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2020 ANNUAL GROUNDWATER MONITORING REPORT

C.S. CAYLOR
LEA COUNTY, NEW MEXICO
SRS #2002—10250
NMOCD REF. # AP-052, nAPP2109527803

Prepared For:
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January 13, 2021

APPROVED

By Nelson Velez at 9:34 am, Jan 11, 2022

Review of 2020 ANNUAL GROUNDWATER
MONITORING REPORT:

Content satisfactory

Contractor recommendations approved and are as follows;

1. Continue quarterly groundwater monitoring events in accordance with NMOCD
2. directives
2. OCD approves sampling termination for PAH in monitor wells MW-9A, MW-15A, MW-16A, and MW-18A. Two consecutive sampling events indicate PAH concentrations are less than NMWQCC standards
3. Continue operation and maintenance of the groundwater recovery system
4. OCD approves the removal of MW-20 from all future sampling events
5. OCD approves the plug and abandonment of MW-20 as it is located in a former drilling pit
6. Submit annual report to OCD no later than March 31, 2022.



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NMOCD - New Mexico Oil Conservation Division

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1.0 INTRODUCTION AND OBJECTIVES

1.1 Objectives and Site Background

The C.S. Caylor Site (site) is located approximately seven (7) miles southeast of Lovington in Unit Letter B, Section 6, Township 17 South and Range 37 East in Lea County, New Mexico, on property owned by Robert C. Rice. There are no residences, groundwater supply wells, or surface water bodies within a 1,000-foot radius of the site. The initial release occurred from an EOTT Energy (EOTT) steel pipeline on September 19, 2002. Subsequently, EOTT changed its name to Link Energy in October 2003, and Plains Marketing, L.P. (Plains) purchased the assets of Link Energy on April 1, 2004. Initial reports estimated that 70 barrels (bbls) of crude oil were released. During site reconnaissance, it was observed that the ground surface beyond the current spill area had apparently been impacted by a prior spill or spills; however, the source(s) and date(s) of the spill(s) are unknown. Based on available information, no crude oil was initially recovered at the release site.

The site is situated in a physiogeographic area that is on the extreme south-western portion of the Southern High Plains, as it grades into the Edwards Plateau to the south and southeast and the Chihuahuan Desert of the Trans-Pecos Region to the southwest.

The topography proximal to the site is typical of the Southern High Plains, essentially flat with shallow depressions, or playa lakes, dotting the landscape. The prominent surface features on the Southern High Plains are the approximately 19,250 ephemeral playa lakes; however, the density of the playa lakes diminishes toward the southern extent of the Southern High Plains. During periods of rainfall, the playas accumulate sheet runoff from watershed areas ranging in size from less than one square mile to several square miles. Only a small portion of drainage from rainfall occurs by streams. Playa lakes that collect storm water runoff can act as a recharge mechanism for groundwater.

The average elevation of the site area is approximately 3,810-feet above mean sea level with a slight slope to the southeast. The regional slope of the land surface in the Southern High Plains is approximately 100 feet per mile in a southeasterly direction.

On February 5, 2007, Talon/LPE (Talon) was retained by Plains to assume remediation activities at the site. Remediation activities at the site were previously conducted by Environmental Plus, Inc. (EPI).

1.2 Site Geology

The surface deposits in Lea County are composed of Blackwater Draw (Illinoian) sediments, Ogallala sediments, and undivided Quaternary alluvium, which is also termed 'cover sands'. The soil in the upper two (2) feet at the site is composed of gravelly loam that consists of 43% sand, 18% clay and 40% silt, and also contains abundant eroded gravel to cobble size caliche fragments. Below the top soil is predominately unconsolidated sand to weakly cemented sandstone, which has undergone calcification of varying extent.

Below the Blackwater Draw Formation is the Ogallala Formation of Miocene to Pliocene age. The Ogallala Formation was deposited from sediments eroded from the Southern Rockies and consists mostly of eolian sediments, silty to very fine sand or loess. During the middle to late Miocene, the Ogallala was deposited by fluvial mechanism as paleovalley fill composed of gravelly to sandy braided stream deposits that trended west to east across the Southern High Plains. During the late Miocene the west to east drainage was diverted (captured) by the Pecos River. Subsequently, the Pecos River basin has experienced deflation, which facilitated eolian deposition on the Southern High Plains during the Pliocene Epoch.

1.3 Previous Environmental Investigations

A total of 39 groundwater monitor wells (21 original monitor wells and 18 replacement wells) have been installed in the vicinity of the release (see Figure 1). With New Mexico Oil Conservation Division (NMOCD) approval and landowner concurrence, groundwater monitor well MW-1 was installed in October 2002 and was subsequently plugged in September 2008 due to the well being dry. Groundwater monitor wells MW-2 through MW-5 were installed from May to June 2004, and MW-6 through MW-10 were installed in October 2004. Groundwater monitor wells MW-11 through MW-17 were installed in February 2006, and MW-18 was installed in March 2008. Replacement monitor well MW-1A was installed in September 2008.

During 2011, four (4) replacement monitor wells were drilled at the site (MW-2A, MW-7A, MW-8A, and MW-12A). Groundwater levels at the site have declined an average of 13.5 feet since groundwater measurements were first obtained in 2002. Groundwater had not been detected in monitor well MW-7 since the gauging event on September 21, 2010, or in monitor well MW-8 since the gauging event on June 10, 2009; therefore, monitor wells MW-7 and MW-8 were plugged, and replacement monitor wells MW-7A and MW-8A were installed on April 19 - 20, 2011.

During the gauging event on March 23, 2011, the total depth (TD) of monitor well MW-2 was 88 feet below top of casing (btoc), it contained approximately five (5) feet of phase-separated hydrocarbons (PSH), and groundwater was not detected. The TD of monitor well MW-12 was 90 feet btoc. Gauging indicated approximately five (5) feet of PSH, and groundwater at TD. Since the fluid column of the wells was inadequate to install pumps, replacement monitor wells MW-2A and MW-12A were drilled on April 28, 2011. MW-2 and MW-12 were not plugged.

During 2012, four (4) replacement monitor wells were drilled at the site (MW-9A, MW-10A, MW-13A, and MW-14A) due to declining groundwater levels. The previously existing wells (MW-9, MW-10, MW-13, and MW-14) were plugged.

During 2013, five (5) replacement monitor wells were drilled at the site (MW-3A, MW-4A, MW-6A, MW-11A, and MW-18A) due to declining groundwater levels. The previously existing wells (MW-3, MW-4, MW-6, MW-11, and MW-18) were plugged.

During 2016, four (4) replacement monitor wells (MW-5A, MW-15A, MW-16A, and MW-17A) were drilled. Three (3) additional wells (MW-19, MW-20, and MW-21) were also drilled due to declining groundwater levels, to aid in PSH recovery, and to delineate the dissolved phase plume. The groundwater monitoring wells MW-2, MW-5, MW-12, MW-15, MW-16, and MW-17 were plugged.

PSH recovery operations have been performed at the site since September 2002. A summary of the historical groundwater and PSH gauging is provided in Table 1. Approximately 2337.71 bbls of crude oil have been recovered from the site as of December, 31, 2019. Approximately 350.11 bbls of crude were recovered in 2019.

During 2020, the groundwater recovery system extracted approximately 54.89 bbls of PSH and 5,318 bbls of groundwater. Three (3) MDPE events conducted in January, February, and March, 2020, recovered 28.12 bbls of PSH consisting of 19.8 bbls of vapor and 8.32 bbls of liquid PSH. A cumulative total of 83.01 bbls of PSH were recovered in 2020. To date, approximately 2,420.72 bbls of PSH have been recovered utilizing the described remediation efforts.

1.4 Regulatory Framework

Groundwater analytical data collected from this site was evaluated to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards outlined in the table below.

(NMWQCC) Groundwater Standards	
Compound	mg/L
Benzene	0.010
Toluene	0.750
Ethylbenzene	0.750
Total Xylenes	0.620
PAH (Naphthalene)	0.030
PAH (Benzo[a]pyrene)	0.0007

2.0 SITE ACTIVITIES

The sections that follow summarize groundwater monitoring and PSH recovery activities conducted at the subject site during the year 2020. The primary function of groundwater monitoring activities is to collect depth to fluid measurements and to collect groundwater samples from monitor wells for laboratory analysis. The objective of groundwater monitoring is to evaluate the status of the dissolved-phase and PSH plumes in order to verify the effectiveness of the remediation system as to inhibiting plume migration, reducing the volume of PSH impacting the groundwater, and determining if modifications to the remediation system would improve its performance and efficiency.

A synopsis of analytical results for the four (4) groundwater monitoring events is located in Table 2 in Appendix B, and annotated in map form on Figures 3a through 3d in Appendix A. Laboratory analytical data reports and chain of custody documentation are included in Appendix C.

2.1 Groundwater Monitoring Activities

Talon conducted four (4) groundwater monitoring events at the site during the year 2020. The events occurred on March 11-13, June 5-9, September 23-24, and December 9-11, 2020.

During the March 2020 groundwater monitoring event, all recovery/monitor wells were gauged. Thirteen (13) monitor wells (MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21) were purged and sampled. Eight (8) monitor wells (MW-1A through MW-5A, MW-7A, MW-12A, and MW-19) were not sampled due to the presence of PSH. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

During the June 2020 groundwater monitoring event, all recovery/monitor wells were gauged. Thirteen (13) monitor wells (MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21) were purged and sampled. Seven (7) monitor wells (MW-1A, MW-3A, MW-4A, MW-5A, MW-7A, MW-12A, and MW-19) were not sampled due to the presence of PSH. MW-2A was not sampled because the well was dry. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

During the September 2020 groundwater monitoring event, all recovery/monitor wells were gauged. Twelve (12) monitor wells (MW-6A, MW-8A, MW-10A, MW-11A, MW-13A through MW-18A, MW-20, and MW-21) were purged and sampled. Six (6) monitor wells (MW-2A, MW-3A, MW-5A, MW-7A, MW-12A, and MW-19) were not sampled due to the presence of PSH. MW-1A and MW-9A were not sampled due to the wells being dry. The pump in MW-4A could not be removed; therefore, the well was not sampled. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

During the December 2020 groundwater monitoring event, all recovery/monitor wells were gauged. Thirteen (13) monitor wells (MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21) were purged and sampled. Seven (7) monitor wells (MW-2A, MW-3A, MW-4A, MW-5A, MW-7A, MW-12A, and MW-19) were not sampled due to the presence of PSH. MW-1A was not sampled due to the well being dry. The pump in MW-4A could not be removed; therefore, the well was not sampled. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

2.2 Groundwater Gauging, Purging, and Sampling Procedures

During each groundwater monitoring event, all accessible monitor wells were measured with an oil/water interface probe to determine static water levels and to determine the thickness of PSH accumulation, if present. The data collected from the measurements was used to construct groundwater gradient maps and PSH thickness maps. The gauging results collected during the four (4) events are incorporated in Table 1, Appendix B – Summary of Historical Fluid Level Measurements.

Subsequent to gauging, all monitor wells that were not impacted with PSH were purged using a 12-volt submersible pump equipped with vinyl tubing. The pump and tubing were decontaminated with Alconox® detergent and rinsed with distilled water after each use. Recovered purge water and water used in the decontamination process was deposited into the onsite recovery tank, and subsequently transferred to the Apollo SWD.

Groundwater samples were collected from all monitor wells not impacted with PSH using dedicated disposable polyethylene bailers. The groundwater samples were contained in appropriately preserved, laboratory supplied sample vials. The groundwater samples were maintained on ice, in the custody of Talon personnel, until they were delivered to Xenco Laboratories, Inc. Laboratory in Midland, Texas for testing. The groundwater samples collected during the all four events were quantified for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method SW-846 8021B. Groundwater samples collected from MW-9A, MW-15A, MW-16A, and MW-18A in March 2020 were also analyzed for polycyclic aromatic hydrocarbons (PAH) by EPA method 8270.

2.3 Phase Separated Hydrocarbon Recovery

PSH recovery methods have been employed at the site since 2002, initially by hand bailing, followed in March of 2003 with a portable gasoline powered eductor recovery system.

In November 2007, an automated skimmer recovery system was installed at the site. The skimmer assembly consists of bladder pumps combined with 24" traveling float specific gravity skimmer attachments. In July of 2009, a pneumatic total fluids pump was added to monitor well MW-1A, and in January of 2010, two (2) pneumatic total fluids pumps were added to monitor wells MW-2 and MW-3.

Currently there are six (6) total fluid pumps operating in monitoring wells MW-2A, MW-3A, MW-4A, MW-5A, MW-7A, and MW-19. The PSH and recovered groundwater is pumped into a frac tank on site. As the tank level fills a high-level head pressure switch activates a fluid transfer pump. When the pump is engaged the recovered fluids are transferred to a 4-inch HDPE line that is shared with the recovered fluids from Moore to Jal#1 and Moore to Jal #2 groundwater recovery systems. A 5-HP transfer pump then drives the fluids to the Apollo Salt Water Disposal (SWD) system for disposal.

During 2020, the quarterly PSH and groundwater recovery totals for the system are as follows:

- 1st Quarter – 8.7 bbls crude oil and 775 bbls of groundwater
- 2nd Quarter – 8.81 bbls crude oil and 893 bbls of groundwater
- 3rd Quarter – 14.98 bbls crude oil and 1,655 bbls of groundwater
- 4th Quarter – 22.40 bbls of crude oil and 1,995 bbls of groundwater

In addition to the recovery system, three (3) dual phase extraction (MDPE) events, in which liquid and vapor PSH were recovered, was conducted on site in 2020. The MDPE event recovery totals are as follows:

- January 8, 2020 – 7.86 bbls vapor PSH, 2.11 bbls liquid PSH
- February 5, 2020 – 8.78 bbls vapor PSH, 4.49 bbls liquid PSH
- March 5 2020 – 3.16 bbls vapor PSH, 1.72 bbls liquid PSH

A total of approximately 83.01 bbls of crude oil were recovered in 2020 and an estimated 2,420.72 bbls of PSH have been recovered at the subject site to date.

3 GROUNDWATER MONITORING RESULTS

The results of the laboratory analyses are summarized in Table 2 – Summary of Groundwater Analytical Data in Appendix B. Laboratory analytical data reports and chain of custody documentation are provided in Appendix C. The following sections summarize the results of the four (4) groundwater monitoring events at the site.

3.1 Physical Characteristics of the First Water-Bearing Zone

The primary groundwater resource under the Southern High Plains, including the site, is referred to as the Ogallala Aquifer or the High Plains Aquifer. The Southern portion of the Ogallala Aquifer underlies an area of about 29,000 square miles in western Texas and eastern New Mexico, encompassing all or part of 31 counties in Texas and six (6) counties in New Mexico.

The Ogallala Aquifer has experienced acute depletion from extensive irrigation and urban demand, which have exceeded the average annual recharge rate. Recharge of the Ogallala Aquifer on the Southern High Plains occurs predominately from rainfall runoff that accumulates in ephemeral streams and playa lakes as well as direct recharge in areas that contain permeable soils such as sand hills. Recharge rates vary depending on mechanism, but averages from zero (0) to 1.6 inches per year.

The Ogallala Aquifer is generally unconfined, and the potentiometric surface mimics the topography with the regional flow direction from the northwest to the southeast. The mean regional gradient is 15 feet per mile, and the typical groundwater velocity averages seven (7) inches per day. The regional hydraulic conductivity averages 17 gallons per day per square-foot and specific yield averages 16%. The depth to groundwater at the site has historically ranged from 80 to 97 feet below ground surface, and the groundwater flow direction is to the southeast at an average of five (5) feet per mile. The saturated thickness of the Ogallala formation on the High Plains ranges from 25 feet to 175 feet. The variable thickness is due to the irregularly eroded Triassic surface that underlies it.

The composition of Ogallala groundwater is defined as mixed-cation- HCO_3 , therefore, Ogallala groundwater is considered hard. Problems with scale have occurred with residential and commercial water systems that use Ogallala groundwater and often treatment strategies are employed to reduce the effects of scale. The typical total dissolved solids of Ogallala groundwater in the Hobbs-Lovington area is generally less than 1,000 mg/L (ppm) in areas not impacted by oil-field brines. The pH of Ogallala water averages 7.3.

3.2 Groundwater Gradient and Flow Direction

Depths to fluid measurements were collected during each of the four (4) groundwater monitoring events. The results of the fluid level measurements are summarized in Table 1, Appendix B - Summary of Historical Fluid Level Measurements.

The collected data was used to construct potentiometric surface maps in order to interpret the groundwater gradient and flow direction. The maps, designated Figures 2a through 2d, are presented in Appendix A.

The potentiometric surface maps constructed for each of the four (4) groundwater monitoring events indicate that the groundwater flow direction is to southeast at an average gradient of 0.0013 feet/foot. Groundwater elevations at the subject site have decreased an average of 2.26 feet for the year 2020.

3.3 Phase Separated Hydrocarbon (PSH)

An oil/water interface probe was used to determine the thickness of PSH during the four (4) groundwater monitoring events. The following summarizes the status of the PSH thicknesses observed during the four (4) groundwater monitoring events conducted in 2020.

- During the March 2020 event, PSH was observed in eight (8) monitor wells: MW-1A through MW-5A, MW-7A, MW-12A, and MW-19. PSH thickness ranged from 0.02 feet to 8.08 feet.
- During the June 2020 event, PSH was observed in seven (7) monitor wells: MW-1A, MW-3A, MW-4A, MW-5A, MW-7A, MW-12A, and MW-19. PSH thickness ranged from 1.05 feet to 4.95 feet.
- During the September 2020 event, PSH was observed in six (6) monitor wells: MW-2A, MW-3A, MW-5A, MW-7A, MW-12A, and MW-19. PSH thickness ranged from 0.10 feet to 6.50 feet.
- During the December 2020 event, PSH was observed in six (6) monitor wells: MW-2A, MW-3A, MW-5A, MW-7A, MW-12A, and MW-19. PSH thickness ranged from 1.24 feet to 6.66 feet.

3.4 Groundwater Analytical Results

During the March 2020 event, groundwater samples were collected from thirteen (13) monitor wells: MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory method detection limit (MDL) in monitor wells MW-6A, MW-10A, MW-11A, MW-13A through MW-18A, and MW-21 to 0.0153 mg/L in MW-20. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor well MW-20.
- Toluene concentrations were less than the laboratory MDL for all monitor wells sampled. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Ethylbenzene concentrations were less than the laboratory MDL in all monitor wells and did not exceed the NMWQCC groundwater standard of 0.750 mg/L.

- Xylene concentrations ranged from less than the laboratory MDL for all monitor wells except, MW-8A with a concentration of 0.000900 mg/L. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in the groundwater samples collected.
- PAH analyte Naphthalene concentrations were less than the laboratory MDL for all wells sampled (MW-9A, MW-15A, MW-16A and MW-18A) and did not exceed the NMWQCC groundwater standard of 0.030 mg/L.
- PAH analyte Benzo (a) pyrene concentrations were less than the laboratory MDL for all wells sampled and did not exceed the NMWQCC groundwater standard of 0.0007 mg/L.

During the June 2020 event, groundwater samples were collected from thirteen (13) monitor wells: MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory MDL in monitor wells MW-10A, MW-11A, MW-14A, MW-15A, MW-16A, and MW-21 to 0.0382 mg/L in MW-20. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-8A and MW-20.
- Toluene concentrations ranged from less than the laboratory MDL in monitor wells MW-6A, MW-9A, MW-10A, MW-11A, MW-14A, MW-15A, MW-16A, and MW-21 to 0.00782 mg/L in MW-8A. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Ethylbenzene concentrations were less than the laboratory MDL in all monitor wells. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in the groundwater samples collected.
- Xylene concentrations ranged from less than the laboratory MDL in all monitor wells except for MW-8 which had a concentration of 0.00550 mg/L, MW-17A with a concentration of 0.00308 mg/L, and MW-18A with a concentration of 0.00118 mg/L. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in the groundwater samples collected.

During the September 2020 event, groundwater samples were collected from twelve (12) monitor wells (MW-6A, MW-8A, MW-10A, MW-11A, MW-13A through MW-18A, MW-20, and MW-21) were purged and sampled. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from 0.00140 mg/L in MW-10A to 0.0627 mg/L in MW-20. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-8A and MW-20.

- Toluene concentrations ranged from less than the laboratory MDL to 0.0121 mg/L in MW-8A. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Ethylbenzene concentrations ranged from less than the laboratory MDL in all monitor wells to MW-10A which had concentrations of 0.000730 mg/L and MW-20 with concentrations of 0.00228 mg/L. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Xylene concentrations ranged from less than the laboratory MDL in all monitor wells except for MW-8A which had concentrations of 0.00754 mg/L and MW-10A with concentrations of 0.000970 mg/L. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any of the monitor wells sampled during the quarter.

During the December 2020 event, groundwater samples were collected from thirteen (13) monitor wells: MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21. Laboratory analytical results of the groundwater samples indicate the following findings:

- Benzene concentrations ranged from less than the laboratory MDL in monitor well MW-10 to 0.0556 mg/L in MW-20. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor well 8A and MW-20.
- Toluene concentrations ranged from less than the laboratory MDL in monitor wells MW-10A, MW-16A, and MW-17A to 0.0139 mg/L in MW-20. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Ethylbenzene concentrations ranged from less than the laboratory MDL in monitor wells MW-6A, MW-9A, MW-10A, MW-14A, MW-16A, and MW-21 to 0.00318 mg/L in MW-20. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Xylene concentrations ranged from less than the laboratory MDL in monitor wells MW-9A, MW-10A, and MW-21 to 0.00428 mg/L in MW-20. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any of the monitor wells sampled during the quarter.

The laboratory analytical results are summarized in Table 2. Summary of Historical Groundwater Analytical Results in Appendix B. Laboratory analytical data reports and chains of custody documentation are provided in Appendix C.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following section presents a summary of the four groundwater monitoring events conducted at the C. S. Caylor site and Section 4.2 provides recommendations for future corrective action.

