services, LLC (AES) collected one (1) soil sample from the floor of the repair excavation. Based on field screening results, the soil sample exhibited elevated levels of volatile organic compounds (VOCs). A site assessment was conducted by AES on October 11, 2011, which included the collection of soil samples from four (4) test holes (TP-1 through TP-4) which were advanced near the release area, as well as groundwater samples from two (2) of the four (4) test holes. Based on laboratory analytical results, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total petroleum hydrocarbons (TPH) were identified in soils from two (2) of the test holes (TP-1 and TP-2) at concentrations above the New Mexico Energy, Minerals and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels* (*RALs*). The test hole water samples collected from TP-2 and TP-4 exhibited concentrations of benzene, toluene, and total xylenes above New Mexico Water Quality Control Commission (WQCC) *Groundwater Quality Standards* (*GQSs*). Additional detail regarding the initial site assessment activities are provided in the *Release Assessment Report, dated October 28, 2011- AES*.

During November 2011, AES advanced eight (8) soil borings (SB-1 through SB-8) at the Site to further delineate the extent of hydrocarbon affected soil and potentially impacted groundwater. Laboratory analytical results for the soil and groundwater samples collected from the soil borings identified constituent of concern (COC) concentrations in soil above the New Mexico EMNRD OCD *RALs* (SB-2, SB-7, and SB-8) and in groundwater above the WQCC *GQSs* (SB-2W, SB-3W, and SB-7W) (*Site Investigation Report, dated February 20, 2012 – AES*).

During September 2012, nine (9) additional soil borings were advanced at the Site by AES to further evaluate the extent of dissolved phase COCs in groundwater. Subsequent to advancement, the soil borings were completed as groundwater monitoring wells (MW-1 through MW-9). Laboratory analytical results did not indicate COCs in soil above the New Mexico EMNRD OCD *RALs* at these soil boring/monitoring well locations. However, COCs were confirmed in groundwater above the WQCC *GQSs* (*Groundwater Investigation Report, dated October 31, 2012 – AES*).

Enterprise Field Services, LLC 2018 Annual Groundwater Monitoring Report Trunk 6C Kutz Wash Pipeline Release September 9, 2019





On October 16, 2013, AES advanced four (4) additional soil borings/monitoring wells (MW-10 through MW-13) in and around the release area to further evaluate the extent of COCs in groundwater. Laboratory analytical results indicated COC concentrations in soil and groundwater from soil boring/monitoring well MW-10 were present at levels above the New Mexico EMNRD OCD *RALs* and the WQCC *GQSs*. (3rd *Quarter 2013 Groundwater Monitoring and Well Installation Report, dated December 10, 2013 and 4th Quarter 2013 Groundwater Monitoring and Continued Investigation Report, dated July 23, 2014 – AES*).

In September 2016, Enterprise retained Apex TITAN, Inc. (Apex) to perform environmental site investigation activities at the Site to further evaluate and delineate the concentrations of COCs in soil and groundwater. Five (5) soil borings were advanced and three (3) of the soil borings were completed as groundwater monitoring wells MW-14, MW-15, and MW-17. Laboratory analytical results indicated COC concentrations in soil (MW-15 and MW-17) and groundwater (MW-17) were above the New Mexico EMNRD OCD *RALs* and the WQCC *GQSs* (*Supplemental Environmental Site Investigation (September 2016) and Annual Groundwater Monitoring Report (June and December 2016), dated February 13, 2017 – Apex*).

During February 2019, Enterprise reassigned management of the project to Ensolum.

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. In order to address activities related to exempt oil and gas releases, the New Mexico EMNRD OCD references New Mexico Administrative Code (NMAC) 19.15.29 *Releases*, which establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action. Additionally, the New Mexico EMNRD OCD utilizes the New Mexico WQCC *GQS* (NMAC 20.6.2 *Groundwater and Surface Water Protection*) to evaluate groundwater conditions.

The Site location is depicted on **Figure 1** of **Appendix A** which was reproduced from a portion of a United States Geological Survey (USGS) 7.5-minute series topographic map. A **Site Vicinity Map**, created from an aerial photograph, is provided as **Figure 2**, and a **Site Map**, which indicates the approximate locations of the monitoring wells and previous soil boring locations in relation to pertinent structures and general Site boundaries, is included as **Figure 3** of **Appendix A**.

1.2 **Project Objective**

The objective of the groundwater monitoring events was to further evaluate the concentrations of COCs in groundwater over time at the Site.

2.0 GROUNDWATER MONITORING – JUNE AND DECEMBER 2018

2.1 Groundwater Sampling Program

Semi-annual groundwater sampling events were conducted during June and December 2018 by Apex.

Information, data, and conclusions provided in the following sections and attached figures are based on information provided by Apex to Enterprise, and eyewitness accounts.

Apex's groundwater sampling program consisted of the following:

Prior to sample collection, Apex gauged the depth to fluids in each monitoring well using an interface probe capable of detecting non-aqueous phase liquids (NAPL).

Each monitoring well was sampled utilizing micro-purge low-flow sampling techniques. Subsequent to the completion of the micro-purge process, one (1) groundwater sample was collected from each monitoring well.

Enterprise Field Services, LLC 2018 Annual Groundwater Monitoring Report Trunk 6C Kutz Wash Pipeline Release September 9, 2019





Low-flow refers to the velocity with which groundwater enters the pump intake and that is imparted to the formation pore water in the immediate vicinity of the well screen. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. The objective is to pump in a manner that minimizes stress (drawdown) to the system, to the extent practical, considering established Site sampling objectives. Flow rates on the order of 0.1 to 0.5 liters per minute (L/min) are maintained during sampling activities, using dedicated or decontaminated sampling equipment.

The groundwater samples are collected from each monitoring well once produced groundwater is consistent in color, clarity, pH, temperature, and conductivity. Measurements are taken every three to five minutes while purging. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for three successive readings.

Monitoring well MW-12 was not sampled during the June and December sampling events due to an obstructed well screen/casing.

The casings of monitoring wells MW-10 through MW-13 are approximately one (1)-inch in diameter, which is smaller than the bladder pump diameter. As a result, these monitoring wells were purged until effectively dry, utilizing a disposable bailer. Subsequent to the completion of the purging process and the recovery of groundwater to static or near static levels, one (1) groundwater sample was collected from each monitoring well.

Groundwater samples were collected in laboratory supplied containers (pre-preserved with mercuric chloride (HgCl₂)), labeled/sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The groundwater samples were relinquished to the courier for Hall Environmental Analysis Laboratory (HEAL) of Albuquerque, New Mexico under proper chain-of-custody procedures.

2.2 Groundwater Laboratory Analytical Methods

The groundwater samples collected from the monitoring wells during the 2018 groundwater sampling events were analyzed for BTEX utilizing Environmental Protection Agency (EPA) Method SW-846 #8021/8260.

A summary of the per-event analytes, sample matrix, sample frequency and EPA-approved methods for the two (2) sampling events are presented on the following table.

Analytes	Sample Matrix	No. of Samples (per event)	EPA Method
BTEX	Groundwater	15	SW-846 8021/8260

Laboratory analytical results are summarized in **Table 1** in **Appendix B**. The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix C**.

2.3 Groundwater Flow Direction

Each of the monitoring wells was geospatially surveyed or re-surveyed to determine top-of-casing (TOC) elevations. Based on gauging data, the groundwater flow direction (gradient) at the Site is generally toward the northwest. The observed gradient during the June and December 2018 monitoring events averages approximately 0.008 feet per foot (ft/ft) across the Site.





Groundwater measurements collected during the June and December 2018 sampling events (as well as historical data) are presented with TOC elevations in **Table 2** (**Appendix B**). Groundwater gradient maps for the June and December 2018 gauging events are included as **Figure 4A** and **4B** (**Appendix A**).

2.4 Data Evaluation

Ensolum compared the BTEX laboratory analytical results or laboratory practical quantitation limits (PQLs) associated with the groundwater samples collected from monitoring wells during the June and December 2018 sampling events to the New Mexico WQCC *GQSs* (effective 12/21/2018). The results of the groundwater sample analyses are summarized in **Table 1** of **Appendix B**. Groundwater Quality Standards Exceedance Zone maps are provided as **Figures 5A** and **5B** of **Appendix A**.

Monitoring well MW-12 was not sampled during the June and December sampling events due to an obstructed well screen/casing.

<u>June 2018</u>

The groundwater samples collected from monitoring wells MW-1, MW-15 and MW-17 exhibited benzene concentrations of 3,800 microgram per liter (μ g/L), 6.5 μ g/L and 29 μ g/L, respectively, which exceed the WQCC *GQS* of 5 μ g/L. The groundwater sample collected from monitoring well MW-10 exhibited a benzene concentration of 5.0 μ g/L, which is below the WQCC *GQS* of 5 μ g/L. The groundwater samples collected from the remaining monitoring wells did not exhibit benzene concentrations above the laboratory PQLs, which are below the WQCC *GQS* of 5 μ g/L.

The groundwater sample collected from monitoring well MW-1 exhibited a toluene concentration of 2,400 μ g/L, which exceeds the WQCC GQS of 700 μ g/L. The groundwater samples collected from the remaining monitoring wells did not exhibit toluene concentrations above the laboratory PQLs, which are below the WQCC GQS of 700 μ g/L.

The groundwater samples collected from monitoring wells MW-1, MW-6, MW-15, and MW-17 exhibited ethylbenzene concentrations ranging from 2.1 μ g/L (MW-6) to 140 μ g/L (MW-1), which are below the WQCC *GQS* of 1,000 μ g/L. The groundwater samples collected from the remaining monitoring wells did not exhibit ethylbenzene concentrations above the laboratory PQLs, which are below the WQCC *GQS* of 1,000 μ g/L.

The groundwater sample collected from monitoring well MW-1 exhibited a total xylenes concentration of 740 μ g/L, which exceeds the WQCC *GQS* of 620 μ g/L. The groundwater samples collected from monitoring wells MW-6, MW-10, and MW-15 exhibited total xylenes concentrations ranging from 2.7 μ g/L (MW-10) to 13 μ g/L (MW-15), which are below the WQCC *GQS* of 620 μ g/L. The groundwater samples collected from the remaining monitoring wells did not exhibit total xylenes concentrations above the laboratory PQLs, which are below the WQCC *GQS* of 620 μ g/L.

No data qualifier flags were associated with the June 2018 analytical results.

December 2018

The groundwater samples collected from monitoring wells MW-1 and MW-17 exhibited benzene concentrations of 590 μ g/L and 29 μ g/L, respectively, which exceed the WQCC *GQS* of 5 μ g/L. The groundwater samples collected from monitoring wells MW-14 and MW-15 exhibited benzene concentrations of 2.7 μ g/L and 1.2 μ g/L, respectively, which are below the WQCC *GQS* of 5 μ g/L. The groundwater samples collected from the remaining monitoring wells did not exhibit benzene concentrations above the laboratory PQLs, which are below the WQCC *GQS* of 5 μ g/L.

The groundwater sample collected from monitoring well MW-1 exhibited a toluene concentration of 400

Enterprise Field Services, LLC 2018 Annual Groundwater Monitoring Report Trunk 6C Kutz Wash Pipeline Release September 9, 2019



 μ g/L, which is below the WQCC GQS of 700 μ g/L. The groundwater samples collected from the remaining monitoring wells did not exhibit toluene concentrations above the laboratory PQLs, which are below the WQCC GQS of 700 μ g/L.

The groundwater samples collected from monitoring wells MW-1, MW-6, and MW-17 exhibited ethylbenzene concentrations ranging from 1.8 μ g/L (MW-17) to 33 μ g/L (MW-1), which are below the WQCC *GQS* of 1,000 μ g/L. The groundwater samples collected from the remaining monitoring wells did not exhibit ethylbenzene concentrations above the laboratory PQLs, which are below the WQCC *GQS* of 1,000 μ g/L.

The groundwater samples collected from monitoring wells MW-1, MW-6, and MW-14 exhibited total xylenes concentrations ranging from 6.1 μ g/L (MW-14) to 99 μ g/L (MW-1), which are below the WQCC *GQS* of 620 μ g/L. The groundwater samples collected from the remaining monitoring wells did not exhibit total xylenes concentrations above the laboratory PQLs, which are below the WQCC *GQS* of 620 μ g/L.

No data qualifier flags were associated with the December 2018 analytical results.

3.0 FINDINGS AND RECOMMENDATION

Semi-annual groundwater monitoring events were conducted at the Trunk 6C Kutz Wash Pipeline Release Site during June and December 2018. The objective of the groundwater monitoring events was to further evaluate the concentrations of COCs in groundwater at the Site with respect to WQCC *GQSs*.

- The groundwater flow direction at the Site is generally towards the west-northwest, with an approximate gradient of 0.008 ft/ft across the Site.
- Based on analytical results for the groundwater samples collected from monitoring wells MW-1, MW-15 and MW-17 during the June and December 2018, BTEX constituent concentrations were identified in groundwater above New Mexico WQCC standards. The groundwater analytical results for the groundwater samples collected from the remaining monitoring wells during the June and December 2018 did not identify BTEX constituent concentrations above the applicable WQCC GQSs.
- Except for monitoring wells MW-1 and MW-17, which have exhibited relatively consistent COC concentrations, groundwater sampling data at the Site demonstrate generally declining COC concentrations.

Based on the results of groundwater monitoring activities, Ensolum has the following recommendations:

- Report the groundwater monitoring results to the New Mexico EMNRD OCD;
- Continue semi-annual groundwater monitoring at the Site; and,
- Implement additional Site-specific aquifer testing.

4.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

4.1 Standard of Care

Ensolum's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the

Enterprise Field Services, LLC 2018 Annual Groundwater Monitoring Report Trunk 6C Kutz Wash Pipeline Release September 9, 2019



work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client, as detailed in our proposal.

4.2 Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Ensolum cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during the investigation. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Ensolum's findings, and recommendations are based solely upon data available to Ensolum at the time of these services.

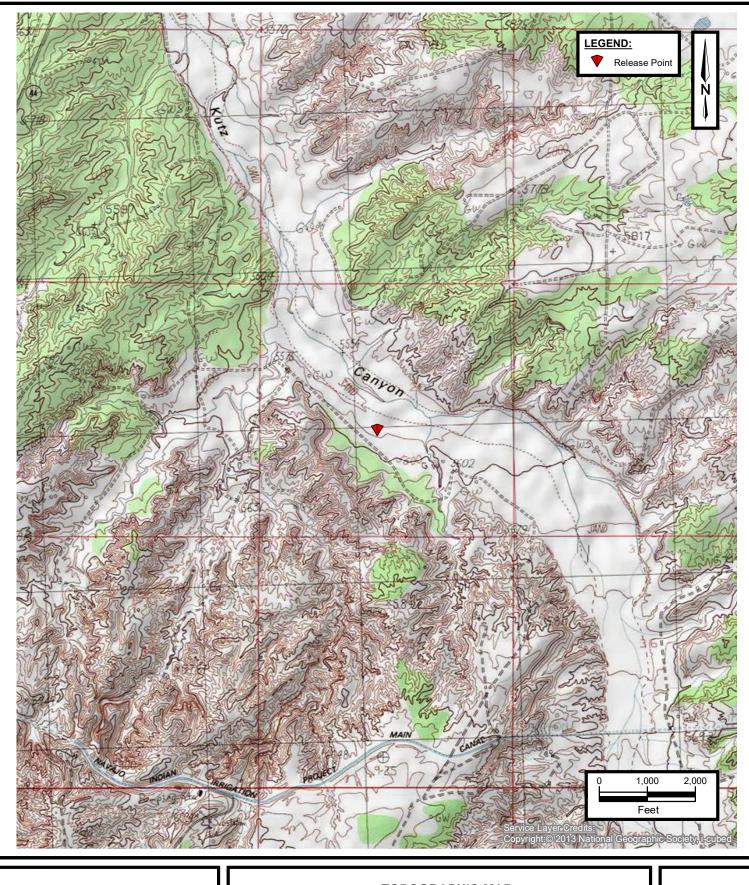
4.3 Reliance

This report has been prepared for the exclusive use of Enterprise Products Operating LLC, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization Enterprise Products Operating LLC and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the report, and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.



APPENDIX A

Figures



TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC TRUNK 6C KUTZ WASH PIPELINE RELEASE SW ¼, S26 T28N R11W, San Juan County, New Mexico 36.63202° N, 107.97400° W

PROJECT NUMBER: 05A1226011

FIGURE

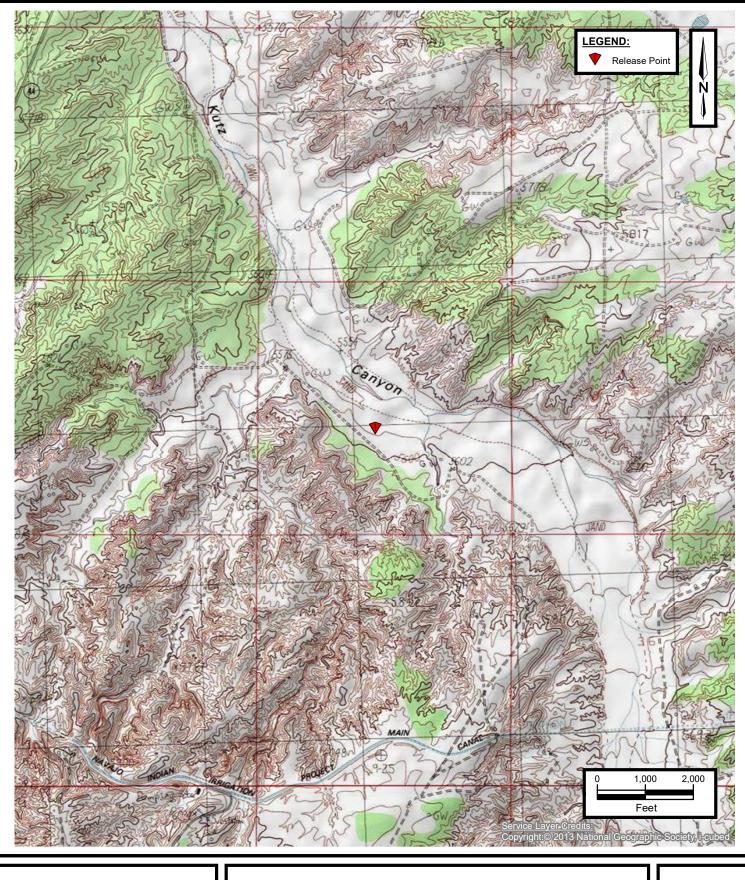
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Environmental & Hydrogeologic Consultants

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TOPGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC TRUNK 6C KUTZ WASH PIPELINE RELEASE SW ¼, S26 T28N R11W, San Juan County, New Mexico 36.63202° N, 107.97400° W

PROJECT NUMBER: 05A1226011

FIGURE

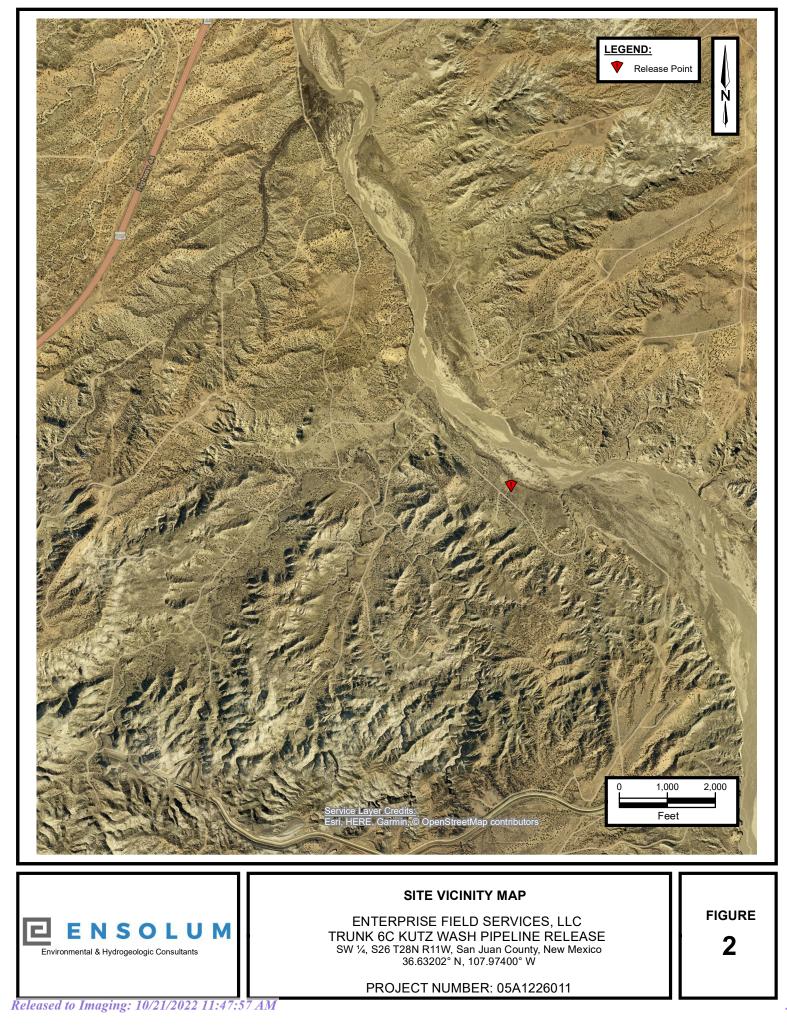
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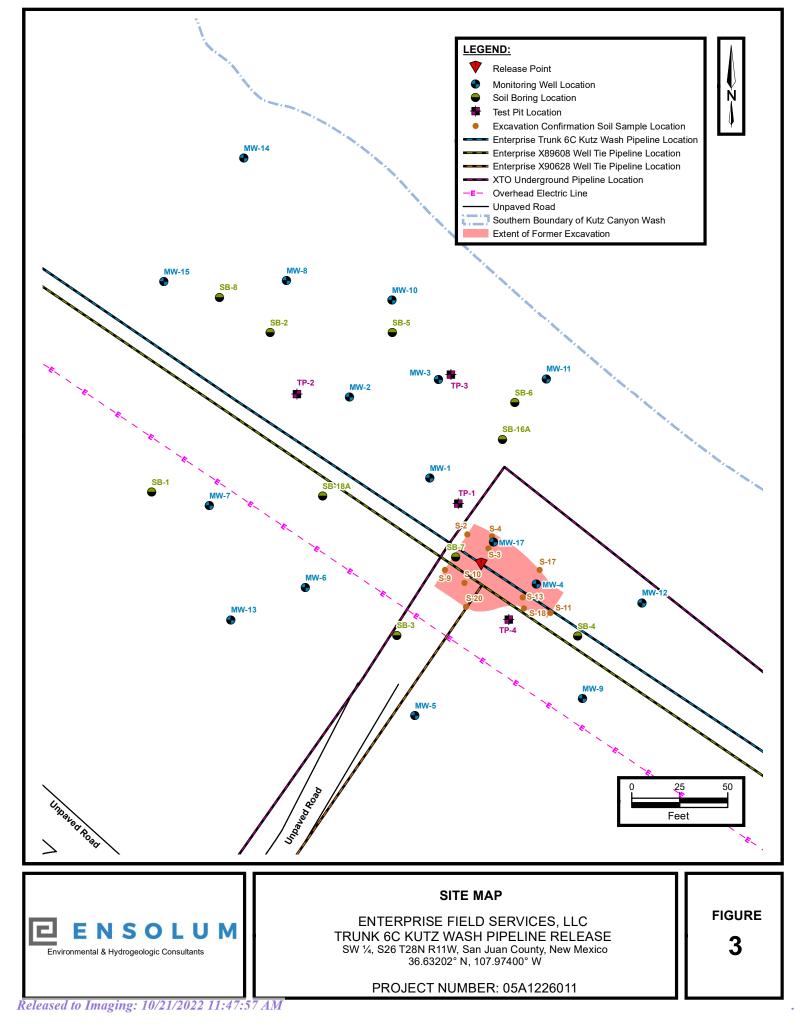
Environmental & Hydrogeologic Consultants

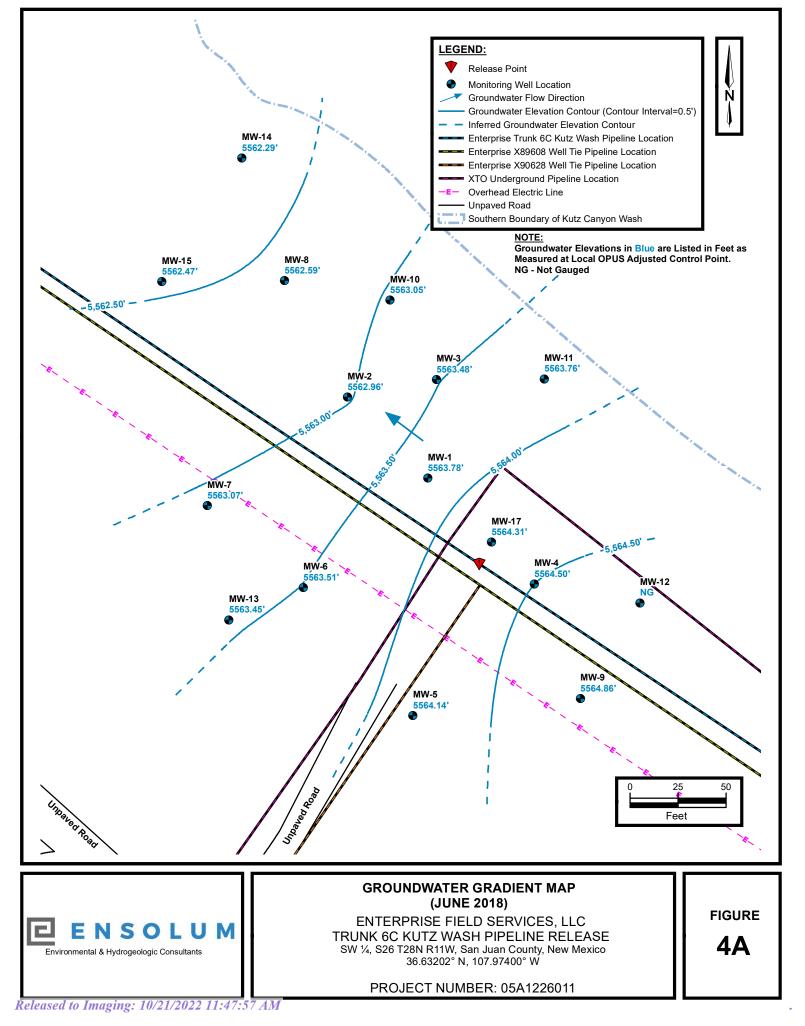
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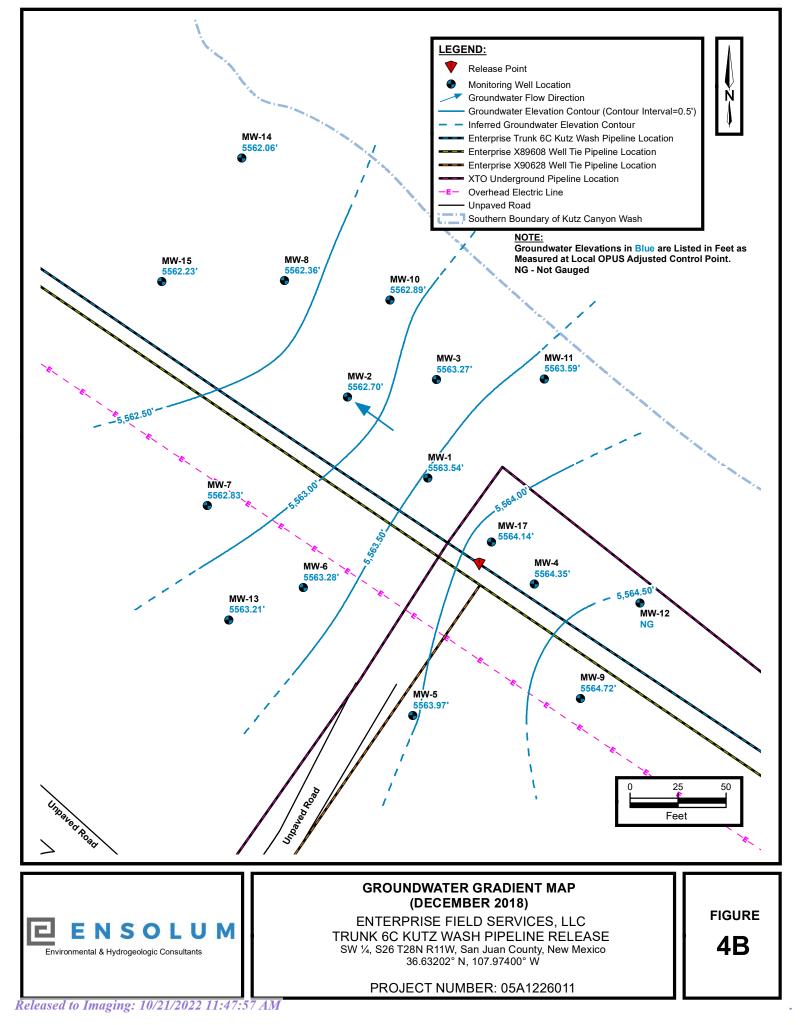
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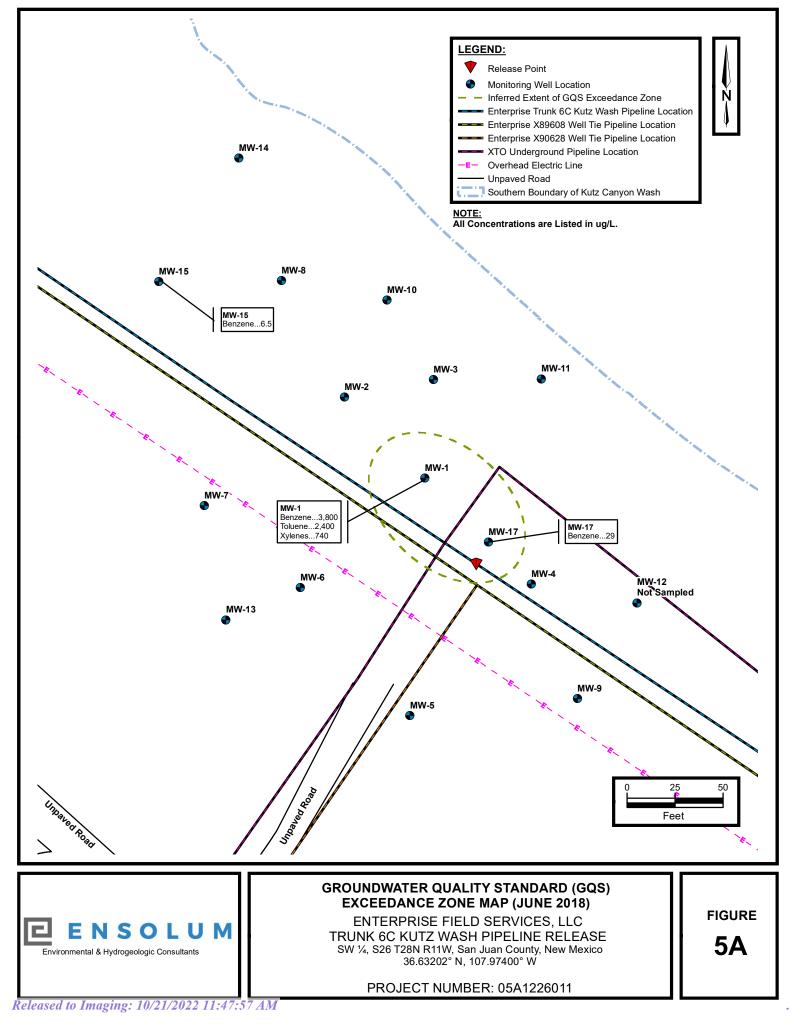
SOLUM

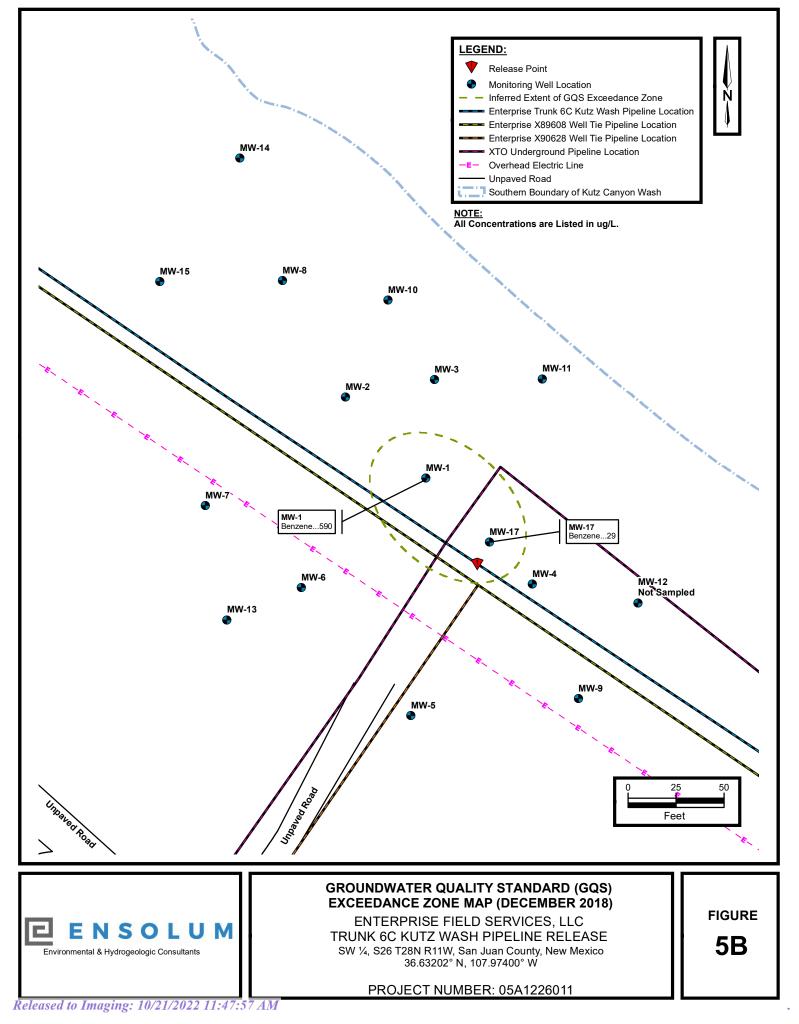














APPENDIX B

Tables

TABLE 1									
	Trunk	6C Kutz Wash Pip	oeline Release						
	GROUNDWATER ANALYTICAL SUMMARY								
Sample I.D.									
Gample I.D.	Cample Date	(μg/L)	(µg/L)	(µg/L)	(μg/L)				
-	trol Commmission Groundwater Standards	5	700	1,000	620				
		Monitoring Wells Installe	ed by AES	<u>.</u>					
	9.7.12	2,200	350	68	650				
	12.20.12	1,100	250	37	180				
	3.20.13	NAPL	NAPL	NAPL	NAPL				
	6.19.13	NAPL	NAPL	NAPL	NAPL				
	9.17.13	NAPL	NAPL	NAPL	NAPL				
	12.16.13	NAPL	NAPL	NAPL	NAPL				
	3.14.15	NAPL	NAPL	NAPL	NAPL				
MW-1	9.9.15	1,900	440	54	400				
	6.15.15	6,900	2,700	170	1,400				
	12.7.15	3,900	1,400	120	870				
	6.02.16 12.20.16	<u>1,400</u> 76	850 59	41 2.5	330 23				
	6.28.17	3,500	4,200	2.5 180	23 1,800				
	1.10.18	1,300	710	59	350				
	6.22.18	3,800	2,400	140	740				
	12.14.18	590	400	33	99				
l	9.7.12	270	1,100	66	1,800				
	12.20.12	26	49	5.1	250				
	3.20.12	<5.0	<5.0	<5.0	67				
	6.19.13	NAPL	NAPL	NAPL	NAPL				
	9.17.13	NAPL	NAPL	NAPL	NAPL				
	12.16.13	NAPL	NAPL	NAPL	NAPL				
	3.14.14	1,200	1,600	74	660				
	9.9.14	78	76	2.9	110				
MW-2	6.15.15	<1.0	1.1	<1.0	44				
	12.7.15	<1.0	<1.0	<1.0	13				
	6.02.16	<1.0	<1.0	<1.0	<2.0				
	12.19.16	<1.0	<1.0	<1.0	<1.5				
	6.27.17	<1.0	<1.0	<1.0	<2.0				
	1.09.18	<1.0	<1.0	<1.0	<2.0				
	6.21.18	<1.0	<1.0	<1.0	<1.5				
	12.14.18	<1.0	<1.0	<1.0	<2.0				
	9.7.12	<2.0	<2.0	<2.0	<4.0				
	12.20.12	<2.0	<2.0	<2.0	<4.0				
	3.20.13	<2.0	<2.0	<2.0	<4.0				
	6.19.13	780	130	2.5	15				
	9.18.13 12.16.13	<u>150</u> 660	28 340	<5.0 16	15 130				
	3.14.14	200	86	4.0	49				
	9.9.14	2.5	1.7	4.0 <1.0	3.3				
MW-3	6.12.15	1.3	<1.0	<1.0	2.2				
	12.7.15	<1.0	<1.0	<1.0	<2.0				
	6.02.16	<1.0	<1.0	<1.0	<2.0				
	12.19.16	<1.0	<1.0	<1.0	<1.5				
	6.28.17	<1.0	<1.0	<1.0	<2.0				
	1.09.18	<1.0	<1.0	<1.0	<2.0				
	6.21.18	<1.0	<1.0	<1.0	<1.5				
	12.14.18	<1.0	<1.0	<1.0	<2.0				

