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## 2024 Annual Groundwater Monitoring Report

**C.S. Caylor  
Lea County, New Mexico  
SRS # 2002-10250  
NMOCD REF. # AP-052, nAPP2109527803**

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**August 5, 2025**



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NMOCD – New Mexico Oil Conservation Division

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## 1. INTRODUCTION AND SITE HISTORY

C.S. Caylor (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 Pipeline, L.P. (Plains) purchased the assets of Link Energy on April 1, 2004. Initial reports estimated the release at 70 barrels (bbls) of crude oil with no recovery during initial response actions. 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.

The site is situated in a physiographic 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 was retained by Plains Pipeline, L.P. to assume remediation activities at the site. Remediation activities at the site were previously conducted by Environmental Plus, Inc. (EPI).

### 1.1 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 sand, clay, silt, and 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.

## **1.2 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 2,619.81 bbls of crude oil have been recovered from the site as of December 31, 2024.

During 2024, the groundwater recovery system extracted approximately 14.24 bbls of PSH and 5,672 bbls of groundwater. Four (4) MDPE events conducted in January, May, August, and December 2024, recovered 21.79 bbls of PSH which consisted of 6.42 bbls of vapor and 15.37 bbls of liquid PSH. A cumulative total of 36.03 bbls of PSH were recovered in 2024.

### **1.3 Regulatory Framework**

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

<b>NMWQCC Groundwater Standards</b>	
<b>Compound</b>	<b>Milligrams per Liter</b>
Benzene	0.010
Toluene	0.750
Ethylbenzene	0.750
Total Xylenes	0.620
PAH (Naphthalene)	0.030
PAH (Benzo[a]pyrene)	0.0007

The following sections provide summaries of the groundwater monitoring activities conducted at the site as well as analytical results from each groundwater sampling event of 2024. Analytical results for the four (4) sampling events are summarized in Table 2, Table 3, and Table 4 in [Appendix B](#), and Figures 3a through 3d in [Appendix A](#). Laboratory analytical data reports and chain of custody documentation are included in [Appendix C](#).

## 2. SITE ACTIVITIES

The sections that follow summarize groundwater monitoring, PSH recovery and site assessment activities conducted at the site during the year 2024. The primary function of groundwater monitoring activities is to collect depth to fluid measurements and collect groundwater samples 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 impact to the groundwater and determining if modifications to the remediation system would improve performance and efficiency.

### 2.1 Groundwater Monitoring Activities

A total of four (4) groundwater monitoring events were conducted by Talon/LPE in 2024. The events occurred in: March, June, September, and December.

During the March 2024 groundwater monitoring event, 20 monitor wells were gauged. A total of 11 monitor wells (MW-6A, MW-9A through MW-11A, MW -13A through MW-18A, and MW-21) were purged and sampled. Due to the presence of PSH, two (2) monitor wells (MW-5A and MW-12A) were not sampled. It was noted that six (6) monitor wells (MW-1A, MW-2A, MW-3A, MW-4A, MW-7A, and MW-8A) were dry when gauged and the pump was stuck in monitor well MW-19; therefore, the aforementioned wells were not purged or sampled. Monitor well MW-20 was not scheduled to be sampled. Details of the gauging, purging, and sampling activities are presented in [Section 2.2](#).

During the June 2024 groundwater monitoring event, 20 monitor wells were gauged. A total of 11 monitor wells (MW-6A, MW-9A through MW-11A, MW -13A through MW-18A, and MW-21) were purged and sampled. Due to the presence of PSH, two (2) monitor wells (MW-5A and MW-12A) were not sampled. It was noted that six (6) monitor wells (MW-1A, MW-2A, MW-3A, MW-4A, MW-7A, and MW-8A) were dry when gauged, and the pump was stuck in monitor well MW-19; therefore, the aforementioned wells were not purged or sampled. Monitor well MW-20 was not scheduled to be sampled. Details of the gauging, purging, and sampling activities are presented in [Section 2.2](#).

During the September 2024 groundwater monitoring event, 20 monitor wells were gauged. A total of 10 monitor wells (MW-6A, MW-10A, MW-11A, MW-13A through MW-18A, and MW-21) were purged and sampled. Due to the presence of PSH, one (1) monitor well (MW-5A) was not sampled. It was noted that six (6) monitor wells (MW-1A, MW-2A, MW-3A, MW-4A, MW-7A, and MW-8A) were dry when gauged, monitor well MW-9A contained insufficient water, and the pump was stuck in monitor wells

MW-12A and MW-19; therefore, the aforementioned wells were not purged or sampled. Monitor well MW-20 was not scheduled to be sampled. Details of the gauging, purging, and sampling activities are presented in [Section 2.2](#).

During the December 2024 groundwater monitoring event, 20 monitor wells were gauged. A total of 10 monitor wells (MW-6A, MW-10A, MW-11A, MW-13A through MW-18A, and MW-21) were purged and sampled. Due to the presence of PSH, three (3) monitor wells (MW-5A, MW-12A, and MW-19) were not sampled. It was noted that six (6) monitor wells (MW-1A, MW-2A, MW-3A, MW-4A, MW-7A, and MW-8A) were dry when gauged and monitor well MW-9A had insufficient water; therefore, the aforementioned wells were not purged or sampled. Monitor well MW-20 was not scheduled to be 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 - Groundwater Gauging and NAPL Thickness – Historical in [Appendix B](#).

Subsequent to gauging, all monitor wells with sufficient water volume and that did not indicate the presence of 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. Between January and June 2022, water was transferred to the Rocky/Smith saltwater disposal (SWD) system. Since June 2022, water is transferred offsite by Gandy Marley to an NMOCD approved disposal facility, Gandy Marley, for disposal.

Groundwater samples were collected from all monitor wells that did not indicate the presence of 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/LPE personnel, until they were delivered to Permian Basin Environmental in Midland, Texas for testing. The groundwater samples collected during the four (4) events were quantified for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method SW-846 8021B.