4.1 Summary of Findings

- The groundwater flow direction is to the southeast at an average gradient of 0.0013 ft/ft.
- Generally, PSH thickness fluctuated to some degree in all impacted monitor wells. PSH thickness has decreased in MW-2A from 8.08' to 5.01'.
- The PSH recovery system and MDPE removed a cumulative total of 83.01 bbls of crude oil from the site during 2020.
- The benzene concentrations in MW-20 exceeded the NMWQCC groundwater standard of 0.0100 mg/L during all sampling events. In addition, monitor well MW-8A exceeded the benzene NMWQCC groundwater standard of 0.0100 mg/L during the June, September, and December events. It is noted that MW-8A and MW-20 are upgradient wells.
- It is noted that monitor well MW-20 is located in a legacy drilling pit and that the analytical results may not be representative of the subject Plains incident. Talon's 2016 Annual Groundwater Monitoring Report (AGMR) noted soil samples obtained during the installation of MW-20 exhibited analytical characteristics different from those of nearby monitoring wells installed for this project (Section 2.4.2, Soil Sampling). Upon review of historical aerial photographs at that time, images of a pump-jack were observed. It was determined that MW-20 may have been affected by this likely off-site contributor. On 3/10/2017, in a meeting with the NMOCD, it was agreed that delineation of CS Caylor was completed with the installation of MW-8A. Monitor well MW-21 was subsequently approved by NMOCD to be removed from the list of wells to be sampled for this project because MW-20 was incorrectly reported as MW-21 in the 2019 AGMR. Both MW-20 and MW-21 were inadvertently sampled in 2020.

4.2 Recommendations

Based upon the results of the quarterly groundwater monitoring and PSH recovery efforts, Talon proposes the following actions:

- Continue quarterly groundwater monitoring events in accordance with NMOCD directives.

- Discontinue sampling for PAH in monitor wells MW-9A, MW-15A, MW-16A, and MW-18A. Two consecutive sampling events indicate PAH concentrations are less than NMWQCC standards.
- Continue operation and maintenance of the groundwater recovery system.
- Remove MW-20 from all future sampling events as it is located in a former drilling pit. We further recommend that this well be plugged and abandoned.

APPENDIX A

Figures

Figure 1 - Site Plan

Figure 2a - Groundwater Gradient Map - 03/11/2020

Figure 2b - Groundwater Gradient Map - 06/05-08/2020

Figure 2c - Groundwater Gradient Map - 09/23/2020

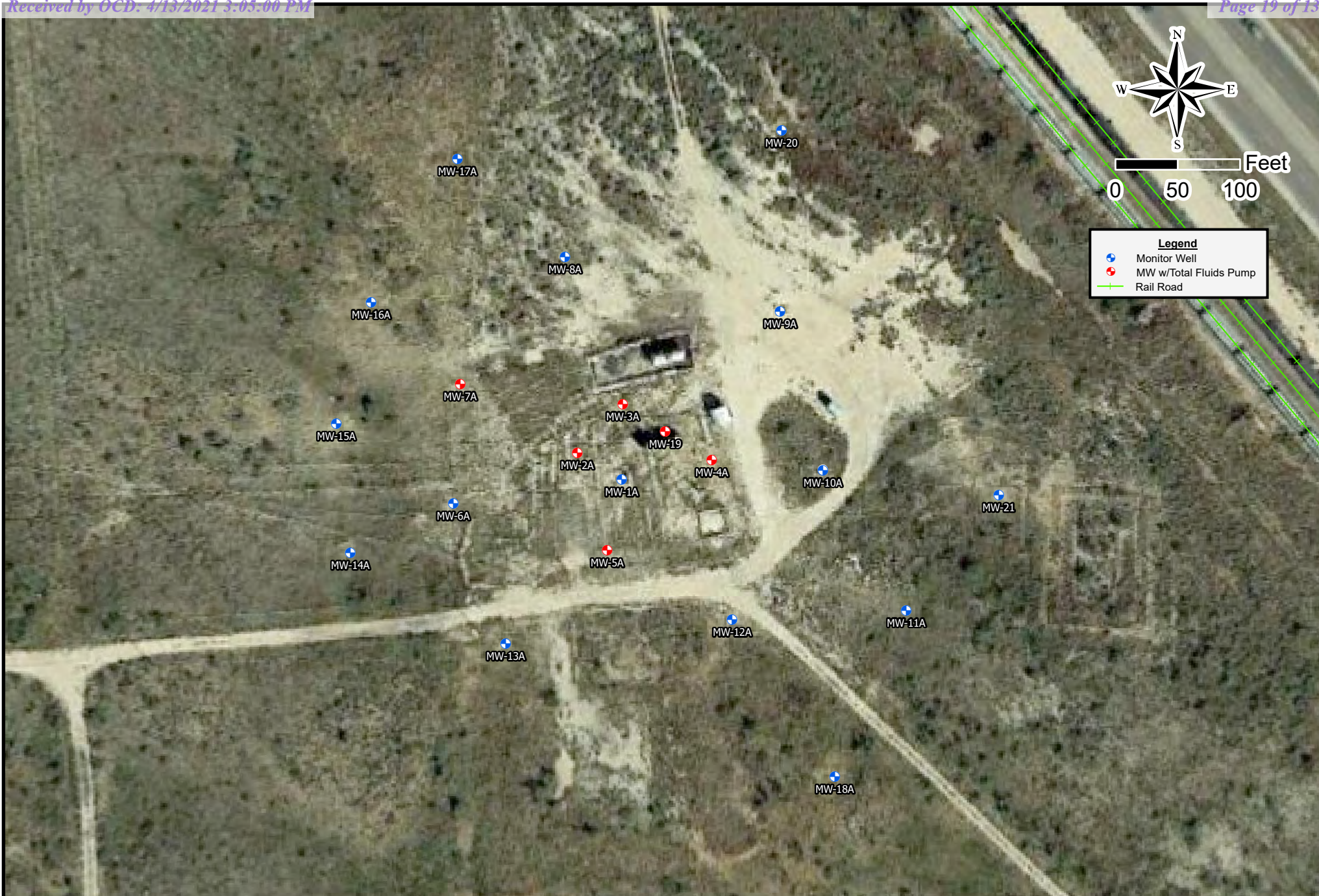
Figure 2d - Groundwater Gradient Map - 12/09-10/2020

Figure 3a - PSH Thickness & Groundwater Concentration Map - 03/12-13/2020

Figure 3b - PSH Thickness & Groundwater Concentration Map - 06/05 & 08-09/2020

Figure 3c - PSH Thickness & Groundwater Concentration Map - 09/23-24/2020

Figure 3d - PSH Thickness & Groundwater Concentration Map - 12/10-11/2020



Date: 4/7/2021
 1 in = 100 ft
 Drafted By: NRC

C.S. Caylor
 SRS # 2002-10250, NMOCD REF. #nAPP2109527803
 NW 1/4 of the NW 1/4, Sec. 6, T17S, R37E, Lea County, New Mexico
 32.867769, -103.28804
 Figure 1 - Site Plan



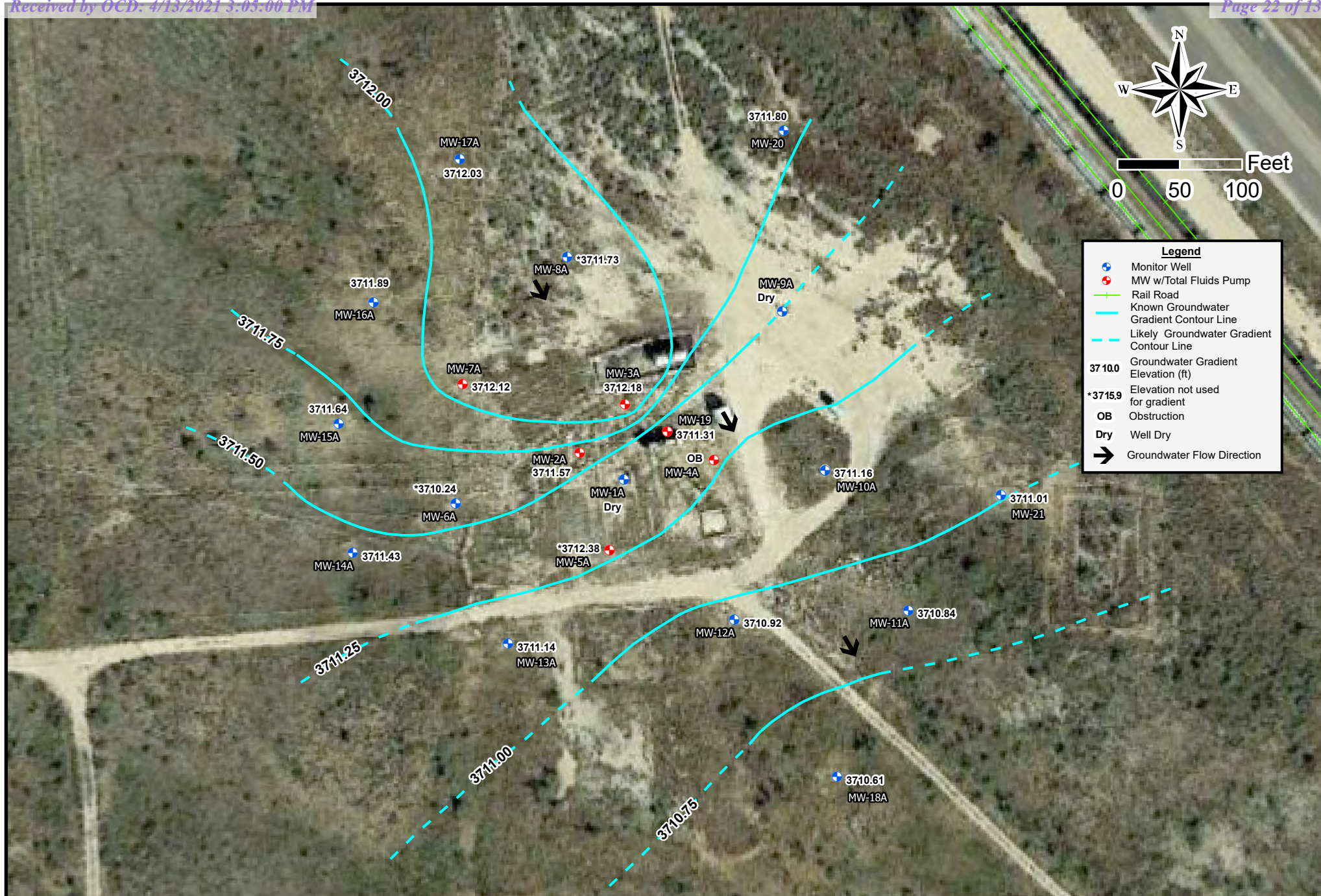
Date: 4/6/2021
1 in = 100 ft
Drafted By: JAI

C.S. Caylor
SRS # 2002-10250, NMOCD REF. #nAPP2109527803
NW 1/4 of the NW 1/4, Sec. 6, T17S, R37E, Lea County, New Mexico
32.867769, -103.28804
Figure 2a - Groundwater Gradient Map (03/11/2020)



Date: 4/6/2021
1 in = 100 ft
Drafted By: NRC

C.S. Caylor
SRS # 2002-10250, NMOCD REF. #nAPP2109527803
NW 1/4 of the NW 1/4, Sec. 6, T17S, R37E, Lea County, New Mexico
32.867769, -103.28804
Figure 2b - Groundwater Gradient Map (06/05-08/2020)



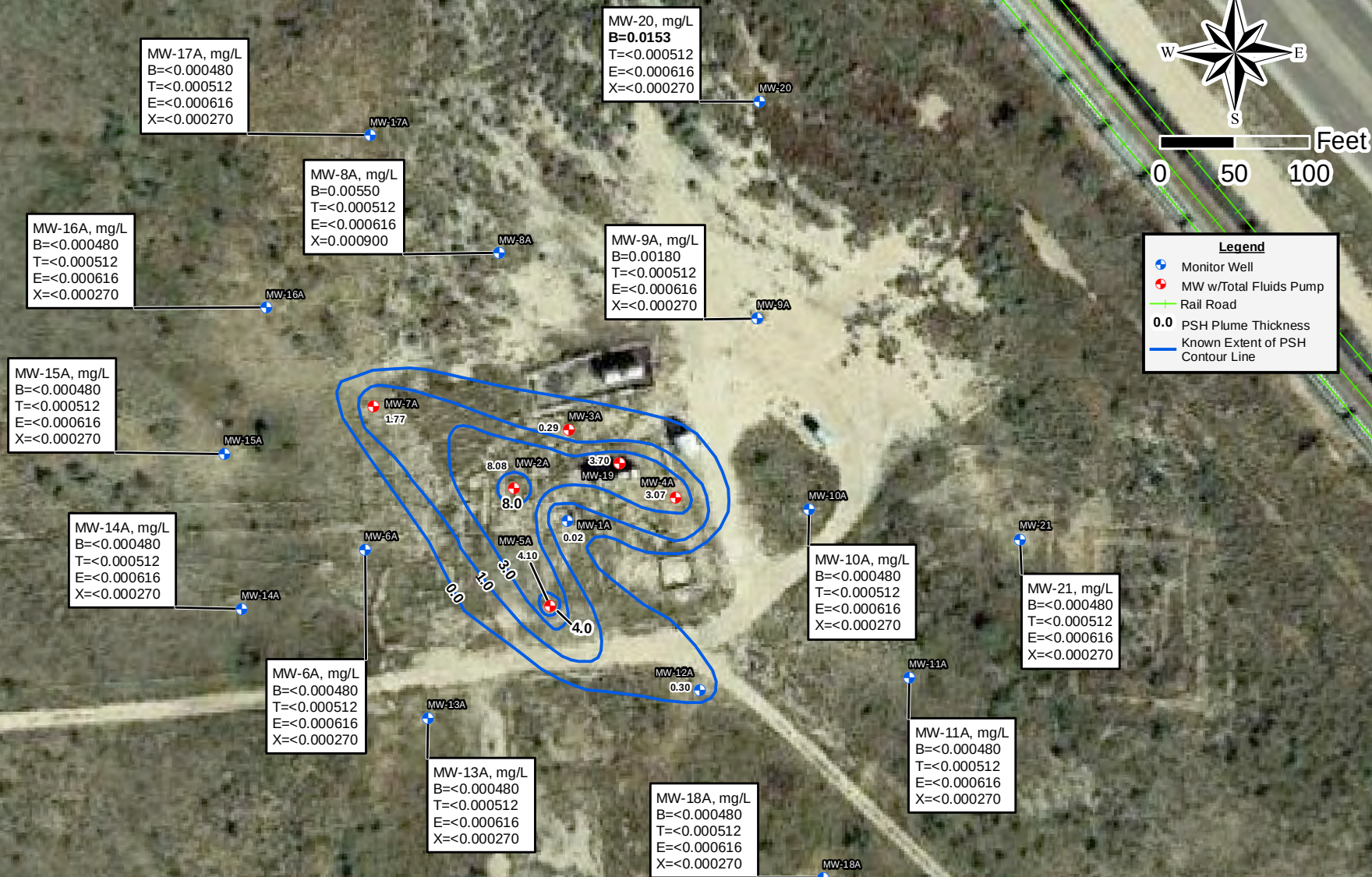
Date: 4/6/2021
1 in = 100 ft
Drafted By: NRC

C.S. Caylor
SRS # 2002-10250, NMOCD REF. #nAPP2109527803
NW 1/4 of the NW 1/4, Sec. 6, T17S, R37E, Lea County, New Mexico
32.867769, -103.28804
Figure 2c - Groundwater Gradient Map (09/23/2020)



Date: 4/6/2021
1 in = 100 ft
Drafted By: NRC

C.S. Caylor
SRS # 2002-10250, NMOCD REF. #nAPP2109527803
NW 1/4 of the NW 1/4, Sec. 6, T17S, R37E, Lea County, New Mexico
32.867769, -103.28804
Figure 2d - Groundwater Gradient Map (12/09-10/2020)



Date: 4/6/2021
1 in = 100 ft
Drafted By: JAI

C.S. Caylor
SRS # 2002-10250, NMOCDF REF. #nAPP2109527803
NW 1/4 of the NW 1/4, Sec. 6, T17S, R37E, Lea County, New Mexico
32.867769, -103.28804
Figure 3a - PSH Thickness & Groundwater Concentration Map (03/12-13/2020)



Date: 4/6/2021
1 in = 100 ft
Drafted By: JAI

C.S. Caylor
SRS # 2002-10250, NMOCDF REF. #nAPP2109527803
NW 1/4 of the NW 1/4, Sec. 6, T17S, R37E, Lea County, New Mexico
32.867769, -103.28804
Figure 3b - PSH Thickness & Groundwater Concentration Map (06/05 & 08-09/2020)



Date: 4/6/2021
1 in = 100 ft
Drafted By: NRC

C.S. Caylor
SRS # 2002-10250, NMOCD REF. #nAPP2109527803
NW 1/4 of the NW 1/4, Sec. 6, T17S, R37E, Lea County, New Mexico
32.867769, -103.28804
Figure 3c - PSH Thickness & Groundwater Concentration Map (09/23-24/2020)



Date: 4/6/2021
1 in = 100 ft
Drafted By: NRC

C.S. Caylor
SRS # 2002-10250, NMOCD REF. #nAPP2109527803
NW 1/4 of the NW 1/4, Sec. 6, T17S, R37E, Lea County, New Mexico
32.867769, -103.28804
Figure 3d - PSH Thickness & Groundwater Concentration Map (12/10-11/2020)

APPENDIX B

Tables

Table 1 - Summary of Historical Fluid Level Measurements

Table 2 - Summary of Historical Groundwater Analytical Results – BTEX

Table 3 - Summary of Groundwater Analytical Results – PAH Supplement

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
 CS Caylor
 Lea County, NM
 SRS#: 2002-10250

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-1A 4"	3810.14	76.199997	96.199997	03/21/2016	95.96	91.70	4.26	3717.74
				06/16/2016	92.78	92.08	0.7	3717.94
				09/13/2016	95.83	92.98	2.85	3716.69
				11/29/2016	95.88	92.91	2.97	3716.74
				03/13/2017	95.85	92.90	2.95	3716.75
				06/07/2017	96.00	93.18	2.82	3716.49
				09/18/2017	95.61	94.01	1.6	3715.87
				12/13/2017	95.85	93.90	1.95	3715.92
				03/23/2018	95.87	93.91	1.96	3715.91
				06/13/2018	95.90	94.60	1.3	3715.33
				09/25/2018	96.01	95.60	0.41	3714.47
				12/12/2018	95.92	95.45	0.47	3714.61
				03/21/2019	95.91	95.31	0.6	3714.73
				06/13/2019	95.87	95.65	0.22	3714.45
				09/18/2019	DR	-	-	-
				12/08/2019	DR	-	-	-
				03/11/2020	95.92	95.90	0.02	3714.24
				05/01/2020	DR	-	-	-
				06/08/2020	98.36	96.48	1.88	3713.35
				09/23/2020	DR	-	-	-
				12/10/2020	DR	-	-	-
MW-2 4"	3807.38	68.099998	88.099998	06/16/2016	PA	-	-	-
MW-2A 4"	3810.14	79	109	03/21/2016	NL	-	-	-
				06/16/2016	NL	-	-	-
				09/13/2016	NL	-	-	-
				11/29/2016	98.81	92.77	6.04	3716.37
				03/13/2017	98.75	92.77	5.98	3716.38
				06/07/2017	DR	-	-	-
				09/18/2017	99.54	93.83	5.71	3715.37
				12/13/2017	100.05	93.80	6.25	3715.31
				03/23/2018	102.20	93.79	8.41	3714.96
				06/13/2018	102.20	94.48	7.72	3714.39
				09/25/2018	100.80	95.35	5.45	3713.89
				12/12/2018	100.80	95.30	5.5	3713.93
				03/21/2019	103.27	95.15	8.12	3713.65
				06/13/2019	102.35	95.50	6.85	3713.51
				09/18/2019	102.25	96.46	5.79	3712.72
				12/08/2019	102.56	96.10	6.46	3712.97
				03/11/2020	103.95	95.87	8.08	3712.94
				05/01/2020	104.85	96.20	8.65	3712.51
				06/08/2020	DR	-	-	-
				09/23/2020	104.00	97.50	6.50	3711.57
				12/10/2020	102.75	97.74	5.01	3711.57
MW-3A 4"	3810.47	83	113	03/21/2016	NL	-	-	-
				06/16/2016	93.85	93.38	0.47	3717.01
				09/13/2016	95.07	94.18	0.89	3716.14
				11/29/2016	94.20	-	-	3716.27
				03/13/2017	94.31	94.25	0.06	3716.21
				06/07/2017	94.90	94.56	0.34	3715.85
				09/18/2017	95.58	95.42	0.16	3715.02
				12/13/2017	95.45	93.80	1.65	3716.40
				03/23/2018	95.68	95.22	0.46	3715.17
				06/13/2018	96.35	96.00	0.35	3714.41
				09/25/2018	97.36	97.02	0.34	3713.39
				12/12/2018	97.30	96.70	0.6	3713.67
				03/21/2019	97.14	96.31	0.83	3714.02
				06/13/2019	97.92	96.91	1.01	3713.39
				09/18/2019	98.57	97.74	0.83	3712.59
				12/08/2019	98.75	97.20	1.55	3713.01
				03/11/2020	97.12	96.83	0.29	3713.59
				05/01/2020	98.80	97.30	1.50	3712.92
				06/08/2020	98.45	97.20	1.25	3713.06
				09/23/2020	99.50	98.05	1.45	3712.18
				12/10/2020	99.49	98.25	1.24	3712.02

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
 CS Caylor
 Lea County, NM
 SRS#: 2002-10250