TABLE 1									
	Trunk 6	C Kutz Wash Pip	eline Release						
	GROUNDWATER ANALYTICAL SUMMARY								
Sample I.D. Sample Date Benzene Toluene Ethylbenzene Xylenes									
oumple i.b.	oumple Date	(μg/L)	(µg/L)	(µg/L)	(μg/L)				
	ntrol Commmission Groundwater Standards	5	700	1,000	620				
	9.7.12	18	5.1	<2.0	<4.0				
	12.20.12	<2.0	<2.0	<2.0	<4.0				
	3.20.13	290	110	<2.0	15				
	6.19.13	600	45	<10	<20				
	9.18.13	830	39	<20	<30				
	12.16.13	300	110	10	63				
	3.14.14	4.0	<1.0	<1.0	<3.0				
MW-4	9.9.14 6.11.15	<2.0 <1.0	<2.0 <1.0	<2.0 <1.0	<4.0 <2.0				
	12.4.15	<1.0	<1.0	<1.0	<2.0				
	6.02.16	<1.0	<1.0	<1.0	<2.0				
	12.19.16	<1.0	<1.0	<1.0	<1.5				
	6.28.17	<1.0	<1.0	<1.0	<2.0				
	1.09.18	<1.0	<1.0	<1.0	<2.0				
	6.21.18	<1.0	<1.0	<1.0	<1.5				
	12.13.18	<1.0	<1.0	<1.0	<2.0				
	9.7.12	<2.0	<2.0	<2.0	<4.0				
	12.20.12	<2.0	<2.0	<2.0	<4.0				
	3.20.13	<2.0	<2.0	<2.0	<4.0				
	6.19.13	<1.0	<1.0	<1.0	<2.0				
	9.17.13	<1.0	<1.0	<1.0	<1.5				
	12.16.13	2.1	4.7	4.0	17				
	3.14.14	<1.0	<1.0	<1.0	<3.0				
MW-5	9.9.14	<1.0	<1.0	<1.0	<2.0				
	6.12.15	<1.0	<1.0	<1.0	<2.0				
	12.4.15	<1.0	<1.0	<1.0	<2.0				
	6.02.16	<1.0	<1.0	<1.0	<2.0				
	12.19.16 6.27.17	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.5 <2.0				
	1.09.18	<1.0	<1.0	<1.0	<2.0				
	6.21.18	<1.0	<1.0	<1.0	<1.5				
	12.13.18	<1.0	<1.0	<1.0	<2.0				
	9.7.12	<5.0	<5.0	260	2,200				
	12.20.12	<5.0	<5.0	180	1,200				
	3.20.13	<5.0	<5.0	120	800				
	6.19.13	9.6	6.2	150	1,100				
	9.18.13	<5.0	<5.0	180	1,200				
	12.16.13	<5.0	<5.0	140	990				
	3.14.14	<1.0	<1.0	150	990				
MW-6	9.9.14	<5.0	<5.0	49	400				
10100-0	6.12.15	<5.0	<5.0	89	590				
	12.4.15	<2.5	<5.0	41	210				
	6.02.16	<1.0	<1.0	16	70				
	12.19.16	<1.0	<1.0	26	80				
	6.27.17	<1.0	<1.0	<1.0	<2.0				
	1.09.18	<1.0	<1.0	3.6	12				
	6.21.18	<1.0	<1.0	2.1	5.9				
	12.13.18	<1.0	<1.0	2.7	9.8				

		TABLE 1							
	Trunk 6	C Kutz Wash Pip	oeline Release						
	GROUNDWATER ANALYTICAL SUMMARY								
Sample I.D. Sample Date Benzene Toluene Ethylbenzene Xylenes									
·		(μg/L)	(µg/L)	(µg/L)	(µg/L)				
	ntrol Commmission Groundwater Standards	5	700	1,000	620				
	9.7.12	<2.0	<2.0	<2.0	<4.0				
	12.20.12	<2.0	<2.0	<2.0	2.4				
	3.20.13	<2.0	<2.0	<2.0	<4.0				
	6.19.13 9.17.13	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <1.5				
	12.16.13	1.6	3.9	3.6	16				
	3.14.14	<1.0	<1.0	<1.0	<3.0				
	9.9.14	<1.0	<1.0	<1.0	<2.0				
MW-7	6.12.15	<1.0	<1.0	<1.0	<2.0				
	12.7.15	<1.0	<1.0	<1.0	<2.0				
	6.02.16	<1.0	<1.0	<1.0	<2.0				
	12.19.16	<1.0	<1.0	<1.0	<1.5				
	6.27.17	<1.0	<1.0	<1.0	<2.0				
	1.09.18	<1.0	<1.0	<1.0	<2.0				
	6.21.18	<1.0	<1.0	<1.0	<1.5				
	12.13.18	<1.0	<1.0	<1.0	<2.0				
	9.7.12	41	40	3.8	320				
	12.20.12	<2.0	<2.0	<2.0	20				
	3.20.13	41	36 12	<2.0	89				
	6.19.13	<mark>21</mark> <1.0		<1.0	6.8 27				
	9.18.13 12.16.13	<1.0 18	<1.0 21	3.4 5.1	74				
	3.14.14	66	190	10	210				
	9.9.14	NAPL**	NAPL**	NAPL**	NAPL**				
MW-8	6.15.15	<1.0	<1.0	<1.0	10				
	12.7.15	1.3	<1.0	<1.0	53				
	6.02.16	4.0	1.6	<1.0	5.1				
	12.19.16	<1.0	<1.0	<1.0	2.1				
	6.27.17	<1.0	<1.0	<1.0	<2.0				
	1.09.18	<1.0	<1.0	<1.0	<2.0				
	6.21.18	<1.0	<1.0	<1.0	<1.5				
	12.14.18	<1.0	<1.0	<1.0	<2.0				
	9.7.12	<2.0	2.4	<2.0	<4.0				
	12.20.12	<2.0	<2.0	<2.0	<4.0				
	3.20.13 6.19.13	<2.0 <1.0	<2.0 <1.0	<2.0 <1.0	<4.0 <2.0				
	9.17.13	<1.0	<1.0	<1.0	<1.5				
	12.16.13	1.5	3.5	2.9	12				
	3.14.14	<1.0	<1.0	<1.0	<3.0				
	9.9.14	<2.0	<2.0	<2.0	<4.0				
MW-9	6.11.15	<1.0	<1.0	<1.0	<2.0				
	12.4.15	<1.0	<1.0	<1.0	<2.0				
	6.02.16	<1.0	<1.0	<1.0	<2.0				
	12.19.16	<1.0	<1.0	<1.0	<1.5				
	6.27.17	<1.0	<1.0	<1.0	<2.0				
	1.09.18	<1.0	<1.0	<1.0	<2.0				
	6.21.18	<1.0	<1.0	<1.0	<1.5				
	12.13.18	<1.0	<1.0	<1.0	<2.0				

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TABLE 1								
	Trunk 6C Kutz Wash Pipeline Release							
	GROUNDWATER ANALYTICAL SUMMARY							
Sample I.D.	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes			
		(μg/L)	(µg/L)	(µg/L)	(μg/L)			
	trol Commmission Groundwater Standards	5	700	1,000	620			
	12.16.13	950	34	12	39			
	3.14.14	560	4.0	16	27			
	9.9.14	580	<10	34	<20			
	6.15.15	75	<1.0	12	2.9			
	12.7.15	17	<1.0	2.0	<2.0			
MW-10	6.03.16	16	<1.0	<1.0	<2.0			
	12.20.16	4.8	<1.0	<1.0	<1.5			
	6.27.17	3.4	<1.0	<1.0	<2.0			
	1.10.18	<1.0	<1.0	<1.0	<2.0			
	6.22.18	5.0	<1.0	<1.0	2.7			
	12.14.18	<1.0	<1.0	<1.0	<2.0			
	12.16.13	2.6	3.5	<1.0	6			
	3.14.14	<1.0	<1.0	<1.0	<3.0			
	9.9.14	<2.0	<2.0	<2.0	<4.0			
	6.12.15	<1.0	<1.0	<1.0	<2.0			
	12.4.15	<1.0	<1.0	<1.0	<2.0			
MW-11	6.03.16	<1.0	<1.0	<1.0	<2.0			
F	12.20.16	<1.0 <1.0 <1.0 <1.5						
	6.28.17		Insufficient volume o					
	1.10.18	<1.0	<1.0	<1.0	<1.5			
	6.22.18	<1.0	<1.0	<1.0	<1.5			
	12.14.18	<1.0	<1.0	<1.0	<2.0			
	12.16.13	3.3	3.8	<1.0	6			
	3.14.14	<1.0	<1.0	<1.0	<3.0			
	9.9.14	<2.0	<2.0	<2.0	<4.0			
	6.12.15		Casing Ob					
	12.4.15		Casing Ob					
MW-12	6.02.16		Casing Ob					
	12.20.16	Casing Obstruction						
	6.27.17		Casing Ob					
	1.10.18		Casing Ob					
	6.21.18		Casing Ob					
	12.13.18	<u> </u>	Casing Ob					
	12.16.13	4.4	5.1	1.2	8			
	3.14.14	<1.0	<1.0	<1.0	<3.0			
	9.9.14	<2.0	<2.0	<2.0	<4.0			
	6.15.15	<1.0	<1.0	<1.0	<2.0			
	12.4.15	<1.0	<1.0	<1.0	<2.0			
MW-13	6.03.16	<1.0	<1.0	<1.0	<2.0			
	12.20.16	<1.0	<1.0	<1.0	<1.5			
	6.27.17	<1.0	<1.0	<1.0	<2.0			
	1.10.18	<1.0	<1.0	<1.0	<2.0			
	6.22.18	<1.0	<1.0	<1.0	<1.5			
	12.14.18	<1.0	<1.0	<1.0	<2.0			

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TABLE 1									
Trunk 6C Kutz Wash Pipeline Release									
	GROUNDWATER ANALYTICAL SUMMARY								
		D	-						
Sample I.D.	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes				
		(μg/L)	(µg/L)	(µg/L)	(µg/L)				
	trol Commmission Groundwater Standards	5	700	1,000	620				
		Monitoring Wells Installe	d by APEX						
	9.16.16	<1.0	<1.0	<1.0	<2.0				
	12.20.16	<1.0	<1.0	<1.0	<1.5				
MW-14	6.27.17	<1.0	<1.0	<1.0	<2.0				
10100-14	1.10.18	<1.0	<1.0	<1.0	<2.0				
	6.22.18	<1.0	<1.0	<1.0	<1.5				
	12.13.18	2.7	<1.0	<1.0	6.1				
	9.16.16	3.6	<1.0	4.1	43				
	12.20.16	<1.0	<1.0	6.2	87				
MW-15	6.27.17	4.1	<1.0	4.6	89				
10100-15	1.10.18	4.7	<1.0	2.8	33				
	6.21.18	6.5	<1.0	2.6	13				
	12.13.18	1.2	<1.0	<1.0	<2.0				
	9.16.16	380	790	33	1,200				
	12.20.16	200	100	11	310				
MW-17	6.28.17	130	<5.0	<5.0	950				
10100-17	1.10.18	5.2	2.2	1.2	13				
	6.22.18	29	<1.0	2.4	<1.5				
	12.14.18	29	<1.0	1.8	<2.0				

Note: Concentrations in **bold** and yellow exceed the applicable WQCC GQS

μg/L = micrograms per liter

NAPL = Non-aqueous phase liquid

** - Field personnel recorded the presence of NAPL utilizing an interface probe, but the product was not visually verified.

<1.0 = the numeral (in this case "1.0") identifies the laboratory RL or PQL

TABLE 2									
	Trunk 6C Kutz Wash Pipeline Release								
GROUNDWATER ELEVATIONS									
Well I.D. Date Depth to Depth to Water Product TOC Elevations Groundwater									
	2410	Product	2000	Thickness		Elevation*			
		(feet BTOC)	(feet BTOC)		(feet AMSL)	(feet AMSL)			
	9.7.12	ND	15.78	ND		5563.95			
	12.20.12	ND	15.69	ND		5564.04			
	3.20.13	15.31	15.73	0.42		5564.31			
	6.19.13	15.49	15.75	0.26		5564.17			
	9.17.13	15.79	16.27	0.48		5563.81			
	12.16.13	15.59	15.75	0.16	5579.73	5564.10			
	3.14.14	15.35	15.36	0.01		5564.38			
	9.9.14	15.98	15.99	0.01		5563.75			
MW-1*	6.10.15	15.29	15.30	0.01		5564.44			
	12.04.15	ND	15.81	ND	4	5563.92			
	6.02.16	ND 16.12	15.41	ND		5564.32			
	9.16.16 12.19.16	16.12 ND	16.13 15.83	0.01 ND	4	5563.31 5563.60			
	6.27.17	ND	15.39	ND		5564.04			
	1.09.18	ND	15.61	ND	5579.43	5563.82			
	6.21.18	ND	15.65	ND		5563.78			
	12.13.18	ND	15.89	ND		5563.54			
	9.7.12	ND	16.29	ND		5563.10			
	12.20.12	ND	16.22	ND		5563.17			
	3.20.13	ND	15.97	ND		5563.42			
	6.19.13	15.96	16.40	0.44		5563.31			
	9.17.13	16.40	16.54	0.14		5562.95			
	12.16.13	16.14	16.22	0.08	5579.39	5563.23			
	3.14.14	ND	15.89	ND		5563.50			
	9.9.14	ND	16.50	ND		5562.89			
MW-2*	6.10.15	ND	15.81	ND		5563.58			
	12.04.15	ND	16.32	ND	-	5563.07			
	6.02.16 9.16.16	ND ND	15.93 16.61	ND ND		5563.46 5562.54			
	12.19.16	ND	16.35	ND	-	5562.80			
	6.27.17	ND	15.95	ND	-	5563.20			
	1.09.18	ND	16.13	ND	5579.15	5563.02			
	6.21.18	ND	16.19	ND	-	5562.96			
	12.13.18	ND	16.45	ND	1	5562.70			
	9.7.12	ND	15.98	ND		5563.54			
	12.20.12	ND	15.79	ND	1	5563.73			
	3.20.13	ND	15.50	ND	1	5564.02			
	6.19.13	ND	15.66	ND]	5563.86			
	9.18.13	ND	15.96	ND		5563.56			
	12.16.13	ND	15.70	ND	5579.52	5563.82			
	3.14.14	ND	15.39	ND]	5564.13			
	9.9.14	ND	16.10	ND	1	5563.42			
MW-3*	6.10.15	ND	15.28	ND	4	5564.24			
	12.04.15	ND	15.87	ND	4	5563.65			
	6.02.16	ND	15.47	ND		5564.05			
	9.16.16	ND	16.24	ND	4	5563.00			
	12.19.16	ND	15.87	ND	4	5563.37			
	6.27.17	ND	15.45	ND	5579.24	5563.79			
	1.09.18 6.21.18	ND ND	15.65 15.76	ND ND	4	5563.59 5563.48			
	12.13.18	ND	15.76	ND	4	5563.27			
	12.13.10	Uri U	10.97	שא		JJUJ.21			

TABLE 2							
Trunk 6C Kutz Wash Pipeline Release							
GROUNDWATER ELEVATIONS							
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)	
	9.7.12	ND	15.59	ND		5564.77	
	12.20.12	ND	15.51	ND		5564.85	
	3.20.13	ND	15.25	ND		5565.11	
	6.19.13	ND	15.41	ND		5564.95	
	9.18.13	ND	15.74	ND		5564.62	
	12.16.13	ND	15.45	ND	5580.36	5564.91	
	3.14.14	ND	15.14	ND		5565.22	
MW-4*	9.9.14	ND ND	15.80	ND	-	5564.56	
10100-4	6.10.15 12.04.15	ND ND	15.06 15.56	ND ND	-	5565.30 5564.80	
	6.02.16	ND	15.22	ND	-	5565.14	
	9.16.16	ND	15.92	ND		5564.03	
	12.19.16	ND	15.55	ND	-	5564.40	
	6.27.17	ND	15.22	ND		5564.73	
	1.09.18	ND	15.34	ND	5579.95	5564.61	
	6.21.18	ND	15.45	ND		5564.50	
	12.13.18	ND	15.60	ND		5564.35	
	9.7.12	ND	19.35	ND		5564.18	
	12.20.12	ND	19.28	ND	- - -	5564.25	
	3.20.13	ND	19.10	ND		5564.43	
	6.19.13	ND	19.21	ND		5564.32	
	9.17.13	ND	19.55	ND		5563.98	
	12.16.13	ND	19.28	ND	5583.53	5564.25	
	3.14.14	ND	19.03	ND	-	5564.50	
MW-5*	9.9.14 6.10.15	ND ND	19.58 18.98	ND ND	-	5563.95 5564.55	
10100-5	12.04.15	ND	19.41	ND	-	5564.12	
	6.02.16	ND	19.08	ND		5564.45	
	9.16.16	ND	19.69	ND		5563.72	
	12.19.16	ND	19.42	ND		5563.99	
	6.27.17	ND	19.12	ND	5583.41	5564.29	
	1.09.18	ND	19.22	ND		5564.19	
	6.21.18	ND	19.27	ND		5564.14	
	12.13.18	ND	19.44	ND		5563.97	
	9.7.12	ND	18.55	ND		5563.67	
	12.20.12	ND	18.49	ND	4	5563.73	
	3.20.13	ND	18.27	ND	5582.22	5563.95	
	6.19.13	ND	18.38	ND		5563.84	
	9.18.13	ND	18.74	ND		5563.48	
	12.16.13 3.14.14	ND ND	18.46 18.21	ND ND		5563.76 5564.01	
	9.9.14	ND	18.75	ND	1	5563.47	
MW-6*	6.10.15	ND	18.16	ND	1	5564.06	
	12.04.15	ND	18.60	ND	1	5563.62	
	6.02.16	ND	18.25	ND	1	5563.97	
	9.16.16	ND	18.86	ND]	5563.12	
	12.19.16	ND	18.61	ND]	5563.37	
	6.27.17	ND	18.29	ND	5581.98	5563.69	
	1.09.18	ND	18.43	ND	3301.90	5563.55	
	6.21.18	ND	18.47	ND	4	5563.51	
	12.13.18	ND	18.70	ND		5563.28	

TABLE 2							
Trunk 6C Kutz Wash Pipeline Release							
GROUNDWATER ELEVATIONS							
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)	
	9.7.12	ND	19.03	ND		5563.21	
	12.20.12	ND	18.97	ND		5563.27	
	3.20.13	ND	18.79	ND		5563.45	
	6.19.13	ND	18.87	ND		5563.37	
	9.17.13	ND	19.22	ND		5563.02	
	12.16.13	ND	18.46	ND	5582.24	5563.78	
	3.14.14	ND	18.73	ND	-	5563.51	
NAN 7+	9.9.14	ND	19.24	ND		5563.00	
MW-7*	6.10.15	ND	18.65	ND		5563.59	
	12.04.15 6.02.16	ND ND	19.10 18.76	ND ND	4	5563.14 5563.48	
	9.16.16	ND	19.37	ND		5562.68	
	12.19.16	ND	19.13	ND	-	5562.92	
	6.27.17	ND	18.80	ND		5563.25	
	1.09.18	ND	18.95	ND	5582.05	5563.10	
	6.21.18	ND	18.98	ND		5563.07	
	12.13.18	ND	19.22	ND		5562.83	
	9.7.12	ND	14.96	ND		5562.85	
	12.20.12	ND	14.87	ND	5577.04	5562.94	
	3.20.13	ND	14.63	ND		5563.18	
	6.19.13	ND	14.74	ND		5563.07	
	9.18.13	ND	15.08	ND		5562.73	
	12.16.13	ND	14.81	ND	5577.81	5563.00	
	3.14.14 9.9.14**	ND 15.12**	14.53 15.25	ND 0.13**		5563.28 5562.65	
MW-8*	6.10.15	15.12 ND	15.25	0.13 ND	-	5563.37	
10100-0	12.04.15	ND	14.97	ND		5562.84	
	6.02.16	ND	14.61	ND	-	5563.20	
	9.16.16	ND	15.29	ND		5562.18	
	12.19.16	ND	15.00	ND	-	5562.47	
	6.27.17	ND	14.62	ND	5577.47	5562.85	
	1.09.18	ND	14.80	ND		5562.67	
	6.21.18	ND	14.88	ND		5562.59	
	12.13.18	ND	15.11	ND		5562.36	
	9.7.12	ND	17.55	ND	1 7	5564.93	
	12.20.12	ND	17.47	ND	5582.48	5565.01	
	3.20.13	ND	17.28	ND		5565.20	
	6.19.13 9.17.13	ND ND	17.42 17.74	ND ND		5565.06 5564.74	
	12.16.13	ND	17.48	ND		5565.00	
	3.14.14	ND	17.40	ND		5565.27	
	9.9.14	ND	17.83	ND	1	5564.65	
MW-9*	6.10.15	ND	17.18	ND		5565.30	
	12.04.15	ND	17.61	ND		5564.87	
	6.02.16	ND	17.30	ND		5565.18	
	9.16.16	ND	17.94	ND		5564.41	
	12.19.16	ND	17.60	ND	4	5564.75	
	6.27.17	ND	17.34	ND	5582.35	5565.01	
	1.09.18	ND	17.40	ND	0002.00	5564.95	
	6.21.18 12.13.18	ND ND	17.49 17.63	ND ND	4	5564.86 5564.72	
	12.13.10	IND	17.03	שאו		0004.72	