Groundwater samples collected from wells (MW-6A, MW-10A, MW-11A, MW-13A, MW-14A, MW-17A, and MW-21) were also analyzed for polycyclic aromatic hydrocarbons (PAH) by EPA Method 8270 in March 2024.

Groundwater samples collected from wells (MW-6A, MW-10A, MW-11A, and MW-21) were also analyzed for Monitored Natural Attenuation (MNA) parameters. The monitor wells sampled for MNA parameters were purged using low-flow groundwater sampling procedures. Field parameters for dissolved oxygen, oxidation-reduction potential, pH, temperature, and conductivity were collected every three (3) to five (5) minutes during purging activities. When three (3) consecutive, consistent readings were observed, a groundwater sample was taken from the pump's discharge tubing into appropriately preserved, laboratory supplied sample containers. The groundwater samples were maintained on ice in the custody of Talon/LPE until delivery to Permian Basin Environmental in Midland, Texas for analysis of nitrate, sulfate, ferrous iron, manganese, alkalinity, and methane.

Samples dropped off at Permian Basin Environmental for PAH or MNA analysis were transported to ALS Houston in Stafford, TX.

### **2.3 Phase Separated Hydrocarbon Recovery**

PSH recovery methods have been employed at the site since 2002. Recovery was initially conducted 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 consisted 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.

During 2022, there were two (2) total fluid pumps operating in monitor wells MW-12A and MW-19 for all four (4) quarters. The PSH and recovered groundwater was 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 pump transferred the fluids to the Rocky/Smith SWD system for disposal between January and June 2022. Since June 2022, water is transferred offsite by Gandy Marley to the Gandy Marley facility for disposal.

During 2023, there were two (2) total fluid pumps operating in monitor wells MW-12A and MW-19 for all the first, third, and fourth quarters of 2023. During the second quarter, only the total fluid pump in monitor well MW-12A was operating; the total fluid pump in monitor well MW-19 was obstructed and was removed and replaced. The PSH and recovered groundwater was 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. Water is transferred offsite by Gandy Marley to the Gandy Marley facility for disposal.

During 2024, there were three (3) total fluid pumps operating in monitor wells MW-5, MW-12A and MW-19 for all the four (4) quarters of 2024. The PSH and recovered groundwater was 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. Water is transferred offsite by Gandy Marley to the Gandy Marley facility for disposal.

During 2024 the quarterly PSH and groundwater recovery totals are as follows:

1<sup>st</sup> Quarter – 3.08 bbls PSH and 2,010 bbls of groundwater  
2<sup>nd</sup> Quarter – 3.92 bbls PSH and 2,172 bbls of groundwater  
3<sup>rd</sup> Quarter – 2.48 bbls PSH and 630 bbls of groundwater  
4<sup>th</sup> Quarter – 4.76 bbls PSH and 860 bbls of groundwater

Four (4) MDPE events, in which liquid and vapor PSH were recovered, were conducted on site during 2024. The individual MDPE event recovery totals are as follows:

January 25, 2024 – 2.56 bbls vapor, 1.99 bbls liquid PSH  
May 20, 2024 – 1.76 bbls vapor, 5.32 bbls liquid PSH  
August 6, 2024 – 0.66 bbls vapor, 1.72 bbls liquid PSH  
December 5, 2024 – 1.44 bbls vapor, 6.34 bbls liquid PSH

In 2024, an estimated total of 21.79 bbls of PSH were recovered during the MDPE events.

Approximately 36.03 bbls of crude oil bbls of crude oil was recovered in 2024 and an estimated 2,619.81 bbls of PSH has been recovered at the subject site to date.

### 3. GROUNDWATER MONITORING RESULTS

The results of the laboratory analyses are summarized in Table 2 – Groundwater Analytical Data – Historical, Table 3 – Groundwater Analytical Data – Historical – PAH Supplement, and Table 4 - Groundwater Analytical Data – Historical – MNA Supplement in [Appendix B](#). Laboratory analytical data reports and chain of custody documentation are provided in [Appendix C](#).

The following sections present the results from the monitoring of the first water-bearing zone underlying the site.

#### 3.1 Physical Characteristics of the First Water-Bearing Zone

The primary groundwater resource under the Southern High Plains, which includes the site, is referred to as the Ogallala Aquifer or 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 average from zero 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 inches per day. The regional hydraulic conductivity averages 17 gallons per day per square-foot with a specific yield averaging 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<sub>3</sub>, 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**

The depth to fluid measurements was collected during each of the four (4) groundwater monitoring events during the year 2024. The results of the fluid level measurements are summarized in Table 1 - Groundwater Gauging and NAPL Thickness – Historical in [Appendix B](#).

Potentiometric surface maps were constructed from the four (4) quarterly water level measurement data sets:

- March 11, 2024
- June 11, 2024
- September 16, 2024
- December 12, 2024

These maps are Figures 2a, 2b, 2c, and 2d presented in [Appendix A](#).

Based on fluid level measurements at the site, the groundwater flow direction within the first water-bearing zone underlying the site between March 2024 and December 2024 was southeast with an average gradient of 0.00116 feet per foot (ft/ft), or approximately 6.12 feet per mile. Groundwater levels at the subject site have exhibited a decrease of an average of 1.11 feet for the year 2024 that appears to be associated with a regional trend of fluctuating groundwater levels for the Ogallala Aquifer.

### **3.3 Phase Separated Hydrocarbons**

Groundwater measurements were obtained using an oil/water interface probe, which was also used to determine the presence of PSH.

During the March 2024 sampling event, PSH was observed in two (2) monitor wells (MW-5A and MW-12A). PSH thickness in these wells ranged from 0.01 feet to 0.07 feet.

During the June 2024 sampling event, PSH was observed in two (2) monitor wells (MW-5A and MW-12A). PSH thickness in these wells ranged from 0.01 feet to 0.92 feet.

During the September 2024 sampling event, PSH was observed in one (1) monitor well (MW-5A). PSH thickness in this well measured at 0.30 feet.