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-4A 4"	3810.45	75	105	03/21/2016	97.85	92.30	5.55	3717.23
				06/16/2016	97.55	92.85	4.7	3716.82
				09/13/2016	98.57	93.66	4.91	3715.98
				11/29/2016	98.35	93.45	4.9	3716.19
				03/13/2017	98.60	93.50	5.1	3716.11
				06/07/2017	99.10	93.80	5.3	3715.78
				09/18/2017	100.56	94.55	6.01	3714.91
				12/13/2017	100.01	95.24	4.77	3714.42
				03/23/2018	99.55	94.54	5.01	3715.08
				06/13/2018	98.69	95.68	3.01	3714.27
				09/25/2018	101.11	96.48	4.63	3713.21
				12/12/2018	101.30	96.10	5.2	3713.49
				03/21/2019	99.61	95.98	3.63	3713.87
				06/13/2019	99.72	96.56	3.16	3713.37
				09/18/2019	101.31	97.23	4.08	3712.55
				12/08/2019	101.25	96.75	4.5	3712.96
				03/11/2020	99.65	96.58	3.07	3713.36
				05/01/2020	106.60	96.95	9.65	3711.91
				06/08/2020	99.75	97.15	2.60	3712.87
				09/23/2020	OB	-	-	-
				12/10/2020	OB	-	-	-
MW-5 4"	3809.29	73.400002	93.400002	03/21/2016	93.05	90.85	2.2	3718.08
				06/16/2016	PA	-	-	-
MW-5A 4"	3809.3	75	109	06/16/2016	92.58	92.50	0.08	3716.79
				09/13/2016	98.33	92.32	6.01	3715.99
				11/29/2016	96.89	92.36	4.53	3716.19
				03/13/2017	97.96	92.23	5.73	3716.12
				06/07/2017	98.10	92.56	5.54	3715.83
				09/18/2017	99.72	93.33	6.39	3714.92
				12/13/2017	98.80	93.30	5.5	3715.09
				03/23/2018	99.02	93.26	5.76	3715.09
				06/13/2018	100.25	93.95	6.3	3714.31
				09/25/2018	101.70	94.28	7.42	3713.80
				12/12/2018	101.15	94.70	6.45	3713.54
				03/21/2019	99.66	94.51	5.15	3713.94
				06/13/2019	98.95	94.94	4.01	3713.70
				09/18/2019	101.86	96.00	5.86	3712.33
				12/08/2019	100.20	95.67	4.53	3712.88
				03/11/2020	99.35	95.25	4.10	3713.37
				05/01/2020	101.40	95.85	5.55	3712.53
				06/08/2020	101.10	96.15	4.95	3712.33
				09/23/2020	97.00	96.90	0.10	3712.38
				12/10/2020	104.02	97.36	6.66	3710.84
MW-6A 4"	3809.04	83	114	03/21/2016	92.61	-	-	3716.43
				06/16/2016	93.04	-	-	3716.00
				09/13/2016	93.88	-	-	3715.16
				11/29/2016	93.72	-	-	3715.32
				03/13/2017	93.46	-	-	3715.58
				06/07/2017	94.12	-	-	3714.92
				09/18/2017	94.99	-	-	3714.05
				12/13/2017	94.87	-	-	3714.17
				03/23/2018	94.85	-	-	3714.19
				06/13/2018	95.55	-	-	3713.49
				09/25/2018	96.56	-	-	3712.48
				12/12/2018	96.56	-	-	3712.48
				03/21/2019	96.05	-	-	3712.99
				06/13/2019	96.60	-	-	3712.44
				09/18/2019	97.52	-	-	3711.52
				12/08/2019	97.05	-	-	3711.99
				03/11/2020	96.53	-	-	3712.51
				05/01/2020	97.20	-	-	3711.84
				06/05/2020	97.60	-	-	3711.44
				09/23/2020	98.80	-	-	3710.24
				12/09/2020	98.85	-	-	3710.19

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
 CS Caylor
 Lea County, NM
 SRS#: 2002-10250

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-7A 4"	3810.63	71	101	03/21/2016	96.71	92.60	4.11	3717.35
				06/16/2016	97.30	92.74	4.56	3717.14
				09/13/2016	94.95	94.00	0.95	3716.47
				11/29/2016	94.35	94.27	0.08	3716.35
				03/13/2017	96.40	93.90	2.5	3716.32
				06/07/2017	94.69	94.60	0.09	3716.02
				09/18/2017	95.55	95.40	0.15	3715.21
				12/13/2017	95.92	95.20	0.72	3715.31
				03/23/2018	96.94	94.97	1.97	3715.33
				06/13/2018	96.30	96.02	0.28	3714.56
				09/24/2018	97.38	97.01	0.37	3713.56
				12/12/2018	97.10	96.85	0.25	3713.74
				03/21/2019	96.88	96.55	0.33	3714.03
				06/13/2019	96.90	96.89	0.01	3713.74
				09/18/2019	99.70	97.12	2.58	3713.08
				12/08/2019	99.78	96.90	2.88	3713.25
				03/11/2020	98.55	96.78	1.77	3713.56
				05/01/2020	99.75	96.92	2.83	3713.24
				06/05/2020	99.70	97.16	2.54	3713.05
				09/23/2020	99.82	98.25	1.57	3712.12
				12/09/2020	99.76	98.45	1.31	3711.96
MW-8A 4"	3810.73	73	103	03/21/2016	93.26	-	-	3717.47
				06/16/2016	93.55	-	-	3717.18
				09/13/2016	94.35	-	-	3716.38
				11/29/2016	94.27	-	-	3716.46
				03/13/2017	94.02	-	-	3716.71
				06/07/2017	94.67	-	-	3716.06
				09/18/2017	95.45	-	-	3715.28
				12/13/2017	95.40	-	-	3715.33
				03/23/2018	95.38	-	-	3715.35
				06/13/2018	96.06	-	-	3714.67
				09/25/2018	97.05	-	-	3713.68
				12/12/2018	96.91	-	-	3713.82
				03/21/2019	96.65	-	-	3714.08
				06/13/2019	97.12	-	-	3713.61
				09/18/2019	97.96	-	-	3712.77
				12/08/2019	97.60	-	-	3713.13
				03/11/2020	97.15	-	-	3713.58
				05/01/2020	97.72	-	-	3713.01
				06/05/2020	98.11	-	-	3712.62
				09/23/2020	99.00	-	-	3711.73
				12/09/2020	99.34	-	-	3711.39
MW-9A 2"	3810.73	77	107	03/21/2016	93.63	-	-	3717.10
				06/16/2016	94.00	-	-	3716.73
				09/13/2016	94.81	-	-	3715.92
				11/29/2016	94.68	-	-	3716.05
				03/13/2017	94.40	-	-	3716.33
				06/07/2017	95.08	-	-	3715.65
				09/18/2017	95.91	-	-	3714.82
				12/13/2017	95.77	-	-	3714.96
				03/23/2018	95.77	-	-	3714.96
				06/13/2018	96.48	-	-	3714.25
				09/25/2018	97.54	-	-	3713.19
				12/12/2018	94.86	-	-	3715.87
				03/21/2019	97.01	-	-	3713.72
				06/13/2019	97.55	-	-	3713.18
				09/18/2019	98.48	-	-	3712.25
				12/08/2019	97.95	-	-	3712.78
				03/11/2020	97.45	-	-	3713.28
				05/01/2020	98.15	-	-	3712.58
				06/05/2020	98.53	-	-	3712.20
				09/23/2020	DR	-	-	-
				12/09/2020	99.84	-	-	3710.89

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
 CS Caylor
 Lea County, NM
 SRS#: 2002-10250

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-10A 2"	3810.41	84	114	03/21/2016	93.24	-	-	3717.17
				06/16/2016	93.68	-	-	3716.73
				09/13/2016	94.55	-	-	3715.86
				11/29/2016	94.26	-	-	3716.15
				03/13/2017	94.00	-	-	3716.41
				06/07/2017	94.72	-	-	3715.69
				09/18/2017	95.64	-	-	3714.77
				12/13/2017	95.35	-	-	3715.06
				03/23/2018	95.45	-	-	3714.96
				06/13/2018	96.16	-	-	3714.25
				09/25/2018	97.30	-	-	3713.11
				12/12/2018	96.93	-	-	3713.48
				03/21/2019	96.59	-	-	3713.82
				06/13/2019	97.20	-	-	3713.21
				09/18/2019	98.21	-	-	3712.20
				12/08/2019	97.56	-	-	3712.85
				03/11/2020	97.00	-	-	3713.41
				05/01/2020	97.80	-	-	3712.61
				06/05/2020	98.22	-	-	3712.19
				09/23/2020	99.25	-	-	3711.16
				12/09/2020	99.47	-	-	3710.94
MW-11A 2"	3808.99	83	113	03/21/2016	91.93	-	-	3717.06
				06/16/2016	92.45	-	-	3716.54
				09/13/2016	93.35	-	-	3715.64
				11/29/2016	93.03	-	-	3715.96
				03/13/2017	92.71	-	-	3716.28
				06/07/2017	93.49	-	-	3715.50
				09/18/2017	94.49	-	-	3714.50
				12/13/2017	94.12	-	-	3714.87
				03/23/2018	94.21	-	-	3714.78
				06/13/2018	94.96	-	-	3714.03
				09/25/2018	96.91	-	-	3712.08
				12/12/2018	95.03	-	-	3713.96
				03/21/2019	95.27	-	-	3713.72
				06/13/2019	96.00	-	-	3712.99
				09/18/2019	97.05	-	-	3711.94
				12/08/2019	96.27	-	-	3712.72
				03/11/2020	95.68	-	-	3713.31
				05/01/2020	96.55	-	-	3712.44
				06/05/2020	96.97	-	-	3712.02
				09/23/2020	98.15	-	-	3710.84
				12/09/2020	98.27	-	-	3710.72
MW-12 2"	3809.81	70.800003	90.800003	06/16/2016	PA	-	-	-
MW-12A 4"	3808.98	79	109	03/21/2016	91.90	-	-	3717.08
				06/16/2016	92.02	-	-	3716.96
				09/13/2016	93.25	-	-	3715.73
				11/29/2016	92.98	-	-	3716.00
				03/13/2017	92.70	-	-	3716.28
				06/07/2017	93.40	-	-	3715.58
				09/18/2017	94.38	-	-	3714.60
				12/13/2017	94.09	-	-	3714.89
				03/23/2018	94.50	-	-	3714.48
				06/13/2018	94.85	-	-	3714.13
				09/25/2018	96.09	-	-	3712.89
				12/12/2018	95.61	-	-	3713.37
				03/21/2019	95.25	-	-	3713.73
				06/13/2019	95.94	-	-	3713.04
				09/18/2019	96.99	96.95	0.04	3712.02
				12/08/2019	96.55	96.20	0.35	3712.72
				03/11/2020	96.10	95.80	0.30	3713.13
				05/01/2020	97.22	96.35	0.87	3712.49
				06/05/2020	97.80	96.75	1.05	3712.06
				09/23/2020	99.40	97.80	1.60	3710.92
				12/09/2020	99.90	97.91	1.99	3710.74

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-13A 4"	3809.49	78	108	03/21/2016	92.28	-	-	3717.21
				06/16/2016	92.72	-	-	3716.77
				09/13/2016	93.60	-	-	3715.89
				11/29/2016	93.37	-	-	3716.12
				03/13/2017	93.07	-	-	3716.42
				06/07/2017	93.76	-	-	3715.73
				09/18/2017	94.68	-	-	3714.81
				12/13/2017	94.48	-	-	3715.01
				03/23/2018	94.50	-	-	3714.99
				06/13/2018	95.20	-	-	3714.29
				09/25/2018	96.38	-	-	3713.11
				12/12/2018	96.00	-	-	3713.49
				03/21/2019	95.62	-	-	3713.87
				06/13/2019	96.27	-	-	3713.22
				09/18/2019	97.26	-	-	3712.23
				12/08/2019	96.68	-	-	3712.81
				03/11/2020	96.13	-	-	3713.36
				05/01/2020	96.87	-	-	3712.62
				06/05/2020	97.27	-	-	3712.22
				09/23/2020	98.35	-	-	3711.14
				12/09/2020	98.56	-	-	3710.93
MW-14A 2"	3809.93	84	114	03/21/2016	92.51	-	-	3717.42
				06/16/2016	92.97	-	-	3716.96
				09/13/2016	93.78	-	-	3716.15
				11/29/2016	93.66	-	-	3716.27
				03/13/2017	93.35	-	-	3716.58
				06/07/2017	94.02	-	-	3715.91
				09/18/2017	94.87	-	-	3715.06
				12/13/2017	94.77	-	-	3715.16
				03/23/2018	94.77	-	-	3715.16
				06/13/2018	95.46	-	-	3714.47
				09/25/2018	96.52	-	-	3713.41
				12/12/2018	97.23	-	-	3712.70
				03/21/2019	95.98	-	-	3713.95
				06/13/2019	96.44	-	-	3713.49
				09/18/2019	97.42	-	-	3712.51
				12/08/2019	96.96	-	-	3712.97
				03/11/2020	96.44	-	-	3713.49
				05/01/2020	97.12	-	-	3712.81
				06/05/2020	97.50	-	-	3712.43
				09/23/2020	98.50	-	-	3711.43
				12/09/2020	99.77	-	-	3710.16
MW-15 2"	3810.93	72.199997	92.199997	03/21/2016	DR	-	-	-
				06/16/2016	PA	-	-	-
MW-15A 2"	3810.76	75	120	07/12/2016	93.79	-	-	3716.97
				09/13/2016	94.40	-	-	3716.36
				11/29/2016	94.30	-	-	3716.46
				03/13/2017	94.05	-	-	3716.71
				06/07/2017	94.68	-	-	3716.08
				09/18/2017	95.48	-	-	3715.28
				12/13/2017	95.44	-	-	3715.32
				03/23/2018	95.41	-	-	3715.35
				06/13/2018	96.10	-	-	3714.66
				09/25/2018	97.04	-	-	3713.72
				12/12/2018	97.00	-	-	3713.76
				03/21/2019	96.66	-	-	3714.10
				06/13/2019	97.13	-	-	3713.63
				09/18/2019	98.03	-	-	3712.73
				12/08/2019	97.65	-	-	3713.11
				03/11/2020	97.10	-	-	3713.66
				05/01/2020	97.77	-	-	3712.99
				06/05/2020	98.15	-	-	3712.61
				09/23/2020	99.12	-	-	3711.64
				12/09/2020	99.37	-	-	3711.39

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
 CS Caylor
 Lea County, NM
 SRS#: 2002-10250

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-16 2"	3812.23	71.199997	91.199997	03/21/2016	DR	-	-	-
				06/16/2016	PA	-	-	-
MW-16A 2"	3811.72	75	120	07/12/2016	94.61	-	-	3717.11
				09/13/2016	95.22	-	-	3716.50
				11/29/2016	95.20	-	-	3716.52
				03/13/2017	94.93	-	-	3716.79
				06/07/2017	95.54	-	-	3716.18
				09/18/2017	96.30	-	-	3715.42
				12/13/2017	96.31	-	-	3715.41
				03/23/2018	96.27	-	-	3715.45
				06/13/2018	96.96	-	-	3714.76
				09/25/2018	97.88	-	-	3713.84
				12/12/2018	97.80	-	-	3713.92
				03/21/2019	97.54	-	-	3714.18
				06/13/2019	97.97	-	-	3713.75
				09/18/2019	98.85	-	-	3712.87
				12/08/2019	98.50	-	-	3713.22
				03/11/2020	98.60	-	-	3713.12
				05/01/2020	98.83	-	-	3712.89
				06/05/2020	98.97	-	-	3712.75
				09/23/2020	99.83	-	-	3711.89
				12/09/2020	100.18	-	-	3711.54
MW-17 2"	3810.57	71	92.699997	03/21/2016	DR	-	-	-
				06/16/2016	PA	-	-	-
MW-17A 2"	3810.63	75	120	07/12/2016	93.40	-	-	3717.23
				09/13/2016	94.00	-	-	3716.63
				11/29/2016	94.32	-	-	3716.31
				03/13/2017	93.76	-	-	3716.87
				06/07/2017	93.33	-	-	3717.30
				09/18/2017	95.08	-	-	3715.55
				12/13/2017	95.01	-	-	3715.62
				03/23/2018	95.04	-	-	3715.59
				06/13/2018	95.71	-	-	3714.92
				09/25/2018	96.68	-	-	3713.95
				12/12/2018	96.66	-	-	3713.97
				03/21/2019	96.39	-	-	3714.24
				06/13/2019	96.77	-	-	3713.86
				09/18/2019	97.62	-	-	3713.01
				12/08/2019	97.31	-	-	3713.32
				03/11/2020	96.85	-	-	3713.78
				05/01/2020	97.41	-	-	3713.22
				06/05/2020	97.75	-	-	3712.88
				09/23/2020	98.60	-	-	3712.03
				12/09/2020	98.96	-	-	3711.67
MW-18A 2"	3809.46	84	114	03/21/2016	92.56	-	-	3716.90
				06/16/2016	93.08	-	-	3716.38
				09/13/2016	93.98	-	-	3715.48
				11/29/2016	93.58	-	-	3715.88
				03/13/2017	93.28	-	-	3716.18
				06/07/2017	94.08	-	-	3715.38
				09/18/2017	95.14	-	-	3714.32
				12/13/2017	94.70	-	-	3714.76
				03/23/2018	94.81	-	-	3714.65
				06/13/2018	95.54	-	-	3713.92
				09/25/2018	96.91	-	-	3712.55
				12/12/2018	96.25	-	-	3713.21
				03/21/2019	95.84	-	-	3713.62
				06/13/2019	96.61	-	-	3712.85
				09/18/2019	97.72	-	-	3711.74
				12/08/2019	96.86	-	-	3712.60
				03/11/2020	96.27	-	-	3713.19
				05/01/2020	97.17	-	-	3712.29
				06/05/2020	97.80	-	-	3711.66
				09/23/2020	98.85	-	-	3710.61
				12/09/2020	98.92	-	-	3710.54

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-19 4"	3811.05	75	120	06/16/2016	94.18	-	-	3716.87
				09/13/2016	99.15	94.23	4.92	3716.01
				11/29/2016	97.58	94.31	3.27	3716.20
				03/13/2017	99.20	94.05	5.15	3716.15
				06/07/2017	97.61	94.76	2.85	3715.82
				09/18/2017	101.00	95.11	5.89	3714.97
				12/13/2017	99.30	95.24	4.06	3715.14
				03/23/2018	98.08	95.49	2.59	3715.13
				06/13/2018	100.97	95.96	5.01	3714.26
				09/25/2018	100.01	97.31	2.7	3713.29
				12/12/2018	98.90	97.30	1.6	3713.49
				03/21/2019	100.81	96.43	4.38	3713.90
				06/13/2019	101.23	96.99	4.24	3713.36
				09/18/2019	102.49	97.92	4.57	3712.38
				12/08/2019	101.33	97.48	3.85	3712.93
				03/11/2020	100.75	97.05	3.70	3713.39
				05/01/2020	102.53	97.45	5.08	3712.76
				06/08/2020	101.70	98.05	3.65	3712.40
				09/23/2020	104.75	98.75	6.00	3711.31
				12/10/2020	103.50	99.32	4.18	3711.04
MW-20 2"	3810	75	114	07/12/2016	92.95	-	-	3717.05
				09/13/2016	93.57	-	-	3716.43
				11/29/2016	93.54	-	-	3716.46
				03/13/2017	93.27	-	-	3716.73
				06/07/2017	93.89	-	-	3716.11
				09/18/2017	94.68	-	-	3715.32
				12/13/2017	94.63	-	-	3715.37
				03/23/2018	94.58	-	-	3715.42
				06/13/2018	95.27	-	-	3714.73
				09/25/2018	96.02	-	-	3713.98
				12/12/2018	96.21	-	-	3713.79
				03/21/2019	95.87	-	-	3714.13
				06/13/2019	96.31	-	-	3713.69
				09/18/2019	97.19	-	-	3712.81
				12/08/2019	96.78	-	-	3713.22
				03/11/2020	96.31	-	-	3713.69
				05/01/2020	96.92	-	-	3713.08
				06/05/2020	97.30	-	-	3712.70
				09/23/2020	98.20	-	-	3711.80
				12/09/2020	98.51	-	-	3711.49
MW-21 2"	3809.06	75	109	07/12/2016	92.65	-	-	3716.41
				09/13/2016	93.25	-	-	3715.81
				11/29/2016	93.00	-	-	3716.06
				03/13/2017	92.68	-	-	3716.38
				06/07/2017	93.45	-	-	3715.61
				09/18/2017	94.41	-	-	3714.65
				12/13/2017	94.06	-	-	3715.00
				03/23/2018	94.15	-	-	3714.91
				06/13/2018	94.87	-	-	3714.19
				09/25/2018	95.94	-	-	3713.12
				12/12/2018	95.60	-	-	3713.46
				03/21/2019	95.27	-	-	3713.79
				06/13/2019	95.91	-	-	3713.15
				09/18/2019	96.97	-	-	3712.09
				12/08/2019	96.23	-	-	3712.83
				03/11/2020	95.66	-	-	3713.40
				05/01/2020	96.50	-	-	3712.56
				06/05/2020	96.93	-	-	3712.13
				09/23/2020	98.05	-	-	3711.01
				12/09/2020	98.21	-	-	3710.85

Specific Gravity = 0.835

Notes:

DR = Well dry

DS = Well destroyed

NG = Well not gauged

NL = Well not located

NSA = No access

OB = Obstruction in well

PA = Well plugged and abandoned

Table 2 - Groundwater Analytical Data - Historical

CS Caylor
Lea County, NM
SRS#: 2002-10250

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
NMOCD - Groundwater		0.01	0.75	0.75	0.62	
MW-6A	03/22/2016	0.0693	0.00910	0.000400 J	0.00500	
	06/16/2016	0.00130	<0.000621	<0.000763	<0.000256	
	09/13/2016	0.00140	<0.000621	<0.000763	<0.000256	
	11/29/2016	0.0148	<0.00100	<0.000657	<0.000642	
	03/14/2017	0.0241	0.00205	<0.000657	<0.000630	0.0262
	06/07/2017	0.652	0.0551	0.0304	0.0354	0.773
	09/19/2017	0.235 X	0.0231	0.00911	0.00926	0.276
	12/19/2017	0.0699	0.00436	0.00227	0.00517	0.0817
	03/27/2018	<0.000408	0.000750 J	<0.000657	<0.000630	0.000750 J
	06/13/2018	0.0329	0.00300	0.00110	0.000800 J	0.0378
	09/28/2018	0.0522	0.00423	<0.000657	0.00201	0.0584
	12/12/2018	0.163	0.0139	0.0090	0.0147	0.201
	03/22/2019	0.0748	0.0113	0.00389	0.00551	0.0955
	06/18/2019	0.00490	<0.000512	<0.000616	<0.00027	0.00490
	09/19/2019	0.00329	<0.002	<0.002	<0.002	0.00329
	12/10/2019	0.000620	<0.000367	<0.000657	<0.000630	0.000620
	03/13/2020	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	06/09/2020	0.00169 J	<0.000367	<0.000657	<0.000630	0.00169 J
	09/24/2020	0.00367	<0.000367	<0.000657	<0.000630	0.00367
	12/10/2020	0.00364	0.000880 J	<0.002000	0.000940 J	0.005460
MW-8A	03/22/2016	0.0799	0.0304	0.00380	0.0138	
	06/16/2016	0.00950	0.00210	<0.000763	0.00110	
	09/13/2016	0.0171	0.00250	<0.000763	0.00140	
	11/29/2016	0.0190	0.00464	<0.000657	<0.000642	
	03/14/2017	0.0220	0.00785	0.00221	0.00462	0.0367
	06/07/2017	0.0281	0.00902	0.00165 J	0.00465	0.0434
	09/19/2017	0.0398	0.00721	0.000980 J	0.00324	0.0512
	12/19/2017	0.0162	0.00517	0.000690 J	0.00266	0.0247
	03/27/2018	0.00332	0.00187 J	<0.000657	0.000720 J	0.00591
	06/13/2018	0.00300	<0.000512	<0.000616	<0.000270	0.00300
	09/28/2018	0.0363	0.00535	<0.000657	0.00296	0.0446
	12/12/2018	0.0135	0.003	0.001 J	0.0022	0.0197
	03/23/2019	0.0303	0.00174	0.00229	0.00188	0.0362
	06/17/2019	0.0259	0.00410	<0.000616	0.00450	0.0345
	09/19/2019	0.0519	0.00919	<0.002	0.00491	0.0660
	12/10/2019	0.00226	0.000380	<0.000657	<0.000630	0.00264
	03/12/2020	0.00550	<0.000512	<0.000616	0.000900 J	0.00640
	06/08/2020	0.0252	0.00782	<0.000657	0.00550	0.0385
	09/23/2020	0.0495	0.0121	<0.000657	0.00754	0.0691
	12/10/2020	0.0378	0.00923	0.000890 J	0.00654	0.05446
MW-9A	03/22/2016	0.147	0.000700 J	0.00590	0.00170	
	06/16/2016	0.0400	<0.000621	0.00160	0.000300 J	
	09/13/2016	0.0382	<0.00329	<0.00404	<0.00136	
	11/29/2016	0.106	0.00332	0.00406	0.00244	
	03/14/2017	0.381	<0.000367	0.0186	0.00401	0.404
	06/07/2017	0.394	0.00412	0.0123	0.00456	0.415
	09/19/2017	0.253	0.00110 J	0.00623	0.00164 J	0.262
	12/19/2017	0.0404	<0.000367	0.000800 J	0.00115 J	0.0424
	03/27/2018	0.0168	0.00117 J	<0.000657	<0.000630	0.0180
	06/13/2018	0.00710	<0.000512	<0.000616	<0.000270	0.00710
	09/28/2018	0.0160	<0.000367	<0.000657	<0.000630	0.0160
	12/12/2018	0.0607	<0.000512	0.0018	0.0005 J	0.0630
	03/23/2019	0.0205	<0.0005	<0.0005	<0.0005	0.0205
	06/18/2019	0.0322	<0.000512	0.00200	<0.00027	0.0342
	09/18/2019	0.276	<0.002	0.00849	<0.002	0.284
	12/10/2019	0.00517	0.000540	<0.000657	<0.000630	0.00571
	03/12/2020	0.00180	<0.000512	<0.000616	<0.000270	0.00180
	06/08/2020	0.000890 J	<0.000367	<0.000657	<0.000630	0.000890 J
	12/10/2020	0.00196 J	0.000610 J	<0.002000	<0.002000	0.002570
MW-10A	03/22/2016	0.0227	0.00650	<0.000238	0.00540	
	06/16/2016	0.00160	<0.000621	<0.000763	<0.000256	
	09/13/2016	0.00200	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	0.0144	0.00338	<0.000657	0.00373	0.0215
	06/07/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.000850 J	<0.000367	<0.000657	<0.000630	0.000850 J
	06/13/2018	0.0129	<0.000512	<0.000616	<0.000270	0.0129
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	0.0018	<0.000512	<0.000616	<0.00027	0.0018
	03/22/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	06/17/2019	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	09/18/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/11/2019	0.000550	<0.000367	<0.000657	<0.000630	0.000550
	03/13/2020	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	06/09/2020	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	09/24/2020	0.00140 J	<0.000367	0.000730 J	0.000970 J	0.00310
	12/10/2020	<0.002000	<0.002000	<0.002000	<0.002000	<0.002000

Table 2 - Groundwater Analytical Data - Historical

CS Caylor
Lea County, NM
SRS#: 2002-10250

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
NMOCD - Groundwater		0.01	0.75	0.75	0.62	
MW-11A	03/22/2016	0.000400 J	0.000500 J	<0.000238	0.000800 J	
	06/16/2016	0.00200	<0.000621	<0.000763	<0.000256	
	09/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	0.0159	0.00110 J	<0.000657	<0.000642	0.0170
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	0.00432	<0.000367	<0.000657	<0.000630	0.00432
	03/27/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	03/23/2019	0.0156	0.000860	0.00315	0.00101	0.0206
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/11/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/13/2020	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	06/09/2020	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
MW-12A	09/24/2020	0.00400	<0.000367	<0.000657	<0.000630	0.00400
	12/10/2020	0.00154 J	0.00107 J	0.000950 J	0.000880 J	0.004440
	03/22/2016	4.46	0.0159 J	0.195	0.233	
	09/13/2016	5.70	<0.0329	0.208	0.179	
	11/29/2016	12.8	<0.0500	0.539	0.327	
	03/14/2017	11.8	<0.0367	0.539	<0.0630	12.3
	06/07/2017	26.4	<0.100	0.985	0.473	27.9
	09/19/2017	16.2 D	0.0427	0.597 D	0.253	17.1
	12/19/2017	5.34 D	0.0260	0.217	0.123	5.71
	03/27/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2018	6.35	<0.0512	0.260	<0.0270	6.61
	09/28/2018	19.7 D	0.159	0.65 D	0.289	20.8
	12/12/2018	12.2	0.045 J	0.475	0.39	13.1
	03/22/2019	23.5	0.106	1.22	1.09	25.9
	06/17/2019	19.2	0.115	0.815	0.715	20.8
MW-13A	03/22/2016	0.000700 J	<0.000238	<0.000238	<0.000243	
	06/16/2016	0.00210	<0.000621	<0.000763	<0.000256	
	09/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	0.0064	0.0006 J	<0.000616	<0.00027	0.007
	03/22/2019	0.0294	0.0109	0.00234	0.00791	0.0506
	06/18/2019	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
MW-14A	12/11/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/13/2020	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	06/09/2020	0.00225	0.00216	<0.000657	<0.000630	0.00441
	09/24/2020	0.00395	<0.000367	<0.000657	<0.000630	0.00395
	12/10/2020	0.00117 J	0.000740 J	0.000830 J	0.00180 J	0.004540
	03/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	
	06/16/2016	0.00370	<0.000621	<0.000763	<0.000256	
	09/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	0.000860 J	0.00127 J	<0.000657	0.00197 J	0.00410
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00166 J	<0.000367	<0.000657	<0.000630	0.00166 J
	06/13/2018	0.00120	<0.000512	<0.000616	<0.000270	0.00120
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	03/23/2019	0.0169	0.000560	0.00438	0.00562	0.0275
	06/17/2019	0.0392	0.00340	0.00150	<0.00027	0.0441
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/10/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/13/2020	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	06/09/2020	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	09/24/2020	0.00247	<0.000367	<0.000657	<0.000630	0.00247
	12/10/2020	0.00140 J	0.000680 J	<0.002000	0.000720 J	0.002800

Table 2 - Groundwater Analytical Data - Historical

CS Caylor
Lea County, NM
SRS#: 2002-10250

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
NMOCD - Groundwater		0.01	0.75	0.75	0.62	
MW-15A	07/12/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	09/13/2016	0.00130	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	0.000770 J	<0.00100	<0.000657	<0.000642	0.000770 J
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00253	0.000770 J	<0.000657	<0.000630	0.00330
	06/13/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	0.264	0.0081	0.0177	0.0114	0.301
	03/23/2019	0.0223	0.000600	0.00613	0.00246	0.0315
	06/18/2019	0.00450	<0.000512	<0.000616	<0.00027	0.00450
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/10/2019	0.000930	0.000380	<0.000657	<0.000630	0.00131
	03/13/2020	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	06/09/2020	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
MW-16A	09/24/2020	0.00670	<0.000367	<0.000657	<0.000630	0.00670
	12/10/2020	0.00238	0.000550 J	0.00168 J	0.00226	0.006870
	07/12/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	09/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	0.00319	<0.000367	<0.000657	<0.000630	0.00319
	06/07/2017	0.000840 J	<0.00100	<0.000657	<0.000642	0.000840 J
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00182 J	0.000740 J	<0.000657	<0.000630	0.00256
	06/13/2018	0.00100 J	<0.000512	<0.000616	<0.000270	0.00100 J
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	0.13	0.0041	0.0111	0.0068	0.152
	03/23/2019	0.0261	0.00236	0.00578	0.00312	0.0374
	06/17/2019	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/10/2019	0.00227	<0.000367	<0.000657	<0.000630	0.00227
MW-17A	03/13/2020	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	06/08/2020	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	09/23/2020	0.00817	0.000990 J	<0.000657	<0.000630	0.00916
	12/10/2020	0.000990 J	<0.002000	<0.002000	0.000810 J	0.001800 J
	07/12/2016	0.000800 J	<0.000621	<0.000763	<0.000256	
	09/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	0.00224	<0.000367	<0.000657	<0.000630	0.00224
	06/07/2017	0.000440 J	<0.00100	<0.000657	<0.000642	0.000440 J
	09/19/2017	0.00117 J	<0.00100	<0.000657	<0.000630	0.00117 J
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00185 JXF	0.000600 J	<0.000657	<0.000630	0.00245
	06/13/2018	0.00180	<0.000512	<0.000616	<0.000270	0.00180
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	03/23/2019	0.0161	0.000540	0.00388	0.00157	0.0221
	06/17/2019	<0.00048	0.00170	<0.000616	<0.00027	0.00170
MW-18A	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/10/2019	0.000680	0.000530	<0.000657	<0.000630	0.00121
	03/12/2020	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	06/08/2020	0.00751	0.00342	<0.000657	0.00308	0.0140
	09/23/2020	0.00892	0.00149 J	<0.000657	<0.000630	0.0104
	12/11/2020	0.00245	<0.002000	0.00110 J	0.000950 J	0.004500
	03/22/2016	0.00150	<0.000238	<0.000238	<0.000243	
	06/16/2016	0.00190	<0.000621	<0.000763	<0.000256	
	09/13/2016	0.00120	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	0.00142 J	<0.00100	<0.000657	<0.000642	0.00142 J
	09/19/2017	0.00114 J	<0.00100	<0.000657	<0.000630	0.00114 J
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00171 J	<0.000367	<0.000657	<0.000630	0.00171 J
	06/13/2018	0.0620	0.00100 J	0.00540	0.00130	0.0697
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	03/23/2019	0.0467	0.00206	0.00615	0.00266	0.0576
	06/17/2019	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/11/2019	0.00116	0.000370	<0.000657	<0.000630	0.00153
	03/13/2020	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	06/09/2020	0.000760 J	0.000980 J	<0.000657	0.00118 J	0.00292
	09/24/2020	0.00297	<0.000367	<0.000657	<0.000630	0.00297
	12/10/2020	0.00103 J	0.00134 J	0.000750 J	0.00219	0.005310

Table 2 - Groundwater Analytical Data - Historical

CS Caylor
Lea County, NM
SRS#: 2002-10250

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-20	NMOCD - Groundwater	0.01	0.75	0.75	0.62	
	07/12/2016	0.0364	0.00851	0.000840 J	0.04491	
	09/13/2016	0.382	0.0478	0.00590	0.00630	
	11/29/2016	0.244	0.0262	0.00378	0.00620	
	03/14/2017	0.306	0.0177	<0.000657	<0.000630	0.324
	06/07/2017	0.0449	0.00532	<0.000657	<0.000642	0.0502
	09/19/2017	1.89 D	0.221	0.0252	0.0223	2.16
	12/19/2017	0.275	0.00877	0.0163	0.00765	0.308
	03/27/2018	0.0896	0.00241	0.00594	0.00103 J	0.0990
	06/13/2018	0.496	<0.00256	0.00650	<0.00135	0.503
	09/28/2018	0.0455	<0.000367	0.00333	0.00277	0.0516
	12/12/2018	0.155	0.0032	0.0086	0.002	0.169
	03/23/2019	0.0614	<0.0005	0.00444	0.00106	0.0669
	06/18/2019	0.0968	0.00160	0.000900	<0.00027	0.0993
	09/19/2019	0.353	0.00435	0.0283	<0.002	0.386
	12/10/2019	0.102	0.000650	<0.000657	<0.000630	0.103
	03/12/2020	0.0153	<0.000512	<0.000616	<0.000270	0.0153
	06/08/2020	0.0382	0.00121 J	<0.000657	<0.000630	0.0394
	09/23/2020	0.0627	0.00198 J	0.00228	<0.000630	0.0670
	12/10/2020	0.0556	0.0139	0.00318	0.00428	0.07696
MW-21	07/12/2016	<0.340	<0.350	<0.260	<0.480	
	09/13/2016	0.136	0.00890	0.0134	0.0168	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	0.00649	<0.00100	<0.000657	<0.000642	0.00649
	09/19/2017	0.00156 J	<0.00100	<0.000657	<0.000630	0.00156 J
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00138 J	<0.000367	<0.000657	<0.000630	0.00138 J
	06/13/2018	0.0233	<0.000512	0.00400	0.000800 J	0.0281
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	03/22/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	06/17/2019	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/11/2019	0.000890	0.000500	<0.000657	<0.000630	0.00139
	03/13/2020	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	06/09/2020	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	09/24/2020	0.00347	<0.000367	<0.000657	<0.000630	0.00347
	12/10/2020	0.00112 J	0.000710 J	<0.002000	<0.00200	0.001830 J

Notes:

Lab Flags noted next to values. See lab report for description.

Analyte concentration exceeds the standard for:

NMOCD - Groundwater

Table 3 - Groundwater Analytical Data - Historical - PAH Supplement
CS Caylor
Lea County, NEW MEXICO
SRS#: 2002-10250

Sample ID	Date Sampled	Acenaphthene (mg/l)	Acenaphthylene (mg/l)	Anthracene (mg/l)	Benzo(a)anthracene (mg/l)	Benzo(a)pyrene (mg/l)	Benzo(b)fluoranthene (mg/l)	Benzo(g,h,i)perylene (mg/l)	Benzo(k)fluoranthene (mg/l)	Chrysene (mg/l)	Dibenz(a,h)anthracene (mg/l)	Dibenzofuran (mg/l)	Fluoranthene (mg/l)	Fluorene (mg/l)	Indeno (1,2,3-c,d) pyrene (mg/l)	Naphthalene (mg/l)	Phenanthrene (mg/l)	Pyrene (mg/l)
NMOCD - Groundwater						0.007										0.03		
MW-6A	11/29/2016	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250
MW-9A	11/29/2016	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	0.000104	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250
	03/27/2018	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	0.000475	0.000168 J	<0.000108
	03/23/2019	<0.0000041	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	<0.0000053	<0.0000090	<0.0000055	<0.0000049	<0.0000045	<0.0000055	<0.0000092
	03/12/2020	<0.000107	<0.0000903	<0.0000929	<0.000144	<0.0000612	<0.0000762	<0.000121	<0.000125	<0.000167	<0.0000815	-	<0.000169	<0.000108	<0.0000979	<0.000104	<0.0000912	<0.000140
MW-12A	03/22/2016	<0.0000332	<0.0000581	<0.0000321	<0.0000721	<0.0000418	<0.0000710	<0.0000519	<0.0000561	<0.0000811	<0.0000562	0.000492	<0.0000638	<0.0000788	<0.0000537	0.00165	0.000335	<0.0000415
	11/29/2016	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	0.00233	<0.0000250	0.000921	<0.0000250	0.021 D	0.00107	<0.0000250
MW-15A	07/12/2016	<0.0000350	<0.0000612	<0.0000338	<0.0000759	<0.0000440	<0.0000748	<0.0000546	<0.0000591	<0.0000854	<0.0000592	<0.0000639	<0.0000672	<0.0000830	<0.0000565	<0.0000691	<0.0000543	<0.0000437
	03/27/2018	<0.000109	<0.000109	<0.000109	0.000229	0.000175 J	0.000213	0.000195	0.000146 J	0.000214	0.000143 J	<0.000109	0.000191	<0.000109	0.000155 J	<0.000109	<0.000109	0.000202
	03/23/2019	<0.0000042	<0.0000075	<0.0000077	<0.0000065	<0.0000097	<0.0000093	<0.0000081	<0.0000079	<0.0000090	<0.0000050	<0.0000054	<0.0000091	<0.0000056	<0.0000050	0.0000873	<0.0000056	<0.0000094
	03/13/2020	<0.0000996	<0.0000839	<0.0000863	<0.000134	<0.0000569	<0.0000708	<0.000113	<0.000116	<0.000156	<0.0000757	-	<0.000157	<0.000100	<0.000091	<0.0000969	<0.0000848	<0.000130
MW-16A	07/12/2016	<0.0000332	<0.0000581	<0.0000321	<0.0000721	<0.0000418	<0.0000710	<0.0000519	<0.0000561	<0.0000811	<0.0000562	<0.0000607	<0.0000638	<0.0000788	<0.0000537	<0.0000656	<0.0000516	<0.0000415
	03/27/2018	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109
	03/23/2019	<0.0000041	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	<0.0000053	<0.0000090	<0.0000055	<0.0000049	0.000276	<0.0000055	<0.0000092
	03/13/2020	<0.0000986	<0.0000830	<0.0000854	<0.000133	<0.0000563	<0.0000701	<0.000112	<0.000115	<0.000154	<0.0000749	-	<0.000155	<0.0000993	<0.0000900	<0.0000959	<0.0000838	<0.000128
MW-17A	07/12/2016	<0.0000330	<0.0000578	<0.0000319	<0.0000717	<0.0000416	<0.0000706	<0.0000516	<0.0000558	<0.0000807	<0.0000559	<0.0000604	<0.0000635	<0.0000784	<0.0000534	<0.0000653	<0.0000513	<0.0000413
	03/27/2018	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107
	03/23/2019	<0.0000040	<0.0000072	<0.0000075	<0.0000063	<0.0000095	<0.0000090	<0.0000079	<0.0000077	<0.0000087	<0.0000049	<0.0000052	<0.0000089	<0.0000054	<0.0000049	0.0000284	<0.0000055	<0.0000091
MW-18A	03/22/2016	<0.0000332	<0.0000581	<0.0000321	<0.0000721	<0.0000418	<0.0000710	<0.0000519	<0.0000561	<0.0000811	<0.0000562	0.000200	<0.0000638	<0.0000788	<0.0000537	<0.0000656	<0.0000516	<0.0000415
	03/27/2018	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	0.000301	<0.000109
	03/23/2019	<0.0000041	<0.0000074	<0.0000077	<0.0000064	<0.0000096	<0.0000092	<0.0000080	<0.0000079	<0.0000089	<0.0000054	<0.0000054	<0.0000090	<0.0000055	<0.0000055	0.000308	0.0000268	<0.0000093
	03/13/2020	<0.000103	<0.0000869	<0.0000894	<0.000139	<0.0000589	<0.0000734	<0.000117	<0.000120	<0.000161	<0.0000785	-	<0.000162	<0.000104	<0.0000943	<0.0001000	<0.0000878	<0.000135
MW-20	07/12/2016	<0.000921	<0.000911	<0.000902	<0.000843	<0.00114	<0.00123	<0.00105	<0.000706	<0.000823	<0.00105	<0.000813	<0.000745	<0.000853	<0.00110	<0.000843	<0.000960	<0.000931
	03/27/2018	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108
	03/23/2019	<0.0000041	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	<0.0000053	<0.0000090	<0.0000055	<0.0000049	<0.0000045	<0.0000055	<0.0000092
MW-21	07/12/2016	<0.000931	<0.000921	<0.000911	<0.000851	<0.00115	<0.00125	0.00134 J	<0.000713	<0.000832	<0.00106	<0.000822	<0.000752	<0.000861	<0.00111	<0.000851	<0.000970	<0.000940

Notes:

Lab Flags noted next to values. See lab report for description.

Analyte concentration exceeds the standard for:

NMOCD - Groundwater

APPENDIX C

Laboratory Analytical Data Reports and Chain of Custody Documentation



Analytical Report 655898

for

Talon LPE-Artesia

Project Manager: David Adkins

CS Caylor

70037604904

03.24.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



03.24.2020

Project Manager: **David Adkins**

Talon LPE-Artesia

408 West Texas St.

Artesia, NM 88210

Reference: XENCO Report No(s): **655898**

CS Caylor

Project Address:

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 655898. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 655898 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 655898****Talon LPE-Artesia, Artesia, NM**

CS Caylor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW9A	W	03.12.2020 09:30		655898-001
MW20	W	03.12.2020 09:55		655898-002
MW8A	W	03.12.2020 10:30		655898-003
MW17A	W	03.12.2020 10:55		655898-004
MW16A	W	03.13.2020 09:30		655898-005
MW15A	W	03.13.2020 10:00		655898-006
MW6A	W	03.13.2020 10:50		655898-007
MW14A	W	03.13.2020 11:15		655898-008
MW13A	W	03.13.2020 12:10		655898-009
MW18A	W	03.13.2020 13:15		655898-010
MW11A	W	03.13.2020 13:40		655898-011
MW21	W	03.13.2020 14:15		655898-012
MW10A	W	03.13.2020 15:15		655898-013

**CASE NARRATIVE****Client Name: Talon LPE-Artesia****Project Name: CS Caylor**Project ID: 70037604904
Work Order Number(s): 655898Report Date: 03.24.2020
Date Received: 03.16.2020

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

V1.001 - Revision (client email) Corrected project name from CS Taylor to CS Caylor. JK 03/24/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120361 BTEX by EPA 8021

Lab Sample ID 655898-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). m_p-Xylenes , o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 655898-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013.