TABLE 2							
Trunk 6C Kutz Wash Pipeline Release							
GROUNDWATER ELEVATIONS							
Well I.D.	Date	Depth to Product	Depth to Water	Product Thickness	TOC Elevations	Groundwater Elevation*	
		(feet BTOC)	(feet BTOC)	Thekness	(feet AMSL)	(feet AMSL)	
		``````	· · ·		· · /	```	
	12.16.13	ND	16.93	ND	5577.80	5560.87	
	3.14.14	ND	14.63	ND		5563.17	
	9.9.14	ND	15.34	ND		5562.46	
	6.10.15	ND	14.58	ND		5563.22	
	12.04.15	ND ND	15.10 14.74	ND ND		5562.70 5563.06	
MW-10*	6.02.16 9.16.16	ND ND	14.74	ND		5562.61	
	12.19.16	ND	15.12	ND		5562.98	
	6.27.17	ND	14.73	ND		5563.37	
	1.09.18	ND	14.90	ND	5578.10	5563.20	
	6.21.18	ND	15.05	ND		5563.05	
	12.13.18	ND	15.21	ND		5562.89	
	12.16.13	ND	15.15	ND		5563.50	
	3.14.14	ND	14.82	ND		5563.83	
	9.9.14	ND	15.63	ND	5578.65	5563.02	
	6.10.15	ND	14.76	ND	0070.00	5563.89	
	12.04.15	ND	15.35	ND		5563.30	
MW-11*	6.02.16	ND	14.98	ND		5563.67	
	9.16.16	ND ND	15.74	ND ND	5579.04	5563.30	
	12.19.16 6.27.17	ND	15.35 15.00	ND		5563.69 5564.04	
	1.09.18	ND	15.00	ND		5563.93	
	6.21.18	ND	15.28	ND		5563.76	
	12.13.18	ND	15.45	ND		5563.59	
	12.16.13	ND	15.54	ND		5564.45	
	3.14.14	ND	15.27	ND		5564.72	
	9.9.14	ND	15.96	ND	5579.99	5564.03	
	6.10.15	ND	15.22	ND		5564.77	
	12.04.15	NG	NG	NG		NG	
MW-12*	6.02.16	NG	NG	NG		NG	
	9.16.16	NG	NG	NG	4	NG	
	12.19.16 6.27.17	NG NG	NG NG	NG NG	5580.28	NG NG	
	1.09.18	NG	NG	NG		NG	
	6.21.18	NG	NG	NG		NG	
	12.13.18	NG	NG	NG		NG	
 MW-13*	12.16.13	ND	19.88	ND	5583.03	5563.15	
	3.14.14	ND	19.63	ND		5563.40	
	9.9.14	ND	20.18	ND		5562.85	
	6.10.15	ND	19.57	ND		5563.46	
	12.04.15	ND	20.01	ND		5563.02	
	6.02.16	ND	19.67	ND		5563.36	
	9.16.16	ND	20.27	ND		5563.07	
	12.19.16	ND	20.03	ND		5563.31	
	6.27.17 1.09.18	ND ND	19.74 19.85	ND ND		5563.60 5563.49	
	6.21.18	ND	19.85	ND		5563.49 5563.45	
	12.13.18	ND	20.13	ND	1	5563.21	
	12.10.10		20.10		1	0000.21	

### **E NSOLUM**

TABLE 2         Trunk 6C Kutz Wash Pipeline Release         GROUNDWATER ELEVATIONS							
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)	
	9.16.16	ND	14.48	ND		5561.91	
	12.19.16	ND	14.18	ND		5562.21	
MW-14	6.27.17	ND	13.83	ND	5576.39	5562.56	
10100-14	1.09.18	ND	13.99	ND		5562.40	
	6.21.18	ND	14.10	ND		5562.29	
	12.13.18	ND	14.33	ND		5562.06	
	9.16.16	ND	16.75	ND	5578.83	5562.08	
	12.19.16	ND	16.48	ND		5562.35	
MW-15	6.27.17	ND	16.12	ND		5562.71	
10100-15	1.09.18	ND	16.30	ND		5562.53	
	6.21.18	ND	16.36	ND		5562.47	
	12.13.18	ND	16.60	ND		5562.23	
MW-17	9.16.16	ND	16.02	ND	5579.86	5563.84	
	12.19.16	ND	15.68	ND		5564.18	
	6.27.17	ND	15.30	ND		5564.56	
	1.09.18	ND	15.45	ND		5564.41	
	6.21.18	ND	15.55	ND		5564.31	
	12.13.18	ND	15.72	ND		5564.14	

BTOC - below top of casing

AMSL - above mean sea level

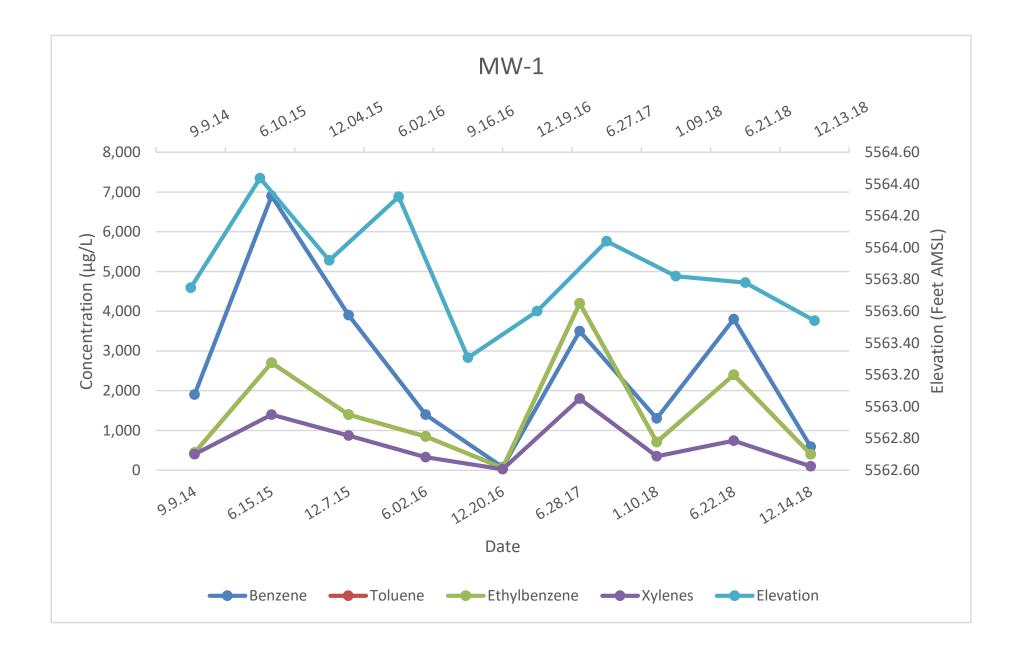
TOC - top of casing

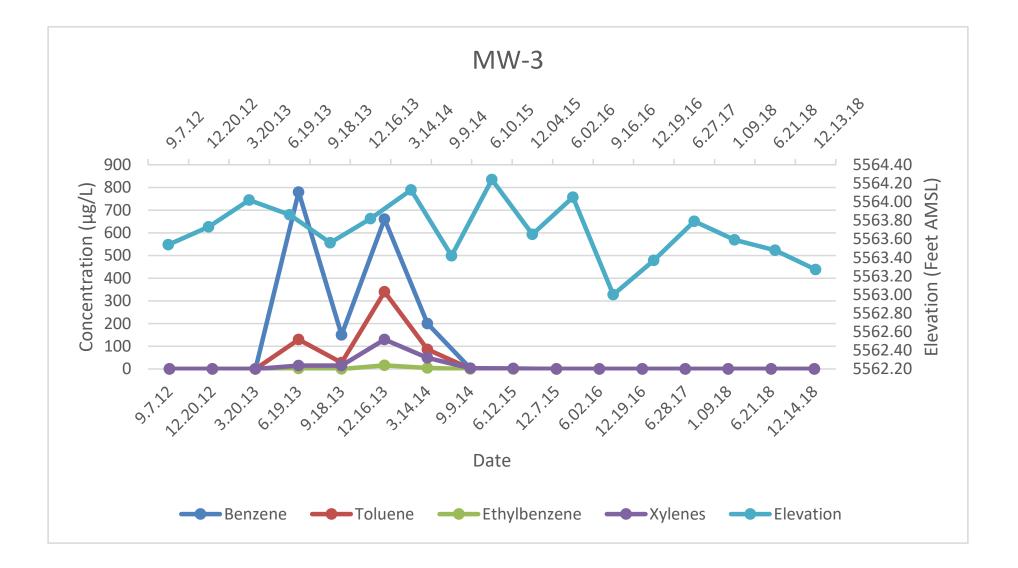
NG - Well not gauged, or Errant Gauge.

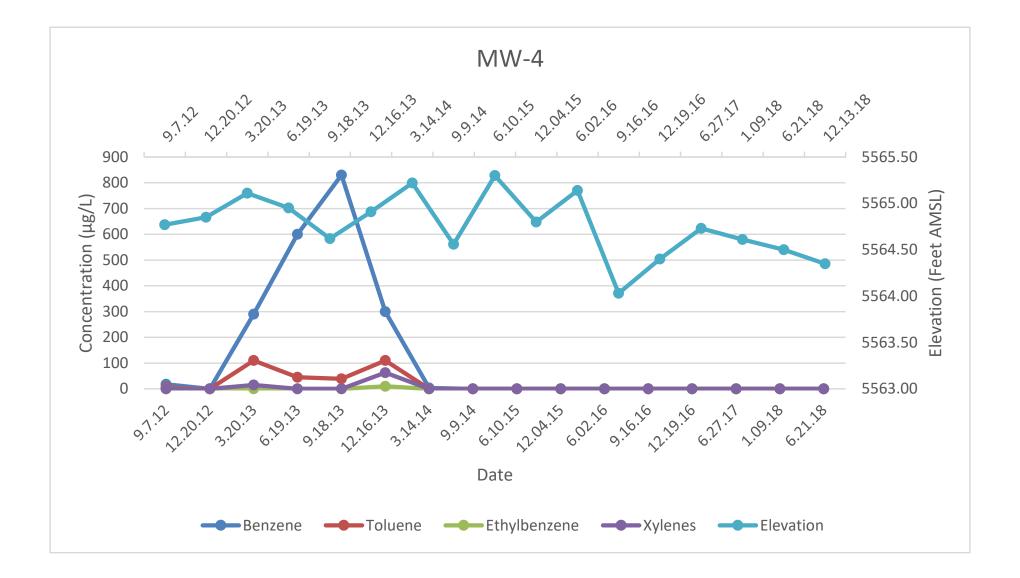
* - Monitoring wells resurveyed during September 2016

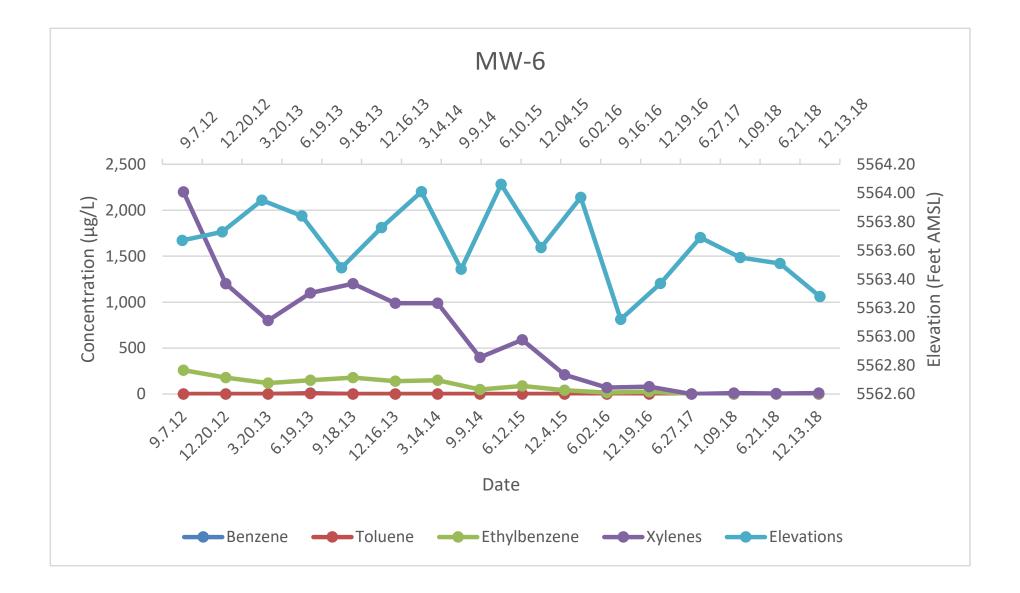
** - Field personnel recorded the presence of NAPL utilizing an interface probe, but the product was not visually verified.

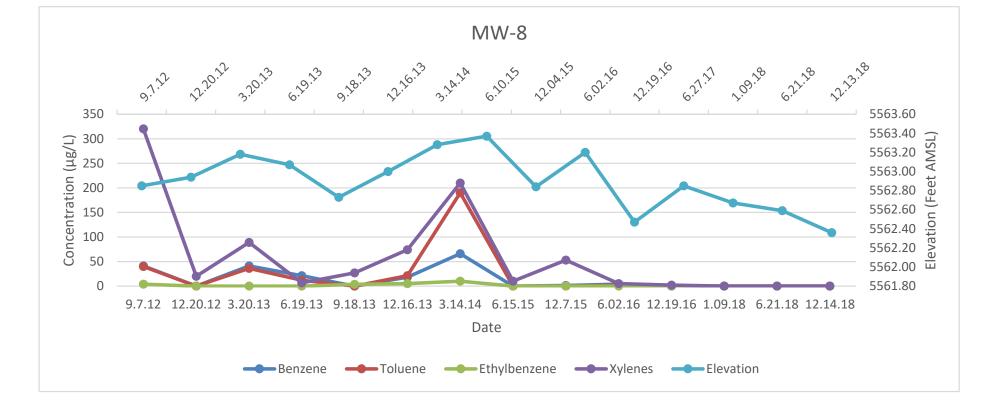
NA - not applicable

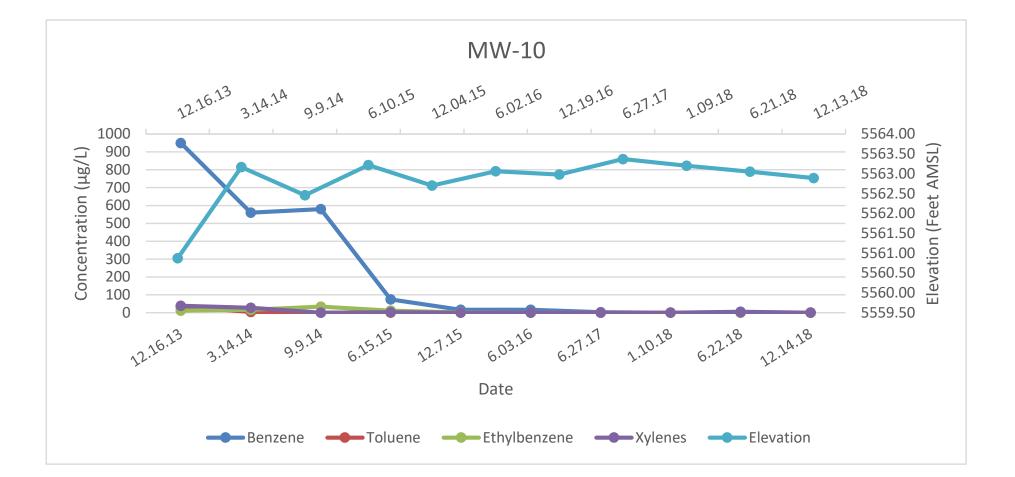


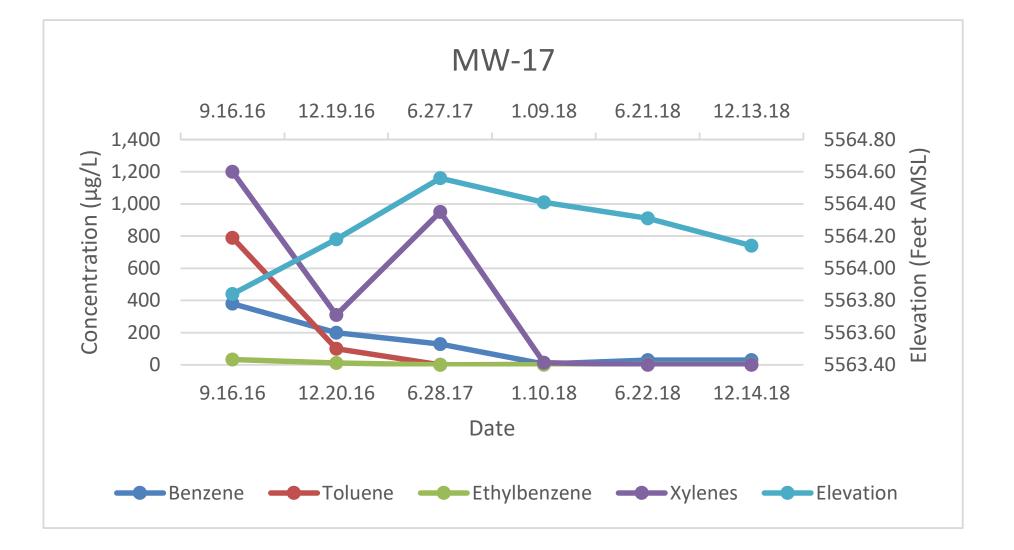














APPENDIX C

Laboratory Data Sheets & Chain of Custody Documentation



June 27, 2018

Kyle Summers APEX TITAN 606 S. Rio Grande Suite A Aztec, NM 87410 TEL: (903) 821-5603 FAX Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

4901 Hawkins NE

Hall Environmental Analysis Laboratory

RE: Trunk 6C

OrderNo.: 1806D84

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 9 sample(s) on 6/22/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Surr: 4-Bromofluorobenzene

Surr: Toluene-d8

Analytical Report Lab Order 1806D84

6/26/2018 12:01:06 PM C52259

6/26/2018 12:01:06 PM C52259

Hall Environmental Analysis Laboratory, Inc.	
----------------------------------------------	--

Lab Order **1806D84** Date Reported: **6/27/2018** 

CLIENT: APEX TITAN	Client Sample ID: MW-5Collection Date: 6/21/2018 9:00:00 AMMatrix: AQUEOUSReceived Date: 6/22/2018 8:00:00 AM					
Project: Trunk 6C						
Lab ID: 1806D84-001						
A	D14		I Inita	DE	Doto Amalamad	Batch
Analyses	Result	PQL Quai	Units	Dr	Date Analyzed	Date
EPA METHOD 8260: VOLATILES SHORT L		PQL Quai	Units	DF	Analysed	
٠ ٠		1.0	μg/L	<b>DF</b>	v	: AG
EPA METHOD 8260: VOLATILES SHORT L	JST			1 1	Analys	:: <b>AG</b> 1 C522
EPA METHOD 8260: VOLATILES SHORT L Benzene	IST ND	1.0	µg/L	1 1 1	Analysi 6/26/2018 12:01:06 PM	:: <b>AG</b> 1 C522 1 C522

108

111

70-130

70-130

%Rec

%Rec

1

1

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Surr: Toluene-d8

**Analytical Report** Lab Order 1806D84

6/25/2018 6:57:41 PM B52231

Hall Environmental Analysis Laboratory, Inc.				Date Reported: 6/27/2018			
CLIENT: APEX TITAN		Clie	ent Sample II	<b>):</b> M	W-9		
Project: Trunk 6C		С	ollection Date	e: 6/2	21/2018 9:55:00 AM		
Lab ID: 1806D84-002	Matrix: AQUEO	Matrix: AQUEOUS Received Date: 6					
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 8260: VOLATILES S	HORT LIST				Analyst	AG	
Benzene	ND	1.0	µg/L	1	6/25/2018 6:57:41 PM	B52231	
Toluene	ND	1.0	µg/L	1	6/25/2018 6:57:41 PM	B52231	
Ethylbenzene	ND	1.0	µg/L	1	6/25/2018 6:57:41 PM	B52231	
Xylenes, Total	ND	1.5	µg/L	1	6/25/2018 6:57:41 PM	B52231	
Surr: 4-Bromofluorobenzene	110	70-130	%Rec	1	6/25/2018 6:57:41 PM	B52231	

107

70-130

%Rec

1

- * Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Ana	alysis Laboratory, Inc.	Date I

	Client Sample ID: MW-4
•	Date Reported: 6/27/2018

CLIENT: APEX TITAN	Client Sample ID: MW-4						
Project: Trunk 6C	Collection Date: 6/21/2018 10:45:00 AM						
Lab ID: 1806D84-003	Matrix: AQUEO	US R	Received Date	e: 6/2	22/2018 8:00:00 AM		
Analyses	Result	PQL (	Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 8260: VOLATILES SHOR	T LIST				Analyst	: AG	
Benzene	ND	1.0	µg/L	1	6/25/2018 7:20:56 PM	B52231	
Toluene	ND	1.0	µg/L	1	6/25/2018 7:20:56 PM	B52231	
Ethylbenzene	ND	1.0	μg/L	1	6/25/2018 7:20:56 PM	B52231	
Xylenes, Total	ND	1.5	μg/L	1	6/25/2018 7:20:56 PM	B52231	
Surr: 4-Bromofluorobenzene	110	70-130	%Rec	1	6/25/2018 7:20:56 PM	B52231	
Surr: Toluene-d8	105	70-130	%Rec	1	6/25/2018 7:20:56 PM	B52231	

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- D Sample Difuted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laborato	ry, Inc. Date Report
CLIENT: APEX TITAN	<b>Client Sample ID:</b> MW-6

•	Date Reported: 6/27/2018
Client Sample ID: N	/W-6

J	Frunk 6C 1806D84-004	Matrix:	Collection Date:         6/21/2018         11:40:00 AM           Matrix:         AQUEOUS         Received Date:         6/22/2018         8:00:00 AM					
Analyses		R	esult	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METH	IOD 8260: VOLATILES	SHORT LIST					Analyst	: AG
Benzene			ND	1.0	µg/L	1	6/25/2018 7:44:14 PM	B52231
Toluene			ND	1.0	μg/L	1	6/25/2018 7:44:14 PM	B52231
Ethylbenze	ene		2.1	1.0	μg/L	1	6/25/2018 7:44:14 PM	B52231
Xylenes, T	otal		5.9	1.5	μg/L	1	6/25/2018 7:44:14 PM	B52231
Surr: 4-E	Bromofluorobenzene		105	70-130	%Rec	1	6/25/2018 7:44:14 PM	B52231
Surr: To	luene-d8		109	70-130	%Rec	1	6/25/2018 7:44:14 PM	B52231

Qualifiers:	
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- * Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Env	vironmental Analysis Laboratory, Inc.	Date

Lab Order **1806D84** Date Reported: **6/27/2018** 

CLIENT: APEX TITAN		Client Sample ID: MW-7					
roject: Trunk 6C	Collection Date: 6/21/2018 12:20:00 PM						
ab ID: 1806D84-005	Matrix: AQUEO	Matrix: AQUEOUS         Received Date: 6/22/2018 8:00:00				AM	
Analyses	Result	PQL Qu	ual Units	DF	Date Analyzed	Batch	
EPA METHOD 8260: VOLATILES S	HORT LIST				Analyst	AG	
Benzene	ND	1.0	µg/L	1	6/25/2018 8:07:32 PM	B5223 ²	
Toluene	ND	1.0	µg/L	1	6/25/2018 8:07:32 PM		
			µy/∟	•		B5223 ²	
Ethylbenzene	ND	1.0	μg/L	1	6/25/2018 8:07:32 PM		
Ethylbenzene Xylenes, Total	ND ND	1.0 1.5		1 1	6/25/2018 8:07:32 PM 6/25/2018 8:07:32 PM	B5223	
•			μg/L	•		B52231 B52231 B52231 B52231	

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

**Analytical Report** 

Hall Environmental Analysis Laboratory, Inc.			Lab Order <b>1806D84</b> Date Reported: <b>6/27/2018</b>				
CLIENT: APEX TITAN		Client Sample ID: MW-3					
Project: Trunk 6C	Collection Date: 6/21/2018 1:15:00 PM						
Lab ID: 1806D84-006	Matrix: AQUEOUS Received Date: 6/22/2018 8:00:00 AM						
Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch	
EPA METHOD 8260: VOLATILES SH	IORT LIST				Analyst	: AG	
Benzene	ND	1.0	µg/L	1	6/25/2018 8:30:43 PM	B52231	
Toluene	ND	1.0	µg/L	1	6/25/2018 8:30:43 PM	B52231	
Ethylbenzene	ND	1.0	µg/L	1	6/25/2018 8:30:43 PM	B52231	
Xylenes, Total	ND	1.5	µg/L	1	6/25/2018 8:30:43 PM	B52231	
Surr: 4-Bromofluorobenzene	110	70-130	%Rec	1	6/25/2018 8:30:43 PM	B52231	
Surr: Toluene-d8	108	70-130	%Rec	1	6/25/2018 8:30:43 PM	B52231	

Qualifiers:	
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- * Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Surr: Toluene-d8

Surr: 4-Bromofluorobenzene

**EPA METHOD 8260: VOLATILES SHORT LIST** 

Analytical Report Lab Order 1806D84

6/25/2018 8:53:55 PM

Analyst: AG

B52231

B52231

B52231

B52231

B52231

B52231

Hall Environmental Analy	<b>C.</b> Date Reported: 6/27/2018				
CLIENT: APEX TITAN		Client Sample ID: MW-2			
Project: Trunk 6C		Collection Date: 6/21/2018 2:00:00 PM			
Lab ID: 1806D84-007	Matrix: AQUEOUS	Received Date: 6/22/2018 8:00:00 AM			
Analyses	Result PQ	L Qual Units DF Date Analyzed	Batch		

ND

ND

ND

ND

107

108

1.0

1.0

1.0

1.5

70-130

70-130

µg/L

µg/L

µg/L

µg/L

%Rec

%Rec

1

1

1

1

1

1

Qualifiers:	*
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- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 7 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1806D84** Date Reported: **6/27/2018** 

CLIENT: APEX TITAN			ient Sample II			
<b>Project:</b> Trunk 6C	<b>Collection Date:</b> 6/21/2018 2:45:00 PM					
Lab ID: 1806D84-008	Matrix: AQUEOU	JS	Received Dat	<b>e:</b> 6/	22/2018 8:00:00 AM	
Analyses	Result	PQL	Qual Units	DF	<b>Date Analyzed</b>	Batch
EPA METHOD 8260: VOLATILES SHOP					Analyst:	AG
Benzene	ND	1.0	μg/L	1	6/25/2018 10:49:49 PM	B52231
Toluene	ND	1.0	μg/L	1	6/25/2018 10:49:49 PM	B52231
Ethylbenzene	ND	1.0	μg/L	1	6/25/2018 10:49:49 PM	B52231
Xylenes, Total	ND	1.5	μg/L	1	6/25/2018 10:49:49 PM	B52231
Surr: 4-Bromofluorobenzene	108	70-130	%Rec	1	6/25/2018 10:49:49 PM	B52231
Surr: Toluene-d8	104	70-130	%Rec	1	6/25/2018 10:49:49 PM	B52231

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 8 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report	
Lab Order 1806D84	

Date Reported: 6/27/2018

LIENT: APEX TITAN		Client Sample ID: MW-15								
roject: Trunk 6C		Collection Date: 6/21/2018 3:30:00 PM								
<b>ab ID:</b> 1806D84-009	Matrix: AQUEO	OUS Rec	eived Dat	<b>e:</b> 6/2	22/2018 8:00:00 AM					
Analyses	Result	PQL Qu	al Units	DF	<b>Date Analyzed</b>	Batch				
					ť					
EPA METHOD 8260: VOLATILES SI	HORT LIST				Analyst	AG				
EPA METHOD 8260: VOLATILES S	HORT LIST 6.5	1.0	µg/L	1	•	_				
		1.0 1.0	μg/L μg/L	1	Analyst	B5223				
Benzene	6.5				Analyst 6/25/2018 11:13:01 PM	B5223 B5223				
Benzene Toluene	6.5 ND	1.0	μg/L	1	Analyst 6/25/2018 11:13:01 PM 6/25/2018 11:13:01 PM	B5223 B5223 B5223				
Benzene Toluene Ethylbenzene	6.5 ND 2.6	1.0 1.0	μg/L μg/L	1	Analyst 6/25/2018 11:13:01 PM 6/25/2018 11:13:01 PM 6/25/2018 11:13:01 PM	B5223 B5223 B5223 B5223				

#### Hall Environmental Analysis Laboratory, Inc.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 9 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Client: Project: APEX TITAN

Trunk 6C

## **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Sample ID 100ng btex lcs	Samp]	Type: LC	S4	Tes	tCode [.] El	PA Method	8260: Volatil	es Short L	ist	
Client ID: BatchQC	·	h ID: <b>B5</b>			RunNo: 5		ozoon rolaan			
Prep Date:	Analysis E				SeqNo: 1		Units: <b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	80	120			
Toluene	21	1.0	20.00	0	107	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	61	1.5	60.00	0	102	80	120			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.6	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			
Sample ID 1806d84-001ams	SampType: <b>MS4</b>			Tes	tCode: El	PA Method	8260: Volatil	es Short L	ist	
Client ID: MW-5	Batcl	h ID: <b>B5</b>	2231	F	RunNo: 5	2231				
Prep Date:	Analysis D	Date: 6/	25/2018	S	SeqNo: 1	711455	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	24	1.0	20.00	0	120	80	120			
Toluene	22	1.0	20.00	0	108	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	63	1.5	60.00	0.4676	104	80	120			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.9	70	130			
Surr: Toluene-d8	11		10.00		109	70	130			
Sample ID 1806d84-001amsd SampType: MSD4 TestCode: EPA Method 8260: Volatiles Short List										
Sample ID 1806d84-001ams	d Samp1	Гуре: МS	SD4	Tes	tCode: El	PA Method	8260: Volatil	es Short L	ist	
Sample ID 1806d84-001amse Client ID: MW-5		Гуре: <b>МS</b> h ID: <b>B5</b>			tCode: El RunNo: 5		8260: Volatil	es Short L	list	
		h ID: <b>B5</b>	2231	F		2231	8260: Volatil	es Short L	list	
Client ID: MW-5	Batcl	h ID: <b>B5</b>	2231 25/2018	F	RunNo: 5	2231		es Short L %RPD	<b>.ist</b> RPDLimit	Qual
Client ID: <b>MW-5</b> Prep Date:	Batcl Analysis [	h ID: <b>B5</b> Date: <b>6/</b>	2231 25/2018	F	RunNo: <b>5</b> SeqNo: <b>1</b>	2231 711456	Units: µg/L			Qual
Client ID: <b>MW-5</b> Prep Date: Analyte	Batcl Analysis D Result	h ID: <b>B5</b> Date: <b>6/</b> PQL	2231 25/2018 SPK value	F S SPK Ref Val	RunNo: 5 SeqNo: 1 %REC	2231 711456 LowLimit	Units: <b>µg/L</b> HighLimit	%RPD	RPDLimit	Qual
Client ID: MW-5 Prep Date: Analyte Benzene	Batcl Analysis E Result 24	h ID: <b>B5</b> Date: <b>6/</b> <u>PQL</u> 1.0	2231 25/2018 SPK value 20.00	F S SPK Ref Val 0	RunNo: <b>5</b> SeqNo: <b>1</b> <u>%REC</u> 119	2231 711456 LowLimit 80	Units: <b>µg/L</b> HighLimit 120	%RPD 1.07	RPDLimit 20	Qual
Client ID: MW-5 Prep Date: Analyte Benzene Toluene	Batcl Analysis D Result 24 22	h ID: <b>B5</b> Date: <b>6/</b> <u>PQL</u> 1.0 1.0	2231 25/2018 SPK value 20.00 20.00	F S SPK Ref Val 0 0	RunNo: <b>5</b> SeqNo: <b>1</b> <u>%REC</u> 119 108	2231 711456 LowLimit 80 80	Units: µg/L HighLimit 120 120	%RPD 1.07 0.498	RPDLimit 20 20	Qual
Client ID: MW-5 Prep Date: Analyte Benzene Toluene Ethylbenzene	Batch Analysis E Result 24 22 21	h ID: <b>B5</b> Date: <b>6</b> / <u>PQL</u> 1.0 1.0 1.0	2231 25/2018 SPK value 20.00 20.00 20.00	F SPK Ref Val 0 0 0	RunNo: <b>5</b> SeqNo: <b>1</b> <u>%REC</u> 119 108 107	2231 711456 LowLimit 80 80 80	Units: <b>µg/L</b> HighLimit 120 120 120	%RPD 1.07 0.498 1.17	RPDLimit 20 20 20	Qual
Client ID: MW-5 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Batch Analysis E Result 24 22 21 62	h ID: <b>B5</b> Date: <b>6</b> / <u>PQL</u> 1.0 1.0 1.0	2231 25/2018 SPK value 20.00 20.00 20.00 60.00	F SPK Ref Val 0 0 0	RunNo: <b>5</b> SeqNo: <b>1</b> <u>%REC</u> 119 108 107 103	2231 711456 LowLimit 80 80 80 80	Units: <b>µg/L</b> HighLimit 120 120 120 120	%RPD 1.07 0.498 1.17 1.53	RPDLimit 20 20 20 20	Qual
Client ID: MW-5 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene	Batcl Analysis I Result 24 22 21 62 9.8 11	h ID: <b>B5</b> Date: <b>6</b> / <u>PQL</u> 1.0 1.0 1.0	2231 25/2018 20.00 20.00 20.00 60.00 10.00 10.00	F SPK Ref Val 0 0 0 0.4676	RunNo: 5 SeqNo: 1 %REC 119 108 107 103 98.3 114	2231 711456 LowLimit 80 80 80 80 80 70 70 70	Units: <b>µg/L</b> HighLimit 120 120 120 120 120 130	%RPD 1.07 0.498 1.17 1.53 0 0	RPDLimit 20 20 20 20 0 0	Qual
Client ID: MW-5 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8	Batch Analysis E Result 24 22 21 62 9.8 11 SampT	h ID: <b>B5</b> Date: <b>6</b> / PQL 1.0 1.0 1.0 1.5	2231 25/2018 20.00 20.00 20.00 60.00 10.00 10.00	F SPK Ref Val 0 0 0 0.4676 Tes	RunNo: 5 SeqNo: 1 %REC 119 108 107 103 98.3 114	2231 711456 LowLimit 80 80 80 80 80 70 70 70 PA Method	Units: <b>µg/L</b> HighLimit 120 120 120 120 120 130 130	%RPD 1.07 0.498 1.17 1.53 0 0	RPDLimit 20 20 20 20 0 0	Qual
Client ID: MW-5 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID rb	Batch Analysis E Result 24 22 21 62 9.8 11 SampT	h ID: <b>B5</b> Date: <b>6</b> / PQL 1.0 1.0 1.0 1.5	2231 25/2018 20.00 20.00 20.00 60.00 10.00 10.00 3LK 2231	F SPK Ref Val 0 0 0 0.4676 Tes F	RunNo: 5: SeqNo: 1 %REC 119 108 107 103 98.3 114 tCode: El	2231 711456 LowLimit 80 80 80 80 70 70 70 PA Method 2231	Units: <b>µg/L</b> HighLimit 120 120 120 120 120 130 130	%RPD 1.07 0.498 1.17 1.53 0 0	RPDLimit 20 20 20 20 0 0	Qual
Client ID: MW-5 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID rb Client ID: PBW	Batcl Analysis I Result 24 22 21 62 9.8 11 Samp ¹ Batcl	h ID: <b>B5</b> Date: <b>6</b> / PQL 1.0 1.0 1.0 1.5	2231 25/2018 20.00 20.00 20.00 60.00 10.00 3LK 2231 25/2018	F SPK Ref Val 0 0 0 0.4676 Tes F	RunNo: 5: SeqNo: 1 %REC 119 108 107 103 98.3 114 tCode: EI	2231 711456 LowLimit 80 80 80 80 70 70 70 PA Method 2231	Units: µg/L HighLimit 120 120 120 120 130 130 8260: Volatil	%RPD 1.07 0.498 1.17 1.53 0 0	RPDLimit 20 20 20 20 0 0	Qual
Client ID: MW-5 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID rb Client ID: PBW Prep Date:	Batcl Analysis I Result 24 22 21 62 9.8 11 Samp ¹ Batcl Analysis I	h ID: <b>B5</b> Date: <b>6</b> / PQL 1.0 1.0 1.0 1.5 Type: <b>ME</b> h ID: <b>B5</b> Date: <b>6</b> /	2231 25/2018 20.00 20.00 20.00 60.00 10.00 3LK 2231 25/2018	F SPK Ref Val 0 0 0 0.4676 Tes F S	RunNo: 5: SeqNo: 1 %REC 119 108 107 103 98.3 114 tCode: El RunNo: 5: SeqNo: 1	2231 711456 LowLimit 80 80 80 80 70 70 70 PA Method 2231 711473	Units: µg/L HighLimit 120 120 120 120 130 130 8260: Volatile Units: µg/L	%RPD 1.07 0.498 1.17 1.53 0 0	RPDLimit 20 20 20 0 0 0	
Client ID: MW-5 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID rb Client ID: PBW Prep Date: Analyte	Batcl Analysis I Result 24 22 21 62 9.8 11 SampT Batcl Analysis I Result	h ID: <b>B5</b> Date: <b>6</b> / PQL 1.0 1.0 1.0 1.5 Fype: <b>ME</b> h ID: <b>B5</b> Date: <b>6</b> / PQL	2231 25/2018 20.00 20.00 20.00 60.00 10.00 3LK 2231 25/2018	F SPK Ref Val 0 0 0 0.4676 Tes F S	RunNo: 5: SeqNo: 1 %REC 119 108 107 103 98.3 114 tCode: El RunNo: 5: SeqNo: 1	2231 711456 LowLimit 80 80 80 80 70 70 70 PA Method 2231 711473	Units: µg/L HighLimit 120 120 120 120 130 130 8260: Volatile Units: µg/L	%RPD 1.07 0.498 1.17 1.53 0 0	RPDLimit 20 20 20 0 0 0	
Client ID: MW-5 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID rb Client ID: PBW Prep Date: Analyte Benzene	Batcl Analysis I Result 24 22 21 62 9.8 11 Samp Batcl Analysis I Result ND	h ID: <b>B5</b> Date: <b>6</b> / <b>PQL</b> 1.0 1.0 1.0 1.0 1.5 Type: <b>ME</b> h ID: <b>B5</b> Date: <b>6</b> / <b>PQL</b> 1.0 1.0 1.0	2231 25/2018 20.00 20.00 20.00 60.00 10.00 3LK 2231 25/2018	F SPK Ref Val 0 0 0 0.4676 Tes F S	RunNo: 5: SeqNo: 1 %REC 119 108 107 103 98.3 114 tCode: El RunNo: 5: SeqNo: 1	2231 711456 LowLimit 80 80 80 80 70 70 70 PA Method 2231 711473	Units: µg/L HighLimit 120 120 120 120 130 130 8260: Volatile Units: µg/L	%RPD 1.07 0.498 1.17 1.53 0 0	RPDLimit 20 20 20 0 0 0	
Client ID: MW-5 Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID rb Client ID: PBW Prep Date: Analyte Benzene Toluene	Batcl Analysis I Result 24 22 21 62 9.8 11 Samp Batcl Analysis I Result ND ND	h ID: <b>B5</b> Date: <b>6</b> / PQL 1.0 1.0 1.0 1.0 1.5 Type: <b>ME</b> h ID: <b>B5</b> Date: <b>6</b> / PQL 1.0 1.0	2231 25/2018 20.00 20.00 20.00 60.00 10.00 3LK 2231 25/2018	F SPK Ref Val 0 0 0 0.4676 Tes F S	RunNo: 5: SeqNo: 1 %REC 119 108 107 103 98.3 114 tCode: El RunNo: 5: SeqNo: 1	2231 711456 LowLimit 80 80 80 80 70 70 70 PA Method 2231 711473	Units: µg/L HighLimit 120 120 120 120 130 130 8260: Volatile Units: µg/L	%RPD 1.07 0.498 1.17 1.53 0 0	RPDLimit 20 20 20 0 0 0	

#### **Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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- WO#: **1806D84** 
  - 27-Jun-18

## **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Client: Project:	APEX TITAN Trunk 6C									
Sample ID <b>rb</b>	Sam	прТуре: <b>М</b>	BLK	Tes	tCode: EF	PA Method	8260: Volatile	es Short L	.ist	
Client ID: PBW	Ba	tch ID: B	52231	F	RunNo: 52	2231				
Prep Date:	Analysi	s Date: 6	/25/2018	S	SeqNo: 17	711473	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobe	enzene 11		10.00		112	70	130			
Surr: Toluene-d8	11		10.00		110	70	130			
Sample ID         100ng btex lcs         SampType:         LCS4         TestCode:         EPA Method 8260:         Volatiles Short List										
Client ID: Batch	<b>QC</b> Ba	tch ID: C	52259	F	RunNo: 52	2259				
Prep Date:	Analysi	s Date: 6	/26/2018	S	SeqNo: 17	712316	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	117	80	120			
Toluene	22	1.0	20.00	0	108	80	120			
Ethylbenzene	21	1.0	20.00	0	107	80	120			
Xylenes, Total	62	1.5	60.00	0	103	80	120			
Surr: 4-Bromofluorobe	enzene 9.3		10.00		92.6	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			
Sample ID <b>rb</b>	Sam	рТуре: <b>М</b>	BLK	Tes	tCode: EF	PA Method	8260: Volatile	es Short L	.ist	
Client ID: PBW	Ba	tch ID: C	52259	F	RunNo: 52	2259				
Prep Date:	Analysi	s Date: 6	/26/2018	S	SeqNo: 17	712353	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 4-Bromofluorobe	enzene 11		10.00		110	70	130			
Surr: Toluene-d8	11		10.00		109	70	130			

#### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

Released to Imaging: 10/21/2022 11:47:57 AM

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

1806D84

27-Jun-18

WO#:

Page 11 of 11

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albuq TEL: 505-345-3975 F Website: www.halle	4901 Hawkins NE uerque, NM 87109 AX: 505-345-4107	Sar	nple Log-In Check List
Client Name: APEX AZTEC	Work Order Number: '	1806D84		RcptNo: 1
Received By: Ashley Gallegos	6/22/2018 8:00:00 AM	5	AJ.	
Completed By: Ashley Gallegos Reviewed By: MWL422[18	6/22/2018 9:26:51 AM	Labei	ed	by: JAB 06/2=/18
<u>Chain of Custody</u>		_		_
1. Is Chain of Custody complete?	Y	res 🔽	No 🗌	Not Present
2. How was the sample delivered?	<u>c</u>	Courier		
Log In 3. Was an attempt made to cool the samples?	٢	′es 🔽	No 🗌	NA 🗌
4. Were all samples received at a temperature of	f >0° C to 6.0°C γ	′es 🔽	No 🗌	NA 🗔
5. Sample(s) in proper container(s)?	Ŷ	′es 🗸	No 🗌	
6. Sufficient sample volume for indicated test(s)?	? Y	es 🗸	No 🗌	
7. Are samples (except VOA and ONG) properly	preserved? Y	es 🗹	No 🗌	
8. Was preservative added to bottles?	Y	es 🗌	No 🗹	NA 🗌
9. VOA vials have zero headspace?	Y	es 🔽	No 🗌	No VOA Vials
10. Were any sample containers received broken	? Y	es 🗋	No 🗹	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Ŷ	es 🗹	No 🗌	# of preserved bottles checked for pH: (<2 or >12 unless indeed)
12. Are matrices correctly identified on Chain of C	ustody? Ye	es 🔽	No 🗆	Adjusted?
13. Is it clear what analyses were requested?	Ye	es 🔽	No 🗆	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Y	es 🗹 🛛	No 🗌	Checked by:
Special Handling (if applicable)				
15. Was client notified of all discrepancies with th	is order? Y	es 🗌	No 🗌	NA 🗹
Person Notified: By Whom: Regarding: Client Instructions:	Date Via: 0	eMail Phone	📄 Fax	
16. Additional remarks:				19 90 - Dan ann ann ann ann an A
17. <u>Cooler Information</u> Cooler No Temp °C Condition Sea	l Intact Seal No Sea Present	I Date Sign	ed By	

_____

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Page 1 of 1

								CHAIN OF CUSTODY RECORD
×	Hall En Laboratory: Analy	aboratory: <u>Analysis (aboratory</u>			ANALYSIS REQUEST			Lab use only Due Date:
APEX	Address: <u>4901</u> H	autins	NE					Temp. of coolers 1. 6 - D. 4
Office Location		Albuqueque NM 87109						when received (C°): 1.2
6065 Rio Corande suite A-		Contact: DiFreeman						
Aztec, NM STUD		Phone: 505-345-3975				/ / /		/ / / Page of
Project Manager KSummers		PO/SO#: _72501012183						
	Sampler's Signature	iampler's Signature						
Proj. No. Project Name 725040112183 Thunk	: 6C	6 C No/Type of Containers			BIE	' / /		
	larks of Sample(s)	VOA	1 Lt. 250 ml	Jar P/O				Lab Sample ID (Lab Use Only)
W 6/21/18 900 MW	V-5	3			メ			1800084.001
W 6/21/18 955 m	w-9	3			$\times$			600-
W 1/21/18 1045 M	111-4	3			X			-003
W Vallis 1140 M	w-6	3			X			-004
W 4/21/18/1220 M	uv-7	3			X			-005
	w-3	3			X			-000
W 1/21/18 1400 M	W-2	3			V			-007
W lifelily 1945 n	141-8	3			$\overline{\boldsymbol{\lambda}}$			-008
N 62118 1530 N	1-15	3			X			-009
	NEG							
	□ 50% Rush □ 100% Rush	**				NOTES:		
Telinquished by (Signature) Date:	Time: Received by: (Sig 75		Le j	)ate: 2/18	Time:	NUTES:	Billtz	s Arex
Relinquished by (Signature)	Time: Received by: (Sig	nature)	0622	Date: I	Time:		Lorpe	srate rate
elinquished by (Signature) Date:	Time: Received by: Gig	nature)		ate:	Time:			
Relinquished by (Signature) Date:	Time: Received by: (Sig	nature)		ate:	Time:			

Apex TITAN, Inc. • 606 S. Rio Grande, Suite A, Downstairs • Aztec, New Mexico 87410 • Office: 505-334-5200 • Fax: 505-334-5204



June 26, 2018

Kyle Summers APEX TITAN 606 S. Rio Grande Suite A Aztec, NM 87410 TEL: (903) 821-5603 FAX Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

RE: Trunk 6-C

OrderNo.: 1806E53

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/23/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Envi	ronmental Analysis	Laboratory,	Inc.			Ι	Analytical Report Lab Order: 1806E53 Date Reported: 6/26/	/2018	6