During the December 2024 sampling event, PSH was observed in three (3) monitor wells (MW-5A, MW-12A, and MW-19). PSH thickness ranged from 0.01 feet to 1.58 feet

PSH plume maps are presented as Figures 3a, 3b, 3c, and 3d in [Appendix A](#).

### 3.4 Groundwater Sampling Results

During the March 2024 sampling event, 11 monitor wells (MW-6A, MW-9A through MW-11A, MW -13A through MW-18A, and MW-21) were sampled. Groundwater samples collected from these wells exhibited the following analytical results:

- Benzene concentrations were below the applicable laboratory MDLs in all wells sampled. Benzene concentrations did not exceed the NMWQCC groundwater standard of 0.010 mg/L in any monitor wells sampled this quarter.
- Toluene concentrations were below the applicable laboratory MDLs in all the wells sampled. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Ethylbenzene concentrations were below the applicable laboratory MDLs in all wells sampled. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Xylene concentrations were below the applicable laboratory MDLs in all wells sampled. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any monitor wells sampled this quarter.
- Naphthalene concentrations for all sampled wells were less than the laboratory MDL. Naphthalene concentrations did not exceed the NMWQCC groundwater standard of 0.030 mg/L in the monitor wells sampled during this quarter.
- Benzo(a)pyrene concentrations for all sampled wells were less than the laboratory MDL. Benzo(a)pyrene concentrations did not exceed the NMWQCC groundwater standard of 0.0007 mg/L in any of the monitor wells sampled during the quarter.
- Dibenzofuran concentrations for all sampled wells were less than the laboratory MDLs.
- Methane concentrations ranged from <0.000500 mg/L in MW-11A to 0.000748 mg/L in MW-21.
- Ferrous Iron concentrations ranged from <0.200 mg/L in MW11A and MW-21 to 0.305 mg/L in MW-10A.
- Manganese concentrations ranged from <0.00500 mg/L in MW-11A to 0.307 mg/L in MW-21.
- Total Alkalinity concentrations ranged from 138 mg/L in MW-10 to 345 mg/L in MW-6A and MW-21.

- Sulfate concentrations ranged from 44.4 mg/L in MW-10A to 114 mg/L in MW-21.
- Nitrate as N concentrations ranged from <0.200 mg/L in MW-6A and MW-11A to 1.54 mg/L in MW-21.

During the June 2024 sampling event, 11 monitor wells (MW-6A, MW-9A through MW-11A, MW -13A through MW-18A, and MW-21) were sampled. Groundwater samples collected from these wells exhibited the following analytical results:

- Benzene concentrations were below the applicable laboratory MDLs in all wells sampled. Benzene concentrations did not exceed the NMWQCC groundwater standard of 0.010 mg/L in any monitor wells sampled this quarter.
- Toluene concentrations were below the applicable laboratory MDLs in all wells sampled; Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Ethylbenzene concentrations were below the applicable laboratory MDLs in all wells sampled; Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Xylene concentrations were below the applicable laboratory MDLs in all wells sampled; Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any monitor wells sampled this quarter.
- Methane concentrations ranged from 0.000541 mg/L in MW-21 to 0.00125 mg/L in MW-11A.
- Ferrous Iron concentrations ranged from <0.200 mg/L in MW-6A and MW-21 to 0.576 mg/L in MW-10A.
- Manganese concentrations ranged from 0.00862 mg/L in MW-6A to 0.342 mg/L in MW-21.
- Total Alkalinity concentrations ranged from 58.0 mg/L in MW-10A to 79.0 mg/L in MW- 6A.
- Sulfate concentrations ranged from 59.1mg/L in MW-6A to 63.7 mg/L in MW-10A.
- Nitrate as N concentrations ranged from 1.37 mg/L in MW-21 to 1.82 mg/L in MW-6A.

During the September 2024 sampling event, 10 monitor wells (MW-6A, MW-10A, MW-11A, MW-13A through MW-18A, and MW-21) were sampled. Groundwater samples collected from these wells exhibited the following analytical results:

- Benzene concentrations were below the applicable laboratory MDLs in all wells sampled except for MW-6A. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in monitor well MW-6A at 0.0538 mg/L.

- Toluene concentrations were below the applicable laboratory MDLs in all wells sampled. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Ethylbenzene concentrations were below the applicable laboratory MDLs in all wells sampled. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Xylene concentrations were below the applicable laboratory MDLs in all wells sampled except for MW-6A. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any monitor wells sampled this quarter.
- Methane concentrations ranged between 0.00106 mg/L in MW-10 to 0.00296 mg/L in MW-6A.
- Ferrous Iron concentrations were <0.200 mg/L in all of the monitor wells analyzed.
- Manganese concentrations ranged from <0.00500 mg/L in MW-11A to 0.267 mg/L in MW-21.
- Total Alkalinity concentrations ranged from 286 mg/L in MW-10A to 370 mg/L in MW-11A.
- Sulfate concentrations ranged from 41.2 mg/L in MW-10A to 51.5 mg/L in MW-6A.
- Nitrate as N concentrations ranged from 1.98 mg/L in MW-21 to 2.46 mg/L in MW-6A.

During the December 2024 sampling event, 10 monitor wells (MW-6A, MW-10A, MW-11A, MW-13A through MW-18A, and MW-21) were sampled. Groundwater samples collected from these wells exhibited the following analytical results:

- Benzene concentrations were below the applicable laboratory MDLs in all wells sampled except for MW-6A. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in monitor well MW-6A at 0.0131 mg/L.
- Toluene concentrations were below the applicable laboratory MDLs in all wells sampled. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Ethylbenzene concentrations were below the applicable laboratory MDLs in all wells sampled. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Xylene concentrations were below the applicable laboratory MDLs in all wells sampled. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any monitor wells sampled this quarter.
- Methane concentrations ranged between 0.000965 mg/L in MW-10A to 0.00147 mg/L in MW-21.