The Laboratory Control Sample for m_p-Xylenes , o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Surrogate a,a,a-Trifluorotoluene recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7699369-1-BKS,7699369-1-BSD,655898-001 S,655898-001 SD,655898-008,655898-007,655898-005,655898-002,655898-001,655898-009,655898-010,655898-011,655898-012,655898-013.

Surrogate 4-Bromofluorobenzene recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7699369-1-BKS,7699369-1-BSD,655898-001 S,655898-001 SD,655898-010,655898-009,655898-008,655898-007,655898-013,655898-004,655898-002,655898-001,655898-011,655898-012,655898-005.



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW9A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-001

Date Collected: 03.12.2020 09:30

Date Received: 03.16.2020 15:30

Analytical Method: PAHs by SW846 8270D SIM

Prep Method: SW3511

Analyst: VIC

% Moist:

Tech: VIC

Seq Number: 3120419

Date Prep: 03.19.2020 08:58

Subcontractor: SUB: T104704215-19-30

Prep seq: 7699223

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	<0.0000853	0.000195	0.0000853	mg/L	03.19.2020 12:51	U	1
2-Methylnaphthalene	91-57-6	<0.0000979	0.000195	0.0000979	mg/L	03.19.2020 12:51	U	1
Acenaphthene	83-32-9	<0.000107	0.000195	0.000107	mg/L	03.19.2020 12:51	U	1
Acenaphthylene	208-96-8	<0.0000903	0.000195	0.0000903	mg/L	03.19.2020 12:51	U	1
Anthracene	120-12-7	<0.0000929	0.000195	0.0000929	mg/L	03.19.2020 12:51	U	1
Benzo(a)anthracene	56-55-3	<0.000144	0.000195	0.000144	mg/L	03.19.2020 12:51	U	1
Benzo(a)pyrene	50-32-8	<0.0000612	0.000195	0.0000612	mg/L	03.19.2020 12:51	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000762	0.000195	0.0000762	mg/L	03.19.2020 12:51	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000121	0.000195	0.000121	mg/L	03.19.2020 12:51	U	1
Benzo(k)fluoranthene	207-08-9	<0.000125	0.000195	0.000125	mg/L	03.19.2020 12:51	U	1
Chrysene	218-01-9	<0.000167	0.000195	0.000167	mg/L	03.19.2020 12:51	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000815	0.000195	0.0000815	mg/L	03.19.2020 12:51	U	1
Fluoranthene	206-44-0	<0.000169	0.000195	0.000169	mg/L	03.19.2020 12:51	U	1
Fluorene	86-73-7	<0.000108	0.000195	0.000108	mg/L	03.19.2020 12:51	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.0000979	0.000195	0.0000979	mg/L	03.19.2020 12:51	U	1
Naphthalene	91-20-3	<0.000104	0.000390	0.000104	mg/L	03.19.2020 12:51	U	1
Phenanthrene	85-01-8	<0.0000912	0.000195	0.0000912	mg/L	03.19.2020 12:51	U	1
Pyrene	129-00-0	<0.000140	0.000195	0.000140	mg/L	03.19.2020 12:51	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	109	54 - 146	%		
Nitrobenzene-d5	105	46 - 151	%		
Terphenyl-D14	122	51 - 139	%		



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW9A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-001

Date Collected: 03.12.2020 09:30

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00180	0.00100	0.000480	mg/L	03.19.2020 00:58		1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 00:58	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 00:58	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 00:58	UX	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 00:58	UX	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 00:58	U	
Total BTEX		0.00180		0.000270	mg/L	03.19.2020 00:58		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	128	66 - 120	%		**
4-Bromofluorobenzene	132	67 - 120	%		**

Sample Id: **MW20**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-002

Date Collected: 03.12.2020 09:55

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.0153	0.00100	0.000480	mg/L	03.19.2020 02:38		1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 02:38	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 02:38	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 02:38	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 02:38	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 02:38	U	
Total BTEX		0.0153		0.000270	mg/L	03.19.2020 02:38		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	129	66 - 120	%		**
4-Bromofluorobenzene	130	67 - 120	%		**



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW8A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-003

Date Collected: 03.12.2020 10:30

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00550	0.00100	0.000480	mg/L	03.19.2020 03:03		1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 03:03	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 03:03	U	1
m_p-Xylenes	179601-23-1	0.000900	0.00200	0.000454	mg/L	03.19.2020 03:03	J	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 03:03	U	1
Xylenes, Total	1330-20-7	0.000900		0.000270	mg/L	03.19.2020 03:03	J	
Total BTEX		0.00640		0.000270	mg/L	03.19.2020 03:03		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	113	66 - 120	%		
4-Bromofluorobenzene	114	67 - 120	%		

Sample Id: **MW17A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-004

Date Collected: 03.12.2020 10:55

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 03:27	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 03:27	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 03:27	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 03:27	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 03:27	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 03:27	U	
Total BTEX		<0.000270		0.000270	mg/L	03.19.2020 03:27	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	119	66 - 120	%		
4-Bromofluorobenzene	121	67 - 120	%		**



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW16A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-005

Date Collected: 03.13.2020 09:30

Date Received: 03.16.2020 15:30

Analytical Method: PAHs by SW846 8270D SIM

Prep Method: SW3511

Analyst: VIC

% Moist:

Tech: VIC

Seq Number: 3120419

Date Prep: 03.19.2020 09:01

Subcontractor: SUB: T104704215-19-30

Prep seq: 7699223

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	<0.0000784	0.000179	0.0000784	mg/L	03.19.2020 13:09	U	1
2-Methylnaphthalene	91-57-6	<0.0000900	0.000179	0.0000900	mg/L	03.19.2020 13:09	U	1
Acenaphthene	83-32-9	<0.0000986	0.000179	0.0000986	mg/L	03.19.2020 13:09	U	1
Acenaphthylene	208-96-8	<0.0000830	0.000179	0.0000830	mg/L	03.19.2020 13:09	U	1
Anthracene	120-12-7	<0.0000854	0.000179	0.0000854	mg/L	03.19.2020 13:09	U	1
Benzo(a)anthracene	56-55-3	<0.000133	0.000179	0.000133	mg/L	03.19.2020 13:09	U	1
Benzo(a)pyrene	50-32-8	<0.0000563	0.000179	0.0000563	mg/L	03.19.2020 13:09	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000701	0.000179	0.0000701	mg/L	03.19.2020 13:09	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000112	0.000179	0.000112	mg/L	03.19.2020 13:09	U	1
Benzo(k)fluoranthene	207-08-9	<0.000115	0.000179	0.000115	mg/L	03.19.2020 13:09	U	1
Chrysene	218-01-9	<0.000154	0.000179	0.000154	mg/L	03.19.2020 13:09	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000749	0.000179	0.0000749	mg/L	03.19.2020 13:09	U	1
Fluoranthene	206-44-0	<0.000155	0.000179	0.000155	mg/L	03.19.2020 13:09	U	1
Fluorene	86-73-7	<0.0000993	0.000179	0.0000993	mg/L	03.19.2020 13:09	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.0000900	0.000179	0.0000900	mg/L	03.19.2020 13:09	U	1
Naphthalene	91-20-3	<0.0000959	0.000358	0.0000959	mg/L	03.19.2020 13:09	U	1
Phenanthrene	85-01-8	<0.0000838	0.000179	0.0000838	mg/L	03.19.2020 13:09	U	1
Pyrene	129-00-0	<0.000128	0.000179	0.000128	mg/L	03.19.2020 13:09	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	113	54 - 146	%		
Nitrobenzene-d5	107	46 - 151	%		
Terphenyl-D14	112	51 - 139	%		



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW16A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-005

Date Collected: 03.13.2020 09:30

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 03:52	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 03:52	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 03:52	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 03:52	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 03:52	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 03:52	U	
Total BTEX		<0.000270		0.000270	mg/L	03.19.2020 03:52	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	126	66 - 120	%		**
4-Bromofluorobenzene	130	67 - 120	%		**



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW15A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-006

Date Collected: 03.13.2020 10:00

Date Received: 03.16.2020 15:30

Analytical Method: PAHs by SW846 8270D SIM

Prep Method: SW3511

Analyst: VIC

% Moist:

Tech: VIC

Seq Number: 3120419

Date Prep: 03.19.2020 09:04

Subcontractor: SUB: T104704215-19-30

Prep seq: 7699223

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	<0.0000793	0.000181	0.0000793	mg/L	03.19.2020 13:26	U	1
2-Methylnaphthalene	91-57-6	<0.0000910	0.000181	0.0000910	mg/L	03.19.2020 13:26	U	1
Acenaphthene	83-32-9	<0.0000996	0.000181	0.0000996	mg/L	03.19.2020 13:26	U	1
Acenaphthylene	208-96-8	<0.0000839	0.000181	0.0000839	mg/L	03.19.2020 13:26	U	1
Anthracene	120-12-7	<0.0000863	0.000181	0.0000863	mg/L	03.19.2020 13:26	U	1
Benzo(a)anthracene	56-55-3	<0.000134	0.000181	0.000134	mg/L	03.19.2020 13:26	U	1
Benzo(a)pyrene	50-32-8	<0.0000569	0.000181	0.0000569	mg/L	03.19.2020 13:26	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000708	0.000181	0.0000708	mg/L	03.19.2020 13:26	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000113	0.000181	0.000113	mg/L	03.19.2020 13:26	U	1
Benzo(k)fluoranthene	207-08-9	<0.000116	0.000181	0.000116	mg/L	03.19.2020 13:26	U	1
Chrysene	218-01-9	<0.000156	0.000181	0.000156	mg/L	03.19.2020 13:26	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000757	0.000181	0.0000757	mg/L	03.19.2020 13:26	U	1
Fluoranthene	206-44-0	<0.000157	0.000181	0.000157	mg/L	03.19.2020 13:26	U	1
Fluorene	86-73-7	<0.000100	0.000181	0.000100	mg/L	03.19.2020 13:26	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.0000910	0.000181	0.0000910	mg/L	03.19.2020 13:26	U	1
Naphthalene	91-20-3	<0.0000969	0.000362	0.0000969	mg/L	03.19.2020 13:26	U	1
Phenanthrene	85-01-8	<0.0000848	0.000181	0.0000848	mg/L	03.19.2020 13:26	U	1
Pyrene	129-00-0	<0.000130	0.000181	0.000130	mg/L	03.19.2020 13:26	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	108	54 - 146	%		
Nitrobenzene-d5	104	46 - 151	%		
Terphenyl-D14	101	51 - 139	%		



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW15A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-006

Date Collected: 03.13.2020 10:00

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 04:17	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 04:17	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 04:17	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 04:17	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 04:17	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 04:17	U	
Total BTEX		<0.000270		0.000270	mg/L	03.19.2020 04:17	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	113	66 - 120	%		
4-Bromofluorobenzene	115	67 - 120	%		

Sample Id: **MW6A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-007

Date Collected: 03.13.2020 10:50

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 04:42	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 04:42	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 04:42	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 04:42	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 04:42	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 04:42	U	
Total BTEX		<0.000270		0.000270	mg/L	03.19.2020 04:42	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	127	66 - 120	%		**
4-Bromofluorobenzene	131	67 - 120	%		**



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW14A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-008

Date Collected: 03.13.2020 11:15

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 05:07	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 05:07	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 05:07	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 05:07	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 05:07	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 05:07	U	
Total BTEX		<0.000270		0.000270	mg/L	03.19.2020 05:07	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	124	66 - 120	%		**
4-Bromofluorobenzene	126	67 - 120	%		**

Sample Id: **MW13A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-009

Date Collected: 03.13.2020 12:10

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 05:31	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 05:31	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 05:31	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 05:31	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 05:31	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 05:31	U	
Total BTEX		<0.000270		0.000270	mg/L	03.19.2020 05:31	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	126	66 - 120	%		**
4-Bromofluorobenzene	127	67 - 120	%		**



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW18A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-010

Date Collected: 03.13.2020 13:15

Date Received: 03.16.2020 15:30

Analytical Method: PAHs by SW846 8270D SIM

Prep Method: SW3511

Analyst: VIC

% Moist:

Tech: VIC

Seq Number: 3120419

Date Prep: 03.19.2020 09:07

Subcontractor: SUB: T104704215-19-30

Prep seq: 7699223

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	<0.0000821	0.000188	0.0000821	mg/L	03.19.2020 13:43	U	1
2-Methylnaphthalene	91-57-6	<0.0000942	0.000188	0.0000942	mg/L	03.19.2020 13:43	U	1
Acenaphthene	83-32-9	<0.000103	0.000188	0.000103	mg/L	03.19.2020 13:43	U	1
Acenaphthylene	208-96-8	<0.0000869	0.000188	0.0000869	mg/L	03.19.2020 13:43	U	1
Anthracene	120-12-7	<0.0000894	0.000188	0.0000894	mg/L	03.19.2020 13:43	U	1
Benzo(a)anthracene	56-55-3	<0.000139	0.000188	0.000139	mg/L	03.19.2020 13:43	U	1
Benzo(a)pyrene	50-32-8	<0.0000589	0.000188	0.0000589	mg/L	03.19.2020 13:43	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000734	0.000188	0.0000734	mg/L	03.19.2020 13:43	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000117	0.000188	0.000117	mg/L	03.19.2020 13:43	U	1
Benzo(k)fluoranthene	207-08-9	<0.000120	0.000188	0.000120	mg/L	03.19.2020 13:43	U	1
Chrysene	218-01-9	<0.000161	0.000188	0.000161	mg/L	03.19.2020 13:43	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000785	0.000188	0.0000785	mg/L	03.19.2020 13:43	U	1
Fluoranthene	206-44-0	<0.000162	0.000188	0.000162	mg/L	03.19.2020 13:43	U	1
Fluorene	86-73-7	<0.000104	0.000188	0.000104	mg/L	03.19.2020 13:43	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.0000943	0.000188	0.0000943	mg/L	03.19.2020 13:43	U	1
Naphthalene	91-20-3	<0.000100	0.000375	0.000100	mg/L	03.19.2020 13:43	U	1
Phenanthrene	85-01-8	<0.0000878	0.000188	0.0000878	mg/L	03.19.2020 13:43	U	1
Pyrene	129-00-0	<0.000135	0.000188	0.000135	mg/L	03.19.2020 13:43	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	108	54 - 146	%		
Nitrobenzene-d5	103	46 - 151	%		
Terphenyl-D14	97	51 - 139	%		



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW18A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-010

Date Collected: 03.13.2020 13:15

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 05:56	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 05:56	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 05:56	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 05:56	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 05:56	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 05:56	U	
Total BTEX		<0.000270		0.000270	mg/L	03.19.2020 05:56	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	125	66 - 120	%		**
4-Bromofluorobenzene	128	67 - 120	%		**

Sample Id: **MW11A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-011

Date Collected: 03.13.2020 13:40

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 07:36	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 07:36	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 07:36	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 07:36	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 07:36	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 07:36	U	
Total BTEX		<0.000270		0.000270	mg/L	03.19.2020 07:36	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	126	66 - 120	%		**
4-Bromofluorobenzene	130	67 - 120	%		**



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW21**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-012

Date Collected: 03.13.2020 14:15

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 08:00	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 08:00	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 08:00	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 08:00	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 08:00	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 08:00	U	
Total BTEX		<0.000270		0.000270	mg/L	03.19.2020 08:00	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	129	66 - 120	%		**
4-Bromofluorobenzene	132	67 - 120	%		**

Sample Id: **MW10A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 655898-013

Date Collected: 03.13.2020 15:15

Date Received: 03.16.2020 15:30

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 08:25	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 08:25	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 08:25	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 08:25	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 08:25	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	03.19.2020 08:25	U	
Total BTEX		<0.000270		0.000270	mg/L	03.19.2020 08:25	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	126	66 - 120	%		**
4-Bromofluorobenzene	129	67 - 120	%		**



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: 7699223-1-BLK

Matrix: Water

Sample Depth:

Lab Sample Id: 7699223-1-BLK

Date Collected:

Date Received:

Analytical Method: PAHs by SW846 8270D SIM

Prep Method: SW3511

Analyst: VIC

% Moist:

Tech: VIC

Seq Number: 3120419

Date Prep: 03.19.2020 08:40

Subcontractor: SUB: T104704215-19-30

Prep seq: 7699223

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	<0.0000795	0.000182	0.0000795	mg/L	03.19.2020 11:08	U	1
2-Methylnaphthalene	91-57-6	<0.0000913	0.000182	0.0000913	mg/L	03.19.2020 11:08	U	1
Acenaphthene	83-32-9	<0.000100	0.000182	0.0001000	mg/L	03.19.2020 11:08	U	1
Acenaphthylene	208-96-8	<0.0000842	0.000182	0.0000842	mg/L	03.19.2020 11:08	U	1
Anthracene	120-12-7	<0.0000866	0.000182	0.0000866	mg/L	03.19.2020 11:08	U	1
Benzo(a)anthracene	56-55-3	<0.000134	0.000182	0.000134	mg/L	03.19.2020 11:08	U	1
Benzo(a)pyrene	50-32-8	<0.0000571	0.000182	0.0000571	mg/L	03.19.2020 11:08	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000711	0.000182	0.0000711	mg/L	03.19.2020 11:08	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000113	0.000182	0.000113	mg/L	03.19.2020 11:08	U	1
Benzo(k)fluoranthene	207-08-9	<0.000116	0.000182	0.000116	mg/L	03.19.2020 11:08	U	1
Chrysene	218-01-9	<0.000156	0.000182	0.000156	mg/L	03.19.2020 11:08	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000760	0.000182	0.0000760	mg/L	03.19.2020 11:08	U	1
Fluoranthene	206-44-0	<0.000157	0.000182	0.000157	mg/L	03.19.2020 11:08	U	1
Fluorene	86-73-7	<0.000101	0.000182	0.000101	mg/L	03.19.2020 11:08	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.0000913	0.000182	0.0000913	mg/L	03.19.2020 11:08	U	1
Naphthalene	91-20-3	<0.0000972	0.000364	0.0000972	mg/L	03.19.2020 11:08	U	1
Phenanthrene	85-01-8	<0.0000850	0.000182	0.0000850	mg/L	03.19.2020 11:08	U	1
Pyrene	129-00-0	<0.000130	0.000182	0.000130	mg/L	03.19.2020 11:08	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	109	54 - 146	%		
Nitrobenzene-d5	102	46 - 151	%		
Terphenyl-D14	128	51 - 139	%		



Certificate of Analytical Results

655898

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **7699369-1-BLK**

Matrix: Water

Sample Depth:

Lab Sample Id: 7699369-1-BLK

Date Collected:

Date Received:

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3120361

Date Prep: 03.18.2020 15:00

Subcontractor: SUB: T104704219-19-21

Prep seq: 7699369

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	03.19.2020 00:33	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	03.19.2020 00:33	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	03.19.2020 00:33	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	03.19.2020 00:33	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	03.19.2020 00:33	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	117	66 - 120	%		
4-Bromofluorobenzene	119	67 - 120	%		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Form 2 - Surrogate Recoveries

Project Name: CS Caylor

Work Orders : 655898

Project ID: 70037604904

Lab Batch #: 3120361

Sample: 7699369-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 03.18.2020 22:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
a,a,a-Trifluorotoluene	0.127	0.100	127	66-120	**
4-Bromofluorobenzene	0.127	0.100	127	67-120	**

Lab Batch #: 3120361

Sample: 7699369-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 03.18.2020 23:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
a,a,a-Trifluorotoluene	0.133	0.100	133	66-120	**
4-Bromofluorobenzene	0.130	0.100	130	67-120	**

Lab Batch #: 3120361

Sample: 7699369-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 03.19.2020 00:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
a,a,a-Trifluorotoluene	0.117	0.100	117	66-120	
4-Bromofluorobenzene	0.119	0.100	119	67-120	

Lab Batch #: 3120361

Sample: 655898-001 S / MS

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 03.19.2020 01:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
a,a,a-Trifluorotoluene	0.126	0.100	126	66-120	**
4-Bromofluorobenzene	0.124	0.100	124	67-120	**

Lab Batch #: 3120361

Sample: 655898-001 SD / MSD

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 03.19.2020 01:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
a,a,a-Trifluorotoluene	0.127	0.100	127	66-120	**
4-Bromofluorobenzene	0.129	0.100	129	67-120	**

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: CS Caylor

Work Orders : 655898

Project ID: 70037604904

Lab Batch #: 3120419

Sample: 7699223-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 03.19.2020 10:34

SURROGATE RECOVERY STUDY

PAHs by SW846 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.604	0.500	121	54-146	
Nitrobenzene-d5	0.595	0.500	119	46-151	
Terphenyl-D14	0.655	0.500	131	51-139	

Lab Batch #: 3120419

Sample: 7699223-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 03.19.2020 10:51

SURROGATE RECOVERY STUDY

PAHs by SW846 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.568	0.500	114	54-146	
Nitrobenzene-d5	0.558	0.500	112	46-151	
Terphenyl-D14	0.619	0.500	124	51-139	

Lab Batch #: 3120419

Sample: 7699223-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 03.19.2020 11:08

SURROGATE RECOVERY STUDY

PAHs by SW846 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.545	0.500	109	54-146	
Nitrobenzene-d5	0.509	0.500	102	46-151	
Terphenyl-D14	0.638	0.500	128	51-139	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries

Project Name: CS Caylor

Work Order #: 655898

Project ID: 70037604904

Analyst: MIT

Date Prepared: 03.18.2020

Date Analyzed: 03.18.2020

Lab Batch ID: 3120361

Sample: 7699369-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.000480	0.100	0.103	103	0.100	0.106	106	3	74-120	20	
Toluene	<0.000512	0.100	0.109	109	0.100	0.113	113	4	74-120	20	
Ethylbenzene	<0.000616	0.100	0.113	113	0.100	0.114	114	1	74-120	20	
m_p-Xylenes	<0.000454	0.200	0.222	111	0.200	0.232	116	4	73-120	25	
o-Xylene	<0.000270	0.100	0.108	108	0.100	0.114	114	5	73-120	25	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries

Project Name: CS Caylor

Work Order #: 655898

Project ID: 70037604904

Analyst: VIC

Date Prepared: 03.19.2020

Date Analyzed: 03.19.2020

Lab Batch ID: 3120419

Sample: 7699223-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

PAHs by SW846 8270D SIM	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
1-Methylnaphthalene	<0.0000795	0.0182	0.0213	117	0.0182	0.0204	112	4	70-126	30	
2-Methylnaphthalene	<0.0000913	0.0182	0.0221	121	0.0182	0.0211	116	5	74-121	30	
Acenaphthene	<0.000100	0.0182	0.0214	118	0.0182	0.0205	113	4	75-127	30	
Acenaphthylene	<0.0000842	0.0182	0.0209	115	0.0182	0.0198	109	5	78-133	30	
Anthracene	<0.0000866	0.0182	0.0208	114	0.0182	0.0198	109	5	73-145	30	
Benzo(a)anthracene	<0.000134	0.0182	0.0203	112	0.0182	0.0195	107	4	77-131	30	
Benzo(a)pyrene	<0.0000571	0.0182	0.0197	108	0.0182	0.0190	104	4	56-163	30	
Benzo(b)fluoranthene	<0.0000711	0.0182	0.0188	103	0.0182	0.0180	99	4	74-138	30	
Benzo(g,h,i)perylene	<0.000113	0.0182	0.0162	89	0.0182	0.0159	87	2	77-127	30	
Benzo(k)fluoranthene	<0.000116	0.0182	0.0188	103	0.0182	0.0189	104	1	67-142	30	
Chrysene	<0.000156	0.0182	0.0213	117	0.0182	0.0208	114	2	66-126	30	
Dibenz(a,h)anthracene	<0.0000760	0.0182	0.0163	90	0.0182	0.0161	88	1	71-142	30	
Fluoranthene	<0.000157	0.0182	0.0208	114	0.0182	0.0199	109	4	78-138	30	
Fluorene	<0.000101	0.0182	0.0221	121	0.0182	0.0209	115	6	79-128	30	
Indeno(1,2,3-c,d)Pyrene	<0.0000913	0.0182	0.0172	95	0.0182	0.0167	92	3	76-140	30	
Naphthalene	<0.0000972	0.0182	0.0212	116	0.0182	0.0202	111	5	72-122	30	
Phenanthrene	<0.0000850	0.0182	0.0213	117	0.0182	0.0202	111	5	76-129	30	
Pyrene	<0.000130	0.0182	0.0240	132	0.0182	0.0229	126	5	74-138	30	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: CS Caylor

Work Order #: 655898

Project ID: 70037604904

Lab Batch ID: 3120361

QC- Sample ID: 655898-001 S

Batch #: 1 Matrix: Ground Water

Date Analyzed: 03.19.2020

Date Prepared: 03.18.2020

Analyst: MIT

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.00180	0.100	0.0242	22	0.100	0.0256	24	6	15-147	25	
Toluene	<0.000512	0.100	0.0207	21	0.100	0.0240	24	15	11-147	25	
Ethylbenzene	<0.000616	0.100	0.0204	20	0.100	0.0239	24	16	10-149	25	
m_p-Xylenes	<0.000454	0.200	0.0410	21	0.200	0.0482	24	16	62-124	25	X
o-Xylene	<0.000270	0.100	0.0201	20	0.100	0.0233	23	15	62-124	25	X

Matrix Spike Percent Recovery $[D] = 100 * (C - A) / B$
 Relative Percent Difference $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Chain of Custody

Work Order No.:

1259898

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 281-1111

www.xenico.com

Page 1 of 2

Project Manager:	David Adkins	Bill to: (if different)		PLANS ALL AMERICAN
Company Name:	Talon	Company Name:		PEPELINE
Address:	408 W. Texas Ave.	Address:		ATTN: CAMILLE BAYART
City, State ZIP:	Artesia, NM 88210	City, State ZIP:		SRS # 2002-10250
Phone:	575-616-4022 or 575-746-8905	Email:	dackins@talonpe.com	

Work Order Comments	
Program: UST/PST ☐ PRR ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other:	

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	BTEX	PAH	Sample Comments
MW 9A	GW	3-12-20	9:30 AM	NA	5	X	X	EMAIL AND TICALS TO:
MW 20	↑	3-12-20	9:55 AM	↑	3	X		
MW 8A		3-12-20	10:30 AM		3	X		
MW 17A		3-12-20	10:55 AM		3	X		CHARLIE BAYART
MW 16A		3-13-20	9:30 AM		5	X	X	
MW 15A		3-13-20	10 AM		5	X	X	
MW 6A		3-13-20	10:50 AM		3	X		
MW 14A		3-13-20	11:15 AM		3	X		
MW 13A	↓	3-13-20	12:10 PM	↓	3	X		
MW 18A	GW	3-13-20	1:15 PM	NA	5	X	X	

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO2	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s)	and Metal(s)	to be analyzed	TCLP / SPLP	6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U												
Notice: of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.																																	
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time																												
1 <i>[Signature]</i>	<i>[Signature]</i>	3/16/2015:30 ²																															
3					4																												
5					6																												



655898

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Work Order Comments	
Program: UST/PT ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐	
State of Project:	
Reporting: Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other: _____	

SAMPLE RECEIPT				
Temp Blank:	Yes	No	Wet Ice:	Yes ☒ No
Temperature (°C):				ACI Thermometer ID
Received intact:	Yes	No ☒		
Cooler Custody Seals:	Yes	No ☒	Correction Factor:	
Sample Custody Seals:	Yes	No ☒	Total Containers:	

Number of Containers

TAT starts the day received by the lab, if received by 4:30pm

[illegible]

TCLP / SPLP 6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	H	O
	10317	2403.1	17470	17471	17472	17473	17474	17475	17476	17477	17478	17479	17480	17481	17482	17483	17484

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time

1					
2					
3					
4					
5					

Revised Date 05/14/18 Rev. 2018.

Inter-Office Shipment

IOS Number : **60419**

Date/Time: 03.17.2020

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority: Fedex

Address: 1089 N Canal Street

Lab# To: **Lubbock**

Air Bill No.: 770043628497

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
655898-001	W	MW9A	03.12.2020 09:30	SW8021B	BTEX by EPA 8021	03.20.2020	03.26.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-002	W	MW20	03.12.2020 09:55	SW8021B	BTEX by EPA 8021	03.20.2020	03.26.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-003	W	MW8A	03.12.2020 10:30	SW8021B	BTEX by EPA 8021	03.20.2020	03.26.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-004	W	MW17A	03.12.2020 10:55	SW8021B	BTEX by EPA 8021	03.20.2020	03.26.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-005	W	MW16A	03.13.2020 09:30	SW8021B	BTEX by EPA 8021	03.20.2020	03.27.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-006	W	MW15A	03.13.2020 10:00	SW8021B	BTEX by EPA 8021	03.20.2020	03.27.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-007	W	MW6A	03.13.2020 10:50	SW8021B	BTEX by EPA 8021	03.20.2020	03.27.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-008	W	MW14A	03.13.2020 11:15	SW8021B	BTEX by EPA 8021	03.20.2020	03.27.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-009	W	MW13A	03.13.2020 12:10	SW8021B	BTEX by EPA 8021	03.20.2020	03.27.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-010	W	MW18A	03.13.2020 13:15	SW8021B	BTEX by EPA 8021	03.20.2020	03.27.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-011	W	MW11A	03.13.2020 13:40	SW8021B	BTEX by EPA 8021	03.20.2020	03.27.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-012	W	MW21	03.13.2020 14:15	SW8021B	BTEX by EPA 8021	03.20.2020	03.27.2020	JKR	BR4FBZ BZ BZME EBZ	
655898-013	W	MW10A	03.13.2020 15:15	SW8021B	BTEX by EPA 8021	03.20.2020	03.27.2020	JKR	BR4FBZ BZ BZME EBZ	

Inter Office Shipment or Sample Comments:

Relinquished By:



Elizabeth McClellan

Date Relinquished: 03.17.2020

Received By:



Brenda Ward

Date Received: 03.18.2020

Cooler Temperature: 1.6

Inter-Office Shipment

IOS Number : **60420**

Date/Time: 03.17.2020

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Houston**

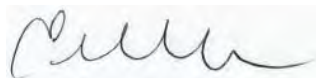
Air Bill No.: 770043612226

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
655898-001	W	MW9A	03.12.2020 09:30	SW8270D_SIM_PAH	PAHs by SW846 8270D SIM	03.20.2020	03.19.2020 09:30	JKR	ACNP ACNPY ANTH Bz	
655898-005	W	MW16A	03.13.2020 09:30	SW8270D_SIM_PAH	PAHs by SW846 8270D SIM	03.20.2020	03.20.2020 09:30	JKR	ACNP ACNPY ANTH Bz	
655898-006	W	MW15A	03.13.2020 10:00	SW8270D_SIM_PAH	PAHs by SW846 8270D SIM	03.20.2020	03.20.2020 10:00	JKR	ACNP ACNPY ANTH Bz	
655898-010	W	MW18A	03.13.2020 13:15	SW8270D_SIM_PAH	PAHs by SW846 8270D SIM	03.20.2020	03.20.2020 13:15	JKR	ACNP ACNPY ANTH Bz	

Inter Office Shipment or Sample Comments:

Relinquished By:



Elizabeth McClellan

Date Relinquished: 03.17.2020

Received By:



Monica Benavides

Date Received: 03.18.2020

Cooler Temperature: 4.4



XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 60419

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-4

Sent By: Elizabeth McClellan

Date Sent: 03.17.2020 12.53 PM

Received By: Brenda Ward

Date Received: 03.18.2020 09.45 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

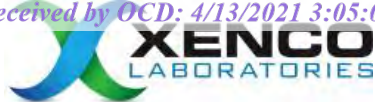
Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Brenda Ward

Date: 03.18.2020



XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 60420

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Elizabeth McClellan

Date Sent: 03.17.2020 12.53 PM

Received By: Monica Benavides

Date Received: 03.18.2020 09.00 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	4.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Monica Benavides

Date: 03.18.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 03.16.2020 03.30.00 PM

Work Order #: 655898

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes SW8270 Subbed to Stafford, BTEX to Lubbock.
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 03.17.2020

Checklist reviewed by:



Jessica Kramer

Date: 03.19.2020



Analytical Report 663934

for

Talon LPE-Artesia

Project Manager: David Adkins

Plains CS Caylor

70037604904

06.16.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



06.16.2020

Project Manager: **David Adkins**

Talon LPE-Artesia

408 West Texas St.

Artesia, NM 88210

Reference: XENCO Report No(s): **663934**

Plains CS Caylor

Project Address: Lovington, New Mexico

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 663934. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 663934 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 663934****Talon LPE-Artesia, Artesia, NM**

Plains CS Caylor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW 9A	W	06.08.2020 13:30		663934-001
MW 20	W	06.08.2020 13:45		663934-002
MW 8A	W	06.08.2020 15:15		663934-003
MW 17A	W	06.08.2020 15:45		663934-004
MW 16A	W	06.08.2020 16:00		663934-005
MW 10A	W	06.09.2020 09:35		663934-006
MW 21	W	06.09.2020 10:15		663934-007
MW 11A	W	06.09.2020 10:40		663934-008
MW 18A	W	06.09.2020 11:20		663934-009
MW 15A	W	06.09.2020 12:45		663934-010
MW 6A	W	06.09.2020 13:10		663934-011
MW 14A	W	06.09.2020 13:30		663934-012
MW 13A	W	06.09.2020 13:50		663934-013



CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Plains CS Caylor

Project ID: 70037604904
Work Order Number(s): 663934

Report Date: 06.16.2020
Date Received: 06.09.2020

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results

663934

Talon LPE-Artesia, Artesia, NM
Plains CS Caylor

Sample Id: **MW 9A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-001

Date Collected: 06.08.2020 13:30

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.000890	0.00200	0.000408	mg/L	06.15.2020 16:39	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.15.2020 16:39	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 16:39	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 16:39	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 16:39	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.15.2020 16:39	U	
Total BTEX		0.000890		0.000367	mg/L	06.15.2020 16:39	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	97	70 - 130	%		

Sample Id: **MW 20**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-002

Date Collected: 06.08.2020 13:45

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.0382	0.00200	0.000408	mg/L	06.15.2020 17:00		1
Toluene	108-88-3	0.00121	0.00200	0.000367	mg/L	06.15.2020 17:00	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 17:00	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 17:00	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 17:00	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.15.2020 17:00	U	
Total BTEX		0.0394		0.000367	mg/L	06.15.2020 17:00		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	104	70 - 130	%		



Certificate of Analytical Results

663934

Talon LPE-Artesia, Artesia, NM
Plains CS Caylor

Sample Id: **MW 8A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-003

Date Collected: 06.08.2020 15:15

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.0252	0.00200	0.000408	mg/L	06.15.2020 17:20		1
Toluene	108-88-3	0.00782	0.00200	0.000367	mg/L	06.15.2020 17:20		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 17:20	U	1
m_p-Xylenes	179601-23-1	0.00362	0.00400	0.000630	mg/L	06.15.2020 17:20	J	1
o-Xylene	95-47-6	0.00188	0.00200	0.000642	mg/L	06.15.2020 17:20	J	1
Xylenes, Total	1330-20-7	0.00550		0.000630	mg/L	06.15.2020 17:20		
Total BTEX		0.0385		0.000367	mg/L	06.15.2020 17:20		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	106	70 - 130	%		

Sample Id: **MW 17A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-004

Date Collected: 06.08.2020 15:45

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00751	0.00200	0.000408	mg/L	06.15.2020 17:41		1
Toluene	108-88-3	0.00342	0.00200	0.000367	mg/L	06.15.2020 17:41		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 17:41	U	1
m_p-Xylenes	179601-23-1	0.00181	0.00400	0.000630	mg/L	06.15.2020 17:41	J	1
o-Xylene	95-47-6	0.00127	0.00200	0.000642	mg/L	06.15.2020 17:41	J	1
Xylenes, Total	1330-20-7	0.00308		0.000630	mg/L	06.15.2020 17:41		
Total BTEX		0.0140		0.000367	mg/L	06.15.2020 17:41		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		



Certificate of Analytical Results

663934

Talon LPE-Artesia, Artesia, NM
Plains CS Caylor

Sample Id: **MW 16A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-005

Date Collected: 06.08.2020 16:00

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.15.2020 18:01	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.15.2020 18:01	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 18:01	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 18:01	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 18:01	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.15.2020 18:01	U	
Total BTEX		<0.000367		0.000367	mg/L	06.15.2020 18:01	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

Sample Id: **MW 10A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-006

Date Collected: 06.09.2020 09:35

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.15.2020 18:22	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.15.2020 18:22	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 18:22	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 18:22	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 18:22	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.15.2020 18:22	U	
Total BTEX		<0.000367		0.000367	mg/L	06.15.2020 18:22	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	108	70 - 130	%		



Certificate of Analytical Results

663934

Talon LPE-Artesia, Artesia, NM
Plains CS Caylor

Sample Id: **MW 21**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-007

Date Collected: 06.09.2020 10:15

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.15.2020 21:36	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.15.2020 21:36	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 21:36	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 21:36	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 21:36	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.15.2020 21:36	U	
Total BTEX		<0.000367		0.000367	mg/L	06.15.2020 21:36	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

Sample Id: **MW 11A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-008

Date Collected: 06.09.2020 10:40

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.15.2020 21:57	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.15.2020 21:57	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 21:57	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 21:57	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 21:57	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.15.2020 21:57	U	
Total BTEX		<0.000367		0.000367	mg/L	06.15.2020 21:57	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		



Certificate of Analytical Results

663934

Talon LPE-Artesia, Artesia, NM
Plains CS Caylor

Sample Id: **MW 18A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-009

Date Collected: 06.09.2020 11:20

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.000760	0.00200	0.000408	mg/L	06.15.2020 22:37	J	1
Toluene	108-88-3	0.000980	0.00200	0.000367	mg/L	06.15.2020 22:37	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 22:37	U	1
m_p-Xylenes	179601-23-1	0.00118	0.00400	0.000630	mg/L	06.15.2020 22:37	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 22:37	U	1
Xylenes, Total	1330-20-7	0.00118		0.000630	mg/L	06.15.2020 22:37	J	
Total BTEX		0.00292		0.000367	mg/L	06.15.2020 22:37		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	93	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

Sample Id: **MW 15A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-010

Date Collected: 06.09.2020 12:45

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.15.2020 22:58	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.15.2020 22:58	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 22:58	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 22:58	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 22:58	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.15.2020 22:58	U	
Total BTEX		<0.000367		0.000367	mg/L	06.15.2020 22:58	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	108	70 - 130	%		



Certificate of Analytical Results

663934

Talon LPE-Artesia, Artesia, NM
Plains CS Caylor

Sample Id: **MW 6A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-011

Date Collected: 06.09.2020 13:10

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00169	0.00200	0.000408	mg/L	06.15.2020 23:18	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.15.2020 23:18	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 23:18	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 23:18	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 23:18	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.15.2020 23:18	U	
Total BTEX		0.00169		0.000367	mg/L	06.15.2020 23:18	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	110	70 - 130	%		

Sample Id: **MW 14A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-012

Date Collected: 06.09.2020 13:30

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.15.2020 23:38	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.15.2020 23:38	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 23:38	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 23:38	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 23:38	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.15.2020 23:38	U	
Total BTEX		<0.000367		0.000367	mg/L	06.15.2020 23:38	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		



Certificate of Analytical Results

663934

Talon LPE-Artesia, Artesia, NM
Plains CS Caylor

Sample Id: **MW 13A**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 663934-013

Date Collected: 06.09.2020 13:50

Date Received: 06.09.2020 15:45

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00225	0.00200	0.000408	mg/L	06.15.2020 23:59		1
Toluene	108-88-3	0.00216	0.00200	0.000367	mg/L	06.15.2020 23:59		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 23:59	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 23:59	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 23:59	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.15.2020 23:59	U	
Total BTEX		0.00441		0.000367	mg/L	06.15.2020 23:59		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	106	70 - 130	%		



Certificate of Analytical Results

663934

Talon LPE-Artesia, Artesia, NM
Plains CS Caylor

Sample Id: 7705513-1-BLK

Matrix: Water

Sample Depth:

Lab Sample Id: 7705513-1-BLK

Date Collected:

Date Received:

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: AMF

% Moist:

Tech: AMF

Seq Number: 3129065

Date Prep: 06.16.2020 08:30

Subcontractor: SUB: T104704400-19-19

Prep seq: 7705513

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.15.2020 15:34	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.15.2020 15:34	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.15.2020 15:34	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.15.2020 15:34	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.15.2020 15:34	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	93	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Form 2 - Surrogate Recoveries

Project Name: Plains CS Caylor

Work Orders : 663934

Project ID: 70037604904

Lab Batch #: 3129065

Sample: 7705513-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06.15.2020 13:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0288	0.0300	96	70-130	
4-Bromofluorobenzene	0.0292	0.0300	97	70-130	

Lab Batch #: 3129065

Sample: 7705513-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06.15.2020 13:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0298	0.0300	99	70-130	
4-Bromofluorobenzene	0.0300	0.0300	100	70-130	

Lab Batch #: 3129065

Sample: 663934-006 S / MS

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 06.15.2020 14:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0300	0.0300	100	70-130	
4-Bromofluorobenzene	0.0312	0.0300	104	70-130	

Lab Batch #: 3129065

Sample: 663934-006 SD / MSD

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 06.15.2020 14:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0309	0.0300	103	70-130	
4-Bromofluorobenzene	0.0335	0.0300	112	70-130	

Lab Batch #: 3129065

Sample: 7705513-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06.15.2020 15:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0300	0.0300	100	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries

Project Name: Plains CS Caylor

Work Order #: 663934

Project ID: 70037604904

Analyst: AMF

Date Prepared: 06.16.2020

Date Analyzed: 06.15.2020

Lab Batch ID: 3129065

Sample: 7705513-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.000408	0.100	0.0994	99	0.100	0.103	103	4	70-130	25	
Toluene	<0.000367	0.100	0.0945	95	0.100	0.0998	100	5	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0981	98	0.100	0.103	103	5	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.201	101	0.200	0.210	105	4	70-130	25	
o-Xylene	<0.000642	0.100	0.0977	98	0.100	0.102	102	4	70-130	25	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: Plains CS Caylor

Work Order #: 663934

Project ID: 70037604904

Lab Batch ID: 3129065

QC- Sample ID: 663934-006 S

Batch #: 1 Matrix: Ground Water

Date Analyzed: 06.15.2020

Date Prepared: 06.16.2020

Analyst: AMF

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.110	110	0.100	0.112	112	2	70-130	25	
Toluene	<0.000367	0.100	0.105	105	0.100	0.106	106	1	70-130	25	
Ethylbenzene	<0.000657	0.100	0.109	109	0.100	0.111	111	2	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.222	111	0.200	0.228	114	3	70-130	25	
o-Xylene	<0.000642	0.100	0.109	109	0.100	0.112	112	3	70-130	25	

Matrix Spike Percent Recovery $[D] = 100 * (C - A) / B$
 Relative Percent Difference $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Chain of Custody

Work Order No: 1663934

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 1 of 2

Project Manager:	DAVID ADKINS	Bill to: (if different)	Plains All American
Company Name:	TALON LPE	Company Name:	PIPELINE
Address:	4108 TEXAS STREET	Address:	ATN CAMILLE BRYANT
City, State ZIP:	ARRESTA NM 88210	City, State ZIP:	SRS # 2002 10250
Phone:	575 441-4835	Email:	ADKINS@talonlpe.com

Program: ☐ PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	Plains CS Gaylor	Turn Around	
Project Number:	700326 049 04	Routine	☒
Project Location:	Louisiana New Metcure	Rush:	
Sampler's Name:	B. H. KISS	Due Date:	
PO #: 583 # 2002-10250	Quote #:		

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	1.4	Thermometer ID	T-111-007				
Received Intact:	☒ Yes ☐ No	Correction Factor:	-0.2				
Cooler Custody Seals:	Yes ☐ No ☐ N/A	Total Containers:	39 34244				
Sample Custody Seals:	Yes ☐ No ☐ N/A						

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST										Preservative Codes	Sample Comments
MU 9A		SW	6-5-2020	1:30 PM		3	X											EMAIL ANALYSIS TO CAMILLE BRYANT
MU 20		SW		1:45 PM		3	X											
MU 8A		SW		3:15 PM		3	X											
MU 17A		SW		3:45 PM		3	X											
MU 16A		SW	6-5-2020	4 PM		3	X											
MU 10A		SW	6-9-2020	9:35 AM		3	X											
MU 31		SW		10:15 AM		3	X											
MU 11A		SW		10:40 AM		3	X											
MU 18A		SW		11:20 AM		3	X											
MU 15A		SW	6-9-2020	12:45 PM		3	X											