CLIENT: Project:	APEX TITAN Trunk 6-C				L	.ab C	<b>)rder:</b> 1806E	53	
Lab ID:	1806E53-001		C	ollecti	on Date	: 6/2	22/2018 8:15:00 AN	M	
<b>Client Sample</b>	e ID: MW-14				Matrix	: A(	QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHO	D 8260: VOLATILES SHORT	LIST					Ana	lyst:	AG
Benzene		ND	1.0		µg/L	1	6/25/2018 11:36:12	-	
Toluene		ND	1.0		µg/L	1	6/25/2018 11:36:12		
Ethylbenzene		ND	1.0		μg/L	1	6/25/2018 11:36:12		
Xylenes, Tota		ND	1.5		μg/L	1	6/25/2018 11:36:12	PM	C52231
Surr: 4-Bro	mofluorobenzene	108	70-130		%Rec	1	6/25/2018 11:36:12	PM	C52231
Surr: Tolue	ne-d8	106	70-130		%Rec	1	6/25/2018 11:36:12	PM	C52231
Lab ID:	1806E53-002		С	ollecti	on Date	: 6/2	22/2018 9:05:00 AN	M	
Client Sample	e ID: MW-17				Matrix	: A(	QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHO	D 8260: VOLATILES SHORT	LIST					Ana	lyst:	AG
Benzene		29	1.0		µg/L	1	6/26/2018 12:45:20	AM	C52231
Toluene		ND	1.0		µg/L	1	6/26/2018 12:45:20	AM	C52231
Ethylbenzene		2.4	1.0		µg/L	1	6/26/2018 12:45:20	AM	C52231
Xylenes, Tota	l	ND	1.5		µg/L	1	6/26/2018 12:45:20	AM	C52231
Surr: 4-Bro	mofluorobenzene	107	70-130		%Rec	1	6/26/2018 12:45:20	AM	C52231
Surr: Tolue	ne-d8	102	70-130		%Rec	1	6/26/2018 12:45:20	AM	C52231
Lab ID:	1806E53-003		C	ollecti	on Date	: 6/2	22/2018 9:45:00 AN	M	
Client Sample	e ID: MW-1				Matrix	: A(	QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHO	D 8260: VOLATILES SHORT	LIST					Ana	lyst:	AG
Benzene		3800	50		µg/L	50	6/26/2018 1:08:17	٩M	C52231
Toluene		2400	50		μg/L	50	6/26/2018 1:08:17	٩M	C52231
Ethylbenzene		140	50		μg/L	50	6/26/2018 1:08:17	٩M	C52231
Xylenes, Tota		740	75		µg/L	50	6/26/2018 1:08:17	٩M	C52231
Surr: 4-Bro	mofluorobenzene	97.4	70-130		%Rec	50	6/26/2018 1:08:17	٩M	C52231
Surr: Tolue	ne-d8	104	70-130		%Rec	50	6/26/2018 1:08:17	٩M	C52231

- Qualifiers:
   *
   Value exceeds Maximum Contaminant Level.
   B
   A

   D
   Sample Diluted Due to Matrix
   E
   V

   H
   Holding times for preparation or analysis exceeded
   J
   A

   ND
   Not Detected at the Reporting Limit
   P
   S
  - PQL Practical Quanitative Limit

- Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 4
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Envir	onmental Analysis	Laboratory,	Inc.			Ι	Analytical Report Lab Order: 1806E53 Date Reported: 6/26/	/2018	8
CLIENT: Project:	APEX TITAN Trunk 6-C				L	.ab (	<b>)rder:</b> 1806E	53	
Lab ID:	1806E53-004		С	ollecti	on Date	: 6/2	22/2018 10:15:00 A	M	
<b>Client Sample</b>	<b>ID:</b> MW-10				Matrix	: A(	QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD	8260: VOLATILES SHORT	LIST					Ana	alyst	AG
Benzene		5.0	1.0		µg/L	1	6/26/2018 1:31:26	AM	C52231
Toluene		ND	1.0		μg/L	1	6/26/2018 1:31:26	AM	C52231
Ethylbenzene		ND	1.0		µg/L	1	6/26/2018 1:31:26	AM	C52231
Xylenes, Total		2.7	1.5		µg/L	1	6/26/2018 1:31:26	AM	C52231
Surr: 4-Bror	nofluorobenzene	110	70-130		%Rec	1	6/26/2018 1:31:26	AM	C52231
Surr: Toluer	ne-d8	110	70-130		%Rec	1	6/26/2018 1:31:26	۹M	C52231
Lab ID:	1806E53-005		C	ollecti	on Date	: 6/2	22/2018 10:50:00 A	M	
Client Sample	<b>ID:</b> MW-11				Matrix	: A0	QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD	8260: VOLATILES SHORT	LIST					Ana	lyst:	AG
Benzene		ND	1.0		µg/L	1	6/26/2018 1:54:25	AM	C52231
Toluene		ND	1.0		µg/L	1	6/26/2018 1:54:25	AM	C52231
Ethylbenzene		ND	1.0		µg/L	1	6/26/2018 1:54:25	AM	C52231
Xylenes, Total		ND	1.5		µg/L	1	6/26/2018 1:54:25	AM	C52231
Surr: 4-Bror	nofluorobenzene	109	70-130		%Rec	1	6/26/2018 1:54:25	AM	C52231
Surr: Toluer	ne-d8	105	70-130		%Rec	1	6/26/2018 1:54:25	۹M	C52231
Lab ID:	1806E53-006		C	ollecti	on Date	: 6/2	22/2018 11:25:00 A	M	
<b>Client Sample</b>	<b>ID:</b> MW-13				Matrix	: A0	QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	atch ID
	8260: VOLATILES SHORT	LIST					Ana	ilyst	AG
Benzene		ND	1.0		µg/L	1	6/26/2018 2:17:29	AM	C52231
Toluene		ND	1.0		μg/L	1	6/26/2018 2:17:29	AM	C52231
Ethylbenzene		ND	1.0		μg/L	1	6/26/2018 2:17:29	AM	C52231
Xylenes, Total		ND	1.5		µg/L	1	6/26/2018 2:17:29	AM	C52231
-	nofluorobenzene	107	70-130		%Rec	1	6/26/2018 2:17:29	AM	C52231
Surr: Toluer	ne-d8	109	70-130		%Rec	1	6/26/2018 2:17:29	AM	C52231

- Qualifiers:
   *
   Value exceeds Maximum Contaminant Level.
   Here

   D
   Sample Diluted Due to Matrix
   Here

   H
   Holding times for preparation or analysis exceeded
   Description
  - ND Not Detected at the Reporting Limit
  - PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 4
- P Sample pH Not In Range
- RL Reporting Detection Limit

APEX TITAN

**Client:** 

## **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Project: Trunk	x 6-C									
Sample ID 100ng btex lc	s2 Samp	Type: LC	S4	Tes	tCode: El	PA Method	8260: Volatil	es Short L	ist	
Client ID: BatchQC		h ID: <b>C5</b>	2231	F	RunNo: 5	2231				
Prep Date:	Analysis [	Date: 6/	25/2018	S	SeqNo: 1	711444	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	80	120			
Toluene	21	1.0	20.00	0	106	80	120			
Ethylbenzene	21	1.0	20.00	0	105	80	120			
Xylenes, Total	61	1.5	60.00	0	102	80	120			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.0	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			
Sample ID 1806e53-001a	Sample ID 1806e53-001ams SampType: MS4 TestCode: EPA Method 8260: Volatiles Short List									
Client ID: MW-14		h ID: C5			RunNo: 5					
Prep Date:	Analysis [	Date: 6/	25/2018	5	SeqNo: 1	711466	Units: µg/L			
Analyte	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	24	1.0	20.00	0	121	80	120			S
Toluene	22	1.0	20.00	0	111	80	120			
Ethylbenzene	22	1.0	20.00	0	111	80	120			
Xylenes, Total	64	1.5	60.00	0.5080	106	80	120			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			
Sample ID 1806e53-001a	msd Samp	Туре: <b>М</b>	SD4	Tes	tCode: El	PA Method	8260: Volatil	es Short L	ist	
Client ID: MW-14	Batc	h ID: <b>C5</b>	2231	F	RunNo: 5	2231				
Prep Date:	Analysis [	Date: 6/	26/2018	S	SeqNo: 1	711467	Units: µg/L			
Analyte	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	80	120	8.28	20	
Toluene	21	1.0	20.00	0	104	80	120	6.83	20	
Ethylbenzene Xylenes, Total	21 59	1.0 1.5	20.00 60.00	0 0.5080	103 97.3	80 80	120 120	7.71 8.88	20 20	
Surr: 4-Bromofluorobenzene	9.5	1.5	10.00	0.5080	97.5 94.6	70	120	0.00	20	
Surr: Toluene-d8	11		10.00		108	70	130	0	0	
Sample ID <b>rb3</b>			RIK	Tes	tCode: El	PA Method	8260: Volatil	os Short I	ist	
	Samn	IVDE MI				Amethou	0200. Volatil			
	•	Type: <b>MB</b> h ID: <b>C5</b>			RunNo: 5	2231				
Client ID: <b>PBW</b> Prep Date:	•	h ID: <b>C5</b>	2231	F	RunNo: <b>5</b> SeqNo: <b>1</b>		Units: µg/L			
Client ID: <b>PBW</b> Prep Date:	Batc Analysis [	h ID: <b>C5</b> Date: <b>6</b> /	2231 25/2018	F	SeqNo: 1	711474		%RPD	RPDI imit	Qual
Client ID: PBW	Batc Analysis [ Result	h ID: <b>C5</b>	2231 25/2018	F			Units: <b>µg/L</b> HighLimit	%RPD	RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte	Batc Analysis [	h ID: <b>C5</b> Date: <b>6/</b> <u>PQL</u> 1.0	2231 25/2018	F	SeqNo: 1	711474		%RPD	RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene Toluene	Batc Analysis [ Result ND	h ID: <b>C5</b> Date: <b>6/</b> <u>PQL</u> 1.0 1.0	2231 25/2018	F	SeqNo: 1	711474		%RPD	RPDLimit	Qual
Client ID: <b>PBW</b> Prep Date: Analyte Benzene	Batc Analysis [ Result ND ND	h ID: <b>C5</b> Date: <b>6/</b> <u>PQL</u> 1.0	2231 25/2018	F	SeqNo: 1	711474		%RPD	RPDLimit	Qual

#### **Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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26-Jun-18

Client:	APEX TITAN								
Project:	Frunk 6-C								
Sample ID <b>rb3</b>	SampType:	MBLK	Test	Code: EF	PA Method	8260: Volatile	es Short L	ist	
Client ID: PBW	Batch ID:	C52231	R	unNo: 52	2231				
Prep Date:	Analysis Date:	6/25/2018	S	eqNo: 17	711474	Units: µg/L			
Analyte	Result PC	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenz	zene 11	10.00		107	70	130			
Surr: Toluene-d8	10	10.00		104	70	130			

#### **Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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26-Jun-18

1806E53

WO#:

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	A TEL: 505-345-39	tai Analysis Labor 4901 Hawki Albuquerque, NM 975 FAX: 505-345 hallenvironmenta	ns NE 87109 San -4107	nple Log-In Check	List
Client Name: APEX AZTEC	Work Order Numb	ber: 1806E53		RcptNo: 1	
Received By: Andy Freeman	6/23/2018 10:35:00	AM	andy	-	
Completed By: Anne Thome Reviewed By: ENM	6/25/2018 9:24:11 A 6/25/15		and the	~	
MW Cel 25/18 Chain of Custody					
1. Is Chain of Custody complete?		Yes 🗹	No	Not Present	
2. How was the sample delivered?		Courier			
Log In 3. Was an attempt made to cool the samples?		Yes 🔽	No 🗌		
		165 12			
<ol><li>Were all samples received at a temperature or</li></ol>	f >0° C to 6.0°C	Yes 🗹	No 🗌		
5. Sample(s) in proper container(s)?		Yes 🔽	No 🗌		
<ol><li>Sufficient sample volume for indicated test(s)?</li></ol>	(	Yes 🗹	No 🗆		
<ol><li>Are samples (except VOA and ONG) properly</li></ol>	preserved?	Yes 🗹	No 🗌		
3. Was preservative added to bottles?		Yes 🗌	No 🗹	NA 🗆	
O VOA vials have zero headspace?		Yes 🗹	No 🗌	No VOA Vials	
0. Were any sample containers received broken	?	Yes	No 🗹	# of preserved	
1. Does peperwork metch bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗆	for pH:	s noted
2. Are matrices correctly identified on Chain of C	istody2	Yes 🔽	No 🗌	Adjusted?	a notec
3. Is it clear what analyses were requested?	lotody.	Yes 🗹	No 🗆	MU	
<ol> <li>Were all holding times able to be met? (If no, notify customer for authorization.)</li> </ol>		Yes 🗹	No 🗆	Checked by	
pecial Handling (if applicable)					
5. Was client notified of all discrepancies with th	s order?	Yes	No 🗌	NA 🔽	
Person Notified:	Date				
By Whom:	Via:	n eMail 🗆 F	hone 🗌 Fax	In Person	
Regarding:				and a first state of the state	
Client Instructions:					
6. Additional remarks:					
CUSTODY SEALS INTACT ON VOA VI	AI SIN 6/25/40				
	ALO/ALO/20/18				
7. <u>Cooler Information</u> Cooler No Temp °C Condition Sea	Intact Seal No	Seal Date	Signed By		
1 1.7 Good Yes	intaut Jean NU	Joar Date	Signed by		

Page 1 of 1

																				(	CHAIN OF CUSTODY RECORD
	/					A Laboratory:	tall c An							1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	ALYS		$\left  \right $	1	/	/	Lab use only Due Date:
AP	EX					Address: _							6			/	/	/	/	[ ]	
Office L						Albug.	urg	ue,	NM	1 8 7	7/0	4				1	/	1		/	when received (C'): 1,7 %
			de,	Sui	ite A	Contact: A, Fr				remun					1	11	1 ]	/	/		
Az	ztec,	NM	87	ui		Phone: 505 -				5-29	75	3				11	[]	1	1	11	Page_/of_/
Project	Manad	aer .	K.S	um	ners	Phone: 505 -			011:	2183	>			÷.,	à	11	1	/	/ /	[ ]	11
Complaria	a Manaa	)eech			and the second	Sampler's Sign	ature	1							BIEX Edal		/ /	[.]	[]		/ /
Proj. No. 72504			Proje	ect Na					No/T	ype of C	Contair	ners			E.			/	/	[ ]	
Matrix	Date	Time	CoEo	Grab		ks of Sample(s)	Start Depth	End Depth	VOA	AG 1.LL	250 al	Glass Jar	P,O		/ /			$\left[ \right]$			Lab Sample ID (Lab Use Only)
W 4	20/18	815			MW.	-14			3					X							1806E53-001
W pl	122/18	905			MW	-17			3					X							-602
	hzju				MW	-1			3					X							203
		1015			MW	-10			3					X							COY
		1050			MU	J-1)			3					X							705
Wbj	rains	1125				1-13			3		_			X							ZClo
				_		ANCI				-	-								+		
						MES			-												
Turn arou	und time	V Nor	mal		25% Rush	50% Rush	100%	Ruch		Į			-			_					
Relinquist		Signature)	ingi	T	Date: 1 7		ved by:		ture)		4	Date	tis	140	me:	NOT		11+	o A	Pex	
nuc	27-6	Signature)	4	1	3/22/15/17	Time: Received by: (Signa			-		_	Date 6/2 Date		103			D	11	C	orpor	raterate
7		Signature) Signature)	_	_		sources and search and	ved by: ved by:	107.000.00			_	Date	2	Time:							

Apex TITAN, Inc. • 606 S. Rio Grande, Suite A, Downstairs • Aztec, New Mexico 87410 • Office: 505-334-5200 • Fax: 505-334-5204

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December 18, 2018

Kyle Summers APEX TITAN 606 S. Rio Grande Suite A Aztec, NM 87410 TEL: (903) 821-5603 FAX Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

RE: Trunk 6C

OrderNo.: 1812919

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 15 sample(s) on 12/15/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis	Laboratory,	Inc.			Ι	Analytical Report Lab Order: 1812919 Date Reported: 12/1	
CLIENT:APEX TITANProject:Trunk 6C				L	ab C	<b>Drder:</b> 18129	919
Lab ID: 1812919-001		C	ollecti	on Date	: 12	2/13/2018 11:00:00	) AM
Client Sample ID: MW-15				Matrix	: A(	QUEOUS	
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						An	alyst: <b>NSB</b>
Benzene	1.2	1.0		µg/L	1	12/17/2018 11:38:	15 AM R56381
Toluene	ND	1.0		µg/L	1	12/17/2018 11:38:	15 AM R56381
Ethylbenzene	ND	1.0		µg/L	1	12/17/2018 11:38:	15 AM R56381
Xylenes, Total	ND	2.0		µg/L	1	12/17/2018 11:38:	15 AM R56381
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	12/17/2018 11:38:	15 AM R56381
Lab ID: 1812919-002		C	ollecti	on Date	: 12	2/13/2018 11:40:00	) AM
Client Sample ID: MW-14				Matrix	: A0	QUEOUS	
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						An	alyst: <b>NSB</b>
Benzene	2.7	1.0		µg/L	1	12/17/2018 12:01:	05 PM R56381
Toluene	ND	1.0		µg/L	1	12/17/2018 12:01:	05 PM R56381
Ethylbenzene	ND	1.0		µg/L	1	12/17/2018 12:01:	05 PM R56381
Xylenes, Total	6.1	2.0		µg/L	1	12/17/2018 12:01:	05 PM R56381
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	12/17/2018 12:01:	05 PM R56381
Lab ID: 1812919-003		C	ollecti	on Date	<b>:</b> 12	2/13/2018 12:20:00	PM
Client Sample ID: MW-7				Matrix	: A(	QUEOUS	
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						An	alyst: <b>NSB</b>
Benzene	ND	1.0		µg/L	1	12/17/2018 12:23:	-
Toluene	ND	1.0		µg/L	1	12/17/2018 12:23:	
Ethylbenzene	ND	1.0		µg/L	1	12/17/2018 12:23:	
Xylenes, Total	ND	2.0		µg/L	1	12/17/2018 12:23:	
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	12/17/2018 12:23:	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environm	ental Analysis	Laboratory,	Inc.			Ι	Analytical Report Lab Order: 1812919 Date Reported: 12/1		18
	EX TITAN 1nk 6C				L	ab C	<b>)rder:</b> 1812	919	
Lab ID:	1812919-004		С	ollecti	on Date	: 12	/13/2018 1:00:00	PM	
Client Sample ID:	MW-5				Matrix	: A0	QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021	B: VOLATILES						An	alyst:	NSB
Benzene		ND	1.0		µg/L	1	12/17/2018 12:46:	44 PN	1 R56381
Toluene		ND	1.0		µg/L	1	12/17/2018 12:46:	44 PN	1 R56381
Ethylbenzene		ND	1.0		µg/L	1	12/17/2018 12:46:	44 PN	1 R56381
Xylenes, Total		ND	2.0		µg/L	1	12/17/2018 12:46:	44 PN	1 R56381
Surr: 4-Bromofluor	obenzene	98.1	80-120		%Rec	1	12/17/2018 12:46:	44 PN	1 R56381
Lab ID:	1812919-005		С	ollecti	on Date	: 12	2/13/2018 1:40:00	PM	
Client Sample ID:	MW-9				Matrix	: A0	QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021	B: VOLATILES						An	alyst:	NSB
Benzene		ND	1.0		µg/L	1	12/17/2018 1:09:3	7 PM	R56381
Toluene		ND	1.0		µg/L	1	12/17/2018 1:09:3	7 PM	R56381
Ethylbenzene		ND	1.0		µg/L	1	12/17/2018 1:09:3	7 PM	R56381
Xylenes, Total		ND	2.0		µg/L	1	12/17/2018 1:09:3	7 PM	R56381
Surr: 4-Bromofluor	obenzene	99.9	80-120		%Rec	1	12/17/2018 1:09:3	7 PM	R56381
Lab ID:	1812919-006		С	ollecti	on Date	: 12	2/13/2018 2:20:00	PM	
Client Sample ID:	MW-6				Matrix	: A(	QUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021	B: VOLATILES						An	alyst:	NSB
Benzene		ND	1.0		µg/L	1	12/17/2018 1:32:3	5 PM	R56381
Toluene		ND	1.0		μg/L	1	12/17/2018 1:32:3	5 PM	R56381
Ethylbenzene		2.7	1.0		μg/L	1	12/17/2018 1:32:3		
Xylenes, Total		9.8	2.0		μg/L	1	12/17/2018 1:32:3		
Surr: 4-Bromofluor	honzono	115	80-120		%Rec	1	12/17/2018 1:32:3		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	TT	II-14's - the for an end of the second of

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis	Laboratory,	Inc.			Ι	Analytical Report Lab Order: 1812919 Date Reported: 12/1		8
CLIENT:APEX TITANProject:Trunk 6C				L	ab C	<b>)rder:</b> 1812	919	
Lab ID: 1812919-007		С	ollecti	on Date	: 12	/13/2018 3:00:00	PM	
Client Sample ID: MW-4				Matrix	: A0	QUEOUS		
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021B: VOLATILES						An	alyst:	NSB
Benzene	ND	1.0		µg/L	1	12/17/2018 1:55:3	2 PM	R56381
Toluene	ND	1.0		µg/L	1	12/17/2018 1:55:3	2 PM	R56381
Ethylbenzene	ND	1.0		µg/L	1	12/17/2018 1:55:3	2 PM	R56381
Xylenes, Total	ND	2.0		µg/L	1	12/17/2018 1:55:3	2 PM	R56381
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	12/17/2018 1:55:3	2 PM	R56381
Lab ID: 1812919-008		C	ollecti	on Date	: 12	/14/2018 8:40:00	AM	
Client Sample ID: MW-8				Matrix	: A0	QUEOUS		
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021B: VOLATILES						An	alyst:	NSB
Benzene	ND	1.0		µg/L	1	12/17/2018 2:18:3	0 PM	R56381
Toluene	ND	1.0		µg/L	1	12/17/2018 2:18:3	0 PM	R56381
Ethylbenzene	ND	1.0		µg/L	1	12/17/2018 2:18:3	0 PM	R56381
Xylenes, Total	ND	2.0		µg/L	1	12/17/2018 2:18:3	0 PM	R56381
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	12/17/2018 2:18:3	0 PM	R56381
Lab ID: 1812919-009		С	ollecti	on Date	: 12	/14/2018 9:20:00	AM	
Client Sample ID: MW-3				Matrix	: A0	QUEOUS		
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021B: VOLATILES						An	alyst:	NSB
Benzene	ND	1.0		µg/L	1	12/17/2018 4:58:1	-	
Toluene	ND	1.0		µg/L	1	12/17/2018 4:58:1		
Ethylbenzene	ND	1.0		µg/L	1	12/17/2018 4:58:1		
•	ND							
Xylenes, Total	IND	2.0		µg/L	1	12/17/2018 4:58:1		1,20201

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis	Laboratory,	Inc.			Ι	Analytical Report Lab Order: 1812919 Date Reported: 12/1		8
CLIENT:APEX TITANProject:Trunk 6C				L	ab C	<b>)rder:</b> 18129	919	
Lab ID: 1812919-010		C	ollecti	on Date	: 12	/14/2018 10:00:00	AM	
Client Sample ID: MW-2				Matrix	: A(	QUEOUS		
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021B: VOLATILES						An	alyst:	NSB
Benzene	ND	1.0		µg/L	1	12/17/2018 5:20:5	9 PM	R56381
Toluene	ND	1.0		µg/L	1	12/17/2018 5:20:5	9 PM	R56381
Ethylbenzene	ND	1.0		µg/L	1	12/17/2018 5:20:5	9 PM	R56381
Xylenes, Total	ND	2.0		µg/L	1	12/17/2018 5:20:5	9 PM	R56381
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	12/17/2018 5:20:5	9 PM	R56381
Lab ID: 1812919-011		C	ollecti	on Date	: 12	/14/2018 10:40:00	AM	
Client Sample ID: MW-17				Matrix	: A(	QUEOUS		
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021B: VOLATILES						An	alyst:	NSB
Benzene	29	1.0		µg/L	1	12/17/2018 5:43:3	6 PM	R56381
Toluene	ND	1.0		µg/L	1	12/17/2018 5:43:3	6 PM	R56381
Ethylbenzene	1.8	1.0		µg/L	1	12/17/2018 5:43:3	6 PM	R56381
Xylenes, Total	ND	2.0		µg/L	1	12/17/2018 5:43:3	6 PM	R56381
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	1	12/17/2018 5:43:3	6 PM	R56381
Lab ID: 1812919-012		C	ollecti	on Date	: 12	/14/2018 11:20:00	AM	
Client Sample ID: MW-1				Matrix	: A(	QUEOUS		
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021B: VOLATILES						An	alyst:	NSB
Benzene	590	50		µg/L	50	12/17/2018 6:06:1	4 PM	R56381
Toluene	400	50		µg/L	50			
Ethylbenzene	33	25		µg/L	50			
Xylenes, Total	99	50		µg/L	50			
Surr: 4-Bromofluorobenzene								

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis	Laboratory,	Inc.			Ι	Analytical Report Lab Order: 1812919 Date Reported: 12/1		.8
CLIENT:APEX TITANProject:Trunk 6C				L	ab C	<b>)rder:</b> 1812	919	
Lab ID: 1812919-013		C	ollecti	on Date	: 12	/14/2018 12:00:00	PM	
Client Sample ID: MW-13				Matrix	: A(	QUEOUS		
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021B: VOLATILES						An	alyst:	NSB
Benzene	ND	1.0		µg/L	1	12/17/2018 6:29:0	1 PM	R56381
Toluene	ND	1.0		µg/L	1	12/17/2018 6:29:0	1 PM	R56381
Ethylbenzene	ND	1.0		µg/L	1	12/17/2018 6:29:0	1 PM	R56381
Xylenes, Total	ND	2.0		µg/L	1	12/17/2018 6:29:0	1 PM	R56381
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	12/17/2018 6:29:0	1 PM	R56381
Lab ID: 1812919-014		C	ollecti	on Date	: 12	/14/2018 12:20:00	PM	
Client Sample ID: MW-11				Matrix	: A0	QUEOUS		
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021B: VOLATILES						An	alyst:	NSB
Benzene	ND	1.0		µg/L	1	12/17/2018 6:51:5	4 PM	R56381
Toluene	ND	1.0		µg/L	1	12/17/2018 6:51:5	4 PM	R56381
Ethylbenzene	ND	1.0		µg/L	1	12/17/2018 6:51:5	4 PM	R56381
Xylenes, Total	ND	2.0		µg/L	1	12/17/2018 6:51:5	4 PM	R56381
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	12/17/2018 6:51:5	4 PM	R56381
Lab ID: 1812919-015		C	ollecti	on Date	: 12	/14/2018 12:40:00	PM	
Client Sample ID: MW-10				Matrix	: A(	QUEOUS		
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 8021B: VOLATILES						An	alyst:	NSB
Benzene	ND	1.0		µg/L	1	12/17/2018 7:14:4	-	
Toluene	ND	1.0		μg/L	1	12/17/2018 7:14:4		
Ethylbenzene	ND	1.0		µg/L	1	12/17/2018 7:14:4		
Xylenes, Total	ND	2.0		µg/L	1	12/17/2018 7:14:4		
Surr: 4-Bromofluorobenzene						12/17/2018 7:14:4		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit

### **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

	EX TITAN nk 6C										
Sample ID RB	Samp	Type: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles			
Client ID: PBW	Bato	Batch ID: R56381			RunNo: <b>56381</b>						
Prep Date:	Analysis	Date: 12	2/17/2018	S	SeqNo: 1	885551	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Xylenes, Total	ND	2.0									
Surr: 4-Bromofluorobenzene	20		20.00		102	80	120				
Sample ID 100NG BTE	X LCS Samp	Type: LC	s	Tes	TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSW	Bato	ch ID: <b>R5</b>	6381	F	RunNo: 56381						
Prep Date:	Analysis	Date: 12	2/17/2018	5	SeqNo: 1	885552	Units: µg/L				
Analyte	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	18	1.0	20.00	0	90.7	80	120				
Toluene	19	1.0	20.00	0	92.8	80	120				
Ethylbenzene	19	1.0	20.00	0	94.8	80	120				
Xylenes, Total	58	2.0	60.00	0	95.9	80	120				
Surr: 4-Bromofluorobenzene	e 21		20.00		107	80	120				
Sample ID 1812919-007	1AMS Samp	Type: MS	6	Tes	tCode: El	PA Method	8021B: Volat	iles			
Client ID: MW-15	Bato	ch ID: <b>R5</b>	6381	F	RunNo: 5	6381					
Prep Date:	Analysis	Date: 12	2/17/2018	SeqNo: 1885556			Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	19	1.0	20.00	1.188	87.5	80	120				
Toluene	19	1.0	20.00	0.3176	93.1	80	120				
Ethylbenzene	19	1.0	20.00	0.4096	93.5	80	120				
Xylenes, Total	61	2.0	60.00	1.645	98.4	80	120				
Surr: 4-Bromofluorobenzene	24		20.00		119	80	120				
Sample ID 1812919-007	1AMSD Samp	D SampType: MSD TestCode: EPA Method 8021B: Volatiles									
Client ID: MW-15	Bato	ch ID: <b>R5</b>	6381	F	RunNo: 5	6381					
Prep Date:	Analysis	Date: 12	2/17/2018	18 SeqNo: 1885557 Units: μg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	18	1.0	20.00	1.188	83.8	80	120	3.97	20		
Toluene	18	1.0	20.00	0.3176	89.3	80	120	4.09	20		
Ethylbenzene	19	1.0	20.00	0.4096	91.3	80	120	2.30	20		
									~~		
Xylenes, Total	57	2.0	60.00	1.645	92.6	80	120	5.92	20		

#### **Qualifiers:**

- Value exceeds Maximum Contaminant Level. *
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Detection Limit RL
- W Sample container temperature is out of limit as specified

1812919

18-Dec-18

WO#:

Page 6 of 6

ENVIRONMENTAL ANALYSIS	all Environmental Analysis Labora 4901 Hawkins Albuquerque, NM 87 EL: 505-345-3975 FAX: 505-345-4 Website: www.hallenvironmental.	^{8 NE} 7109 San 4107	Page Sample Log-In Check List		
Client Name: APEX AZTEC Wor	k Order Number: 1812919		RcptNo: 1		
Received By: Andy Freeman 12/15/	2018 4:00:00 PM	andy	-		
Completed By:         Erin Melendrez         12/17/           Reviewed By:         JU /2-17-18         12/17/           LB:         DAD 12/17/18         12/17/18	2018 9:23:11 AM	and the Mark	7		
Chain of Custody					
1. Is Chain of Custody complete?	Yes 🗹	No 🗌	Not Present		
2. How was the sample delivered?	<u>Courier</u>				
Log In 3. Was an attempt made to cool the samples?	Yes 🗹	No 🗔	NA		
4. Were all samples received at a temperature of >0° C	to 6.0°C Yes 🗹	No 🗌	NA 🗍		
5. Sample(s) in proper container(s)?	Yes 🗸	No 🗌			
6. Sufficient sample volume for indicated test(s)?	Yes 🔽	No 🗌			
7. Are samples (except VOA and ONG) properly present	ved? Yes 🗹	No 🗆			
8. Was preservative added to bottles?	Yes	No 🗹	NA 🗆		
9. VOA vials have zero headspace?	Yes 🗹	No 🗌	No VOA Vials		
10, Were any sample containers received broken?	Yes	No 🗹	# of preserved bottles checked		
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗀	for pH:	unless noted)	
12. Are matrices correctly identified on Chain of Custody	Yes 🗹	No 🗆	Adjusted?		
13. Is it clear what analyses were requested?	Yes 🔽	No 🗌			
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🗌	Checked by: DAN	12/17/18	
Special Handling (if applicable)					
15. Was client notified of all discrepancies with this orde	? Yes 🗌	No 🗌	NA 🗹	,	
Person Notified:	Date:		· · · · · · · · · · · · · · · · · · ·		
By Whom:	Via: 🗌 eMail 🗌 Pi	hone 🔄 Fax	In Person		
Regarding:	······				
Client Instructions:	······································				
16. Additional remarks:			<u>·</u>		
17. <u>Cooler Information</u>					
Cooler No Temp ºC Condition Seal Intact	Seal No Seal Date	Signed By			
1 1.7 Good Yes					

_____

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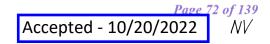
<b>-</b>				CHAIN OF CUSTODY RECO	RE
				ANALYSIS / / / / / / Lab use only	
	Laboratory: Hall	Environ	neallab	REQUESTED / / / / / / / Due Date:	
APEX _	Address Alb		()an		
ALLA ERA	Address: Albergu 4901 Now 2, 5	pergoe	NM	Temp. of coolers when received (C°): 4,7	1C
Office Location 6 5 R.ºO Corandre Su; + A	Providente A G	SNE			
Corande Su; + H	Contact: A Fie				, 
Aztac NM 87410				Page	<b>-</b>
Project Manager <u>K Summers</u>		11218	5		
Sampler's Name	Sampler's Signature	/		<b>h</b>	