- Ferrous Iron concentrations were <0.200 mg/L in all of the monitor wells analyzed.
- Manganese concentrations ranged from 0.00667 mg/L in MW-11A to 0.261 mg/L in MW-21.
- Total Alkalinity concentrations ranged from 286 mg/L in MW-10A to 344 mg/L in MW-11A.
- Sulfate concentrations ranged from 63.4 mg/L in MW-21 to 80.2 mg/L in MW-11A.
- Nitrate as N concentrations ranged from 1.32 mg/L in MW-21 to 2.10 mg/L in MW-11A.

The results of the laboratory analyses are summarized in Table 2 – Groundwater Analytical Data – Historical in [Appendix B](#). Laboratory analytical data reports and chain of custody documentation are provided in [Appendix C](#).

Historical benzene concentrations in wells MW-6A, MW-8A, MW-9A, MW-12A, and MW-20 were analyzed using the Mann-Kendall statistical methods to quantitatively determine if the concentrations are increasing, decreasing, or stable over time. The Mann-Kendall analysis is a non-parametric statistical procedure that is used for analyzing trends in data over time. The data was analyzed using the GSI Environmental Inc. Mann-Kendall Toolkit software. Based on the analysis, benzene concentrations in wells MW-6A, MW-9A, and MW-20 show a decreasing trend and benzene concentrations in MW-8A and MW-12A show no trend. Results of the Mann-Kendall analysis are included in [Appendix D](#).

## 4. CONCLUSIONS AND RECOMMENDATIONS

The following section presents a summary of the groundwater monitoring events conducted at the site and provides recommendations for future actions.

### 4.1 Summary of Findings

- The groundwater flow direction is generally to the southeast with an average gradient of 0.00116 feet per foot based on the water level measurement data collected in 2024.
- PSH thicknesses have generally decreased during the year 2024.
- The PSH recovery system and MDPE events removed a cumulative total of 36.03 bbls of crude oil from the site during 2024.
- The benzene concentrations in MW-6A exceeded the NMWQCC groundwater standard of 0.010 mg/L during the September and December sampling events.

### 4.2 Recommendations

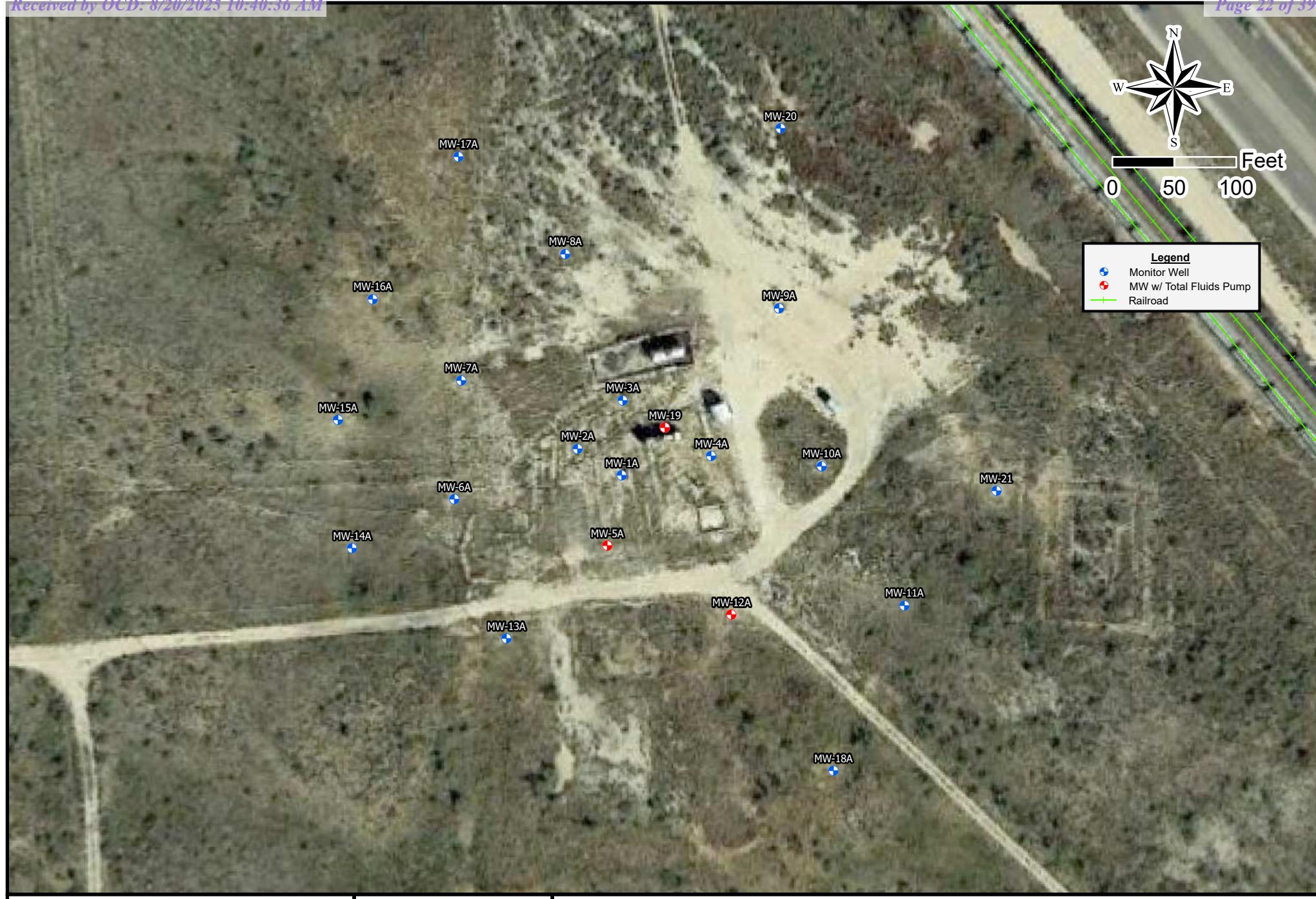
Based upon the results of the quarterly groundwater monitoring and PSH recovery efforts, Talon/LPE proposes the following actions:

- Perform quarterly groundwater monitoring events in accordance with NMOCD directives.
- Continue operation and maintenance of the groundwater recovery system.
- Install additional monitoring wells to compensate for the declining water levels.
- Plug and abandon monitor well MW-20.