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Pb Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
B. H. Kiss	C. M. Bryant	4/9/20 1545			



Chain of Custody

Work Order No: 66384

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 2 of 2

Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS All American
Company Name:	TALON LPE	Company Name:	PIPELINE
Address:	408 Texas Ave	Address:	ATTN CAMILLE BRYANT
City, State ZIP:	Alfheim N.M. 88210	City, State ZIP:	SKS # 2002 10250
Phone:	575 441 4835	Email:	ADKINS@TALONLPE.COM

Work Order Comments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other:	

Project Name:	PLAINS CS CAYOR	Turn Around	☒
Project Number:	700326 049 04	Routine	☒
Project Location:	Levingston New Mexico	Rush:	
Sampler's Name:	BILL RISS	Due Date:	
PO #:	SKS # 2002 10250	Quote #:	

SAMPLE RECEIPT			
Temperature (°C):	Temp Blank:	Yes	No
Received Intact:	Thermometer ID	Yes	No
Cooler Custody Seals:	Yes	No	N/A
Sample Custody Seals:	Yes	No	N/A
Total Containers:			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
	MU 6A	GW	6-9-2020	1:10 PM	3	X		MeOH: Me	EMAIL ANALYTICALS
	MU 14A	GW	6-9-2020	1:30 PM	3	X		None: NO	70
	MU 13A	GW	6-9-2020	1:50 PM	3	X		HNO3: HN	CAMILLE BRYANT
								H2SO4: H2	
								HCL: HL	
								NaOH: Na	
								Zn Acetate+ NaOH: Zn	
								TAT starts the day received by the lab, if received by 4:00pm	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>Bill Riss</u>	<u>Cecil</u>	4/9/20 1545			

Inter-Office Shipment

IOS Number : **65184**

Date/Time: 06.10.2020

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

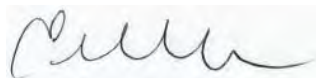
Air Bill No.:

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
663934-001	W	MW 9A	06.08.2020 13:30	SW8021B	BTEX by EPA 8021	06.15.2020	06.22.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-002	W	MW 20	06.08.2020 13:45	SW8021B	BTEX by EPA 8021	06.15.2020	06.22.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-003	W	MW 8A	06.08.2020 15:15	SW8021B	BTEX by EPA 8021	06.15.2020	06.22.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-004	W	MW 17A	06.08.2020 15:45	SW8021B	BTEX by EPA 8021	06.15.2020	06.22.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-005	W	MW 16A	06.08.2020 16:00	SW8021B	BTEX by EPA 8021	06.15.2020	06.22.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-006	W	MW 10A	06.09.2020 09:35	SW8021B	BTEX by EPA 8021	06.15.2020	06.23.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-007	W	MW 21	06.09.2020 10:15	SW8021B	BTEX by EPA 8021	06.15.2020	06.23.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-008	W	MW 11A	06.09.2020 10:40	SW8021B	BTEX by EPA 8021	06.15.2020	06.23.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-009	W	MW 18A	06.09.2020 11:20	SW8021B	BTEX by EPA 8021	06.15.2020	06.23.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-010	W	MW 15A	06.09.2020 12:45	SW8021B	BTEX by EPA 8021	06.15.2020	06.23.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-011	W	MW 6A	06.09.2020 13:10	SW8021B	BTEX by EPA 8021	06.15.2020	06.23.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-012	W	MW 14A	06.09.2020 13:30	SW8021B	BTEX by EPA 8021	06.15.2020	06.23.2020	JKR	BR4FBZ BZ BZME EBZ	
663934-013	W	MW 13A	06.09.2020 13:50	SW8021B	BTEX by EPA 8021	06.15.2020	06.23.2020	JKR	BR4FBZ BZ BZME EBZ	

Inter Office Shipment or Sample Comments:

Relinquished By:



Elizabeth McClellan

Date Relinquished: 06.10.2020

Received By:



Brianna Teel

Date Received: 06.11.2020

Cooler Temperature: 0.6



XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 65184

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sent By: Elizabeth McClellan

Date Sent: 06.10.2020 11.23 AM

Received By: Brianna Teel

Date Received: 06.11.2020 09.06 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Brianna Teel

Date: 06.11.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 06.09.2020 03.45.00 PM

Work Order #: 663934

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Subbed to Midland.
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 06.09.2020

Checklist reviewed by:



Jessica Kramer

Date: 06.10.2020



Analytical Report 673546

for

Talon LPE-Artesia

Project Manager: David Adkins

Plains CS Caylor

700376 049 04

09.28.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.28.2020

Project Manager: **David Adkins**

Talon LPE-Artesia

408 West Texas St.

Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **673546**

Plains CS Caylor

Project Address: Hobbs New Mexico

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 673546. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 673546 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 673546****Talon LPE-Artesia, Artesia, NM**

Plains CS Caylor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW20	W	09.23.2020 12:15		673546-001
MW8A	W	09.23.2020 13:00		673546-002
MW17A	W	09.23.2020 13:45		673546-003
MW16A	W	09.23.2020 14:40		673546-004
MW15A	W	09.24.2020 08:45		673546-005
MW6A	W	09.24.2020 09:55		673546-006
MW14A	W	09.24.2020 10:30		673546-007
MW13A	W	09.24.2020 12:00		673546-008
MW18A	W	09.24.2020 12:40		673546-009
MW11A'	W	09.24.2020 13:15		673546-010
MW21	W	09.24.2020 13:50		673546-011
MW10A	W	09.24.2020 15:05		673546-012

**CASE NARRATIVE****Client Name: Talon LPE-Artesia****Project Name: Plains CS Caylor**

Project ID: 700376 049 04
Work Order Number(s): 673546

Report Date: 09.28.2020
Date Received: 09.24.2020

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3138201 BTEX by EPA 8021

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 673546-006,673546-009,673546-008.



Certificate of Analytical Results

673546

Talon LPE-Artesia, Artesia, NM

Plains CS Caylor

Sample Id: MW20

Matrix: Water

Sample Depth:

Lab Sample Id: 673546-001

Date Collected: 09.23.2020 12:15

Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138201

Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.0627	0.00200	0.000408	mg/L	09.27.2020 16:15		1
Toluene	108-88-3	0.00198	0.00200	0.000367	mg/L	09.27.2020 16:15	J	1
Ethylbenzene	100-41-4	0.00228	0.00200	0.000657	mg/L	09.27.2020 16:15		1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 16:15	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 16:15	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.27.2020 16:15	U	
Total BTEX		0.0670		0.000367	mg/L	09.27.2020 16:15		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	87	70 - 130	%		
4-Bromofluorobenzene	122	70 - 130	%		

Sample Id: MW8A

Matrix: Water

Sample Depth:

Lab Sample Id: 673546-002

Date Collected: 09.23.2020 13:00

Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138201

Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.0495	0.00200	0.000408	mg/L	09.27.2020 16:36		1
Toluene	108-88-3	0.0121	0.00200	0.000367	mg/L	09.27.2020 16:36		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 16:36	U	1
m_p-Xylenes	179601-23-1	0.00513	0.00400	0.000630	mg/L	09.27.2020 16:36		1
o-Xylene	95-47-6	0.00241	0.00200	0.000642	mg/L	09.27.2020 16:36		1
Xylenes, Total	1330-20-7	0.00754		0.000630	mg/L	09.27.2020 16:36		
Total BTEX		0.0691		0.000367	mg/L	09.27.2020 16:36		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	117	70 - 130	%		



Certificate of Analytical Results

673546

Talon LPE-Artesia, Artesia, NM

Plains CS Caylor

Sample Id: MW17A

Matrix: Water

Sample Depth:

Lab Sample Id: 673546-003

Date Collected: 09.23.2020 13:45

Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138201

Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00892	0.00200	0.000408	mg/L	09.27.2020 16:57		1
Toluene	108-88-3	0.00149	0.00200	0.000367	mg/L	09.27.2020 16:57	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 16:57	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 16:57	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 16:57	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.27.2020 16:57	U	
Total BTEX		0.0104		0.000367	mg/L	09.27.2020 16:57		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	90	70 - 130	%		
4-Bromofluorobenzene	124	70 - 130	%		

Sample Id: MW16A

Matrix: Water

Sample Depth:

Lab Sample Id: 673546-004

Date Collected: 09.23.2020 14:40

Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138201

Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00817	0.00200	0.000408	mg/L	09.27.2020 17:18		1
Toluene	108-88-3	0.000990	0.00200	0.000367	mg/L	09.27.2020 17:18	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 17:18	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 17:18	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 17:18	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.27.2020 17:18	U	
Total BTEX		0.00916		0.000367	mg/L	09.27.2020 17:18		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	89	70 - 130	%		
4-Bromofluorobenzene	122	70 - 130	%		



Certificate of Analytical Results

673546

Talon LPE-Artesia, Artesia, NM

Plains CS Caylor

Sample Id: **MW15A** Matrix: Water Sample Depth:

Lab Sample Id: 673546-005 Date Collected: 09.24.2020 08:45 Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3138201 Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00670	0.00200	0.000408	mg/L	09.27.2020 17:39		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.27.2020 17:39	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 17:39	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 17:39	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 17:39	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.27.2020 17:39	U	
Total BTEX		0.00670		0.000367	mg/L	09.27.2020 17:39		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	85	70 - 130	%		
4-Bromofluorobenzene	121	70 - 130	%		

Sample Id: **MW6A** Matrix: Water Sample Depth:

Lab Sample Id: 673546-006 Date Collected: 09.24.2020 09:55 Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3138201 Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00367	0.00200	0.000408	mg/L	09.27.2020 18:01		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.27.2020 18:01	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 18:01	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 18:01	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 18:01	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.27.2020 18:01	U	
Total BTEX		0.00367		0.000367	mg/L	09.27.2020 18:01		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	88	70 - 130	%		
4-Bromofluorobenzene	134	70 - 130	%		**



Certificate of Analytical Results

673546

Talon LPE-Artesia, Artesia, NM

Plains CS Caylor

Sample Id: MW14A

Matrix: Water

Sample Depth:

Lab Sample Id: 673546-007

Date Collected: 09.24.2020 10:30

Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138201

Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00247	0.00200	0.000408	mg/L	09.27.2020 18:21		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.27.2020 18:21	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 18:21	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 18:21	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 18:21	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.27.2020 18:21	U	
Total BTEX		0.00247		0.000367	mg/L	09.27.2020 18:21		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	91	70 - 130	%		
4-Bromofluorobenzene	127	70 - 130	%		

Sample Id: MW13A

Matrix: Water

Sample Depth:

Lab Sample Id: 673546-008

Date Collected: 09.24.2020 12:00

Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138201

Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00395	0.00200	0.000408	mg/L	09.27.2020 18:42		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.27.2020 18:42	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 18:42	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 18:42	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 18:42	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.27.2020 18:42	U	
Total BTEX		0.00395		0.000367	mg/L	09.27.2020 18:42		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	91	70 - 130	%		
4-Bromofluorobenzene	135	70 - 130	%		**



Certificate of Analytical Results

673546

Talon LPE-Artesia, Artesia, NM

Plains CS Caylor

Sample Id: MW18A

Matrix: Water

Sample Depth:

Lab Sample Id: 673546-009

Date Collected: 09.24.2020 12:40

Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138201

Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00297	0.00200	0.000408	mg/L	09.27.2020 19:03		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.27.2020 19:03	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 19:03	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 19:03	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 19:03	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.27.2020 19:03	U	
Total BTEX		0.00297		0.000367	mg/L	09.27.2020 19:03		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	135	70 - 130	%		**

Sample Id: MW11A'

Matrix: Water

Sample Depth:

Lab Sample Id: 673546-010

Date Collected: 09.24.2020 13:15

Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138201

Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00400	0.00200	0.000408	mg/L	09.27.2020 19:24		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.27.2020 19:24	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 19:24	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 19:24	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 19:24	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.27.2020 19:24	U	
Total BTEX		0.00400		0.000367	mg/L	09.27.2020 19:24		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	90	70 - 130	%		
4-Bromofluorobenzene	128	70 - 130	%		



Certificate of Analytical Results

673546

Talon LPE-Artesia, Artesia, NM

Plains CS Caylor

Sample Id: MW21

Matrix: Water

Sample Depth:

Lab Sample Id: 673546-011

Date Collected: 09.24.2020 13:50

Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138201

Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00347	0.00200	0.000408	mg/L	09.27.2020 21:06		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.27.2020 21:06	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 21:06	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 21:06	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 21:06	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.27.2020 21:06	U	
Total BTEX		0.00347		0.000367	mg/L	09.27.2020 21:06		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	85	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

Sample Id: MW10A

Matrix: Water

Sample Depth:

Lab Sample Id: 673546-012

Date Collected: 09.24.2020 15:05

Date Received: 09.24.2020 16:03

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138210

Date Prep: 09.27.2020 11:30

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712159

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00140	0.00200	0.000408	mg/L	09.27.2020 22:18	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.27.2020 22:18	U	1
Ethylbenzene	100-41-4	0.000730	0.00200	0.000657	mg/L	09.27.2020 22:18	J	1
m_p-Xylenes	179601-23-1	0.000970	0.00400	0.000630	mg/L	09.27.2020 22:18	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 22:18	U	1
Xylenes, Total	1330-20-7	0.000970		0.000630	mg/L	09.27.2020 22:18	J	
Total BTEX		0.00310		0.000367	mg/L	09.27.2020 22:18		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	104	70 - 130	%		



Certificate of Analytical Results

673546

Talon LPE-Artesia, Artesia, NM

Plains CS Caylor

Sample Id: 7712146-1-BLK

Matrix: Water

Sample Depth:

Lab Sample Id: 7712146-1-BLK

Date Collected:

Date Received:

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138201

Date Prep: 09.27.2020 13:00

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712146

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.27.2020 15:47	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.27.2020 15:47	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 15:47	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 15:47	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 15:47	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	78	70 - 130	%		
4-Bromofluorobenzene	111	70 - 130	%		

Sample Id: 7712159-1-BLK

Matrix: Water

Sample Depth:

Lab Sample Id: 7712159-1-BLK

Date Collected:

Date Received:

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3138210

Date Prep: 09.27.2020 11:30

Subcontractor: SUB: T104704400-20-21

Prep seq: 7712159

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.27.2020 21:57	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.27.2020 21:57	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.27.2020 21:57	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.27.2020 21:57	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.27.2020 21:57	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	103	70 - 130	%		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Form 2 - Surrogate Recoveries

Project Name: Plains CS Caylor

Report Date: 09282020

Work Orders : 673546

Project ID: 700376 049 04

Lab Batch #: 3138201

Sample: 7712146-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 09.27.2020 13:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0271	0.0300	90	70-130	
4-Bromofluorobenzene	0.0387	0.0300	129	70-130	

Lab Batch #: 3138201

Sample: 7712146-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 09.27.2020 13:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0271	0.0300	90	70-130	
4-Bromofluorobenzene	0.0362	0.0300	121	70-130	

Lab Batch #: 3138201

Sample: 673546-001 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 09.27.2020 14:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0386	0.0300	129	70-130	

Lab Batch #: 3138201

Sample: 673546-001 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 09.27.2020 14:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0289	0.0300	96	70-130	
4-Bromofluorobenzene	0.0375	0.0300	125	70-130	

Lab Batch #: 3138201

Sample: 7712146-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 09.27.2020 15:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0234	0.0300	78	70-130	
4-Bromofluorobenzene	0.0332	0.0300	111	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Plains CS Caylor

Report Date: 09282020

Work Orders : 673546

Project ID: 700376 049 04

Lab Batch #: 3138210

Sample: 7712159-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 09.27.2020 19:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0299	0.0300	100	70-130	
4-Bromofluorobenzene	0.0305	0.0300	102	70-130	

Lab Batch #: 3138210

Sample: 7712159-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 09.27.2020 20:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0305	0.0300	102	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

Lab Batch #: 3138210

Sample: 673546-012 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 09.27.2020 20:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0296	0.0300	99	70-130	
4-Bromofluorobenzene	0.0289	0.0300	96	70-130	

Lab Batch #: 3138210

Sample: 673546-012 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 09.27.2020 20:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0294	0.0300	98	70-130	
4-Bromofluorobenzene	0.0285	0.0300	95	70-130	

Lab Batch #: 3138210

Sample: 7712159-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 09.27.2020 21:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0290	0.0300	97	70-130	
4-Bromofluorobenzene	0.0309	0.0300	103	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries

Project Name: Plains CS Caylor

Work Order #: 673546

Project ID: 700376 049 04

Analyst: KTL

Date Prepared: 09.27.2020

Date Analyzed: 09.27.2020

Lab Batch ID: 3138201

Sample: 7712146-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.000408	0.100	0.129	129	0.100	0.119	119	8	70-130	25	
Toluene	<0.000367	0.100	0.125	125	0.100	0.117	117	7	70-130	25	
Ethylbenzene	<0.000657	0.100	0.112	112	0.100	0.111	111	1	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.221	111	0.200	0.210	105	5	70-130	25	
o-Xylene	<0.000642	0.100	0.116	116	0.100	0.110	110	5	70-130	25	

Analyst: KTL

Date Prepared: 09.27.2020

Date Analyzed: 09.27.2020

Lab Batch ID: 3138210

Sample: 7712159-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.000408	0.100	0.115	115	0.100	0.106	106	8	70-130	25	
Toluene	<0.000367	0.100	0.118	118	0.100	0.108	108	9	70-130	25	
Ethylbenzene	<0.000657	0.100	0.109	109	0.100	0.100	100	9	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.222	111	0.200	0.205	103	8	70-130	25	
o-Xylene	<0.000642	0.100	0.109	109	0.100	0.100	100	9	70-130	25	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries



Project Name: Plains CS Caylor

Work Order #: 673546

Lab Batch ID: 3138201

Date Analyzed: 09.27.2020

Reporting Units: mg/L

QC- Sample ID: 673546-001 S

Date Prepared: 09.27.2020

Batch #: 1

Analyst: KTL

Report Date: 09282020

Project ID: 700376 049 04

Matrix: Water

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.0627	0.100	0.189	126	0.100	0.184	121	3	70-130	25	
Toluene	0.00198	0.100	0.131	129	0.100	0.126	124	4	70-130	25	
Ethylbenzene	0.00228	0.100	0.119	117	0.100	0.120	118	1	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.235	118	0.200	0.229	115	3	70-130	25	
o-Xylene	<0.000642	0.100	0.122	122	0.100	0.118	118	3	70-130	25	

Lab Batch ID: 3138210

QC- Sample ID: 673546-012 S

Batch #: 1

Matrix: Water

Date Analyzed: 09.27.2020

Date Prepared: 09.27.2020

Analyst: KTL

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.00140	0.100	0.107	106	0.100	0.108	107	1	70-130	25	
Toluene	<0.000367	0.100	0.103	103	0.100	0.105	105	2	70-130	25	
Ethylbenzene	0.000730	0.100	0.101	100	0.100	0.103	102	2	70-130	25	
m_p-Xylenes	0.000970	0.200	0.207	103	0.200	0.209	104	1	70-130	25	
o-Xylene	<0.000642	0.100	0.100	100	0.100	0.102	102	2	70-130	25	

Matrix Spike Percent Recovery $[D] = 100 * (C - A) / B$
 Relative Percent Difference $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Chain of Custody

Work Order No: 673546

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Casabad, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	DAVID ADKINS	Bill to: (if different)	PIANUS All American
Company Name:	TALON	Company Name:	PIPELINE
Address:	408 TETA	Address:	ATN. Camille Bryant
City, State ZIP:	ARRESIA New Mexico 88210	City, State ZIP:	SKS# 2002-10250
Phone:	575 441 4835	Email:	ADKINS@TALONPIPE.COM

Project Name:	PIANUS CS Caylor	Turn Around	Pres. Code
Project Number:	700376 049 04	Routine	☒
Project Location:	408 New Mexico	Rush:	
Sampler's Name:	Bill RISS	Due Date:	
PO #:	SKS# 2002-10250	Quote #:	

SAMPLE RECEIPT		Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No
Temperature (°C):	1.8 / 1.6	Thermometer ID	T-MW-007		
Received Intact:	☒ Yes ☐ No	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Total Containers:	13		
Sample Custody Seals:	Yes ☒ No ☐ N/A				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
	MW 09A	GW	9/23/20	12:15 PM		3	BTEX	MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn
	MW 20	GW	9/23/20	1:04 PM		3		TAT starts the day received by the lab, if received by 4:00pm
	MW 8A	GW	9/23/20	1:45 PM		3		
	MW 17A	GW	9/23/20	2:40 PM		3		
	MW 16A	GW	9/23/20	8:45 AM		3		
	MW 15A	GW	9/23/20	9:55 AM		3		
	MW 6A	GW	9/23/20	10:30 AM		3		
	MW 14A	GW	9/23/20	12 PM		3		
	MW 13A	GW	9/23/20	1:40 PM		3		
	MW 18A	GW	9/23/20	1:40 PM		3		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Bill Riss	Coe Caylor	9/24/20 16:03			



Chain of Custody

Work Order No: 1673546

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Crashtad, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	DAVID ADKINS	Bill to: (if different)	PLANS All American
Company Name:	Talon	Company Name:	PIPELINE
Address:	408 Texas	Address:	ATU CHARLIE BRYANT
City, State ZIP:	ARLESIA New Mexico 88210	City, State ZIP:	SRST 2002 1950 10250
Phone:	575 441 4835	Email:	ADKINS@TALONPIPE.COM

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	PLANS CIS Garb	Turn Around	☒
Project Number:	700376 049 04	Routine	☒
Project Location	Hobbs New Mexico	Rush:	
Sampler's Name:	BILL RIGGS	Due Date:	
PO #:	SRST 2002 10250	Quote #:	

SAMPLE RECEIPT		Temp Blank:		Wet Ice:		Thermometer ID	
Temperature (°C):	1.8/1.6	☒ Yes	☒ No				
Received Intact:	☒ Yes ☐ No	Correction Factor: -0.2					
Cooler Custody Seals:	☒ Yes ☐ No	Total Containers: 13					
Sample Custody Seals:	☒ Yes ☐ No						

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST																Preservative Codes				Sample Comments
	MW 11A'	GW	9/24/20	11:50 PM		33																						
	MW 21	GW	9/24/20	1:50 PM		33																						
	MW 10A	GW	9/24/20	3:05 PM		33																						

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Bill Riggs	Cue Ciften	9/24/20 16:03			

Revised Date 02/26/19 Rev. 2015.1

Inter-Office Shipment

IOS Number : **71002**

Date/Time: 09.25.2020

Created by: Martha Castro

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority: Fedex

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 7716 3371 6888

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
673546-001	W	MW20	09.23.2020 12:15	SW8021B	BTEX by EPA 8021	09.30.2020	10.07.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-002	W	MW8A	09.23.2020 13:00	SW8021B	BTEX by EPA 8021	09.30.2020	10.07.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-003	W	MW17A	09.23.2020 13:45	SW8021B	BTEX by EPA 8021	09.30.2020	10.07.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-004	W	MW16A	09.23.2020 14:40	SW8021B	BTEX by EPA 8021	09.30.2020	10.07.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-005	W	MW15A	09.24.2020 08:45	SW8021B	BTEX by EPA 8021	09.30.2020	10.08.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-006	W	MW6A	09.24.2020 09:55	SW8021B	BTEX by EPA 8021	09.30.2020	10.08.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-007	W	MW14A	09.24.2020 10:30	SW8021B	BTEX by EPA 8021	09.30.2020	10.08.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-008	W	MW13A	09.24.2020 12:00	SW8021B	BTEX by EPA 8021	09.30.2020	10.08.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-009	W	MW18A	09.24.2020 12:40	SW8021B	BTEX by EPA 8021	09.30.2020	10.08.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-010	W	MW11A	09.24.2020 13:15	SW8021B	BTEX by EPA 8021	09.30.2020	10.08.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-011	W	MW21	09.24.2020 13:50	SW8021B	BTEX by EPA 8021	09.30.2020	10.08.2020	JKR	BR4FBZ BZ BZME EBZ	
673546-012	W	MW10A	09.24.2020 15:05	SW8021B	BTEX by EPA 8021	09.30.2020	10.08.2020	JKR	BR4FBZ BZ BZME EBZ	

Inter Office Shipment or Sample Comments:

Relinquished By:



Martha Castro

Date Relinquished: 09.25.2020

Received By:



Katie Lowe

Date Received: 09.26.2020

Cooler Temperature: 1.7

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 71002

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : 1.7

Sent By: Martha Castro

Date Sent: 09.25.2020 02.07 PM

Received By: Katie Lowe

Date Received: 09.26.2020 11.00 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	N/A
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:



Katie Lowe

Date: 09.26.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 09.24.2020 04.03.00 PM

Work Order #: 673546

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	Yes

Samples sent to Midland.