CDAponti Proj. No. Project Name	detta				
	4	No/Type of C	ontainers		
725040112183 Trunk				1812919	
Matrix Date Time C G m a Identifying Ma	arks of Sample(s)	A/G VOA	250 ml Glass Jár	Lab Sample ID (Lab Use Only)	
W 2/13/18/100 mw-		3	- Cu	100-	
W 3/13/18 1140 mw-		3	AN AN AN	¥ -002	
~ 13/13/18 1220 mw-	7	3	- A	4 -003	
w 13/2/12/2012 musi-		3	- ANA	× -004	
W 3/13/18/1340 mw	- 9	3	33	e -005	
~ 1/2/18/1420 mw		3	4	a) - 000	
W 13/13/18 1340 MW W 13/13/18 1340 MW W 13/18/18/1420 MW W 1/3/18/1500 MW- W 1/3/18/1500 MW-		3	-Lawlerge	v -007	
W 7.4/18 540 mw-	-8	3	1 Buc	10 -008	
w 12/14/18 920 mw		3	2	P00-	
W 10/14/15 1000 mn		3	24	010-	
Turn around time 🛛 🔁 Normal 🔲 25% Rush 🛛	🗆 50% Rush 🔲 100% Rush	2			
	Time: Received by: (Signa	ature)	Date: )2/14/15	Time: NOTES:	
Relinquished by (Signature) Date:	Time: Received by: (Signa		Date:	IMIS Bill to Apar	
Christela as the 12/14/18 18	10 Vente	Ľ	14/15/18	(LOV	
Relinquished by (Signature) Date:	Time: Received by: (Signa	ature)	Date:	Time: Corp Pate	
Relinquished by (Signature) Date:	Time: Received by: (Signa	ature)	Date:	Time:	
Matrix WW - Wastewater W - Water Container VOA - 40 ml vial A/G - Amber / C	S - Soil SD - Solid L - Liqui Dr Glass 1 Liter 250 ml -	- Glass wide mo		arcoal tube SL - sludge O - Oil Plastic or other	

Apex TITAN, Inc. • 606 S. Rio Grande, Suite A, Downstairs • Aztec, New Mexico 87410 • Office: 505-334-5200 • Fax: 505-334-5204

							CHAIN O	F CUSTODY RECORD
×	Laboratory: Le	-10		nenU	Analysis Requeste	d / / /		Lab use only Due Date:
APEX Address Heat Hack Social								
Office Location $\frac{606}{100}$ S $R.^{\circ}o$	Albuquer Contact: A F	que r	um s	7657				/ Temp. of coolers /, >< when received (C°):
Grande Suite A	Contact: A E	hela	an		G S		' / / / /	1 2 3 4 5
	Phone: 525				5			Page_2 of_2
Project Manager <u>K Summer S</u>	PO/SO #: 2252	04/011	218.	3				
-	Sampler's Signature				U. U. /			
CDAponti Proj. No. Project Name	alut.	2						
Proj. No. Project Name		No/Ty	pe of Con	tainers	m//			
225-040112183 TIUNK		<u> </u>		(0 -	- 7/			1812919
Matrix Date Time C G m a Identifying Mark P b	ks of Sample(s) 방법	VOA VOA	AG 1Lt 250	P/O		'	/ / La	b Sample ID (Lab Use Only)
w 1/4/18 2040 mw-	-17	3		A Glass	X			-011
~ 12/14/18/117/0 mm.		Ż		3	Ý			012
w 0/10/18 1200 mw-		3			×		-	013
w Julie 1220 mw		3		DOM-MO	Υ		-	-014
	mw-10			3	7			015
		3			+			
						$\mathbf{N}$		
	50% Rush 🛄 100% R	-		I		<b>_</b>	I	
Relinquished by (Signature) Date: T	ime: Received by: (SIII)		<b>.</b> .	Date:	Time: NO	OTES:	1. 1.	
Polinguished by (Signatuka) Data:	me: Received by: (S	Signature)	•	Date:	Time:	Bill	to Apy	
	ime: Received by: (S	Signature)		12/15/15 Date:	760,			
						CorA	Rate	
Relinquished by (Signature) Date: T	ime: Received by: (\$	Signature)		Date:	Time:			
Matrix WW - Wastewater W - Water S Container VOA - 40 ml vial A/G - Amber / Or	- Soil SD - Solid L - Glass 1 Liter 256	Liquid: A 0 ml - Glass v	-AirBag		rcoal tube SL	- sludge O - Oil		

Apex TITAN, Inc. • 606 S. Rio Grande, Suite A, Downstairs • Aztec, New Mexico 87410 • Office: 505-334-5200 • Fax: 505-334-5204

Received by OCD: 3/18/2021 12:50:13 PM



# RP # 3R-438

# AGWMR

# 2019

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Scott Drewry	Title: Geologist
Signature: Scar Day	Date:
OCD Only	
Received by:	Date:



ENTERPRISE PRODUCTS PARTNERS L.P. ENTERPRISE PRODUCTS GP, LLC (General Partner)

Submitted via Email to: Cory.Smith@State.nm.us

Mr. Cory Smith New Mexico Energy, Minerals & Natural Resources Department – Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

RE: 2019 Groundwater Monitoring Report (Ensolum, August 10, 2020) Enterprise Field Services, LLC Trunk 6C Pipeline - Kutz Wash Release (09/22/11) San Juan County, New Mexico [SW ¼, S26 T28N R11W (36.63202° N, 107.97400° W)] OCD RP: 3R-438; OCD Abatement Plan No. 131

Dear Mr. Smith:

Enterprise Products Operating LLC (Enterprise), on behalf of Enterprise Field Services LLC, is pleased to submit to the New Mexico (NM) Energy, Minerals & Natural Resources Department (EMNRD) – Oil Conservation Division (OCD) an electronic copy of the above-referenced document prepared by Ensolum, LLC (Ensolum) and dated August 10, 2020. The subject document is associated with the September 22, 2011 discovery of a release of natural gas condensate from the Enterprise Trunk 6C pipeline located near the Kutz Wash at the above-referenced location (the "Site"). The attached document summarizes ongoing semi-annual (SA) groundwater monitoring and sampling (GWM&S) activities that occurred at the Site between January 1, 2019 and January 10, 2020 (the "reporting period"). The GWM&S activities were performed to further evaluate dissolved-phased hydrocarbon (DPH), or constituents of concern (COC), concentrations in groundwater.

Data presented in the attached report indicate that COC concentrations in excess of the applicable Water Quality Control Commission (WQCC) *Groundwater Quality Standards* (*GQSs*) remain at the Site in only one monitor well (MW-1). Additionally, with the possible exception of downgradient well MW-15, the DPH plume (MW-1 and MW-17) is currently delineated by monitor wells MW-2, MW-4, MW 6 and MW-11.

Based on the information presented in the attached report, Enterprise plans to: 1) continue SA-GWM&S activities to evaluate the stability of COC concentrations in subsurface groundwater, 2) conduct additional site-specific aquifer characterization, and testing to evaluate the options to remediate areas of GWQ exceedances, and 3) prepare a Stage 2 Abatement Plan (once the *Stage 1 Abatement Plan* has been fully approved and implemented). As previously requested in the cover letter for the *2018 Groundwater Monitoring Report*, Enterprise respectfully requests the plugging and abandonment of (or the suspension of monitoring and sampling activities of): MW-3, MW-5, MW-7, MW-9, MW-12 and MW-13 (and possibly MW-8, MW-10 and MW-14).

Enterprise appreciates the OCD's continued assistance and guidance in bringing closure to this Site. Should you have any questions, comments or concerns, or require additional information, please feel free to contact me any time at 713-381-8780, or at <u>gemiller@eprod.com</u>.

Sincerely,

Gregory E. Mille, P.G. Supervisor, Environmental

Rodney M. Sartor, REM Sr. Director, Environmental

cc: Ms. Katie White Bull – BLM, Farmington, NM (landowner) ec: Mr. Cory Smith – NMOCD, Aztec, NM Mr. Jim Griswold – NMOCD, Santa Fe, NM Ms. Liz Scaggs– Ensolum, Dallas, TX

P.O. BOX 4324 HOUSTON, TEXAS 77210-4324 713.381.6500 1100 LOUISIANA STREET HOUSTON, TEXAS 77002-5227 www.epplp.com



#### 2019 GROUNDWATER MONITORING REPORT

Property:

Trunk 6C Kutz Wash Pipeline Release SW ¼, S26 T28N R11W San Juan County, New Mexico

New Mexico EMNRD OCD RP No. 3RP-438 Abatement Plan No. 131

> August 10, 2020 Ensolum Project No. 05A1226011

> > Prepared for:

Enterprise Field Services, LLC P.O. Box 4324 Houston, Texas 77210-4324 Attn: Mr. Gregory E. Miller, P.G.

Prepared by:

Ranee Deechilly Environmental Scientist

Landon Daniell Staff Geologist

umm

Kyle Summers Senior Project Manager

Ensolum, LLC | Environmental & Hydrogeologic Consultants 606 South Rio Grande, Suite A | Aztec, NM 87410 | ensolum.com



#### 2019 GROUNDWATER MONITORING REPORT EXECUTIVE SUMMARY

This report documents the 2019 groundwater monitoring activities at the Trunk 6C Kutz Wash pipeline release site, referred to hereinafter as the "Site". The final event of 2019 was ultimately performed in January of 2020 due to Site access and weather conditions.

The Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way in the southwest (SW) 1/4 of Section 26, Township 28 North, Range 11 West, in San Juan County, New Mexico.

On September 22, 2011, a pipeline release of natural gas and associated pipeline liquids was discovered at the Site and the pipeline was subsequently repaired. A Site assessment conducted by Animas Environmental Services, LLC (AES) during October 2011 identified benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total petroleum hydrocarbon (TPH) concentrations in "test hole" excavation soil and groundwater that exceeded the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) closure criteria for soils and above the New Mexico Water Quality Control Commission (WQCC) Groundwater Quality Standards (GQSs) for groundwater.

During November 2011, AES advanced eight (8) soil borings at the Site to further delineate the extent of hydrocarbon affected soil and potentially impacted groundwater. Resulting soil and groundwater analytical data indicated constituent of concern (COC) concentrations above the New Mexico EMNRD OCD closure criteria and WQCC GQSs.

During September 2012, AES advanced nine (9) additional soil borings/monitoring wells on-Site, to further evaluate the extent of dissolved phase COCs in groundwater. Based on laboratory analytical results, COCs were not identified in soil above the New Mexico EMNRD OCD closure criteria at these soil boring/monitoring well locations. However, COCs were identified in groundwater above the WQCC GQSs. On October 16, 2013, four (4) additional soil boring/monitoring wells were advanced by AES. Soil and groundwater samples collected from soil boring/monitoring well MW-10 exhibited COC concentrations above the New Mexico EMNRD OCD closure criteria and WQCC GQSs.

On October 28, 2013, an additional leak was discovered in the vicinity of the original release and the pipeline was subsequently repaired and placed back in service. AES collected 20 discrete soils samples from the pipeline repair excavation and the resulting analytical data identified COC concentrations above the New Mexico EMNRD OCD closure criteria. In addition, aquifer pumping tests were conducted in four (4) wells by AES to estimate hydraulic conductivity. The reported estimate for hydraulic conductivity averaged 5.27E-03 centimeters per second (cm/sec) using drawdown analysis and 8.81E-03 cm/sec using recovery analysis.

During September 2016, Apex TITAN, Inc. (Apex) advanced five (5) soil borings at the Site. Three (3) of the five (5) soil borings were completed as groundwater monitoring wells. COCs were identified in soil above the New Mexico EMNRD OCD closure criteria at soil borings/monitoring wells MW-15, MW-17, and SB-18A. In addition, COC concentrations were identified in groundwater above the WQCC GQSs in monitoring well MW-17.

On May 23, 2019, Enterprise submitted a Revised Stage 1 Abatement Plan for this Site to the New Mexico EMNRD OCD. The New Mexico EMNRD OCD has not responded to or approved the plan, and Enterprise has resumed Semi-annual groundwater monitoring of the Site.

In a letter to the New Mexico EMNRD OCD dated April 21, 2020, Enterprise requested the plugging and abandonment or the suspension of sampling for the following wells: MW-3, MW-5, MW-7, MW-9, MW-12, and MW-13.



Groundwater sampling events were conducted by Ensolum, LLC (Ensolum) during September 2019 and January/February 2020. These groundwater monitoring events were performed to further evaluate the concentrations of COCs in groundwater over time and to monitor the generally declining COC concentrations at the Site.

Findings and recommendations based on these activities are as follows:

- The groundwater flow direction at the Site is generally towards the northwest, with an approximate average gradient of 0.008 feet per foot (ft/ft) across the Site.
- The analytical results for the groundwater samples collected from monitoring well MW-1 during the August 2019 and January 2020 sampling events indicate that benzene concentrations are above the New Mexico WQCC GQSs (see footnote in report). The analytical results for the groundwater samples collected from the remaining monitoring wells during the August 2019 and January 2020 do not indicate BTEX constituent concentrations above the applicable WQCC GQSs (see footnote in report).
- The results from the sampling events at the Site generally demonstrate the continuation of declining or stable COC concentrations in groundwater.

Ensolum offers the following recommendations:

- Report the groundwater monitoring results to the New Mexico EMNRD OCD.
- Continue semi-annual groundwater monitoring at the Site.
- Once approved by the New Mexico EMNRD OCD, implement additional Site-specific aquifer testing as described in the Stage 1 Abatement Plan.
- After the Stage 1 Abatement Plan has been fully implemented, prepare a Stage 2 Abatement Plan.
- Determine if the New Mexico EMNRD OCD will allow the suspension or reduction of sampling frequency for monitoring wells MW-3, MW-5, MW-7, MW-9, MW-12, and MW-13, due to the documented history of COC non-detections.

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#### 2019 GROUNDWATER MONITORING REPORT

#### New Mexico EMNRD OCD RP No. 3RP-438 Abatement Plan No. 131

#### Ensolum Project No. 05A1226011

#### 1.0 INTRODUCTION

This report documents the 2019 groundwater monitoring activities at the Trunk 6C Kutz Wash Pipeline Release site, referred to hereinafter as the "Site". The final sampling event of 2019 was ultimately performed in January of 2020 due to Site access and weather conditions.

#### 1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Trunk 6C Kutz Wash Pipeline Release
Location:	36.63202° North, 107.97400° West Southwest (SW) ¼ of Section 26, Township 28 North, Range 11 West San Juan County, New Mexico
Property:	United States Bureau of Land Management (BLM)
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On September 22, 2011, a pipeline release of an unknown volume of natural gas and associated liquids was discovered at the Site and the pipeline was subsequently repaired. Animas Environmental Services, LLC (AES) collected one (1) soil sample from the floor of the repair excavation. Based on field screening results, the soil sample exhibited elevated levels of volatile organic compounds (VOCs). A site assessment was conducted by AES on October 11, 2011, which included the collection of soil samples from four (4) test holes (TP-1 through TP-4) which were advanced near the release area, as well as groundwater samples from two (2) of the four (4) test holes. Based on laboratory analytical results, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total petroleum hydrocarbons (TPH) were identified in soils from two (2) of the test holes (TP-1 and TP-2) at concentrations above the New Mexico EMNRD OCD closure criteria. The test hole water samples collected from TP-2 and TP-4 exhibited concentrations of BTEX above New Mexico Water Quality Control Commission (WQCC) Groundwater Quality Standards (GQSs). Additional detail regarding the initial site assessment activities are provided in the *Release Assessment Report, dated October 28, 2011- AES.* 

During November 2011, AES advanced eight (8) soil borings (SB-1 through SB-8) at the Site to further delineate the extent of hydrocarbon affected soil and potentially impacted groundwater. Laboratory analytical results for the soil and groundwater samples collected from the soil borings identified constituent of concern (COC) concentrations in soil above the New Mexico EMNRD OCD closure criteria (SB-2, SB-7, and SB-8) and in groundwater above the WQCC GQSs (SB-2W, SB-3W, and SB-7W) (*Site Investigation Report, dated February 20, 2012 – AES*).

During September 2012, nine (9) additional soil borings were advanced at the Site by AES to further evaluate the extent of dissolved phase COCs in groundwater. Subsequent to advancement, the soil borings were completed as groundwater monitoring wells (MW-1 through MW-9). Laboratory analytical results did not indicate COCs in soil above the New Mexico EMNRD OCD closure criteria at these soil boring/monitoring well locations. However, COCs were confirmed in groundwater above the WQCC GQSs

Enterprise Field Services, LLC 2019 Groundwater Monitoring Report Trunk 6C Kutz Wash Pipeline Release August 10, 2020





(Groundwater Investigation Report, dated October 31, 2012 – AES).

On October 16, 2013, AES advanced four (4) additional soil borings/monitoring wells (MW-10 through MW-13) in and around the release area to further evaluate the extent of COCs in groundwater. Laboratory analytical results indicated COC concentrations in soil and groundwater from soil boring/monitoring well MW-10 were present at levels above the New Mexico EMNRD OCD closure criteria and the WQCC GQSs (*3rd Quarter 2013 Groundwater Monitoring and Well Installation Report, dated December 10, 2013 and 4th Quarter 2013 Groundwater Monitoring and Continued Investigation Report, dated July 23, 2014 – AES*).

During September 2016, Enterprise retained Apex TITAN, Inc. (Apex) to perform environmental site investigation activities at the Site to further evaluate and delineate the concentrations of COCs in soil and groundwater. Five (5) soil borings were advanced and three (3) of the soil borings were completed as groundwater monitoring wells MW-14, MW-15, and MW-17. Laboratory analytical results indicated COC concentrations in soil (MW-15 and MW-17) and groundwater (MW-17) were above the New Mexico EMNRD OCD RALs and the WQCC GQSs (*Supplemental Environmental Site Investigation (September 2016) and Annual Groundwater Monitoring Report (June and December 2016), dated February 13, 2017 – Apex).* 

During February 2019, Enterprise reassigned management of the project to Ensolum, LLC (Ensolum).

On May 23, 2019, Enterprise submitted a Revised Stage 1 Abatement Plan for this Site to the New Mexico EMNRD OCD. The plan proposes that semi-annual groundwater monitoring continue and that additional, Site-specific aquifer testing be performed. The New Mexico EMNRD OCD has not responded to or approved the plan, and Enterprise has resumed semi-annual groundwater monitoring of the Site.

In a letter to the New Mexico EMNRD OCD dated April 21, 2020, Enterprise requested the plugging and abandonment or the suspension of sampling for the following wells: MW-3, MW-5, MW-7, MW-9, MW-12, and MW-13 because COC concentrations have been below detection limits since 2013 (or since 2015 for MW-3) and the COC plume is currently delineated by monitoring wells MW-2, MW-4 MW-6, and MW-11 (*Supplemental 2018 Annual Groundwater Monitoring Report Cover Letter, dated April 21, 2020 – Enterprise*).

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to oil and gas releases, the New Mexico EMNRD OCD references New Mexico Administrative Code (NMAC) 19.15.29 *Releases,* which establishes investigation and abatement action requirements for sites that are subject to reporting and/or corrective action. Additionally, the New Mexico EMNRD OCD utilizes the New Mexico WQCC GQS (NMAC 20.6.2 *Groundwater and Surface Water Protection*) to evaluate groundwater conditions.¹

The Site location is depicted on **Figure 1** of **Appendix A** which was reproduced from a portion of a United States Geological Survey (USGS) 7.5-minute series topographic map. A **Site Vicinity Map**, created from an aerial photograph, is provided as **Figure 2**, and a **Site Map**, which indicates the approximate locations of the monitoring wells and previous soil boring locations in relation to pertinent structures and general Site boundaries, is included as **Figure 3** of **Appendix A**.

#### 1.2 **Project Objective**

The objectives of the groundwater monitoring events were to further evaluate the concentrations of COCs in groundwater over time and monitor the generally declining COC concentrations at the Site.

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD District 3 Office has indicated that the updated GQSs will not be enforced until sometime in 2020. Therefore, this document reflects the previous GQSs which were currently being enforced when the sampling events were performed.

#### 2.0 GROUNDWATER MONITORING

#### 2.1 Groundwater Sampling Program

Groundwater sampling events were conducted during August 2019 and January 2020 by Ensolum. Ensolum's groundwater sampling program consisted of the collection of one (1) groundwater sample from each of the 15 viable monitoring wells at the Site. Monitoring well MW-12 was not sampled during either sampling events due to an obstructed well screen/casing.

Ensolum's groundwater sampling program consisted of the following:

- Prior to sample collection, Ensolum gauged the depth to fluids in each monitoring well using an interface probe capable of detecting non-aqueous phase liquids (NAPL).
- Each monitoring well was sampled utilizing micro-purge low-flow sampling techniques. Following the completion of the micro-purge process, one (1) groundwater sample was collected from each monitoring well.
- Low-flow or low-stress sampling refer to sampling methods that are intended to minimize the stress
  that is imparted to the formation pore water in the vicinity of the well screen. Water level drawdown
  provides the best indication of the stress that is imparted by a given flow rate for a given hydrological
  situation. Pumping rates of 0.1 to 0.5 liters per minute (L/min) are typically maintained during the
  low-flow/low-stress sampling activities using dedicated or decontaminated sampling equipment.
- The groundwater samples are collected from each monitoring well once produced groundwater is consistent in color, clarity, pH, temperature, and conductivity. Measurements are typically observed every three to five minutes while purging. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for at least three successive readings.
- The casings of monitoring wells MW-10, MW-11, and MW-13 are approximately one (1) inch in diameter, which is smaller than the bladder pump diameter. As a result, these monitoring wells were purged utilizing a disposable bailer until effectively dry. Following the completion of the purging process and the recovery of groundwater to static or near static levels, one (1) groundwater sample was collected from each monitoring well.
- The groundwater samples were collected in laboratory-supplied containers (pre-preserved with mercuric chloride (HgCl₂)), labeled/sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The groundwater samples were relinquished to the courier for Hall Environmental Analysis Laboratory (HEAL) of Albuquerque, New Mexico under proper chain-ofcustody procedures.

#### 2.2 Groundwater Laboratory Analytical Methods

The groundwater samples collected from the monitoring wells during these groundwater sampling events were analyzed for BTEX utilizing Environmental Protection Agency (EPA) method SW-846 #8021.

A summary of the per-event analytes, sample matrix, sample frequency and EPA-approved methods for the two (2) sampling events are presented on the following table.



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Analytes	Sample Matrix	No. of Samples (per event)	EPA Method
BTEX	Groundwater	15	SW-846 8021

The laboratory analytical results are summarized in **Table 1** in **Appendix B**. The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix C**.

#### 2.3 Groundwater Flow Direction

Each monitoring well has been geospatially surveyed to determine the top-of-casing (TOC) elevation. Based on gauging data, the groundwater flow direction (gradient) at the Site is generally toward the northwest. The observed gradients during the August 2019 and January 2020 monitoring events averaged approximately 0.008 feet per foot (ft/ft) across the Site.

Groundwater elevation data collected during the August 2019 and January 2020 gauging events (as well as historical gauging data) are presented in **Table 2** (**Appendix B**). Groundwater gradient maps for the August 2019 and January 2020 gauging events are included as **Figure 4A** and **4B** (**Appendix A**).

#### 2.4 Data Evaluation

Ensolum compared the BTEX laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the groundwater samples collected from monitoring wells during the August 2019 and January 2020 sampling events to the New Mexico WQCC GQSs.¹ The results of the groundwater sample analyses are summarized in **Table 1** of **Appendix B**. Groundwater Quality Standard Exceedance Zone maps are provided as **Figures 5A** and **5B** of **Appendix A**.

Monitoring well MW-12 was not sampled during these sampling events due to an obstructed well screen/casing.

#### August 2019

The August 2019 analytical result for monitoring well MW-1 indicates a benzene concentration of 800 micrograms per liter ( $\mu$ g/L), which exceeds the WQCC GQS of 10  $\mu$ g/L.¹ The analytical result for monitoring well MW-17 indicates a benzene concentration of 4.1  $\mu$ g/L, which is below the WQCC GQS of 10  $\mu$ g/L.¹ The analytical results for the remaining monitoring wells do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 10  $\mu$ g/L.¹

The August 2019 analytical result for monitoring well MW-1 indicates a toluene concentration of 510  $\mu$ g/L, which is below the WQCC GQS of 750  $\mu$ g/L.¹ The analytical results for the remaining monitoring wells do not indicate toluene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 750  $\mu$ g/L.¹