## APPENDIX A

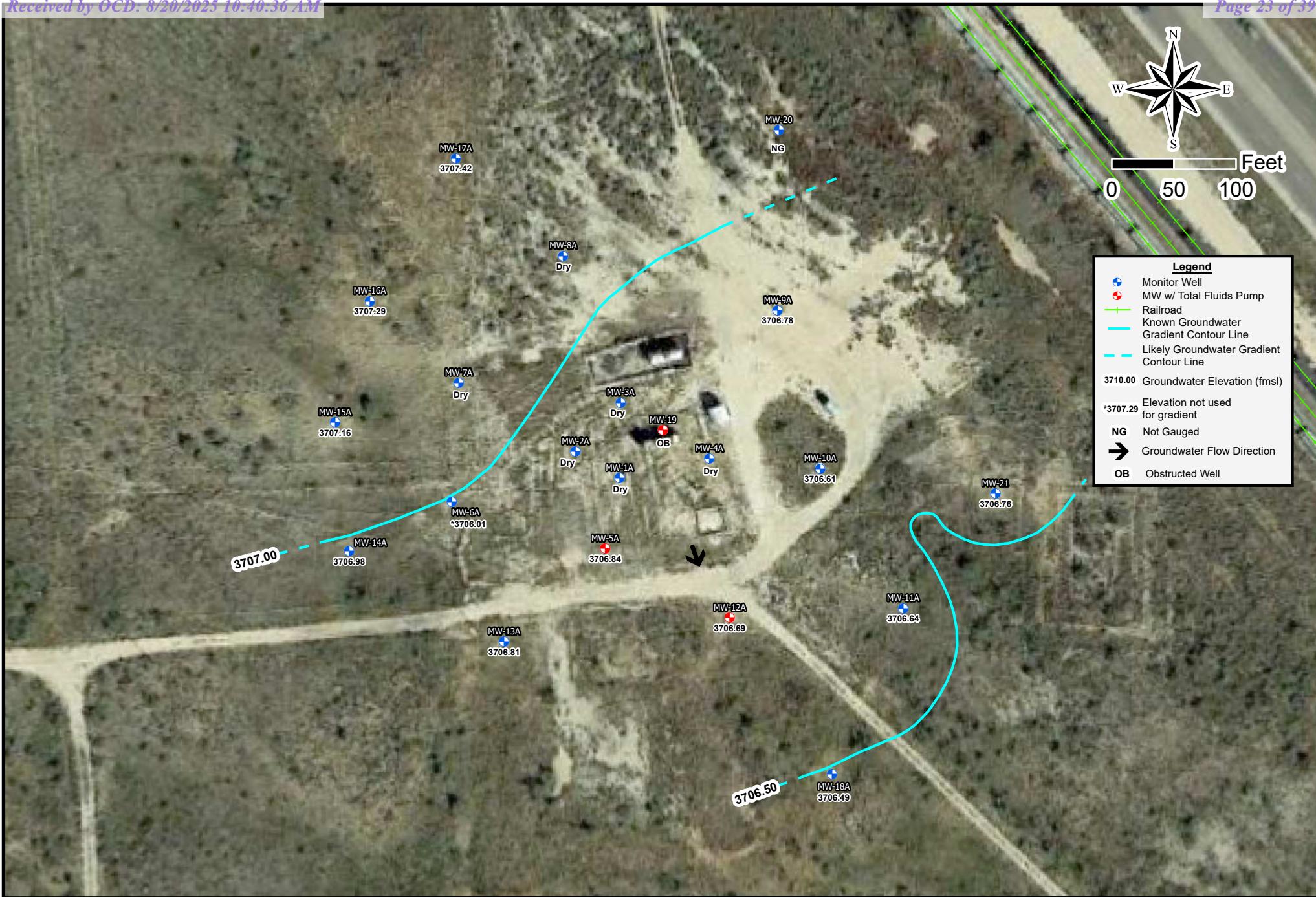
### Figures



Released to Imaging: 9/18/2025 2:49:54 PM

Date: 5/16/2024  
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 1 - Site Plan