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.24.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.25.2020



Analytical Report 680843

for

Talon LPE-Artesia

Project Manager: David Adkins

CS Caylor

700376.049.04

12.21.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12.21.2020

Project Manager: **David Adkins**

Talon LPE-Artesia

408 West Texas St.

Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **680843**

CS Caylor

Project Address: Hobbs, New Mexico

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 680843. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 680843 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 680843****Talon LPE-Artesia, Artesia, NM**

CS Caylor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-11 A	W	12.10.2020 09:40		680843-001
MW-21	W	12.10.2020 10:30		680843-002
MW-10 A	W	12.10.2020 11:50		680843-003
MW-9 A	W	12.10.2020 13:40		680843-004
MW-20	W	12.10.2020 14:20		680843-005
MW-8 A	W	12.10.2020 15:30		680843-006
MW-16 A	W	12.10.2020 15:15		680843-007
MW-15 A	W	12.10.2020 14:30		680843-008
MW-6 A	W	12.10.2020 13:15		680843-009
MW-14 A	W	12.10.2020 13:55		680843-010
MW-13 A	W	12.10.2020 11:50		680843-011
MW-18A	W	12.10.2020 09:30		680843-012
MW-17A	W	12.11.2020 09:00		680843-013

**CASE NARRATIVE****Client Name: Talon LPE-Artesia****Project Name: CS Caylor**Project ID: 700376.049.04
Work Order Number(s): 680843Report Date: 12.21.2020
Date Received: 12.11.2020

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:**Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3145168 BTEX by EPA 8021

Lab Sample ID 680843-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). m_p-Xylenes recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 680843-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013.

The Laboratory Control Sample for m_p-Xylenes is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results

680843

Talon LPE-Artesia, Artesia, NM

CS Caylor

Sample Id: MW-11 A

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-001

Date Collected: 12.10.2020 09:40

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00154	0.00200	0.000408	mg/L	12.16.2020 12:52	J	1
Toluene	108-88-3	0.00107	0.00200	0.000367	mg/L	12.16.2020 12:52	J	1
Ethylbenzene	100-41-4	0.000950	0.00200	0.000657	mg/L	12.16.2020 12:52	J	1
m_p-Xylenes	179601-23-1	0.000880	0.00400	0.000630	mg/L	12.16.2020 12:52	JX	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.16.2020 12:52	U	1
Xylenes, Total	1330-20-7	0.000880		0.000630	mg/L	12.16.2020 12:52	J	
Total BTEX		0.004440		0.0003670	mg/L	12.16.2020 12:52		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	83	70 - 130	%		
4-Bromofluorobenzene	116	70 - 130	%		

Sample Id: MW-21

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-002

Date Collected: 12.10.2020 10:30

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00112	0.00200	0.000408	mg/L	12.16.2020 13:18	J	1
Toluene	108-88-3	0.000710	0.00200	0.000367	mg/L	12.16.2020 13:18	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.16.2020 13:18	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.16.2020 13:18	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.16.2020 13:18	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.16.2020 13:18	U	
Total BTEX		0.001830		0.0003670	mg/L	12.16.2020 13:18	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	93	70 - 130	%		
4-Bromofluorobenzene	103	70 - 130	%		



Certificate of Analytical Results

680843

Talon LPE-Artesia, Artesia, NM

CS Caylor

Sample Id: **MW-10 A**

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-003

Date Collected: 12.10.2020 11:50

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.16.2020 13:44	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.16.2020 13:44	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.16.2020 13:44	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.16.2020 13:44	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.16.2020 13:44	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.16.2020 13:44	U	
Total BTEX		<0.0003670		0.0003670	mg/L	12.16.2020 13:44	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	108	70 - 130	%		

Sample Id: **MW-9 A**

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-004

Date Collected: 12.10.2020 13:40

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00196	0.00200	0.000408	mg/L	12.16.2020 14:10	J	1
Toluene	108-88-3	0.000610	0.00200	0.000367	mg/L	12.16.2020 14:10	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.16.2020 14:10	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.16.2020 14:10	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.16.2020 14:10	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.16.2020 14:10	U	
Total BTEX		0.002570		0.0003670	mg/L	12.16.2020 14:10		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	108	70 - 130	%		



Certificate of Analytical Results

680843

Talon LPE-Artesia, Artesia, NM

CS Caylor

Sample Id: MW-20

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-005

Date Collected: 12.10.2020 14:20

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.0556	0.00200	0.000408	mg/L	12.16.2020 14:36		1
Toluene	108-88-3	0.0139	0.00200	0.000367	mg/L	12.16.2020 14:36		1
Ethylbenzene	100-41-4	0.00318	0.00200	0.000657	mg/L	12.16.2020 14:36		1
m_p-Xylenes	179601-23-1	0.00303	0.00400	0.000630	mg/L	12.16.2020 14:36	J	1
o-Xylene	95-47-6	0.00125	0.00200	0.000642	mg/L	12.16.2020 14:36	J	1
Xylenes, Total	1330-20-7	0.00428		0.000630	mg/L	12.16.2020 14:36		
Total BTEX		0.07696		0.0003670	mg/L	12.16.2020 14:36		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	111	70 - 130	%		
4-Bromofluorobenzene	113	70 - 130	%		

Sample Id: MW-8 A

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-006

Date Collected: 12.10.2020 15:30

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.0378	0.00200	0.000408	mg/L	12.16.2020 15:02		1
Toluene	108-88-3	0.00923	0.00200	0.000367	mg/L	12.16.2020 15:02		1
Ethylbenzene	100-41-4	0.000890	0.00200	0.000657	mg/L	12.16.2020 15:02	J	1
m_p-Xylenes	179601-23-1	0.00420	0.00400	0.000630	mg/L	12.16.2020 15:02		1
o-Xylene	95-47-6	0.00234	0.00200	0.000642	mg/L	12.16.2020 15:02		1
Xylenes, Total	1330-20-7	0.00654		0.000630	mg/L	12.16.2020 15:02		
Total BTEX		0.05446		0.0003670	mg/L	12.16.2020 15:02		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	106	70 - 130	%		



Certificate of Analytical Results

680843

Talon LPE-Artesia, Artesia, NM

CS Caylor

Sample Id: MW-16 A

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-007

Date Collected: 12.10.2020 15:15

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.000990	0.00200	0.000408	mg/L	12.16.2020 15:28	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.16.2020 15:28	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.16.2020 15:28	U	1
m_p-Xylenes	179601-23-1	0.000810	0.00400	0.000630	mg/L	12.16.2020 15:28	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.16.2020 15:28	U	1
Xylenes, Total	1330-20-7	0.000810		0.000630	mg/L	12.16.2020 15:28	J	
Total BTEX		0.001800		0.0003670	mg/L	12.16.2020 15:28	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

Sample Id: MW-15 A

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-008

Date Collected: 12.10.2020 14:30

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00238	0.00200	0.000408	mg/L	12.16.2020 15:54		1
Toluene	108-88-3	0.000550	0.00200	0.000367	mg/L	12.16.2020 15:54	J	1
Ethylbenzene	100-41-4	0.00168	0.00200	0.000657	mg/L	12.16.2020 15:54	J	1
m_p-Xylenes	179601-23-1	0.00226	0.00400	0.000630	mg/L	12.16.2020 15:54	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.16.2020 15:54	U	1
Xylenes, Total	1330-20-7	0.00226		0.000630	mg/L	12.16.2020 15:54		
Total BTEX		0.006870		0.0003670	mg/L	12.16.2020 15:54		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	114	70 - 130	%		



Certificate of Analytical Results

680843

Talon LPE-Artesia, Artesia, NM

CS Caylor

Sample Id: MW-6 A

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-009

Date Collected: 12.10.2020 13:15

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00364	0.00200	0.000408	mg/L	12.16.2020 16:20		1
Toluene	108-88-3	0.000880	0.00200	0.000367	mg/L	12.16.2020 16:20	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.16.2020 16:20	U	1
m_p-Xylenes	179601-23-1	0.000940	0.00400	0.000630	mg/L	12.16.2020 16:20	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.16.2020 16:20	U	1
Xylenes, Total	1330-20-7	0.000940		0.000630	mg/L	12.16.2020 16:20	J	
Total BTEX		0.005460		0.0003670	mg/L	12.16.2020 16:20		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	108	70 - 130	%		

Sample Id: MW-14 A

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-010

Date Collected: 12.10.2020 13:55

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00140	0.00200	0.000408	mg/L	12.16.2020 16:46	J	1
Toluene	108-88-3	0.000680	0.00200	0.000367	mg/L	12.16.2020 16:46	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.16.2020 16:46	U	1
m_p-Xylenes	179601-23-1	0.000720	0.00400	0.000630	mg/L	12.16.2020 16:46	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.16.2020 16:46	U	1
Xylenes, Total	1330-20-7	0.000720		0.000630	mg/L	12.16.2020 16:46	J	
Total BTEX		0.002800		0.0003670	mg/L	12.16.2020 16:46		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	99	70 - 130	%		



Certificate of Analytical Results

680843

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id: **MW-13 A**

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-011

Date Collected: 12.10.2020 11:50

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00117	0.00200	0.000408	mg/L	12.16.2020 18:29	J	1
Toluene	108-88-3	0.000740	0.00200	0.000367	mg/L	12.16.2020 18:29	J	1
Ethylbenzene	100-41-4	0.000830	0.00200	0.000657	mg/L	12.16.2020 18:29	J	1
m_p-Xylenes	179601-23-1	0.000880	0.00400	0.000630	mg/L	12.16.2020 18:29	J	1
o-Xylene	95-47-6	0.000920	0.00200	0.000642	mg/L	12.16.2020 18:29	J	1
Xylenes, Total	1330-20-7	0.00180		0.000630	mg/L	12.16.2020 18:29	J	
Total BTEX		0.004540		0.0003670	mg/L	12.16.2020 18:29		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	84	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

Sample Id: **MW-18A**

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-012

Date Collected: 12.10.2020 09:30

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00103	0.00200	0.000408	mg/L	12.16.2020 18:55	J	1
Toluene	108-88-3	0.00134	0.00200	0.000367	mg/L	12.16.2020 18:55	J	1
Ethylbenzene	100-41-4	0.000750	0.00200	0.000657	mg/L	12.16.2020 18:55	J	1
m_p-Xylenes	179601-23-1	0.00143	0.00400	0.000630	mg/L	12.16.2020 18:55	J	1
o-Xylene	95-47-6	0.000760	0.00200	0.000642	mg/L	12.16.2020 18:55	J	1
Xylenes, Total	1330-20-7	0.00219		0.000630	mg/L	12.16.2020 18:55		
Total BTEX		0.005310		0.0003670	mg/L	12.16.2020 18:55		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	96	70 - 130	%		



Certificate of Analytical Results

680843

Talon LPE-Artesia, Artesia, NM

CS Caylor

Sample Id: MW-17A

Matrix: Water

Sample Depth:

Lab Sample Id: 680843-013

Date Collected: 12.11.2020 09:00

Date Received: 12.11.2020 13:53

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00245	0.00200	0.000408	mg/L	12.16.2020 19:20		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.16.2020 19:20	U	1
Ethylbenzene	100-41-4	0.00110	0.00200	0.000657	mg/L	12.16.2020 19:20	J	1
m_p-Xylenes	179601-23-1	0.000950	0.00400	0.000630	mg/L	12.16.2020 19:20	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.16.2020 19:20	U	1
Xylenes, Total	1330-20-7	0.000950		0.000630	mg/L	12.16.2020 19:20	J	
Total BTEX		0.004500		0.0003670	mg/L	12.16.2020 19:20		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		



Certificate of Analytical Results

680843

Talon LPE-Artesia, Artesia, NM

CS Caylor

Sample Id: 7717305-1-BLK

Matrix: Water

Sample Depth:

Lab Sample Id: 7717305-1-BLK

Date Collected:

Date Received:

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: MNR

% Moist:

Seq Number: 3145168

Date Prep: 12.16.2020 08:00

Tech: MNR

Subcontractor: SUB: T104704400-20-21

Prep seq: 7717305

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.16.2020 12:26	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.16.2020 12:26	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.16.2020 12:26	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.16.2020 12:26	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.16.2020 12:26	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	78	70 - 130	%		
4-Bromofluorobenzene	78	70 - 130	%		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Form 2 - Surrogate Recoveries

Project Name: CS Caylor

Report Date: 12212020

Work Orders : 680843

Project ID: 700376.049.04

Lab Batch #: 3145168

Sample: 7717305-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12.16.2020 09:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0261	0.0300	87	70-130	
4-Bromofluorobenzene	0.0299	0.0300	100	70-130	

Lab Batch #: 3145168

Sample: 7717305-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12.16.2020 10:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0280	0.0300	93	70-130	
4-Bromofluorobenzene	0.0317	0.0300	106	70-130	

Lab Batch #: 3145168

Sample: 680843-001 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12.16.2020 10:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0299	0.0300	100	70-130	

Lab Batch #: 3145168

Sample: 680843-001 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12.16.2020 11:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0280	0.0300	93	70-130	
4-Bromofluorobenzene	0.0299	0.0300	100	70-130	

Lab Batch #: 3145168

Sample: 7717305-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12.16.2020 12:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0235	0.0300	78	70-130	
4-Bromofluorobenzene	0.0234	0.0300	78	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries

Project Name: CS Caylor

Work Order #: 680843

Project ID: 700376.049.04

Analyst: MNR

Date Prepared: 12.16.2020

Date Analyzed: 12.16.2020

Lab Batch ID: 3145168

Sample: 7717305-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.000408	0.100	0.0867	87	0.100	0.0815	82	6	70-130	25	
Toluene	<0.000367	0.100	0.0869	87	0.100	0.0785	79	10	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0882	88	0.100	0.0823	82	7	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.170	85	0.200	0.158	79	7	70-130	25	
o-Xylene	<0.000642	0.100	0.0876	88	0.100	0.0859	86	2	70-130	25	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: CS Caylor

Work Order #: 680843

Lab Batch ID: 3145168

Date Analyzed: 12.16.2020

Reporting Units: mg/L

QC- Sample ID: 680843-001 S

Date Prepared: 12.16.2020

Report Date: 12212020

Project ID: 700376.049.04

Batch #: 1 Matrix: Water

Analyst: MNR

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.00154	0.100	0.0895	88	0.100	0.0814	80	9	70-130	25	
Toluene	0.00107	0.100	0.0797	79	0.100	0.0748	74	6	70-130	25	
Ethylbenzene	0.000950	0.100	0.0797	79	0.100	0.0720	71	10	70-130	25	
m_p-Xylenes	0.000880	0.200	0.155	77	0.200	0.139	69	11	70-130	25	X
o-Xylene	<0.000642	0.100	0.0807	81	0.100	0.0723	72	11	70-130	25	

Matrix Spike Percent Recovery $[D] = 100 \times (C-A) / B$
 Relative Percent Difference $RPD = 200 \times |(C-F) / (C+F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 \times (F-A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Chain of Custody

Work Order No: 1680843

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 1 of 2

Project Manager:	David Adkins	Bill to: (if different)	Plains All American
Company Name:	Talon LPE	Company Name:	Pipeline
Address:	408 Texas St.	Address:	Ath: Camille Bryant
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	SR5# 2002-10250
Phone:	575-441-4835	Email:	adkins@talonlpe.com

Program: UST/PST	☐ PRP	☐ Brownfields	☐ RRC	☐ Superfund
State of Project:				
Reporting Level I	☐ Level II	☐ Level III	☐ PST/UST	☐ TTRP
Deliverables: EDD	☐	ADAPT	☐	Other:

Project Name:	CS Caylor	Turn Around	☒
Project Number:	700376,049.04	Routine	☒
Project Location:	Hobbs, NM	Rush:	
Sampler's Name:	Roy Bell / Bill Riggs	Due Date:	
PO #: SR5# 2002-10250	Quote #:		

SAMPLE RECEIPT	Temp Blank:	☒ Yes	☒ No
Temperature (°C):	30.2	Thermometer ID	7-10M-007
Received Inact:	☒ Yes	Correction Factor:	-0.2
Cooler Custody Seals:	☒ Yes	Total Containers:	133-39
Sample Custody Seals:	☒ Yes		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Analysis Request	Preservative Codes	Sample Comments
MW-11A		GLD	12-10-20	9:40	N/A	3			
MW-21				10:30					
MW-10A				11:50					
MW-9A				1:40					
MW-20				2:20					
MW-8A				3:30					
MW-1816A				3:05					
MW-15A				2:30					
MW-6A				1:15					
MW-14A				1:55					

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12-11-20 1353			

Work Order No: 680843

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Project Manager:	David Adkins	Bill to: (if different)	Plains All American
Company Name:	Talon LPE	Company Name:	Pipeline
Address:	408 Texas st	Address:	Ath. Canille Bryant
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	SR5# 2002-10250
Phone:	575-441-4835	Email:	dadkins@talonlpe.com
Project Name:	PS Pipeline		

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project: _____ Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐ Deliverables: EDD ☐ ADAPT ☐ Other: _____		www.xenqo.com Page 2 of 2
Work Order Comments		

[illegible][illegible]

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
CLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
1631 / 245,1 / 7470

1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

[illegible]

Inter-Office Shipment

IOS Number : **74771**

Date/Time: 12.14.2020

Created by: Martha Castro

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.:

E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
680843-001	W	MW-11 A	12.10.2020 09:40	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-002	W	MW-21	12.10.2020 10:30	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-003	W	MW-10 A	12.10.2020 11:50	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-004	W	MW-9 A	12.10.2020 13:40	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-005	W	MW-20	12.10.2020 14:20	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-006	W	MW-8 A	12.10.2020 15:30	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-007	W	MW- RB 16 A	12.10.2020 15:15	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-008	W	MW- RB 15 A	12.10.2020 14:30	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-009	W	MW-6 A	12.10.2020 13:15	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-010	W	MW-14 A	12.10.2020 13:55	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-011	W	MW-13 A	12.10.2020 11:50	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-012	W	MW-18A	12.10.2020 09:30	SW8021B	BTEX by EPA 8021	12.17.2020	12.24.2020	JKR	BR4FBZ BZ BZME EBZ	
680843-013	W	MW-17A	12.11.2020 09:00	SW8021B	BTEX by EPA 8021	12.17.2020	12.25.2020	JKR	BR4FBZ BZ BZME EBZ	

Inter Office Shipment or Sample Comments:

Relinquished By:



Martha Castro

Date Relinquished: 12.14.2020

Received By:



Jessica Kramer

Date Received: 12.15.2020

Cooler Temperature: 1.6

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 74771

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sent By: Martha Castro

Date Sent: 12.14.2020 02.44 PM

Received By: Jessica Kramer

Date Received: 12.15.2020 12.00 PM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jessica Kramer

Jessica Kramer

Date: 12.15.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 12.11.2020 01:53.00 PM

Work Order #: 680843

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	Yes

Samples sent to Midland.

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 12.11.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.15.2020

District I

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

District II

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 23945

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay St, Ste 1600 Houston, TX 77002	OGRID: 34053
	Action Number: 23945
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2020 ANNUAL GROUNDWATER MONITORING REPORT: Content satisfactory Contractor recommendations approved and are as follows; 1. Continue quarterly groundwater monitoring events in accordance with NMOCD 2. directives 2. OCD approves sampling termination for PAH in monitor wells MW-9A, MW-15A, MW-16A, and MW-18A. Two consecutive sampling events indicate PAH concentrations are less than NMWQCC standards 3. Continue operation and maintenance of the groundwater recovery system 4. OCD approves the removal of MW-20 from all future sampling events 5. OCD approves the plug and abandonment of MW-20 as it is located in a former drilling pit 6. Submit annual report to OCD no later than March 31,2022.	1/11/2022