The August 2019 analytical result for monitoring well MW-1 indicates an ethylbenzene concentration of 46  $\mu$ g/L, which is below the WQCC GQS of 750  $\mu$ g/L.¹ The analytical results for the remaining monitoring wells do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD District 3 Office has indicated that the updated GQSs will not be enforced until sometime in 2020. Therefore, this document reflects the previous GQSs which were currently being enforced when the sampling events were performed.





GQS of 750 µg/L.1

The August 2019 analytical result for monitoring well MW-1 indicates a total xylenes concentration of 150  $\mu$ g/L, which is below the WQCC GQS of 620  $\mu$ g/L.¹ The analytical results for the remaining monitoring wells do not indicate total xylenes concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 620  $\mu$ g/L.¹

No data qualifier flags are associated with the August 2019 analytical results.

#### January 2020

The January 2020 analytical result for monitoring well MW-1 indicates a benzene concentration of 940  $\mu$ g/L, which exceeds the WQCC GQS of 10  $\mu$ g/L.¹ The analytical result for monitoring well MW-17 indicates a benzene concentration of 2.2  $\mu$ g/L, which is below the WQCC GQS of 10  $\mu$ g/L.¹ The analytical results for the remaining monitoring wells do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 10  $\mu$ g/L.¹

The January 2020 analytical result for monitoring well MW-1 indicates a toluene concentration of 540  $\mu$ g/L, which is below the WQCC GQS of 750  $\mu$ g/L.¹ The analytical results for the remaining monitoring wells do not indicate toluene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 750  $\mu$ g/L.¹

The January 2020 analytical results for monitoring wells MW-1 and MW-15 indicate ethylbenzene concentrations of 61  $\mu$ g/L and 1.4  $\mu$ g/L, respectively, which are below the WQCC GQS of 750  $\mu$ g/L.¹ The analytical results for the remaining monitoring wells do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 750  $\mu$ g/L.¹

The January 2020 analytical results for monitoring wells MW-1 and MW-15 indicate total xylenes concentrations of 190  $\mu$ g/L and 23  $\mu$ g/L, respectively, which are below the WQCC GQS of 620  $\mu$ g/L.¹ The analytical results for the remaining monitoring wells do not indicate total xylenes concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 620  $\mu$ g/L.¹

No data qualifier flags are associated with the January 2020 analytical results.

#### 3.0 FINDINGS

Based on the evaluation of the analytical results from these groundwater monitoring events, Ensolum presents the following findings:

- The groundwater flow direction at the Site is generally towards the northwest, with an approximate gradient of 0.008 ft/ft across the Site.
- The analytical results for the groundwater samples collected from monitoring well MW-1 during the August 2019 and January 2020 sampling events indicate that benzene concentrations are above the New Mexico WQCC GQSs.¹ The analytical results for the remaining monitoring wells during these events do not indicate COC concentrations above the applicable WQCC GQSs.¹
- The results from the sampling events at the Site generally continue to demonstrate declining or stable COC concentrations in groundwater.

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD District 3 Office has indicated that the updated GQSs will not be enforced until sometime in 2020. Therefore, this document reflects the previous GQSs which were currently being enforced when the sampling events were performed.

Enterprise Field Services, LLC 2019 Groundwater Monitoring Report Trunk 6C Kutz Wash Pipeline Release August 10, 2020



#### 4.0 **RECOMMENDATIONS**

Based on these findings, Ensolum recommends the following:

- Report the groundwater monitoring results to the New Mexico EMNRD OCD.
- Continue semi-annual groundwater monitoring at the Site.
- Once approved by the New Mexico EMNRD OCD, implement additional Site-specific aquifer testing as described in the Stage 1 Abatement Plan.
- After the Stage 1 Abatement Plan has been fully implemented, prepare a Stage 2 Abatement Plan.
- Determine if the New Mexico EMNRD OCD will allow the suspension or reduction of sampling frequency for monitoring wells MW-3, MW-5, MW-7, MW-9, MW-12, and MW-13 due to the documented history of COC non-detections.

#### 5.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

#### 5.1 Standard of Care

Ensolum's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client, as detailed in our proposal.

#### 5.2 Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Ensolum cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during the investigation. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Ensolum's findings and recommendations are based solely upon data available to Ensolum at the time of these services.

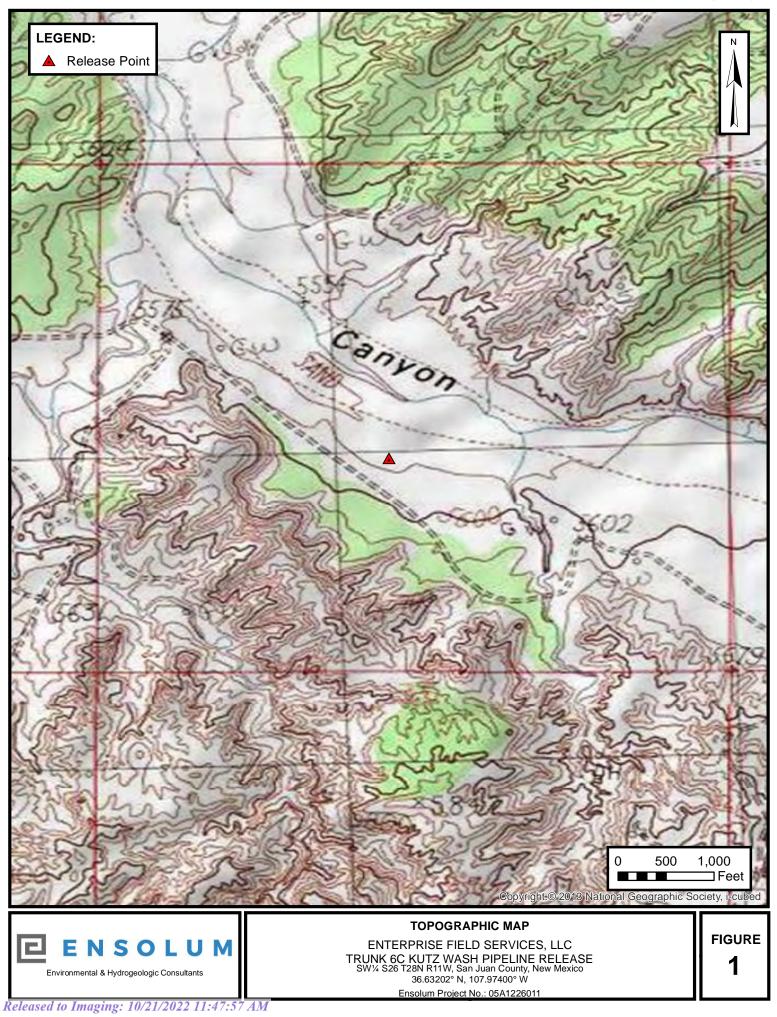
#### 5.3 Reliance

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the report, and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.



APPENDIX A

Figures



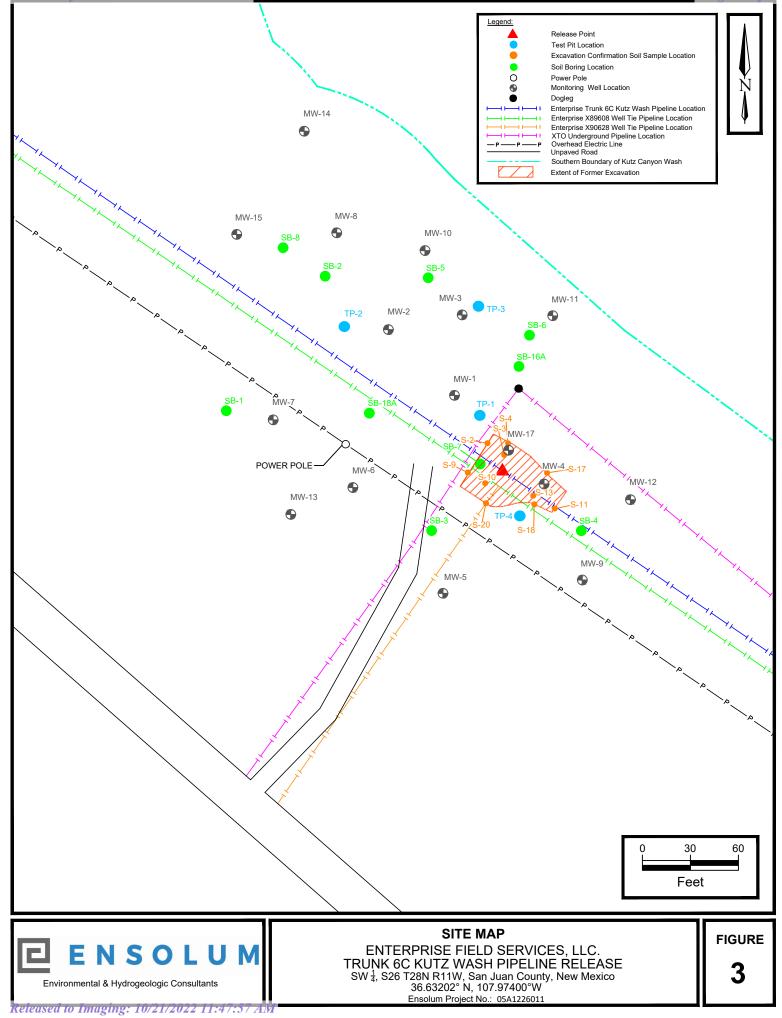
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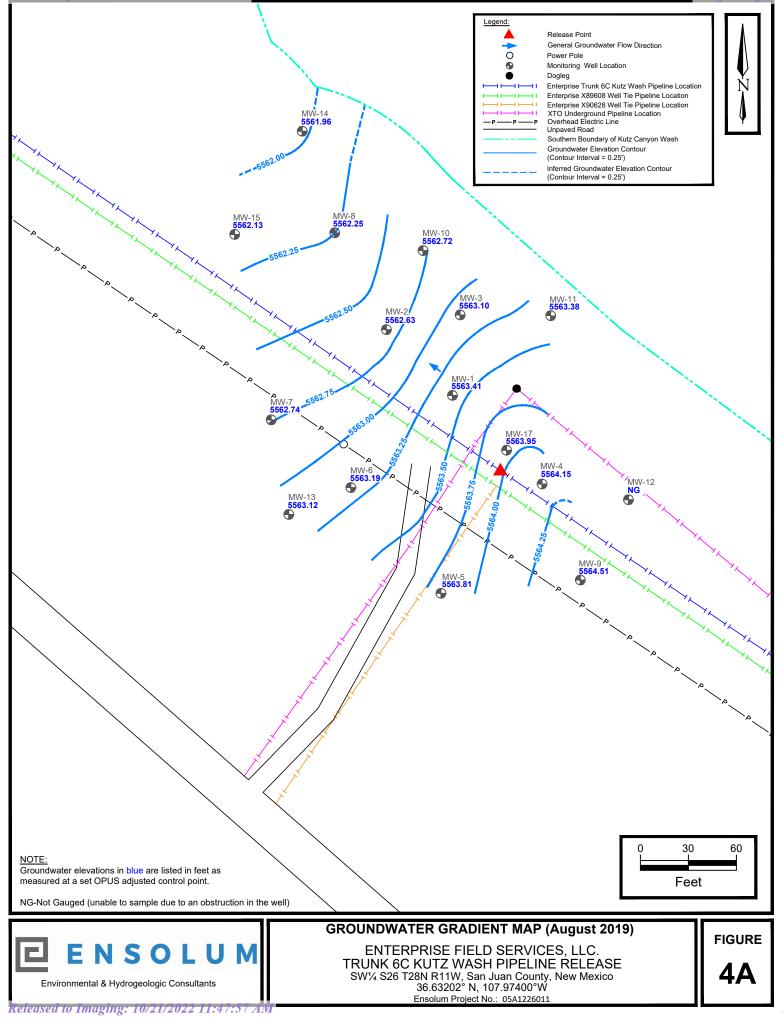


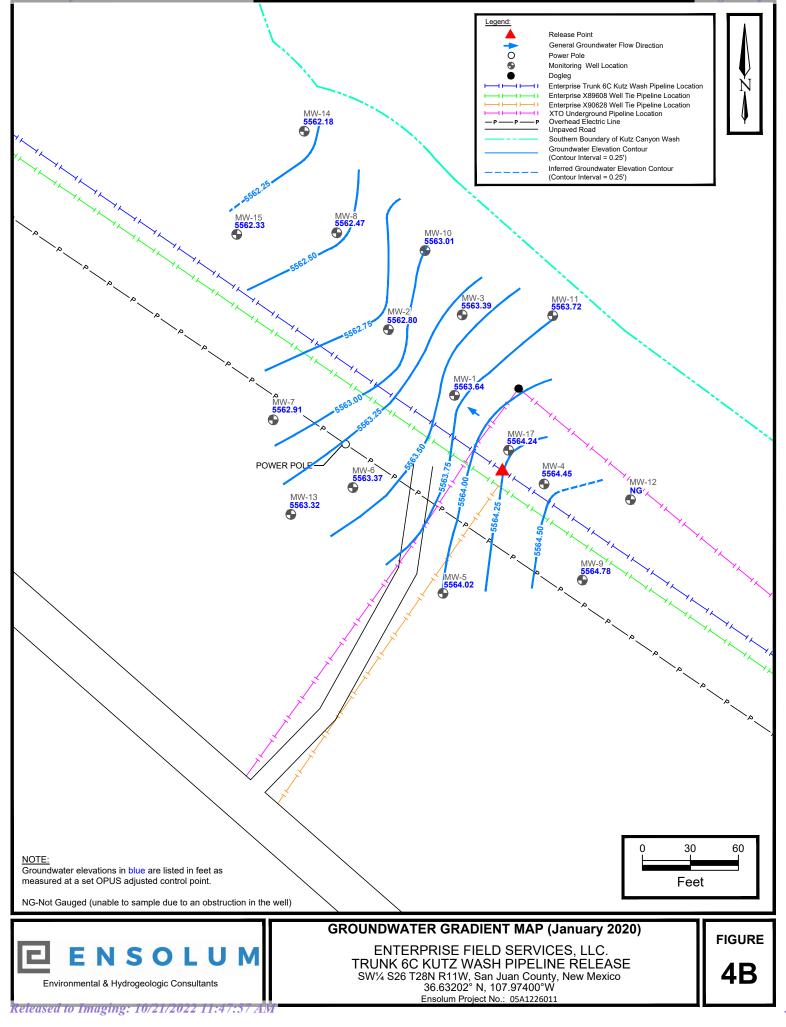
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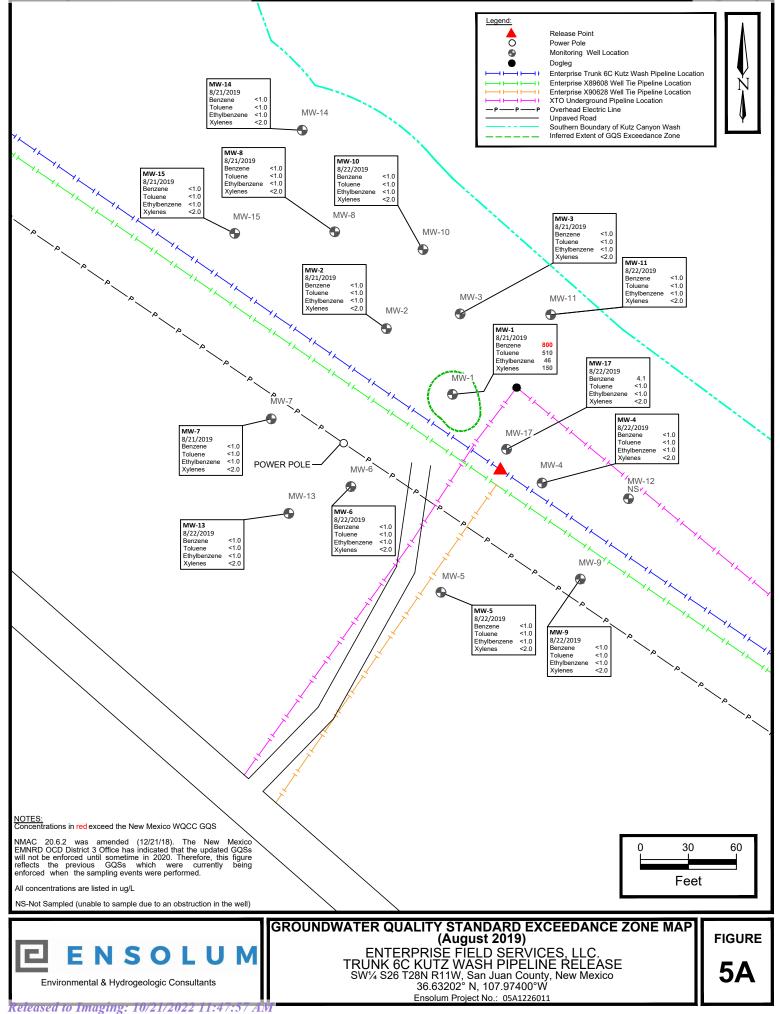






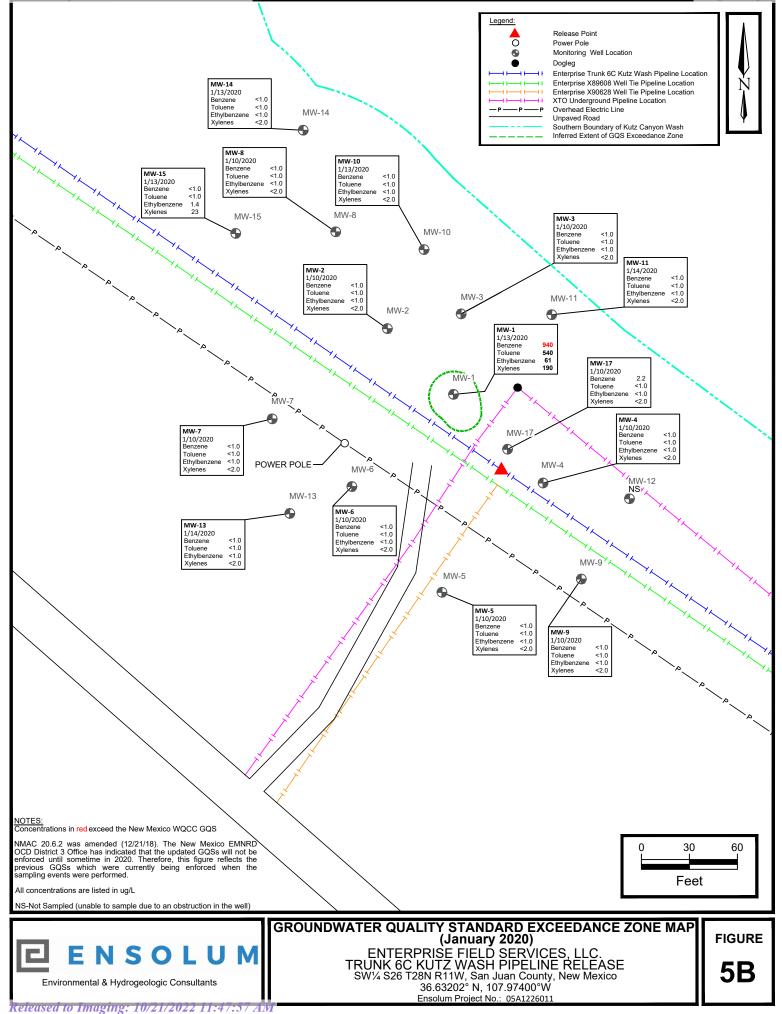












APPENDIX B

Tables

TABLE 1           Trunk 6C Kutz Wash Pipeline Release								
	GROUNDWATER ANALYTICAL SUMMARY							
Sample I.D.	Sample Date	Benzene (μg/L)	Toluene (μg/L)	Ethylbenzene (μg/L)	Xylenes (μg/L)			
	trol Commmission Groundwater Standards	10 ^A	750 ^A	750 ⁴	620 ^A			
	9.7.12	2,200	350	68	650			
	12.20.12	1,100	250	37	180			
	3.20.13	NAPL	NAPL	NAPL	NAPL			
	6.19.13	NAPL	NAPL	NAPL	NAPL			
	9.17.13	NAPL	NAPL	NAPL	NAPL			
	12.16.13	NAPL	NAPL	NAPL	NAPL			
	3.14.15	NAPL	NAPL	NAPL	NAPL			
	9.9.15	1,900	440	54	400			
MW-1	6.15.15	6,900	2,700	170	1,400			
·	12.7.15	3,900	1,400	120	870			
	6.02.16	1,400	850	41	330			
	12.20.16	76	59	2.5	23			
	6.28.17	3,500	4,200	180	1,800			
	1.10.18	1,300	710	59	350			
	6.22.18	3,800 590	<b>2,400</b> 400	140 33	<b>740</b> 99			
	12.14.18	800	510	46	150			
	8.21.19 1.13.20	940	540	40 61	190			
				_				
	9.7.12 12.20.12	270 26	<b>1,100</b> 49	66 5.1	<b>1,800</b> 250			
			-	-				
	3.20.13	<5.0	<5.0 NAPL	<5.0	67			
	6.19.13 9.17.13	NAPL NAPL	NAPL	NAPL	NAPL NAPL			
	12.16.13	NAPL	NAPL	NAPL NAPL	NAPL			
	3.14.14	1,200	1,600	74	660			
	9.9.14	78	76	2.9	110			
	6.15.15	<1.0	1.1	<1.0	44			
MW-2	12.7.15	<1.0	<1.0	<1.0	13			
	6.02.16	<1.0	<1.0	<1.0	<2.0			
	12.19.16	<1.0	<1.0	<1.0	<1.5			
	6.27.17	<1.0	<1.0	<1.0	<2.0			
	1.09.18	<1.0	<1.0	<1.0	<2.0			
	6.21.18	<1.0	<1.0	<1.0	<1.5			
	12.14.18	<1.0	<1.0	<1.0	<2.0			
	8.21.19	<1.0	<1.0	<1.0	<2.0			
	1.10.20	<1.0	<1.0	<1.0	<2.0			
	9.7.12	<2.0	<2.0	<2.0	<4.0			
	12.20.12	<2.0	<2.0	<2.0	<4.0			
	3.20.13	<2.0	<2.0	<2.0	<4.0			
	6.19.13	780	130	2.5	15			
	9.18.13	150	28	<5.0	15			
	12.16.13 3.14.14	<u>660</u> 200	340 86	16 4.0	130 49			
	3.14.14 9.9.14	2.5	80 1.7	4.0 <1.0	3.3			
104/ 0	6.12.15	1.3	<1.0	<1.0	2.2			
MW-3	12.7.15	<1.0	<1.0	<1.0	<2.0			
	6.02.16	<1.0	<1.0	<1.0	<2.0			
	12.19.16	<1.0	<1.0	<1.0	<1.5			
	6.28.17	<1.0	<1.0	<1.0	<2.0			
	1.09.18	<1.0	<1.0	<1.0	<2.0			
	6.21.18 12.14.18	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.5 <2.0			
		510	510	510	SZ.U			
	8.21.19	<1.0	<1.0	<1.0	<2.0			

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1 "8"	* *	<i>y</i>	100

TABLE 1           Trunk 6C Kutz Wash Pipeline Release           GROUNDWATER ANALYTICAL SUMMARY						
Sample I.D.	Sample Date	Benzene (μg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	
	trol Commmission Groundwater Standards	10 ^A	750 ^A	750 ^A	620 ^A	
	9.7.12	18	5.1	<2.0	<4.0	
	12.20.12	<2.0	<2.0	<2.0	<4.0	
	3.20.13	290	110	<2.0	15	
	6.19.13	600	45	<10	<20	
	9.18.13	830	39	<20	<30	
	12.16.13	300	110	10	63	
	3.14.14	4.0	<1.0	<1.0 <2.0	<3.0 <4.0	
	9.9.14 6.11.15	<2.0	<2.0 <1.0	<2.0	<4.0	
MW-4	12.4.15	<1.0	<1.0	<1.0	<2.0	
	6.02.16	<1.0	<1.0	<1.0	<2.0	
	12.19.16	<1.0	<1.0	<1.0	<1.5	
	6.28.17	<1.0	<1.0	<1.0	<2.0	
	1.09.18	<1.0	<1.0	<1.0	<2.0	
	6.21.18	<1.0	<1.0	<1.0	<1.5	
	12.13.18	<1.0	<1.0	<1.0	<2.0	
	8.22.19	<1.0	<1.0	<1.0	<2.0	
	1.10.20	<1.0	<1.0	<1.0	<2.0	
	9.7.12	<2.0	<2.0	<2.0	<4.0	
	12.20.12	<2.0	<2.0	<2.0	<4.0	
	3.20.13 6.19.13	<2.0	<2.0	<2.0	<4.0	
	9.17.13	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <1.5	
	12.16.13	2.1	4.7	4.0	17	
	3.14.14	<1.0	<1.0	<1.0	<3.0	
	9.9.14	<1.0	<1.0	<1.0	<2.0	
N04/ 5	6.12.15	<1.0	<1.0	<1.0	<2.0	
MW-5	12.4.15	<1.0	<1.0	<1.0	<2.0	
	6.02.16	<1.0	<1.0	<1.0	<2.0	
	12.19.16	<1.0	<1.0	<1.0	<1.5	
	6.27.17	<1.0	<1.0	<1.0	<2.0	
	1.09.18	<1.0	<1.0	<1.0	<2.0	
	6.21.18	<1.0	<1.0	<1.0	<1.5	
	12.13.18	<1.0	<1.0	<1.0	<2.0	
	8.22.19	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<2.0 <2.0	
	1.10.20	-	-	-	_	
	9.7.12 12.20.12	<5.0 <5.0	<5.0 <5.0	260 180	2,200	
	3.20.12	<5.0	<5.0	180	1,200	
	6.19.13	9.6	6.2	120	1,100	
	9.18.13	<5.0	<5.0	180	1,200	
	12.16.13	<5.0	<5.0	140	990	
	3.14.14	<1.0	<1.0	150	990	
	9.9.14	<5.0	<5.0	49	400	
MW-6	6.12.15	<5.0	<5.0	89	590	
0- 44141	12.4.15	<2.5	<5.0	41	210	
	6.02.16	<1.0	<1.0	16	70	
	12.19.16	<1.0	<1.0	26	80	
	6.27.17	<1.0	<1.0	<1.0	<2.0	
	1.09.18	<1.0	<1.0	3.6	12	
	6.21.18	<1.0	<1.0	2.1	5.9	
	12.13.18	<1.0	<1.0	2.7 <1.0	9.8	
	8.22.19	<1.0	<1.0	<1.0	<2.0	

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TABLE 1           Trunk 6C Kutz Wash Pipeline Release           GROUNDWATER ANALYTICAL SUMMARY						
Sample I.D.	Sample Date	Benzene (μg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Xylenes (μg/L)	
	trol Commmission Groundwater Standards	10 ^A	750 ^A	750 ^A	620 ^A	
	9.7.12	<2.0	<2.0	<2.0	<4.0	
	12.20.12	<2.0	<2.0	<2.0	2.4	
	3.20.13	<2.0	<2.0	<2.0	<4.0	
	6.19.13	<1.0	<1.0	<1.0	<2.0	
	9.17.13	<1.0	<1.0	<1.0	<1.5	
	12.16.13	1.6	3.9	3.6	16	
	3.14.14	<1.0	<1.0	<1.0	<3.0	
	9.9.14	<1.0	<1.0	<1.0	<2.0	
	6.12.15	<1.0	<1.0	<1.0	<2.0	
MW-7	12.7.15	<1.0	<1.0	<1.0	<2.0	
	6.02.16	<1.0	<1.0	<1.0	<2.0	
	12.19.16	<1.0	<1.0	<1.0	<1.5	
	6.27.17	<1.0	<1.0	<1.0	<2.0	
	1.09.18	<1.0	<1.0	<1.0	<2.0	
	6.21.18	<1.0	<1.0	<1.0	<1.5	
	12.13.18	<1.0	<1.0	<1.0	<2.0	
	8.21.19	<1.0	<1.0	<1.0	<2.0	
	1.10.20	<1.0	<1.0	<1.0	<2.0	
	9.7.12	41	40	3.8	320	
	12.20.12	<2.0	<2.0	<2.0	20	
	3.20.13	41	36	<2.0	89	
	6.19.13	21	12	<1.0	6.8	
	9.18.13	<1.0	<1.0	3.4	27	
	12.16.13	18	21	5.1	74	
	3.14.14	66	190	10	210	
	9.9.14	NAPL**	NAPL**	NAPL**	NAPL**	
MW-8	6.15.15	<1.0	<1.0	<1.0	10	
	12.7.15	1.3	<1.0	<1.0	53	
	6.02.16	4.0	1.6	<1.0	5.1	
	12.19.16	<1.0	<1.0	<1.0	2.1	
	6.27.17	<1.0	<1.0	<1.0	<2.0	
	1.09.18	<1.0	<1.0	<1.0	<2.0	
	6.21.18	<1.0	<1.0	<1.0	<1.5	
	12.14.18	<1.0	<1.0	<1.0	<2.0	
	8.21.19	<1.0	<1.0	<1.0	<2.0	
	1.10.20	<1.0	<1.0	<1.0	<2.0	
	9.7.12	<2.0	2.4	<2.0	<4.0	
	12.20.12	<2.0	<2.0	<2.0	<4.0	
	3.20.13	<2.0	<2.0	<2.0	<4.0	
	6.19.13	<1.0	<1.0	<1.0	<2.0	
	9.17.13	<1.0	<1.0	<1.0	<1.5	
	12.16.13	1.5 <1.0	3.5 <1.0	2.9 <1.0	12 <3.0	
	3.14.14 9.9.14	<1.0	<1.0	<1.0	<3.0	
	6.11.15	<1.0	<2.0	<1.0	<2.0	
MW-9	12.4.15	<1.0	<1.0	<1.0	<2.0	
	6.02.16	<1.0	<1.0	<1.0	<2.0	
	12.19.16	<1.0	<1.0	<1.0	<2.0	
	6.27.17	<1.0	<1.0	<1.0	<1.5	
	1.09.18	<1.0	<1.0	<1.0	<2.0	
	6.21.18	<1.0	<1.0	<1.0	<1.5	
	12.13.18	<1.0	<1.0	<1.0	<2.0	
	8.22.19	<1.0	<1.0	<1.0	<2.0	

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		~,	

TABLE 1						
		6C Kutz Wash Pip				
Sample I.D.	Sample Date	Benzene (μg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Xylenes (μg/L)	
New Mexico Water Quality Contro Quality St		10 ^A	750 ^A	750 ^A	620 ^A	
	12.16.13	950	34	12	39	
	3.14.14	560	4.0	16	27	
	9.9.14	580	<10	34	<20	
	6.15.15	75	<1.0	12	2.9	
	12.7.15	17	<1.0	2.0	<2.0	
-	6.03.16	16	<1.0	<1.0	<2.0	
MW-10	12.20.16	4.8	<1.0	<1.0	<1.5	
	6.27.17	3.4	<1.0	<1.0	<2.0	
	1.10.18	<1.0	<1.0 <1.0	<1.0 <1.0	<2.0	
∥ ┣	6.22.18 12.14.18	<u>5.0</u> <1.0	<1.0	<1.0	2.7 <2.0	
	8.22.19	<1.0	<1.0	<1.0	<2.0	
∥ ⊢	1.13.20	<1.0	<1.0	<1.0	<2.0	
	12.16.13	2.6	3.5	<1.0	6	
	3.14.14	<1.0	<1.0	<1.0	<3.0	
	9.9.14	<2.0	<2.0	<2.0	<4.0	
	6.12.15	<1.0	<1.0	<1.0	<2.0	
F	12.4.15	<1.0	<1.0	<1.0	<2.0	
	6.03.16	<1.0	<1.0	<1.0	<2.0	
MW-11	12.20.16	<1.0	<1.0	<1.0	<1.5	
	6.28.17		Insufficient volume o	f water to sample.		
	1.10.18	<1.0	<1.0	<1.0	<1.5	
	6.22.18	<1.0	<1.0	<1.0	<1.5	
	12.14.18	<1.0	<1.0	<1.0	<2.0	
	8.22.19	<1.0	<1.0	<1.0	<2.0	
	1.14.20	<1.0	<1.0	<1.0	<2.0	
	12.16.13	3.3	3.8	<1.0	6	
║	3.14.14	<1.0	<1.0 <2.0	<1.0 <2.0	<3.0	
	9.9.14 6.12.15	<2.0	<2.0 Casing Ob		<4.0	
∥ ⊢	12.4.15		Casing Ob Casing Ob			
	6.02.16		Casing Ob Casing Ob			
MW-12	12.20.16		Casing Ob			
	6.27.17		Casing Ob			
	1.10.18		Casing Ob			
F	6.21.18		Casing Ob	struction		
	12.13.18		Casing Ob	struction		
	8.22.19		Casing Ob			
	1.10.20		Casing Ob	struction		
	12.16.13	4.4	5.1	1.2	8	
	3.14.14	<1.0	<1.0	<1.0	<3.0	
	9.9.14	<2.0	<2.0	<2.0	<4.0	
	6.15.15	<1.0	<1.0	<1.0	<2.0	
	12.4.15	<1.0	<1.0	<1.0	<2.0	
NUA/ 40	6.03.16	<1.0	<1.0	<1.0	<2.0	
MW-13	12.20.16	<1.0	<1.0	<1.0	<1.5	
∥ ┣	6.27.17	<1.0	<1.0	<1.0	<2.0	
∥ – –	1.10.18 6.22.18	<1.0	<1.0	<1.0 <1.0	<2.0	
∥ ┣-		<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.5 <2.0	
∥ ┣	12.14.18 8.22.19	<1.0 <1.0	<1.0 <1.0	<1.0	<2.0	
∥ ⊢	1.14.20	<1.0	<1.0	<1.0	<2.0	
	1.14.20	NI.U	N1.0	NI.U	NZ.U	

### **E** ENSOLUM

TABLE 1         Trunk 6C Kutz Wash Pipeline Release         GROUNDWATER ANALYTICAL SUMMARY							
Sample I.D.	Sample Date	Benzene (μg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)		
	ntrol Commmission Groundwater Standards	10 ^A	750 ^A	750 ^A	620 ^A		
	9.16.16	<1.0	<1.0	<1.0	<2.0		
	12.20.16	<1.0	<1.0	<1.0	<1.5		
	6.27.17	<1.0	<1.0	<1.0	<2.0		
MW-14	1.10.18	<1.0	<1.0	<1.0	<2.0		
10100-14	6.22.18	<1.0	<1.0	<1.0	<1.5		
	12.13.18	2.7	<1.0	<1.0	6.1		
	8.21.19	<1.0	<1.0	<1.0	<2.0		
	1.13.20	<1.0	<1.0	<1.0	<2.0		
	9.16.16	3.6	<1.0	4.1	43		
	12.20.16	<1.0	<1.0	6.2	87		
	6.27.17	4.1	<1.0	4.6	89		
MW-15	1.10.18	4.7	<1.0	2.8	33		
10100-15	6.21.18	6.5	<1.0	2.6	13		
	12.13.18	1.2	<1.0	<1.0	<2.0		
	8.21.19	<1.0	<1.0	<1.0	<2.0		
	1.13.20	<1.0	<1.0	1.4	23		
	9.16.16	380	790	33	1,200		
	12.20.16	200	100	11	310		
	6.28.17	130	<5.0	<5.0	950		
MW-17	1.10.18	5.2	2.2	1.2	13		
10100-17	6.22.18	29	<1.0	2.4	<1.5		
	12.14.18	29	<1.0	1.8	<2.0		
	8.22.19	4.1	<1.0	<1.0	<2.0		
	1.13.20	2.2	<1.0	<1.0	<2.0		

Note: Concentrations in **bold** and yellow exceed the applicable WQCC GQS
^A = NM EMNRD OCD District 3 has advised that the new 20.6.2 NMAC standards (12/21/18) will not be enforced by NM EMNRD OCD until sometime in 2020. µg/L = micrograms per liter

NAPL = Non-aqueous phase liquid

** - Field personnel recorded the presence of NAPL utilizing an interface probe, but the product was not visually verified.

<1.0 = the numeral (in this case "1.0") identifies the laboratory RL or PQL

TABLE 2								
Trunk 6C Kutz Wash Pipeline Release GROUNDWATER ELEVATIONS								
Well I.D.	Date	Depth to	Depth to Water	Product	TOC Elevations	Groundwater		
		Product (feet BTOC)	(feet BTOC)	Thickness	(feet AMSL)	Elevation* (feet AMSL)		
			× ,		(1000, 1002)	(1000) anoly		
	9.7.12 12.20.12	ND ND	15.78 15.69	ND ND		5563.95 5564.04		
	3.20.13	15.31	15.73	0.42		5564.31		
	6.19.13	15.49	15.75	0.26		5564.17		
	9.17.13	15.79	16.27	0.48		5563.81		
	12.16.13	15.59	15.75	0.16	5579.73	5564.10		
	3.14.14 9.9.14	15.35 15.98	15.36 15.99	0.01		5564.38 5563.75		
	6.10.15	15.29	15.30	0.01		5564.44		
MW-1*	12.04.15	ND	15.81	ND		5563.92		
	6.02.16	ND	15.41	ND		5564.32		
	9.16.16	16.12	16.13	0.01		5563.31		
	12.19.16 6.27.17	ND ND	15.83 15.39	ND ND		5563.60 5564.04		
	1.09.18	ND	15.61	ND		5563.82		
	6.21.18	ND	15.65	ND	5579.43	5563.78		
	12.13.18	ND	15.89	ND		5563.54		
	8.20.19	ND	16.02	ND		5563.41		
	1.07.20	ND	15.79	ND		5563.64		
	9.7.12 12.20.12	ND ND	16.29 16.22	ND ND		5563.10 5563.17		
	3.20.13	ND	15.97	ND		5563.42		
	6.19.13	15.96	16.40	0.44		5563.31		
	9.17.13	16.40	16.54	0.14		5562.95		
	12.16.13	16.14	16.22	0.08	5579.39	5563.23		
	3.14.14 9.9.14	ND ND	15.89 16.50	ND ND		5563.50 5562.89		
	6.10.15	ND	15.81	ND		5563.58		
MW-2*	12.04.15	ND	16.32	ND		5563.07		
	6.02.16	ND	15.93	ND		5563.46		
	9.16.16	ND	16.61	ND		5562.54		
	12.19.16 6.27.17	ND ND	16.35 15.95	ND ND		5562.80 5563.20		
	1.09.18	ND	16.13	ND		5563.02		
	6.21.18	ND	16.19	ND	5579.15	5562.96		
	12.13.18	ND	16.45	ND		5562.70		
	8.20.19	ND	16.52	ND		5562.63		
<u> </u>	1.07.20 9.7.12	ND	16.35	ND		5562.80		
	9.7.12	ND ND	15.98 15.79	ND ND		5563.54 5563.73		
	3.20.13	ND	15.50	ND		5564.02		
	6.19.13	ND	15.66	ND		5563.86		
	9.18.13	ND	15.96	ND	FF70 F0	5563.56		
	12.16.13 3.14.14	ND ND	15.70	ND ND	5579.52	5563.82		
	<u>3.14.14</u> 9.9.14	ND ND	15.39 16.10	ND ND		5564.13 5563.42		
	6.10.15	ND	15.28	ND		5564.24		
MW-3*	12.04.15	ND	15.87	ND		5563.65		
	6.02.16	ND	15.47	ND		5564.05		
	9.16.16	ND	16.24	ND		5563.00		
	12.19.16 6.27.17	ND ND	15.87 15.45	ND ND		5563.37 5563.79		
	1.09.18	ND	15.65	ND	FF70.04	5563.59		
	6.21.18	ND	15.76	ND	5579.24	5563.48		
	12.13.18	ND	15.97	ND		5563.27		
	8.20.19	ND	16.14	ND		5563.10		
	1.07.20	ND	15.85	ND		5563.39		

TABLE 2           Trunk 6C Kutz Wash Pipeline Release									
	GROUNDWATER ELEVATIONS								
Well I.D.	Date	Depth to Product	Depth to Water	Product Thickness	TOC Elevations	Groundwater Elevation*			
		(feet BTOC)	(feet BTOC)		(feet AMSL)	(feet AMSL)			
	9.7.12	ND	15.59	ND		5564.77			
	12.20.12 3.20.13	ND ND	15.51 15.25	ND ND		5564.85 5565.11			
	6.19.13	ND	15.41	ND	-	5564.95			
	9.18.13	ND	15.74	ND		5564.62			
	12.16.13	ND	15.45	ND	5580.36	5564.91			
	3.14.14	ND	15.14	ND		5565.22			
	9.9.14 6.10.15	ND ND	15.80 15.06	ND ND		5564.56 5565.30			
MW-4*	12.04.15	ND	15.56	ND		5564.80			
	6.02.16	ND	15.22	ND		5565.14			
	9.16.16	ND	15.92	ND		5564.03			
	12.19.16	ND	15.55	ND	-	5564.40			
	6.27.17 1.09.18	ND ND	15.22 15.34	ND ND	-	5564.73 5564.61			
	6.21.18	ND	15.45	ND	5579.95	5564.50			
	12.13.18	ND	15.60	ND		5564.35			
	8.20.19	ND	15.80	ND		5564.15			
	1.07.20	ND	15.50	ND		5564.45			
	9.7.12	ND	19.35	ND	-	5564.18			
	12.20.12 3.20.13	ND ND	19.28 19.10	ND ND	-	5564.25 5564.43			
	6.19.13	ND	19.10	ND		5564.32			
	9.17.13	ND	19.55	ND		5563.98			
	12.16.13	ND	19.28	ND	5583.53	5564.25			
	3.14.14	ND	19.03	ND		5564.50			
	9.9.14 6.10.15	ND ND	19.58 18.98	ND ND		5563.95 5564.55			
MW-5*	12.04.15	ND	19.41	ND		5564.12			
	6.02.16	ND	19.08	ND		5564.45			
	9.16.16	ND	19.69	ND		5563.72			
	12.19.16	ND	19.42	ND		5563.99			
	6.27.17	ND	19.12	ND		5564.29			
	1.09.18 6.21.18	ND ND	19.22 19.27	ND ND	5583.41	5564.19 5564.14			
	12.13.18	ND	19.44	ND		5563.97			
	8.20.19	ND	19.60	ND		5563.81			
	1.07.20	ND	19.39	ND		5564.02			
	9.7.12	ND	18.55	ND	4 7	5563.67			
	12.20.12 3.20.13	ND ND	18.49 18.27	ND ND	4	5563.73			
	6.19.13	ND	18.38	ND	1	5563.95 5563.84			
	9.18.13	ND	18.74	ND		5563.48			
	12.16.13	ND	18.46	ND	5582.22	5563.76			
	3.14.14	ND	18.21	ND		5564.01			
	9.9.14	ND	18.75	ND		5563.47			
MW-6*	6.10.15 12.04.15	ND ND	18.16 18.60	ND ND	1	5564.06 5563.62			
	6.02.16	ND	18.25	ND	1	5563.97			
	9.16.16	ND	18.86	ND	]	5563.12			
	12.19.16	ND	18.61	ND		5563.37			
	6.27.17	ND	18.29	ND	4	5563.69			
	1.09.18 6.21.18	ND	18.43	ND ND	5581.98	5563.55 5563.51			
	6.21.18 12.13.18	ND ND	18.47 18.70	ND ND	1	5563.51 5563.28			
	8.20.19	ND	18.79	ND	1	5563.19			
	1.07.20	ND	18.61	ND	1	5563.37			

TABLE 2           Trunk 6C Kutz Wash Pipeline Release								
			DWATER ELEV					
Well I.D.	Date	Depth to	Depth to Water	Product	TOC Elevations	Groundwater		
		Product (feet BTOC)	(feet BTOC)	Thickness	(feet AMSL)	Elevation* (feet AMSL)		
	0740	ND	10.02	ND		EE62.01		
	9.7.12 12.20.12	ND ND	19.03 18.97	ND ND		5563.21 5563.27		
	3.20.13	ND	18.79	ND		5563.45		
	6.19.13	ND	18.87	ND		5563.37		
	9.17.13 12.16.13	ND ND	19.22 18.46	ND ND	5582.24	5563.02 5563.78		
	3.14.14	ND	18.73	ND		5563.51		
	9.9.14	ND	19.24	ND		5563.00		
MW-7*	6.10.15	ND	18.65	ND		5563.59		
10100-7	12.04.15 6.02.16	ND ND	19.10 18.76	ND ND		5563.14 5563.48		
	9.16.16	ND	19.37	ND		5562.68		
	12.19.16	ND	19.13	ND		5562.92		
	6.27.17	ND ND	18.80 18.95	ND ND		5563.25 5563.10		
	1.09.18 6.21.18	ND ND	18.95	ND ND	5582.05	5563.07		
	12.13.18	ND	19.22	ND		5562.83		
	8.20.19	ND	19.31	ND		5562.74		
	1.07.20	ND	19.14	ND		5562.91		
	9.7.12 12.20.12	ND ND	14.96 14.87	ND ND		5562.85 5562.94		
	3.20.13	ND	14.63	ND		5563.18		
	6.19.13	ND	14.74	ND		5563.07		
	9.18.13	ND	15.08	ND	5577.81	5562.73		
	12.16.13 3.14.14	ND ND	14.81 14.53	ND ND		5563.00 5563.28		
	9.9.14**	15.12**	15.25	0.13**		5562.65		
	6.10.15	ND	14.44	ND		5563.37		
MW-8*	12.04.15	ND	14.97	ND		5562.84		
	6.02.16 9.16.16	ND ND	14.61 15.29	ND ND		5563.20 5562.18		
	12.19.16	ND	15.00	ND		5562.47		
	6.27.17	ND	14.62	ND		5562.85		
	1.09.18	ND	14.80	ND	5577.47	5562.67		
	6.21.18 12.13.18	ND ND	14.88 15.11	ND ND		5562.59 5562.36		
	8.20.19	ND	15.22	ND		5562.25		
	1.07.20	ND	15.00	ND	<u> </u>	5562.47		
	9.7.12	ND	17.55	ND		5564.93		
	12.20.12 3.20.13	ND ND	17.47 17.28	ND ND	4	5565.01 5565.20		
	6.19.13	ND	17.42	ND	1	5565.06		
	9.17.13	ND	17.74	ND	1	5564.74		
	12.16.13	ND	17.48	ND	5582.48	5565.00		
	3.14.14 9.9.14	ND ND	17.21 17.83	ND ND		5565.27 5564.65		
	<u>9.9.14</u> 6.10.15	ND	17.03	ND	1	5565.30		
MW-9*	12.04.15	ND	17.61	ND	1	5564.87		
	6.02.16	ND	17.30	ND		5565.18		
	9.16.16 12.19.16	ND ND	17.94 17.60	ND ND		5564.41 5564.75		
	6.27.17	ND	17.34	ND	1	5565.01		
	1.09.18	ND	17.40	ND	5582.35	5564.95		
	6.21.18	ND	17.49	ND	0002.00	5564.86		
	12.13.18 8.20.19	ND ND	17.63 17.84	ND ND	4	5564.72 5564.51		
	1.07.20	ND	17.64	ND	1	5564.78		

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TABLE 2									
Trunk 6C Kutz Wash Pipeline Release									
		GROUN	DWATER ELEV	ATIONS					
Well I.D.	Date				TOC Elevations	Groundwater			
		Product (feet BTOC)	(feet BTOC)	Thickness	(feet AMSL)	Elevation* (feet AMSL)			
	12.16.13 3.14.14	ND ND	16.93 14.63	ND ND	-	5560.87 5563.17			
	9.9.14	ND	15.34	ND	5577.80	5562.46			
	6.10.15	ND	14.58	ND		5563.22			
	12.04.15	ND	15.10	ND		5562.70			
	6.02.16	ND	14.74	ND		5563.06			
MW-10*	9.16.16 12.19.16	ND ND	15.49 15.12	ND ND	_	5562.61 5562.98			
	6.27.17	ND	14.73	ND	_	5563.37			
	1.09.18	ND	14.90	ND	5570.40	5563.20			
	6.21.18	ND	15.05	ND	5578.10	5563.05			
	12.13.18	ND	15.21	ND		5562.89			
	8.20.19 1.07.20	ND ND	15.38 15.09	ND ND		5562.72			
	12.16.13	ND	15.09	ND		5563.01 5563.50			
	3.14.14	ND	14.82	ND	_	5563.83			
	9.9.14	ND	15.63	ND	5570.05	5563.02			
	6.10.15	ND	14.76	ND	5578.65	5563.89			
	12.04.15	ND	15.35	ND		5563.30			
	6.02.16	ND	14.98	ND		5563.67			
MW-11*	9.16.16 12.19.16	ND ND	15.74 15.35	ND ND		5563.30 5563.69			
	6.27.17	ND	15.00	ND		5564.04			
	1.09.18	ND	15.11	ND		5563.93			
	6.21.18	ND	15.28	ND	5579.04	5563.76			
	12.13.18	ND	15.45	ND	-	5563.59			
	8.20.19	ND	15.66	ND		5563.38			
	1.07.20 12.16.13	ND ND	15.32 15.54	ND ND		5563.72 5564.45			
	3.14.14	ND	15.27	ND	_	5564.72			
	9.9.14	ND	15.96	ND	5570.00	5564.03			
	6.10.15	ND	15.22	ND	5579.99	5564.77			
	12.04.15	NG	NG	NG		NG			
	6.02.16	NG	NG	NG		NG			
MW-12*	9.16.16 12.19.16	NG NG	NG NG	NG NG	_	NG NG			
	6.27.17	NG	NG	NG	_	NG			
	1.09.18	NG	NG	NG	5500.00	NG			
	6.21.18	NG	NG	NG	5580.28	NG			
	12.13.18		ucted well screen	<u> </u>	_	NG			
	8.20.19		ucted well screen	0		NG			
	1.07.20 12.16.13	ND	ucted well screen 19.88	ND		NG 5563.15			
	3.14.14	ND	19.63	ND	_	5563.40			
	9.9.14	ND	20.18	ND	5502 02	5562.85			
	6.10.15	ND	19.57	ND	5583.03	5563.46			
	12.04.15	ND	20.01	ND	4	5563.02			
	6.02.16	ND	19.67	ND	┨────┤	5563.36			
MW-13*	9.16.16 12.19.16	ND ND	20.27 20.03	ND ND	-	5563.07 5563.31			
	6.27.17	ND	19.74	ND		5563.60			
	1.09.18	ND	19.85	ND	5502.24	5563.49			
	6.21.18	ND	19.89	ND	5583.34	5563.45			
	12.13.18	ND	20.13	ND	4	5563.21			
	8.20.19	ND ND	20.22	ND	-	5563.12			
	1.07.20	ND	20.02	ND		5563.32			

# **E** ENSOLUM

TABLE 2         Trunk 6C Kutz Wash Pipeline Release         GROUNDWATER ELEVATIONS								
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)		
	9.16.16	ND	14.48	ND		5561.91		
	12.19.16	ND	14.18	ND		5562.21		
	6.27.17	ND	13.83	ND		5562.56		
MW-14	1.09.18	ND	13.99	ND	5576.39	5562.40		
10100-14	6.21.18	ND	14.10	ND	5570.55	5562.29		
	12.13.18	ND	14.33	ND		5562.06		
	8.20.19	ND	14.43	ND		5561.96		
	1.07.20	ND	14.21	ND		5562.18		
	9.16.16	ND	16.75	ND		5562.08		
	12.19.16	ND	16.48	ND		5562.35		
	6.27.17	ND	16.12	ND		5562.71		
MW-15	1.09.18	ND	16.30	ND	5578.83	5562.53		
10100-13	6.21.18	ND	16.36	ND	3370.03	5562.47		
	12.13.18	ND	16.60	ND		5562.23		
	8.20.19	ND	16.70	ND		5562.13		
	1.07.20	ND	16.50	ND		5562.33		
	9.16.16	ND	16.02	ND		5563.84		
	12.19.16	ND	15.68	ND		5564.18		
	6.27.17	ND	15.30	ND		5564.56		
MW-17	1.09.18	ND	15.45	ND	5579.86	5564.41		
10100-17	6.21.18	ND	15.55	ND	5579.00	5564.31		
	12.13.18	ND	15.72	ND	1	5564.14		
	8.20.19	ND	15.91	ND	1	5563.95		
	1.07.20	ND	15.62	ND		5564.24		

BTOC - below top of casing

AMSL - above mean sea level

TOC - top of casing

NG - Well not gauged, or Errant Gauge.

ND - not detected

* - Monitoring wells resurveyed during September 2016

** - Field personnel recorded the presence of NAPL utilizing an interface probe, but the product was not visually verified.

## APPENDIX C

Laboratory Data Sheets & Chain of Custody Documentation



June 18, 2020

Kyle Summers ENSOLUM 606 S. Rio Grande Suite A Aztec, NM 87410 TEL: (903) 821-5603 FAX: Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

RE: Trunk 6-C

OrderNo.: 1908F66

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 15 sample(s) on 8/23/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