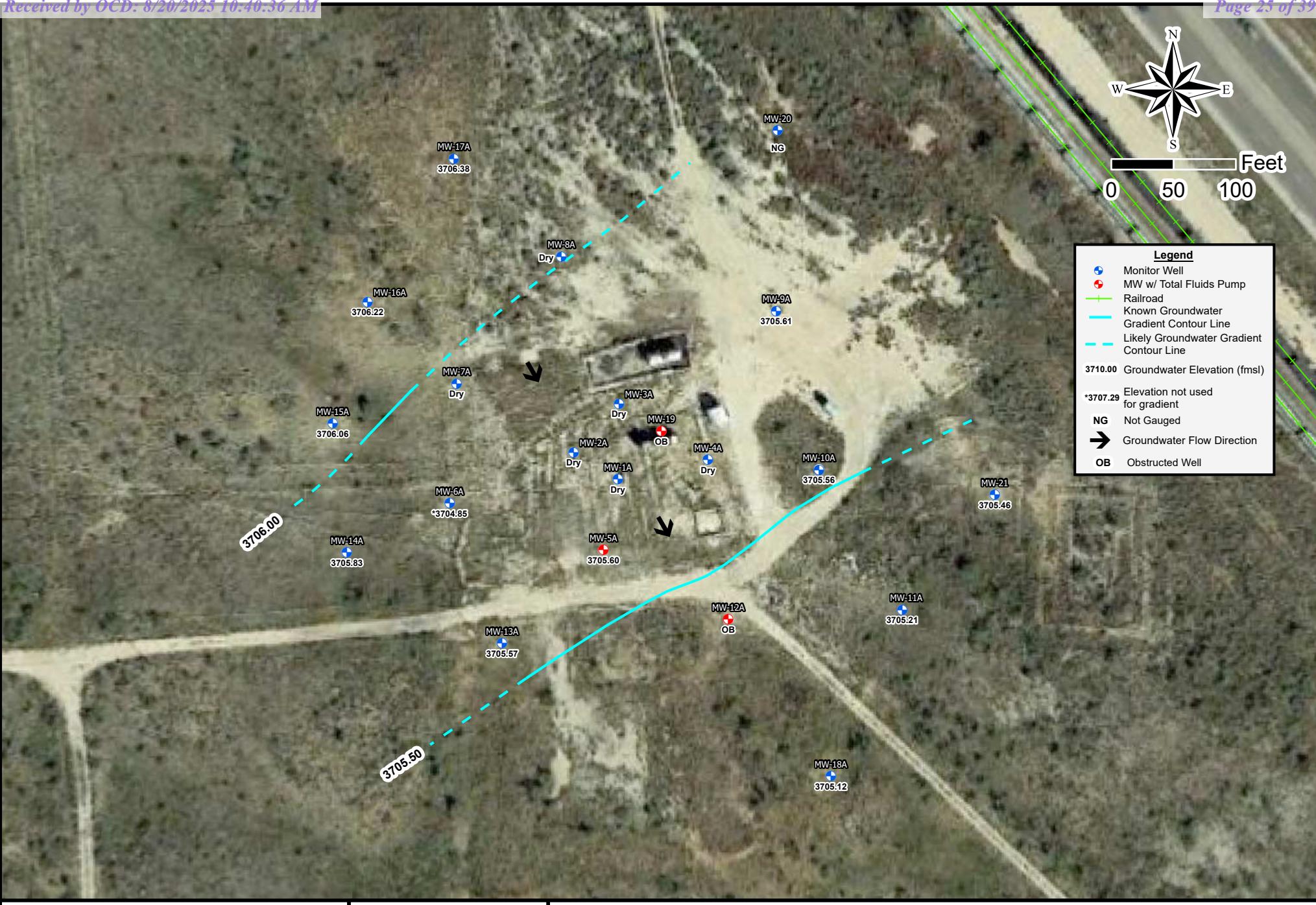


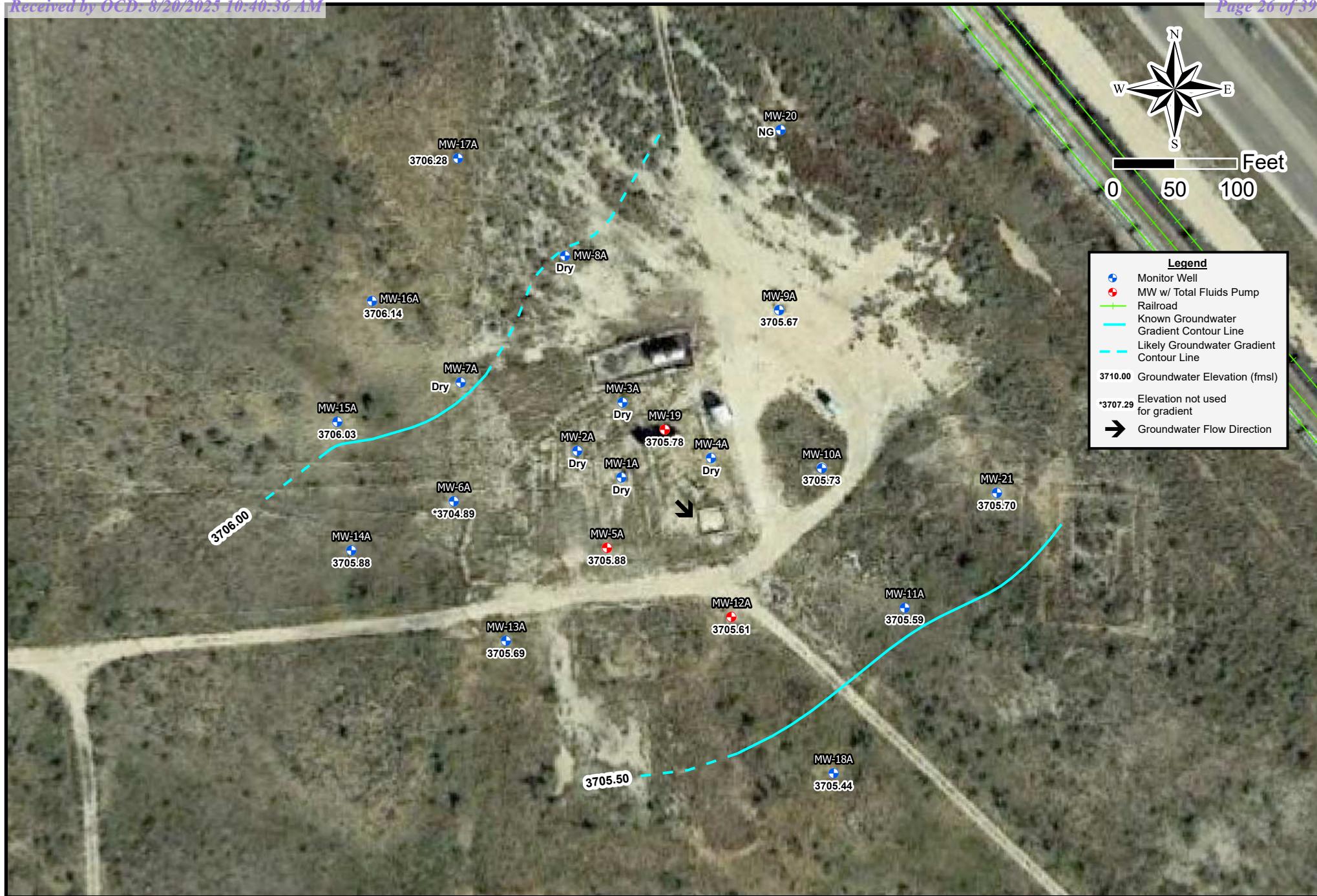
Released to Imaging: 9/18/2025 2:49:54 PM

Date: 5/16/2024  
1 in = 100 ft  
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C.S. Taylor  
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 (03/11/2024)

















## APPENDIX B

### Tables

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	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-1A 4"	3810.14	76.2	96.2	03/21/2016	95.96	91.70	4.26	3717.74
				06/16/2016	92.78	92.08	0.70	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	1.60	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	1.30	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	0.60	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	-	-	-
				03/10/2021	DR	-	-	-
				06/11/2021	DR	-	-	-
				09/15/2021	DR	-	-	-
				12/13/2021	DR	-	-	-
				03/18/2022	DR	-	-	-
				06/20/2022	DR	-	-	-
				09/19/2022	DR	-	-	-
				12/19/2022	DR	-	-	-
				03/17/2023	DR	-	-	-
				06/16/2023	DR	-	-	-
				09/18/2023	DR	-	-	-
				12/18/2023	DR	-	-	-
				3/11/2024	DR	-	-	-
				06/11/2024	DR	-	-	-
				09/16/2024	DR	-	-	-
				12/12/2024	DR	-	-	-
MW-2 4"	3807.38	68.1	88.1	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	5.50	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
				03/10/2021	101.91	98.68	3.23	3710.93
				06/11/2021	101.91	98.17	3.74	3711.35
				09/15/2021	102.30	98.90	3.40	3710.68
				12/13/2021	DR	-	-	-
				03/18/2022	DR	-	-	-
				06/20/2022	DR	-	-	-
				09/19/2022	DR	-	-	-
				12/19/2022	DR	-	-	-
				03/17/2023	DR	-	-	-
				06/16/2023	DR	-	-	-
				09/18/2023	DR	-	-	-
				12/18/2023	DR	-	-	-
				03/11/2024	DR	-	-	-
				06/11/2024	DR	-	-	-
				09/16/2024	DR	-	-	-
				12/12/2024	DR	-	-	-

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	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
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	98.68	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	0.60	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
				03/10/2021	99.35	98.11	1.24	3712.16
				06/11/2021	99.52	98.62	0.90	3711.70
				09/15/2021	99.52	99.33	0.19	3711.11
				12/13/2021	DR	-	-	-
				03/18/2022	DR	-	-	-
				06/20/2022	DR	-	-	-
				09/19/2022	DR	-	-	-
				12/19/2022	DR	-	-	-
				03/17/2023	DR	-	-	-
				06/16/2023	DR	-	-	-
				09/18/2023	DR	-	-	-
				12/18/2023	DR	-	-	-
				03/11/2024	DR	-	-	-
				06/11/2024	DR	-	-	-
				09/16/2024	DR	-	-	-
				12/12/2024	DR	-	-	-
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	4.70	3716.82
				09/13/2016	98.57	93.66	4.91	3715.98
				11/29/2016	98.35	93.45	4.90	3716.19
				03/13/2017	98.60	93.50	5.10	3716.11
				06/07/2017	99.10	93.80	5.30	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	5.20	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	4.50	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	-	-	-
				03/10/2021	101.31	97.23	4.08	3712.55
				06/11/2021	OBS	-	-	-
				09/15/2021	OBS	-	-	-
				09/29/2021	101.49	99.70	1.79	3710.45
				12/13/2021	101.50	99.90	1.60	3710.29
				03/18/2022	101.20	99.90	1.30	3710.34
				06/20/2022	101.42	100.46	0.96	3709.83
				09/19/2022	DR	-	-	-
				12/19/2022	DR	-	-	-
				03/17/2023	DR	-	-	-
				06/16/2023	DR	-	-	-
				09/18/2023	DR	-	-	-
				12/18/2023	DR	-	-	-
				03/11/2024	DR	-	-	-
				06/11/2024	DR	-	-	-
				09/16/2024	DR	-	-	-
				12/12/2024	DR	-	-	-

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	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-5 4"	3809.29	73.4	93.4	03/21/2016	93.05	90.85	2.20	3718.08
				06/16/2016	PA	-	-	-
MW-5A 4"	3809.30	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	5.50	3715.09
				03/23/2018	99.02	93.26	5.76	3715.09
				06/13/2018	100.25	93.95	6.30	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
				03/10/2021	102.97	97.32	5.65	3711.05
				06/11/2021	98.46	98.40	0.06	3710.89
				09/29/2021	99.40	99.39	0.01	3709.91
				12/13/2021	103.78	98.72	5.06	3709.75
				03/18/2022	101.60	99.25	2.35	3709.66
				06/20/2022	103.78	99.33	4.45	3709.24
				09/19/2022	102.14	101.12	1.02	3708.01
				12/19/2022	102.96	100.87	2.09	3708.09
				03/17/2023	101.82	101.10	0.72	3708.08
				06/16/2023	101.81	101.80	0.01	3707.50
				09/18/2023	103.04	102.63	0.41	3706.60
				12/18/2023	102.95	102.80	0.15	3706.48
				03/11/2024	102.52	102.45	0.07	3706.84
				06/11/2024	103.74	102.82	0.92	3706.33
				09/16/2024	103.95	103.65	0.30	3705.60
				12/12/2024	103.43	103.42	0.01	3705.88
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
				03/10/2021	98.80	-	-	3710.24
				06/11/2021	99.31	-	-	3709.73
				09/14/2021	99.94	-	-	3709.10
				12/13/2021	100.25	-	-	3708.79
				03/18/2022	100.20	-	-	3708.84
				06/20/2022	100.81	-	-	3708.23
				09/19/2022	101.75	-	-	3707.29
				12/19/2022	101.77	-	-	3707.27
				03/17/2023	101.80	-	-	3707.24
				06/16/2023	102.25	-	-	3706.79
				09/18/2023	103.14	-	-	3705.90
				12/18/2023	103.37	-	-	3705.67
				03/11/2024	103.03	-	-	3706.01
				06/11/2024	103.48	-	-	3705.56
				09/16/2024	104.19	-	-	3704.85
				12/12/2024	104.15	-	-	3704.89