**Analytical Report** Lab Order 1908F66

Date Reported: 6/18/2020

CLIENT: ENSOLUM	Client Sample ID: MW-7						
<b>Project:</b> Trunk 6-C	Collection Date: 8/21/2019 10:20:00 AM						
Lab ID: 1908F66-001	Matrix: AQUEOUS Received Date: 8/23/2019 8:00:00 AM						
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch	
EPA METHOD 8021B: VOLATILES					Analyst	: NSB	
Benzene	ND	1.0	µg/L	1	8/30/2019 4:56:38 PM	D62567	
Toluene	ND	1.0	μg/L	1	8/30/2019 4:56:38 PM	D62567	
Ethylbenzene	ND	1.0	μg/L	1	8/30/2019 4:56:38 PM	D62567	
Xylenes, Total	ND	2.0	μg/L	1	8/30/2019 4:56:38 PM	D62567	
Surr: 4-Bromofluorobenzene	94.1 8	0-120	%Rec	1	8/30/2019 4:56:38 PM	D62567	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 1 of 17

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Surr: 4-Bromofluorobenzene

**Analytical Report** Lab Order 1908F66

%Rec 1 8/30/2019 6:05:36 PM D62567

Hall Environmental Analysis Laboratory, Inc.			Date Reported: 6/18/2020						
CLIENT: ENSOLUM		Clie	nt Sample II	D: M	W-15				
<b>Project:</b> Trunk 6-C		Co	llection Dat	e: 8/2	21/2019 10:50:00 AM				
Lab ID: 1908F66-002	Matrix: AQUEOUS	R	eceived Dat	<b>e:</b> 8/2	23/2019 8:00:00 AM				
Analyses	Result	RL Q	Qual Units	DF	Date Analyzed	Batch			
EPA METHOD 8021B: VOLATILES					Analyst	: NSB			
Benzene	ND	1.0	µg/L	1	8/30/2019 6:05:36 PM	D62567			
Toluene	ND	1.0	μg/L	1	8/30/2019 6:05:36 PM	D62567			
Ethylbenzene	ND	1.0	μg/L	1	8/30/2019 6:05:36 PM	D62567			
Xylenes, Total	ND	2.0	μg/L	1	8/30/2019 6:05:36 PM	D62567			

105

80-120

### Hall Environmental Analysis Laboratory, Inc.

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- в Analyte detected in the associated Method Blank Е
- Value above quantitation range J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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PQL Practical Quanitative Limit S % Recovery outside of range due to dilution or matrix

Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

Not Detected at the Reporting Limit

*

D

Н

ND

**Qualifiers:** 

Surr: 4-Bromofluorobenzene

**Analytical Report** Lab Order 1908F66

8/30/2019 7:14:22 PM D62567

Hall Environmental Analys	Date Reported: 6/18/2020					
CLIENT: ENSOLUM		Client Sample	ID: M	W-14		
Project: Trunk 6-C	Collection Date: 8/21/2019 11:30:00 AM					
Lab ID: 1908F66-003	Matrix: AQUEOUS Received Date: 8/23/2019 8:00:00 AM					
Analyses	Result	RL Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 8021B: VOLATILES				Analyst	I NSB	
Benzene	ND	1.0 µg/L	1	8/30/2019 7:14:22 PM	D62567	
Toluene	ND	1.0 µg/L	1	8/30/2019 7:14:22 PM	D62567	
Ethylbenzene	ND	1.0 µg/L	1	8/30/2019 7:14:22 PM	D62567	
Xylenes, Total	ND	2.0 μg/L	1	8/30/2019 7:14:22 PM	D62567	

96.5

80-120

%Rec

1

### Hall Environmental Analysis Laboratory, Inc.

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Analytical Report
Lab Order 1908F66

Hall Environmental Analysis Laboratory, Inc.	Date Reported: 6/18/2020
----------------------------------------------	--------------------------

CLIENT: ENSOLUM Project: Trunk 6-C	Client Sample ID: MW-8 Collection Date: 8/21/2019 12:10:00 PM						
Lab ID: 1908F66-004	Matrix: AQUEOUSReceived Date: 8/23/2019 8:00:00 AM						
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 8021B: VOLATILES					Analyst	NSB	
Benzene	ND	1.0	µg/L	1	8/30/2019 7:37:20 PM	D62567	
Toluene	ND	1.0	μg/L	1	8/30/2019 7:37:20 PM	D62567	
Ethylbenzene	ND	1.0	μg/L	1	8/30/2019 7:37:20 PM	D62567	
Xylenes, Total	ND	2.0	μg/L	1	8/30/2019 7:37:20 PM	D62567	
Surr: 4-Bromofluorobenzene	98.2 8	0-120	%Rec	1	8/30/2019 7:37:20 PM	D62567	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limitsP Sample pH Not In Range
- P Sample pH Not In RL Reporting Limit
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Date Reported: 6/18/2020

CLIENT: ENSOLUM Project: Trunk 6-C			nt Sample I Illection Dat		W-2 21/2019 12:50:00 PM	
Lab ID: 1908F66-005	Matrix: AQUEOUS	R	eceived Dat	e: 8/2	23/2019 8:00:00 AM	
Analyses	Result	RL (	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	μg/L	1	8/30/2019 8:00:14 PM	D62567
Toluene	ND	1.0	µg/L	1	8/30/2019 8:00:14 PM	D62567
Ethylbenzene	ND	1.0	µg/L	1	8/30/2019 8:00:14 PM	D62567
Xylenes, Total	ND	2.0	µg/L	1	8/30/2019 8:00:14 PM	D62567
Surr: 4-Bromofluorobenzene	96.0 8	0-120	%Rec	1	8/30/2019 8:00:14 PM	D62567

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 6/18/2020

CLIENT: ENSOLUM	Client Sample ID: MW-3					
Project: Trunk 6-C	Collection Date: 8/21/2019 1:30:00 PM					
Lab ID: 1908F66-006	Matrix: AQUEOUS Received Date: 8/23/2019 8:00:00				23/2019 8:00:00 AM	
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	µg/L	1	8/30/2019 8:23:09 PM	D62567
Toluene	ND	1.0	µg/L	1	8/30/2019 8:23:09 PM	D62567
						D02001
Ethylbenzene	ND	1.0	µg/L	1	8/30/2019 8:23:09 PM	D62567
Ethylbenzene Xylenes, Total	ND ND	1.0 2.0	μg/L μg/L	1 1	8/30/2019 8:23:09 PM 8/30/2019 8:23:09 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 6/18/2020

CLIENT: ENSOLUM	Client Sample ID: MW-1						
Project:         Trunk 6-C           Lab ID:         1908F66-007	Collection Date: 8/21/2019 2 Matrix: AQUEOUS Received Date: 8/23/2019 8						
Analyses	Result	RL (	Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 8021B: VOLATILES					Analys	: NSB	
Benzene	800	20	μg/L	20	9/3/2019 9:46:37 AM	B62609	
Toluene	510	20	µg/L	20	9/3/2019 9:46:37 AM	B62609	
Ethylbenzene	46	20	µg/L	20	9/3/2019 9:46:37 AM	B62609	
Xylenes, Total	150	40	μg/L	20	9/3/2019 9:46:37 AM	B62609	
Surr: 4-Bromofluorobenzene	99.2 8	0-120	%Rec	20	9/3/2019 9:46:37 AM	B62609	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.	
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Date Reported: 6/18/2020

CLIENT: ENSOLUM			nt Sample I			
<b>Project:</b> Trunk 6-C	<b>Collection Date:</b> 8/22/2019 9:40:00 AM					
Lab ID: 1908F66-008	Matrix: AQUEOUS	R	eceived Dat	<b>:e:</b> 8/2	23/2019 8:00:00 AM	
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	µg/L	1	8/30/2019 9:09:03 PM	D62567
Toluene	ND	1.0	μg/L	1	8/30/2019 9:09:03 PM	D62567
Ethylbenzene	ND	1.0	μg/L	1	8/30/2019 9:09:03 PM	D62567
Xylenes, Total	ND	2.0	μg/L	1	8/30/2019 9:09:03 PM	D62567
Surr: 4-Bromofluorobenzene	93.1 8	0-120	%Rec	1	8/30/2019 9:09:03 PM	D62567

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analys	sis Laboratory, Inc.
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Date Reported: 6/18/2020

CLIENT: ENSOLUM Project: Trunk 6-C	Client Sample ID: MW-5 Collection Date: 8/22/2019 10:25:00 AM Matrix: AQUEOUS Received Date: 8/23/2019 8:00:00 AM					
Lab ID: 1908F66-009						
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	µg/L	1	8/30/2019 9:31:59 PM	D62567
Toluene	ND	1.0	µg/L	1	8/30/2019 9:31:59 PM	D62567
Ethylbenzene	ND	1.0	µg/L	1	8/30/2019 9:31:59 PM	D62567
Xylenes, Total	ND	2.0	µg/L	1	8/30/2019 9:31:59 PM	D62567
Surr: 4-Bromofluorobenzene	91.2 8	0-120	%Rec	1	8/30/2019 9:31:59 PM	D62567

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Ana	Date Reported: 6/18/2020	
<b>CLIENT:</b> ENSOLUM		Client Sample ID: MW-6
<b>Project:</b> Trunk 6-C		Collection Date: 8/22/2019 11:00:00 AM
Lab ID: 1908F66-010	Matrix: AQUEOUS	Received Date: 8/23/2019 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	1.0	µg/L	1	8/30/2019 9:54:55 PM	D62567
Toluene	ND	1.0	µg/L	1	8/30/2019 9:54:55 PM	D62567
Ethylbenzene	ND	1.0	µg/L	1	8/30/2019 9:54:55 PM	D62567
Xylenes, Total	ND	2.0	µg/L	1	8/30/2019 9:54:55 PM	D62567
Surr: 4-Bromofluorobenzene	93.0	80-120	%Rec	1	8/30/2019 9:54:55 PM	D62567

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1908F66

Date Reported: 6/18/2020

CLIENT: ENSOLUM		Client Sample	e <b>ID:</b> M	[W-4	
Project: Trunk 6-C		Collection D	<b>ate:</b> 8/2	22/2019 11:40:00 AM	
Lab ID: 1908F66-011	Matrix: AQUEOUS	<b>Received</b> D	<b>Date:</b> 8/2	23/2019 8:00:00 AM	
Analyses	Result	RL Qual Unit	s DF	<b>Date Analyzed</b>	Batch
EPA METHOD 8021B: VOLATILES				Analys	t: NSB
Benzene	ND	1.0 µg/L	1	8/30/2019 10:17:51 PM	1 D6256
Toluene	ND	1.0 µg/L	1	8/30/2019 10:17:51 PN	D62567
Ethylbenzene	ND	1.0 µg/L	1	8/30/2019 10:17:51 PN	1 D6256
Xylenes, Total	ND	2.0 µg/L	1	8/30/2019 10:17:51 PM	1 D6256
, grouped, retain					

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Surr: 4-Bromofluorobenzene

Analytical Report Lab Order 1908F66

Date Reported: 6/18/2020

9/3/2019 10:10:11 AM B62609

CLIENT: ENSOLUM		Client Sample I	<b>D:</b> MW-17
<b>Project:</b> Trunk 6-C		<b>Collection Da</b>	te: 8/22/2019 12:20:00 PM
Lab ID: 1908F66-012	Matrix: AQUEOUS	Received Da	te: 8/23/2019 8:00:00 AM
Analyses	Result	RL Qual Units	DF Date Analyzed Bate
EPA METHOD 8021B: VOLATILES			Analyst: NSE
Benzene	4.1	1.0 µg/L	1 9/3/2019 10:10:11 AM B626
Toluene	ND	1.0 µg/L	1 9/3/2019 10:10:11 AM B626
Ethylbenzene	ND	1.0 µg/L	1 9/3/2019 10:10:11 AM B626
Xylenes, Total	ND	2.0 µg/L	1 9/3/2019 10:10:11 AM B626

92.4

80-120

%Rec

1

### Hall Environmental Analysis Laboratory, Inc.

B Analyte detected in the associated Method Blank

- E Value above quantitation rangeJ Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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*

D

Н

ND

S

**Qualifiers:** 

Value exceeds Maximum Contaminant Level.

Holding times for preparation or analysis exceeded

% Recovery outside of range due to dilution or matrix

Sample Diluted Due to Matrix

PQL Practical Quanitative Limit

Not Detected at the Reporting Limit

Surr: 4-Bromofluorobenzene

**Analytical Report** Lab Order 1908F66

8/30/2019 11:49:35 PM D62567

Hall Environmental Analys	is Laboratory, Inc	•		Date Reported: 6/18/2	020
CLIENT: ENSOLUM		Client Sampl	e ID: N	fW-13	
Project: Trunk 6-C		Collection ]	Date: 8/	/22/2019 12:45:00 PM	
Lab ID: 1908F66-013	Matrix: AQUEOUS	<b>Received</b>	Date: 8/	/23/2019 8:00:00 AM	
Analyses	Result	RL Qual Uni	ts Dl	F Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES				Analys	st: NSB
Benzene	ND	1.0 µg/l	. 1	8/30/2019 11:49:35 PI	M D62567
Toluene	ND	1.0 μg/l	. 1	8/30/2019 11:49:35 PI	M D62567
Ethylbenzene	ND	1.0 μg/l	. 1	8/30/2019 11:49:35 PI	M D62567
Xylenes, Total	ND	2.0 μg/l	. 1	8/30/2019 11:49:35 PI	M D62567

95.1

80-120

%Rec

1

### Hall Environmental Analysis Laboratory Inc

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Surr: 4-Bromofluorobenzene

**Analytical Report** Lab Order 1908F66

8/31/2019 12:12:31 AM D62567

Hall Environmental Analys	is Laboratory, Inc	•		Date Reported: 6/18/20	020
CLIENT: ENSOLUM		Client Sam	<b>ple ID:</b> M	W-10	
<b>Project:</b> Trunk 6-C		Collection	n <b>Date:</b> 8/2	22/2019 1:10:00 PM	
<b>Lab ID:</b> 1908F66-014	Matrix: AQUEOUS	Received	<b>d Date:</b> 8/2	23/2019 8:00:00 AM	
Analyses	Result	RL Qual U	nits DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES				Analys	t: NSB
Benzene	ND	1.0 µg	g/L 1	8/31/2019 12:12:31 AM	1 D62567
Toluene	ND	1.0 µç	g/L 1	8/31/2019 12:12:31 AN	1 D62567
Ethylbenzene	ND	1.0 µç	g/L 1	8/31/2019 12:12:31 AN	1 D62567
Xylenes, Total	ND	2.0 µg	g/L 1	8/31/2019 12:12:31 AN	1 D62567

91.8

80-120

%Rec

1

## Hall Environmental Analysis Laboratory, Inc.

Analyte detected in the associated Method Blank

- Е Value above quantitation range
- J Analyte detected below quantitation limits Р Sample pH Not In Range
- RL Reporting Limit

в

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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% Recovery outside of range due to dilution or matrix S

Not Detected at the Reporting Limit

Sample Diluted Due to Matrix

PQL Practical Quanitative Limit

Value exceeds Maximum Contaminant Level.

Holding times for preparation or analysis exceeded

*

D

Н

ND

**Qualifiers:** 

Date Reported: 6/18/2020

CLIENT: ENSOLUM		Clien	t Sample I	D: M	W-11	
<b>Project:</b> Trunk 6-C		Col	lection Dat	e: 8/2	22/2019 1:30:00 PM	
Lab ID: 1908F66-015	Matrix: AQUEOUS	Re	ceived Dat	e: 8/2	23/2019 8:00:00 AM	
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	µg/L	1	8/31/2019 12:35:25 AM	D62567
Toluene	ND	1.0	µg/L	1	8/31/2019 12:35:25 AM	D62567
Ethylbenzene	ND	1.0	µg/L	1	8/31/2019 12:35:25 AM	D62567
,						
Xylenes, Total	ND	2.0	µg/L	1	8/31/2019 12:35:25 AM	D62567

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#:	1908F66

18-Jun-20

Client: Project:	ENSOLUM Trunk 6-C									
Sample ID: RB	Sa	mpType: <b>N</b>	BLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: PBW	E	Batch ID: D	62567	F	RunNo: 62	2567				
Prep Date:	Analy	sis Date: 8	8/30/2019	S	SeqNo: 21	128992	Units: µg/L			
Analyte	Resu			SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	N									
Toluene	N									
Ethylbenzene	N									
Xylenes, Total	N									
Surr: 4-Bromofluorobe	nzene	8	20.00		89.9	80	120			
Sample ID: 100NG	BTEX LCS Sa	mpType: L	cs				8021B: Volat	iles		
Client ID: LCSW	E	Batch ID: D	62567	F	RunNo: 62	2567				
Prep Date:	Analy	sis Date: 8	8/30/2019	S	SeqNo: 21	128993	Units: µg/L			
Analyte	Resu	ılt PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1	9 1.0	20.00	0	95.5	80	120			
Toluene	1	9 1.0	20.00	0	97.0	80	120			
		20 1.0	20.00	0	98.5	80	120			
Ethyldenzene										
Ethylbenzene Xylenes, Total		57 2.0	60.00	0	94.5	80	120			
•	Ę	57 2.0 20	60.00 20.00	0	94.5 97.8	80 80	120 120			
Xylenes, Total	nzene 2		20.00		97.8	80		iles		
Xylenes, Total Surr: 4-Bromofluorobe	nzene 2 6-001AMS Sa	20	20.00	Tes	97.8	80 PA Method	120	iles		
Xylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b>	nzene 2 6-001AMS Sa E	mpType: <b>N</b>	20.00 S 62567	Tes	97.8 tCode: <b>EF</b>	80 PA Method 2567	120	iles		
Xylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b>	nzene 2 6-001AMS Sa E	mpType: <b>M</b> Batch ID: <b>D</b> sis Date: <b>8</b>	20.00 S 62567 5/30/2019	Tes	97.8 tCode: EF	80 PA Method 2567	120 8021B: Volat	iles %RPD	RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte	nzene 2 6-001AMS Sa E Analy: Resi	mpType: <b>M</b> Batch ID: <b>D</b> sis Date: <b>8</b>	20.00 S 62567 5/30/2019 SPK value	Tes F S	97.8 tCode: EF RunNo: 62 SeqNo: 21	80 PA Method 2567 128995	120 8021B: Volat Units: µg/L		RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene	nzene 2 6-001AMS Sa E Analy: Rest	mpType: <b>M</b> Batch ID: <b>D</b> sis Date: <b>{</b> ult PQL	20.00 <b>S</b> 62567 5/30/2019 SPK value 0 20.00	Tes F S SPK Ref Val	97.8 tCode: EF RunNo: 62 SeqNo: 21 %REC	80 PA Method 2567 128995 LowLimit	120 8021B: Volat Units: µg/L HighLimit		RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene	nzene 2 6-001AMS Sa E Analy: Rest	mpType: <b>M</b> Batch ID: <b>D</b> sis Date: <b>{</b> ult PQL 21 1.0	20.00 <b>S</b> 62567 5/30/2019 SPK value 0 20.00 0 20.00	Tes F S SPK Ref Val 0.4710	97.8 tCode: EF RunNo: 62 SeqNo: 24 %REC 101	80 PA Method 2567 128995 LowLimit 80	120 8021B: Volat Units: µg/L HighLimit 120		RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobee Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene Ethylbenzene	nzene 2 6-001AMS Sa E Analy: Resu 2 2 2 2	mpType: <b>M</b> Batch ID: <b>D</b> sis Date: <b>8</b> ult PQL 21 1.0	20.00 <b>S</b> 62567 5/30/2019 SPK value 0 20.00 0 20.00 0 20.00	Tes F SPK Ref Val 0.4710 0	97.8 tCode: EF RunNo: 62 SeqNo: 2* %REC 101 99.6	80 PA Method 2567 128995 LowLimit 80 75.5	120 8021B: Volat Units: μg/L HighLimit 120 120		RPDLimit	Qual
Kylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Foluene Ethylbenzene	nzene 2 6-001AMS Sa E Analy Resu 2 2 2 3	mpType: <b>M</b> Batch ID: <b>D</b> sis Date: <b>8</b> ult PQL 21 1.0 20 1.0 20 1.0	20.00 <b>S</b> 62567 5/30/2019 SPK value 0 20.00 0 20.00 0 20.00	Tes F SPK Ref Val 0.4710 0 0	97.8 tCode: EF RunNo: 62 SeqNo: 2 %REC 101 99.6 101	80 PA Method 2567 128995 LowLimit 80 75.5 80	120 8021B: Volat Units: μg/L HighLimit 120 120 120		RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobee Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	nzene 2 6-001AMS Sa E Analys Resu 2 2 2 5 nzene 2	mpType: <b>M</b> Batch ID: <b>D</b> sis Date: <b>8</b> ult PQL 21 1.0 20 1.0 39 2.0	20.00 <b>S</b> 62567 5/30/2019 SPK value 0 20.00 0 20.00 0 20.00 0 20.00 0 20.00 0 20.00	Tes F SPK Ref Val 0.4710 0 0 0 0	97.8 tCode: EF RunNo: 62 SeqNo: 24 %REC 101 99.6 101 98.4 98.7	80 PA Method 2567 128995 LowLimit 80 75.5 80 77.3 80	120 8021B: Volat Units: μg/L HighLimit 120 120 120 119	%RPD	RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe	nzene 2 6-001AMS Sa E Analy: Resu 2 2 5 nzene 2 6-001AMSD Sa	mpType: <b>M</b> Batch ID: <b>D</b> sis Date: <b>8</b> ult PQL 21 1.0 20 1.0 39 2.0 20	20.00 S 62567 S/30/2019 SPK value 20.00 20.00 0 20.00 0 60.00 20.00 SD	Tes F SPK Ref Val 0.4710 0 0 0 0 Tes	97.8 tCode: EF RunNo: 62 SeqNo: 24 %REC 101 99.6 101 98.4 98.7	80 PA Method 2567 128995 LowLimit 80 75.5 80 77.3 80 PA Method	120 8021B: Volat Units: μg/L HighLimit 120 120 120 119 120	%RPD	RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b>	nzene 2 6-001AMS Sa E Analy: Resu 2 2 2 5 nzene 2 6-001AMSD Sa E	mpType: <b>M</b> Batch ID: <b>D</b> sis Date: <b>8</b> ult PQL 20 1.0 20 1.0 39 2.0 20 mpType: <b>M</b>	20.00 S 62567 S/30/2019 SPK value 20.00 20.00 20.00 0 20.00 0 20.00 SD 62567	Tes F SPK Ref Val 0.4710 0 0 0 0 0 Tes F	97.8 tCode: EF RunNo: 62 SeqNo: 24 %REC 101 99.6 101 98.4 98.7 tCode: EF	80 PA Method 2567 128995 LowLimit 80 75.5 80 77.3 80 PA Method 2567	120 8021B: Volat Units: μg/L HighLimit 120 120 120 119 120	%RPD	RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobe Client ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b>	nzene 2 6-001AMS Sa E Analy: Resu 2 2 2 5 nzene 2 6-001AMSD Sa E	20         mpType:       M         Batch ID:       D         sis Date:       8         ult       PQL         20       1.0         20       1.0         20       1.0         20       1.0         20       1.0         20       1.0         30       1.0         9       2.0         mpType:       M         Batch ID:       D         sis Date:       8	20.00 S 62567 5/30/2019 SPK value 20.00 20.00 20.00 0 20.00 0 60.00 20.00 SD 62567 5/30/2019	Tes F SPK Ref Val 0.4710 0 0 0 0 0 Tes F	97.8 tCode: EF RunNo: 62 SeqNo: 2 %REC 101 99.6 101 98.4 98.7 tCode: EF RunNo: 62	80 PA Method 2567 128995 LowLimit 80 75.5 80 77.3 80 PA Method 2567	120 8021B: Volat Units: μg/L HighLimit 120 120 120 119 120 8021B: Volat	%RPD	RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobel Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobel Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte	nzene 2 6-001AMS Sa E Analy Resu 2 2 2 5 6-001AMSD Sa E Analy Resu	20         mpType:       M         Batch ID:       D         sis Date:       8         ult       PQL         20       1.0         20       1.0         20       1.0         20       1.0         20       1.0         20       1.0         30       1.0         9       2.0         mpType:       M         Batch ID:       D         sis Date:       8	20.00 S 62567 S/30/2019 SPK value 20.00 20.00 20.00 0 20.00 0 20.00 0 20.00 SD 62567 S/30/2019 SPK value	Tes F SPK Ref Val 0.4710 0 0 0 0 0 Tes F S	97.8 tCode: EF RunNo: 62 SeqNo: 2 %REC 101 99.6 101 98.4 98.7 tCode: EF RunNo: 62 SeqNo: 2	80 PA Method 2567 128995 LowLimit 80 75.5 80 77.3 80 PA Method 2567 128996	120 8021B: Volat Units: μg/L HighLimit 120 120 120 119 120 8021B: Volat Units: μg/L	%RPD		
Xylenes, Total Surr: 4-Bromofluorobel Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobel Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene	6-001AMS Sa Analys Resu nzene 2 6-001AMSD Sa Analys Resu Resu	20         mpType:       M         Batch ID:       D         sis Date:       \$         sit       PQL         20       1.0         20       1.0         20       1.0         20       2.0         mpType:       M         Batch ID:       D         sis Date:       \$         sis Date:       \$         ult       PQL	20.00 S 62567 5/30/2019 SPK value 0 20.00 0 20.00 0 20.00 0 20.00 SD 62567 5/30/2019 SPK value 0 20.00	Tes F SPK Ref Val 0.4710 0 0 0 0 Tes F SPK Ref Val	97.8 tCode: EF RunNo: 62 SeqNo: 2 %REC 101 99.6 101 98.4 98.7 tCode: EF RunNo: 62 SeqNo: 2 %REC	80 PA Method 2567 128995 LowLimit 80 75.5 80 77.3 80 PA Method 2567 128996 LowLimit	120 8021B: Volat Units: μg/L HighLimit 120 120 120 120 120 8021B: Volat Units: μg/L HighLimit	%RPD iles %RPD	RPDLimit	
Xylenes, Total Surr: 4-Bromofluorobel Client ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobel Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene	6-001AMS Sa Analy Resu nzene 2 6-001AMSD Sa Analy Resu Analy	20         mpType:       M         Batch ID:       D         sis Date:       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$         \$       \$	20.00 S 62567 5/30/2019 SPK value 0 20.00 0 20.00 0 20.00 0 20.00 SD 62567 5/30/2019 SPK value 0 20.00 0 2	Tes 5 5 5 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7	97.8 tCode: EF RunNo: 62 SeqNo: 2 %REC 101 99.6 101 98.4 98.7 tCode: EF RunNo: 62 SeqNo: 2 %REC 92.6	80 PA Method 2567 128995 LowLimit 80 75.5 80 77.3 80 PA Method 2567 128996 LowLimit 80	120 8021B: Volat Units: μg/L HighLimit 120 120 120 120 19 120 8021B: Volat Units: μg/L HighLimit 120	%RPD iles %RPD 8.45	RPDLimit 20	
Xylenes, Total Surr: 4-Bromofluorobe Client ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe Sample ID: <b>1908F6</b> Client ID: <b>MW-7</b> Prep Date:	nzene 2 6-001AMS Sa E Analy: Resu 2 5 6-001AMSD Sa 6-001AMSD Sa E Analy: Resu	20         mpType:       M         Batch ID:       D         sis Date:       8         sit       PQL         21       1.0         20       1.0         20       1.0         39       2.0         mpType:       M         Batch ID:       D         sis Date:       8         ult       PQL         9       1.0         9       1.0         9       1.0         9       1.0	20.00 S 62567 S/30/2019 SPK value 0 20.00 0 20.00 0 20.00 0 20.00 SD 62567 S/30/2019 SPK value 0 20.00 SD 62567 S/30/2019 SPK value 0 20.00 0 20.00 0 20.00 0 20.00 0 20.00 0 20.00	Tes 5 5 5 5 5 7 6 7 7 6 7 7 7 8 7 7 8 7 8 7 8 7 8 7 8	97.8 tCode: EF RunNo: 62 SeqNo: 2* %REC 101 99.6 101 98.4 98.7 tCode: EF RunNo: 62 SeqNo: 2* %REC 92.6 92.9	80 PA Method 2567 128995 LowLimit 80 75.5 80 77.3 80 PA Method 2567 128996 LowLimit 80 75.5	120 8021B: Volat Units: μg/L HighLimit 120 120 120 119 120 8021B: Volat Units: μg/L HighLimit 120 120	%RPD iles %RPD 8.45 6.93	RPDLimit 20 20	

### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

WO#:	1908F66

18-Jun-20

	OLUM k 6-C									
Sample ID: RB	SampT	ype: ME	BLK	Tes	Code: El	PA Method	8021B: Volat	iles		
Client ID: PBW	Batch	h ID: <b>B6</b>	2609	R	unNo: 6	2609				
Prep Date:	Analysis D	Date: 9/	3/2019	S	eqNo: 2	130677	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	18		20.00		92.3	80	120			
Sample ID: 100NG BTEX	LCS SampT	Type: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSW	Batch	h ID: <b>B6</b>	2609	R	unNo: 6	2609				
Prep Date:	Analysis D	Date: 9/	3/2019	S	eqNo: 2	130678	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	80	120			
Toluene	21	1.0	20.00	0	103	80	120			
Ethylbenzene	21	1.0	20.00	0	104	80	120			
Kylenes, Total	64	2.0	60.00	0	106	80	120			
· j. · · · · · · · · ·										

### Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environme TEL: 505-345	ental Analysis Labora 4901 Hawkins Albuquerque, NM 87 3975 FAX: 505-345-4 w.hallenvironmental.	^{NE} 109 <b>Sar</b> 107	Pag
Client Name: ENSOLUM AZTEC	Work Order Nun	nber: 1908F66		RcptNo: 1
Received By: DAMIEL MAR Completed By: Yazmine Gardung Reviewed By: Y6 8 26	8/27/2019 2:57:35		ybguin lifnduð	ζ.
Chain of Custody				
1. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present
2. How was the sample delivered?		Courier		
Log In 3. Was an attempt made to cool the s	samples?	Yes 🗹	No 🗌	
4. Were all samples received at a terr	perature of >0° C to 6.0°C	Yes 🗸	No 🗌	
5. Sample(s) in proper container(s)?		Yes 🗹	No 🗌	
6. Sufficient sample volume for indica	ted test(s)?	Yes 🗹	No 🗌	
7. Are samples (except VOA and ONC	G) properly preserved?	Yes 🖌	No 🗌	
8. Was preservative added to bottles?		Yes	No 🗹	NA 🗌
9. VOA vials have zero headspace?		Yes	No 🗌	No VOA Viats Mp9519
10. Were any sample containers receiv	ved broken?	Yes	No 🗹	# of preserved
11. Does paperwork match bottle labels (Note discrepancies on chain of cus		Yes 🔽	No 🗌	bottles checked for pH: (<2 or >12 unless noted
2. Are matrices correctly identified on	No. and a second s	Yes 🗹	No 🗌	Adjusted?
13. Is it clear what analyses were reque	ested?	Yes 🔽	No 🗌	
<ol> <li>Were all holding times able to be m (If no, notify customer for authorization)</li> </ol>		Yes 🗹	No 🗌	Checked by: DAD 8/28
Special Handling (if applicable				
15. Was client notified of all discrepand	cies with this order?	Yes	No 🗌	NA 🗹
Person Notified:	Date	1		
By Whom:	Via:	eMail Ph	none 🗌 Fax	In Person
Regarding: Client Instructions:				
16. Additional remarks:				
17. Cooler Information				
Cooler No Temp °C Condi	tion Seal Intact Seal No	Seal Date S	Signed By	
		the second se		

Page 1 of 1

J	Chain.	-of-Cu	Chain-of-Custody Record	Turn-Around	Time:				1			1		Recei
Client:	Ens	Ensolum	د. د	🕅 Standard	□ Rush				HALL ENVIF ANALVETS I	EN	VIR	ENVIRONMENT		. >
				Project Name				ζ ΄						
Mailing	Mailing Address:	606	S Rio Goende	TIUNG	ck b	S	4901	4901 Hawkins NE	www.riaiie11/11/11/11/11/11/11/11/11/11/11/11/11/	Albug	nerque	anvironnental.com Albuquerque. NM 87109	0	C <b>D: 3</b> /
Se	Swit A	2	7410	Project #:	· · · · /		Tel.	505-345-3975	5-3975	Fax	505-	505-345-4107		/18/2
Phone #:	#:			0.5	H 1220	1100			4	Analysis		iest		021
email o	email or Fax#:			Project Manager:	ger:			2		⁺O		(11		12:
QA/QC	QA/QC Package:		Level 4 (Full Validation)	$\checkmark$	Jumm.	512	208) s 9 MR/ 0	PCB's	SWIS	S '⊅Od		i92dA\t		50:13 F
Accred	Accreditation:	□ Az Co	mpliance	Sampler:	53	<i>J.</i>	אם /		8520	' ^z ON	(	uəsə.		PM
	AC			On Ice:	Yes	ON D	ΟЯ			·8	AC	Ч)		
	EDD (Type)			# of Coolers:	0	22000116216	19)C					ວເພ		
					$\gamma$	2/1/2 1/2 1/2	1910		-			otiloC		
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	1005 FLOO	8:H9T	EDB (	горна КСК⊳	8560 ( Cl, F,	0728	) lstoT		
8/21/19	0 601 6	R		3 your	Hgelz	100-			-					
_	0501	3	mw-15	į		100-	4							
	1130	ż	M. W 14			200-	X							
	1310	N	mu-S			-00H	×.							
	is so	3	mw-2			-005	X							
	1330	Z	m3			-00-	X							
-+	OCHI	3	mu-)			-00-	X							
Balse	940	Ż	m~-9			-008	x			-	2			
	2 COI	3	MW-S-			-006	У					s. S		
	1100	2	m~-6			-010	X							
	1140	5	mury			110-	メ							
-	0661	N	LI-NW	Ng	_	-01-	ĸ							
Date:	Time:	Relinquished by:	- John Starter	Received by:	Via:	Date Time	Remarks:	5m	X	le.	Sum	2. a.r.		1
Date:	Time:	Relinguished by:	) } }	Received by:	Via:	Date Time		3:1	1 70	N.	Isral	wi	Dane	Page
5/22/5	1807	UNN/	not black &	1 m Con	wird 8	123/10 9,00							4	123 oj
	If necessary,	samples sub	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories.	intracted to other ac	credited laboratorie	is. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report	possibility. Any	sub-contra	icted data	vill be clea	irly notate	d on the analytics	al report.	139
		>												

Received b	y 00	C <b>D: 3</b> /	/18/2	2021	12:	50:13 P	PM								 			Pa	ge 124 of	139
<u> </u>	AINALTS15 LABORALOR	www.nallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109	10	Analysis		S '⁺Od	ьг 827( ИО ₂ ,	10 o 10 o 10 o 10 o	, 83 r9M r, N (AC	EDB (M PAHs b) RCRA 8 CI, F, B 8250 (V 8250 (S 70tal Co								Su page 1	Puge 3	This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
		901 H	Tel. 50						_	əq 1808										Any sub
		40	Н							08:H9T			6		 			Remarks		sibility.
	1		r			. 208) s	BMT C	138	FM FM	XJT8 /	X	, ×	X.	 	 	 	 			his poss
ound Time: dard	]	Trunck 6C	t.	1109ECI 850	Project Manager:	K Summers	: Là Arant:	2	Cooler Temp(including cF):/// 03/2-20	er Preservative HEAL No. d # Type		H10- 1	SN0- 1					Via:	y: Via: Date Time Contriv \$23/19 8:00	ther accredited laboratories. This serves as notice of the
Turn-Around	Project Name:		Project #:		Project I		Sampler: On Ica	# of Coolers:	Cooler 7	Container Type and #	3 WOML	_	~					Received by:	Received by:	itracted to o
Chain-of-Custody Record		Mailing Address: 606 S R'o Grande		Phone #:	email or Fax#:	QA/QC Package:	Accreditation:	(pe)		Time Matrix Sample Name	SI- MW on Shappilley	1316 W MW-10	11330 W MW-11					Time: Relinquished by:	Bate: Time: Relinquished by: 8/22/19 1817 75-22-	If necessary, camples submitted to Hall Environmental may be subcontracted to other accredited laboratories.



January 17, 2020

Kyle Summers ENSOLUM 606 S. Rio Grande Suite A Aztec, NM 87410 TEL: (903) 821-5603 FAX

RE: Trunk 6C Kutz Wash

OrderNo.: 2001440

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/11/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environme	ental Analysis L	aboratory,	Inc.			L	Analytical Report Lab Order: 2001440 Date Reported: 1/17		0
	OLUM k 6C Kutz Wash				L	.ab C	<b>Drder:</b> 20014	440	
Lab ID: 20	001440-001		C	ollecti	on Date	<b>: 1</b> /1	10/2020 9:15:00 A	M	
Client Sample ID: M	IW-5				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD 8021B	VOLATILES						An	alyst	NSB
Benzene		ND	1.0		µg/L	1	1/16/2020 9:43:21	PM	B65850
Toluene		ND	1.0		µg/L	1	1/16/2020 9:43:21		B65850
Ethylbenzene		ND	1.0		μg/L	1	1/16/2020 9:43:21	PM	B65850
Xylenes, Total		ND	2.0		μg/L	1	1/16/2020 9:43:21	PM	B65850
Surr: 4-Bromofluorot	penzene	90.6	80-120		%Rec	1	1/16/2020 9:43:21	PM	B65850
Lab ID: 20	001440-002		C	ollecti	on Date	<b>: 1</b> /1	10/2020 9:50:00 A	М	
Client Sample ID: M	[W-9				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD 8021B	: VOLATILES						An	alyst	NSB
Benzene		ND	1.0		µg/L	1	1/16/2020 10:06:2	7 PM	B65850
Toluene		ND	1.0		μg/L	1	1/16/2020 10:06:2	7 PM	B65850
Ethylbenzene		ND	1.0		μg/L	1	1/16/2020 10:06:2	7 PM	B65850
Xylenes, Total		ND	2.0		μg/L	1	1/16/2020 10:06:2	7 PM	B65850
Surr: 4-Bromofluorob	penzene	90.0	80-120		%Rec	1	1/16/2020 10:06:2	7 PM	B65850
Lab ID: 20	001440-003		C	ollecti	on Date	<b>: 1</b> /1	10/2020 10:35:00 /	AM	
Client Sample ID: M	IW-4				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD 8021B							An	alyst	NSB
Benzene		ND	1.0		µg/L	1	1/16/2020 10:29:3	6 PM	B65850
Toluene		ND	1.0		µg/L	1	1/16/2020 10:29:30		
Ethylbenzene		ND	1.0		μg/L	1	1/16/2020 10:29:3	6 PM	B65850
Xylenes, Total		ND	2.0		μg/L	1	1/16/2020 10:29:3	6 PM	B65850
	enzene	87.6							B65850

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix s

- Analyte detected in the associated Method Blank Е Value above quantitation range
- Analyte detected below quantitation limits J
- Sample pH Not In Range Р
- RL Reporting Limit

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Page 1 of 4

Hall Environ	mental Analysis L	aboratory,	Inc.			I	Analytical Report ab Order: 2001440 Date Reported: 1/17/	/2020	)
	ENSOLUM Frunk 6C Kutz Wash				L	ab C	<b>)rder:</b> 20014	40	
Lab ID:	2001440-004		С	ollecti	on Date	: 1/1	0/2020 11:15:00 A	٩M	
Client Sample ID:	MW-6				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 802	1B: VOLATILES						Ana	alyst:	NSB
Benzene		ND	1.0		µg/L	1	1/16/2020 10:52:46	5 PM	B65850
Toluene		ND	1.0		µg/L	1	1/16/2020 10:52:46		
Ethylbenzene		ND	1.0		μg/L	1	1/16/2020 10:52:46	5 PM	B65850
Xylenes, Total		ND	2.0		μg/L	1	1/16/2020 10:52:46	S PM	B65850
Surr: 4-Bromoflu	orobenzene	91.9	80-120		%Rec	1	1/16/2020 10:52:46	) PM	B65850
Lab ID:	2001440-005		С	ollecti	on Date	: 1/1	0/2020 12:05:00 P	٧M	
Client Sample ID:	MW-7				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 802	1B: VOLATILES						Ana	alyst:	NSB
Benzene		ND	1.0		µg/L	1	1/16/2020 11:15:52	-	
Toluene		ND	1.0		µg/L	1	1/16/2020 11:15:52		
Ethylbenzene		ND	1.0		μg/L	1	1/16/2020 11:15:52	2 PM	B65850
Xylenes, Total		ND	2.0		µg/L	1	1/16/2020 11:15:52		
Surr: 4-Bromoflu	orobenzene	89.8	80-120		%Rec	1	1/16/2020 11:15:52	PM	B65850
Lab ID:	2001440-006		С	ollecti	on Date	: 1/1	0/2020 12:35:00 P	٧M	
Client Sample ID:	MW-2				Matrix	: A(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 802	1B: VOLATILES						Ana	alyst:	NSB
Benzene		ND	1.0		µg/L	1	1/16/2020 11:38:57	' PM	B65850
Toluene		ND	1.0		μg/L	1	1/16/2020 11:38:57		
Ethylbenzene		ND	1.0		μg/L	1	1/16/2020 11:38:57		
Xylenes, Total		ND	2.0		μg/L	1	1/16/2020 11:38:57		
Surr: 4-Bromoflu	orobenzene	90.8	80-120		%Rec	1	1/16/2020 11:38:57	' PM	B65850

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank Е Value above quantitation range
- Analyte detected below quantitation limits J
- Sample pH Not In Range Р
- P Sample pH Not RL Reporting Limit

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Page 2 of 4

Hall Enviror	nmental Analysis L	aboratory,	Inc.			I	Analytical Report Lab Order: 2001440 Date Reported: 1/17/	202(	)
	ENSOLUM Trunk 6C Kutz Wash				Lal	6 C	<b>)rder:</b> 20014	40	
Lab ID:	2001440-007		C	ollection	Date:	1/1	10/2020 1:30:00 PM	1	
Client Sample ID:	MW-3			Μ	atrix:	A(	QUEOUS		
Analyses		Result	RL	Qual U	nits I	DF	Date Analyzed	Ba	tch ID
EPA METHOD 80	21B: VOLATILES						Ana	lyst:	NSB
Benzene		ND	1.0	μ	g/L	1	1/17/2020 12:02:04	AM	B65850
Toluene		ND	1.0	μί	g/L	1	1/17/2020 12:02:04	AM	B65850
Ethylbenzene		ND	1.0	μ	g/L	1	1/17/2020 12:02:04	AM	B65850
Xylenes, Total		ND	2.0	μί	g/L	1	1/17/2020 12:02:04	AM	B65850
Surr: 4-Bromofl	uorobenzene	95.8	80-120	%	Rec	1	1/17/2020 12:02:04	AM	B65850
Lab ID:	2001440-008		C	ollection	Date:	1/1	10/2020 2:15:00 PN	Л	
Client Sample ID:	: MW-8			Μ	atrix:	A	QUEOUS		
Analyses		Result	RL	Qual U	nits I	DF	Date Analyzed	Ba	tch ID
EPA METHOD 80	21B: VOLATILES						Ana	lyst:	NSB
Benzene		ND	1.0	μç	g/L	1	1/17/2020 12:25:10	AM	B65850
Toluene		ND	1.0	hí	g/L	1	1/17/2020 12:25:10	AM	B65850
Ethylbenzene		ND	1.0	hố	g/L	1	1/17/2020 12:25:10	AM	B65850
Xylenes, Total		ND	2.0	há	g/L	1	1/17/2020 12:25:10	AM	B65850
Surr: 4-Bromofl	uorobenzene	91.6	80-120	%	Rec	1	1/17/2020 12:25:10	AM	B65850

**Qualifiers:** 

* Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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## **QC SUMMARY REPORT** Hall .

L.	onmental Analysis Laborator	ry, Inc.	WO#:	2001440 17-Jan-20
Client: Project:	ENSOLUM Trunk 6C Kutz Wash			
Sample ID: rb	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles		
Client ID: PBW	Batch ID: B65850	RunNo: <b>65850</b>		
<b>D D</b> (				

Prep Date:	Analysis D	Analysis Date: 1/16/2020 SeqNo: 2261681		Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	19		20.00		93.6	80	120			
Sample ID: 100ng btex lcs SampType: LCS TestCode: EPA M					DA Mathad					
Sample ID: 100ng btex lcs	SampT	ype: LC	5	Tes	Code: El	A Method	8021B: Volat	lles		
Sample ID: 100ng btex Ics Client ID: LCSW	•	ype: LC n ID: B6			RunNo: 6		8021B: Volat	lies		
	•	n ID: <b>B6</b>	5850	F		5850	Units: µg/L	nes		
Client ID: LCSW	Batch	n ID: <b>B6</b>	5850 16/2020	F	RunNo: <b>6</b>	5850		%RPD	RPDLimit	Qual
Client ID: LCSW Prep Date:	Batch Analysis D	n ID: <b>B6</b> Date: <b>1/</b>	5850 16/2020	א פ	RunNo: <b>6</b> SeqNo: <b>2</b>	5850 261682	Units: µg/L		RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte	Batch Analysis D Result	Di ID: <b>B6</b> Date: <b>1/</b> PQL	5850 16/2020 SPK value	R S SPK Ref Val	RunNo: 6 SeqNo: 2 %REC	5850 261682 LowLimit	Units: <b>µg/L</b> HighLimit		RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte Benzene	Batch Analysis D Result 20	Date: <b>1</b> / PQL 1.0	5850 16/2020 SPK value 20.00	F S SPK Ref Val 0	RunNo: <b>6</b> SeqNo: <b>2</b> %REC 100	5850 261682 LowLimit 80	Units: <b>µg/L</b> HighLimit 120		RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte Benzene Toluene	Batch Analysis D Result 20 20	n ID: <b>B6</b> Date: <b>1/</b> PQL 1.0 1.0	5850 16/2020 SPK value 20.00 20.00	F S SPK Ref Val 0 0	RunNo: 6 SeqNo: 2 %REC 100 99.4	5850 261682 LowLimit 80 80	Units: µg/L HighLimit 120 120		RPDLimit	Qual

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank В
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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ANAL	CONMENTAL YSIS RATORY	TEL: 505-345-3	ntal Analysis Labor 4901 Hawkin Albuquerque, NM 8 975 FAX: 505-345- v.hallenvironmental	^{15 NE} 7109 San 4107	nple Log-In Check List
Client Name:	ENSOLUM AZTEC	Work Order Num	ber: 2001440	<u></u>	RcptNo: 1
Received By:	Daniel Marquez	1/11/2020 9:30:00	AM	Time	
Completed By:	Leah Baca	1/13/2020 9:41:42	AM	In Lash Bre	3
Reviewed By:	LB	113/20		Law	
Chain of Cus	<u>tody</u>				
1. Is Chain of C	ustody sufficiently complet	e?	Yes 🗹	No 🗌	Not Present
2. How was the	sample delivered?		<u>Courier</u>		
<u>Log In</u> 3. Was an atterr	npt made to cool the samp	les?	Yes 🗹	No 🗌	
4. Were all samp	bles received at a tempera	ture of >0° C to 6.0°C	Yes 🔽	No 🗌	
5. Sample(s) in	proper container(s)?		Yes 🗹	No 🗌	
6. Sufficient sam	ple volume for indicated te	est(s)?	Yes 🗹	No 🗌	
7. Are samples (	except VOA and ONG) pro	perly preserved?	Yes 🗹	No 🗌	
8. Was preserva	tive added to bottles?		Yes 🗌	No 🗹	NA
9. Received at le	ast 1 vial with headspace	<1/4" for AQ VOA?	Yes 🗌	No 🗌	NA 🗹
10. Were any san	nple containers received b	roken?	Yes 🗆	No 🗹	# of preserved
	ork match bottle labels? ancies on chain of custody	)	Yes 🗹	No 🗌	bottles checked for pH: (<2 pt=12 unless note
12. Are matrices o	correctly identified on Chair	n of Custody?	Yes 🔽	No 🗌	Adjusted?
13. Is it clear what	t analyses were requested	?	Yes 🗹	No 🗌	
	ng times able to be met? ustomer for authorization.)		Yes 🗹	No 🗌	Checked by: DAD 1/13/
Special Handl	ing (if applicable)				
15. Was client no	tified of all discrepancies v	vith this order?	Yes 🗌	No 🗌	NA 🗹
Person	Notified:	Date	I		
By Who	om:	Via:	· · · · · · · · · · · · · · · · · · ·	hone 🔲 Fax	☐ In Person
Regardi	ing:				
Client Ir	nstructions:				
16. Additional rei	marks:				
17. <u>Cooler Infor</u>	mation				
Cooler No	The Real and a state of the second state of the se	Seal Intact Seal No	Seal Date	Signed By	
C. C	1.6 Good	NAMES AND ADDRESS OF TAXABLE PARTY OF TAXAB			2

Page 1 of 1



January 17, 2020

Kyle Summers ENSOLUM 606 S Rio Grande Ste A Aztec, NM 87410 TEL: FAX

RE: Trunk 6C Kutz Wash

OrderNo.: 2001545

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 7 sample(s) on 1/15/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environ	mental Analysis L	aboratory,	Inc.			I	Analytical ReportLab Order:2001545Date Reported:1/17/	/202(	)
	ENSOLUM Frunk 6C Kutz Wash				L	Lab (	<b>Drder:</b> 20015	45	
Lab ID:	2001545-001		C	ollecti	on Date	<b>e:</b> 1/	13/2020 1:20:00 PM	Л	
Client Sample ID:	MW-14				Matrix	: A	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 802	21B: VOLATILES						Ana	alyst:	NSB
Benzene		ND	1.0		µg/L	1	1/17/2020 1:34:29	AM	B65850
Toluene		ND	1.0		μg/L	1	1/17/2020 1:34:29	AM	B65850
Ethylbenzene		ND	1.0		µg/L	1	1/17/2020 1:34:29	AM	B65850
Xylenes, Total		ND	2.0		µg/L	1	1/17/2020 1:34:29	AM	B65850
Surr: 4-Bromoflu	orobenzene	96.2	80-120		%Rec	1	1/17/2020 1:34:29	AM	B65850
Lab ID:	2001545-002		C	ollecti	on Date	<b>e:</b> 1/	13/2020 1:55:00 PN	Л	
Client Sample ID:	MW-15				Matrix	к: А(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 802	21B: VOLATILES						Ana	alyst:	NSB
Benzene		ND	1.0		µg/L	1	1/17/2020 1:57:34	AM	B65850
Toluene		ND	1.0		μg/L	1	1/17/2020 1:57:34	AM	B65850
Ethylbenzene		1.4	1.0		μg/L	1	1/17/2020 1:57:34	AM	B65850
Xylenes, Total		23	2.0		μg/L	1	1/17/2020 1:57:34	AM	B65850
Surr: 4-Bromoflu	orobenzene	103	80-120		%Rec	1	1/17/2020 1:57:34	AM	B65850
Lab ID:	2001545-003		C	ollecti	on Date	<b>e:</b> 1/2	13/2020 2:30:00 PN	Л	
Client Sample ID:	MW-1				Matrix	к: А(	QUEOUS		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Ba	tch ID
EPA METHOD 802	21B: VOLATILES						Ana	alyst:	NSB
Benzene		940	20		µg/L	20		-	B65850
Toluene		540	20		µg/L	20			B65850
Ethylbenzene		61	20		μg/L	20			B65850
Xylenes, Total		190	40		µg/L	20			B65850
Surr: 4-Bromoflu	orobenzene	94.3	80-120		%Rec	20			B65850

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
   ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method BlankE Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Laboratory,	Inc.			Ι	Lab Order: 2001545	2020
			L	.ab C	<b>Drder:</b> 200154	45
	C	ollecti	on Date	<b>: 1</b> /1	13/2020 3:10:00 PM	1
			Matrix	: A(	QUEOUS	
Result	RL	Qual	Units	DF	Date Analyzed	Batch II
					Ana	lyst: <b>NSB</b>
2.2	1.0		µq/L	1		-
ND	1.0			1		
ND	1.0		µg/L	1		
ND	2.0			1	1/17/2020 3:29:55 A	M B658
90.3	80-120		%Rec	1	1/17/2020 3:29:55 A	AM B658
	C	ollecti	on Date	<b>: 1</b> /1	13/2020 4:15:00 PM	1
			Matrix	: A(	QUEOUS	
Result	RL	Qual	Units	DF	Date Analyzed	Batch II
					Ana	lyst: <b>NSB</b>
ND	1.0		µg/L	1	1/17/2020 3:52:59 A	M B658
ND	1.0			1		
ND	1.0			1	1/17/2020 3:52:59 A	M B658
ND	2.0			1	1/17/2020 3:52:59 A	AM B658
88.3	80-120		%Rec	1	1/17/2020 3:52:59 A	AM B658
	C	ollecti	on Date	<b>:</b> 1/1	14/2020 8:30:00 AN	Л
			Matrix	:: A(	QUEOUS	
Result	RL	Qual	Units	DF	Date Analyzed	Batch II
					Ana	lyst: <b>NSB</b>
ND	1.0		µg/L	1	1/17/2020 4:16:01 A	AM B658
ND ND	1.0 1.0		μg/L μg/L	1 1	1/17/2020 4:16:01 A 1/17/2020 4:16:01 A	
ND ND ND			µg/L			AM B658
ND	1.0			1	1/17/2020 4:16:01 A	AM B658 AM B658
	Result 2.2 ND ND 90.3 Result ND ND ND ND ND ND 88.3	Result       RL         2.2       1.0         ND       1.0         ND       1.0         ND       2.0         90.3       80-120         Result       RL         ND       1.0         ND       2.0         88.3       80-120	Result         RL         Qual           2.2         1.0           ND         1.0           ND         1.0           ND         2.0           90.3         80-120           Collection           Result         RL         Qual           ND         1.0         1.0           ND         2.0         88.3           80-120         Collection	Collection Data           Result         Collection Data           Result         RL         Qual         Units           2.2         1.0         µg/L           ND         1.0         µg/L           ND         1.0         µg/L           ND         2.0         µg/L           ND         2.0         µg/L           90.3         80-120         %Rec           Result         RL         Qual         Units           ND         1.0         µg/L           ND         2.0         µg/L           ND         2.0         µg/L           ND         2.0         µg/L           ND         2.0         µg/L           ND         2.0	Laboratory, Inc.       I         Laboratory, Inc.       Lab         Collection       Lab         Result       RL       Qual       Units       DF         10       1.0       µg/L       1       1         ND       1.0       µg/L       1       1         ND       1.0       µg/L       1       1         ND       2.0       µg/L       1       1         ND       2.0       µg/L       1       1         90.3       80-120       Watrix       A         Result       RL       Qual       Units       D         ND       1.0       µg/L       1       1         ND       2.0       µg/L       1	Lab Order: 200154         Collection Date: 1/13/2020 3:10:00 PM         Matrix: AQUEOUS       Matrix: AQUEOUS         Result       RL       Qual       Units       DF       Date Analyzed         2.2       1.0       µg/L       1       1/17/2020 3:29:55 A         ND       2.0       µg/L       1       1/17/2020 3:29:55 A         ND       2.0       µg/L       1       1/17/2020 3:29:55 A         90.3       80-120       %Rec       1       1/17/2020 3:29:55 A         90.3       80-120       %Rec       1       1/17/2020 3:52:59 A         MD       1.0       µg/L       1       1/17/2020 3:52:59 A         ND       1.0       µg/L       1       1/17/2020 3:52:59

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method BlankE Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- P Sample pH Not In RL Reporting Limit

Page 2 of 4

Hall Envi	ronmental Analysis L	aboratory, I	nc.		Ι	Analytical Report Lab Order: 2001545 Date Reported: 1/17	
CLIENT: Project:	ENSOLUM Trunk 6C Kutz Wash				Lab C	<b>)rder:</b> 2001:	545
Lab ID:	2001545-007		С	ollection Dat	te: 1/1	14/2020 9:35:00 A	М
<b>Client Sample</b>	e ID: MW-13			Matri	<b>x:</b> A(	QUEOUS	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch ID
EPA METHO	D 8021B: VOLATILES					An	alyst: <b>NSB</b>
Benzene		ND	1.0	µg/L	1	1/17/2020 4:39:05	AM B65850
Toluene		ND	1.0	µg/L	1	1/17/2020 4:39:05	AM B65850
Ethylbenzene	e	ND	1.0	μg/L	1	1/17/2020 4:39:05	AM B65850
Xylenes, Tota	al	ND	2.0	μg/L	1	1/17/2020 4:39:05	AM B65850
Surr: 4-Bro	omofluorobenzene	86.8	80-120	%Rec	1	1/17/2020 4:39:05	AM B65850

**Qualifiers:** 

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
  - H Holding times for preparation or analysis exceeded
  - ND Not Detected at the Reporting Limit
  - PQL Practical Quanitative Limit
  - S % Recovery outside of range due to dilution or matrix

E Value above quantitation range

Analyte detected in the associated Method Blank

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

2001545	WO#:
17-Jan-20	

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Client:ENSOIProject:Trunk	LUM 6C Kutz Was	sh										
Sample ID: rb	SampT	Гуре: <b>МЕ</b>	BLK	Tes	tCode: EF							
Client ID: PBW	Batcl	h ID: <b>B6</b>	5850	F	RunNo: 6							
Prep Date:	Analysis D	Date: 1/	16/2020	5	SeqNo: 22	261681	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val %REC LowLimit			HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	1.0					-					
Toluene	ND	1.0										
Ethylbenzene	ND	1.0										
Xylenes, Total	ND	2.0										
Surr: 4-Bromofluorobenzene	19		20.00		93.6	80	120					
Sample ID: 100ng btex lcs	SampT	ype: LC	S	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSW	Batcl	h ID: <b>B6</b>	5850	F	RunNo: <b>6</b>	5850						
Prep Date:	Analysis E	Date: 1/	16/2020	5	SeqNo: 22	261682	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	20	1.0	20.00	0	100	80	120					
Toluene	20	1.0	20.00	0	99.4	80	120					
Ethylbenzene	20	1.0	20.00	0	98.5	80	120					
Xylenes, Total	59	2.0	60.00	0	97.9	80	119					
Surr: 4-Bromofluorobenzene	19		20.00		94.3	80	120					
Sample ID: 2001545-003am	s SampT	Гуре: <b>МS</b>	5	Tes	tCode: EF	PA Method	8021B: Volat	iles				
Client ID: MW-1	Batcl	h ID: <b>B6</b>	5850	F	RunNo: 6							
Prep Date:	Analysis D	Date: 1/	17/2020	5	SeqNo: 2	261694						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1400	20	400.0	944.1	112	80	120					
Toluene	940	20	400.0	535.1	102	80	120					
Ethylbenzene	440	20	400.0	60.64	94.5	80	120					
Xylenes, Total	1300	40	1200	192.5	93.5	68.3	130					
Surr: 4-Bromofluorobenzene	390		400.0		96.8	80	120					
Sample ID: 2001545-003am	sd SampT	Гуре: <b>МS</b>	D	Tes								
Client ID: MW-1	Batcl	h ID: <b>B6</b>	5850	F	RunNo: <b>6</b>	5850						
Prep Date:	Analysis D	Date: 1/	17/2020	5	SeqNo: 2	261695	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1300	20	400.0	944.1	101	80	120	3.14	20			
Toluene	920	20	400.0	535.1	95.7	80	120	2.54	20			
Ethylbenzene	430	20	400.0	60.64	92.2	80	120	2.14	20			
Xylenes, Total	1300	40	1200	192.5	90.9	68.3	130	2.33	20			
Surr: 4-Bromofluorobenzene	380		400.0		96.1	80	120	0	0			

### **Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 4

ENVIRONMENTAL ANALYSIS LABORATORY			1 87109 <b>S</b> 15-4107	ample Log-In	Check List
Client Name: ENSOLUM AZTEC We	ork Order Number: 20 トノS・ン		0800	RcptI	No: 1
Received By: Juan Rios _1/14	2020 2:00:00 PM	-	50	D	
Completed By: Daniel Marquez 1/15/	2020 9:10:00 AM		Kill	<b>U</b> 0	
Reviewed By: YG 1/15/70					
Chain of Custody					
1. Is Chain of Custody sufficiently complete?	Ye	s 🗸	No	Not Present	]
2. How was the sample delivered?	Cc	ourier			
Log In					
3. Was an attempt made to cool the samples?	Ye	s 🗸	No	NA	]
4. Were all samples received at a temperature of >0°	C to 6.0°C Ye	s 🔽	No	NA 🗌	]
5. Sample(s) in proper container(s)?	Ye	s 🗸	No		
5. Sufficient sample volume for indicated test(s)?	Yes	s 🗸	No		
7. Are samples (except VOA and ONG) properly prese	rved? Yes	s 🗸	No		
B. Was preservative added to bottles?	Yes	s 🗌	No 🖪		
9. Received at least 1 vial with headspace <1/4" for AC	VOA? Yes		/ No [	NA	om ilisko
0. Were any sample containers received broken?	Ye	s	No 🗄	✓ # of preserved	
1. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes		No		or >12 unless noted)
2. Are matrices correctly identified on Chain of Custody	/? Yes		No	Adjusted?	
3. Is it clear what analyses were requested?	Yes		No		10,115/00
4. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes		No	Checked by:	1211320
pecial Handling (if applicable)				2	
5. Was client notified of all discrepancies with this orde	er? Ye	s 🗌	No	NA 🗸	
Person Notified:	Date:			*******	
By Whom:	Via: 🗌 eN	Mail 🗌	Phone 🗌 F	Fax 🗌 In Person	
Regarding: Client Instructions:					
6. Additional remarks:					
7. <u>Cooler Information</u> Cooler No Temp °C Condition Seal Intac	t Seal No Seal I	Data	Signed By		

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	MENTAL DRATORY 60	37109				,0:13						R												Pag	e 138		
	ANALYSIS LABORATOR	www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109			¢01	S '*C SWI \$,8C	, OS 1201, 1201 1201 1201 1201 1201 1201 120	10 / 05 8082 14.1) 102 ₂ 1022	10,00 3,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,00 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,00000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,00000000	eD(( eticid bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod bthod	1:801 8 (Mé 15 Dy 7 (VC 0 (VC 0 (Se 15 Dy 15 Dy 16 Dy	826 826 826 808 808 808											Remarks: 2011 + Forching			bility. Any sub-contracted data will be clearly notated on the an	the set of a set of the set of th
Turn-Around Time:	Standard Cush	Trunk 60 Kuta wash	Project #: いらチロス 6 o/ /		Ksummers	208)		ichi/lug		(including CF): 0.6-0.1=0.7	Container Preservative HEAL No	# Type 2001545	3x 4cmillor Hacle 001 X	3×46mLvok Harcia 002 X	3×40mLVUH Hall, 003 X	3×40mLVIA HACI2 OO4 X	3X4bmLVDA Hallz 605 X	3x 40mL404 Haclo 000 X	3x46mLVBH Hacio 607 X				Via: Date Time	1-10ert 1/11/20	y: Via: Date Ti	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this noscibility. Any sub-contracted data will be clearly notated on the analytical source	
Chain-of-Custody Record	Client: Ensolum,LLC	Mailing Address: LOGOS, Rio locande Suitet	AZTEC, NM STULO	Phone #: /	email or Fax#: XSummese ensurvey Project Manager:	ige:		Accreditation:   Az Compliance  NEI AC  Other	EDD (Type)			Date Time Matrix Sample Name	1/3/20 1320 W MW-14	13/20/2555 W MW-15	1)322 1430 W WW-1	1/3/20 1510 W MW-17	13/20 1615 W MW-10	1/1/20 830 W MW-11	20	TrpBbut phy a	1/15/20		Time: Relinquished by;	14. 1400 LINNUM		If necessary, samples submitted to Hall Environmental may be subso	

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

## **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Action 21242

CONDITIONS								
Operator: Enterprise Field Services, LLC	OGRID: 241602							
PO Box 4324 Houston, TX 77210	Action Number: 21242							
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)							

#### CONDITIONS

Created By	Condition	Condition Date
nvelez	Accepted for the record. Application contains 2018 & 2019 annual reports. See app ID 41349 for most updated status.	10/21/2022