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 CS Caylor  
 Lea County, NM  
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Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date	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	2.50	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
				03/10/2021	99.05	98.45	0.60	3712.08
				06/11/2021	99.82	98.97	0.85	3710.81
				09/15/2021	99.86	99.58	0.28	3711.00
				12/13/2021	DR	-	-	-
				03/18/2022	DR	-	-	-
				06/20/2022	DR	-	-	-
				09/19/2022	DR	-	-	-
				12/19/2022	DR	-	-	-
				03/17/2023	DR	-	-	-
				06/16/2023	DR	-	-	-
				09/18/2023	DR	-	-	-
				12/18/2023	DR	-	-	-
				03/11/2024	DR	-	-	-
				06/11/2024	DR	-	-	-
				09/16/2024	DR	-	-	-
				12/12/2024	DR	-	-	-
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
				03/10/2021	99.33	-	-	3711.40
				06/11/2021	99.82	-	-	3710.91
				09/14/2021	100.38	-	-	3710.35
				12/13/2021	100.75	-	-	3709.98
				03/18/2022	100.73	-	-	3710.00
				06/20/2022	101.29	-	-	3709.44
				09/19/2022	DR	-	-	-
				12/19/2022	DR	-	-	-
				03/17/2023	DR	-	-	-
				06/16/2023	DR	-	-	-
				09/18/2023	DR	-	-	-
				12/18/2023	DR	-	-	-
				03/11/2024	DR	-	-	-
				06/11/2024	DR	-	-	-
				09/16/2024	DR	-	-	-
				12/12/2024	DR	-	-	-

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	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
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
				03/10/2021	99.73	-	-	3711.00
				06/11/2021	100.23	-	-	3710.50
				09/14/2021	100.86	-	-	3709.87
				12/13/2021	101.22	-	-	3709.51
				03/18/2022	101.15	-	-	3709.58
				06/20/2022	101.76	-	-	3708.97
				09/19/2022	102.70	-	-	3708.03
				12/19/2022	102.85	-	-	3707.88
				03/17/2023	102.71	-	-	3708.02
				06/16/2023	103.20	-	-	3707.53
				09/18/2023	104.10	-	-	3706.63
				12/18/2023	104.32	-	-	3706.41
				03/11/2024	103.95	-	-	3706.78
				06/11/2024	104.44	-	-	3706.29
				09/16/2024	105.12	-	-	3705.61
				12/12/2024	105.06	-	-	3705.67
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
				03/10/2021	99.37	-	-	3711.04
				06/11/2021	99.87	-	-	3710.54
				09/14/2021	100.62	-	-	3709.79
				12/13/2021	100.90	-	-	3709.51
				03/18/2022	100.85	-	-	3709.56
				06/20/2022	101.50	-	-	3708.91
				09/19/2022	102.46	-	-	3707.95
				12/19/2022	102.35	-	-	3708.06
				03/17/2023	102.35	-	-	3708.06
				06/16/2023	102.86	-	-	3707.55
				09/18/2023	103.89	-	-	3706.52
				12/18/2023	104.00	-	-	3706.41
				03/11/2024	103.80	-	-	3706.61
				06/11/2024	104.15	-	-	3706.26
				09/16/2024	104.85	-	-	3705.56
				12/12/2024	104.68	-	-	3705.73

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	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
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
				03/10/2021	98.13	-	-	3710.86
				06/11/2021	98.62	-	-	3710.37
				09/14/2021	99.46	-	-	3709.53
				12/13/2021	99.72	-	-	3709.27
				03/18/2022	99.60	-	-	3709.39
				06/20/2022	100.33	-	-	3708.66
				09/19/2022	101.36	-	-	3707.63
				12/19/2022	101.13	-	-	3707.86
				03/17/2023	101.18	-	-	3707.81
				06/16/2023	101.64	-	-	3707.35
				09/18/2023	102.78	-	-	3706.21
				12/18/2023	102.81	-	-	3706.18
				03/11/2024	102.35	-	-	3706.64
				06/11/2024	103.00	-	-	3705.99
				09/16/2024	103.78	-	-	3705.21
				12/12/2024	103.40	-	-	3705.59
MW-12 2"	3809.81	70.8	90.8	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
				03/10/2021	100.13	97.70	2.43	3710.88
				06/11/2021	98.82	98.54	0.28	3710.39
				09/29/2021	99.40	99.39	0.01	3709.59
				12/13/2021	99.63	99.62	0.01	3709.36
				03/18/2022	99.50	-	-	3709.48
				06/20/2022	100.26	100.25	0.01	3708.73
				09/19/2022	101.21	101.20	0.01	3707.78
				12/19/2022	101.05	101.04	0.01	3707.94
				03/17/2023	101.05	101.04	0.01	3707.94
				06/16/2023	101.56	-	-	3707.42
				09/18/2023	102.63	102.62	0.01	3706.36
				12/18/2023	102.71	102.70	0.01	3706.28
				03/11/2024	102.30	102.29	0.01	3706.69
				06/11/2024	102.88	102.87	0.01	3706.11
				09/16/2024	OB	-	-	-
				12/12/2024	103.38	103.37	0.01	3705.61

Table 1 - Groundwater Gauging and NAPL Thickness - Historical  
 CS Caylor  
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Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date	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
				03/10/2021	98.46	-	-	3711.03
				06/11/2021	98.95	-	-	3710.54
				09/14/2021	99.66	-	-	3709.83
				12/13/2021	99.95	-	-	3709.54
				03/18/2022	99.87	-	-	3709.62
				06/20/2022	100.53	-	-	3708.96
				09/19/2022	101.54	-	-	3707.95
				12/19/2022	101.40	-	-	3708.09
				03/17/2023	101.43	-	-	3708.06
				06/16/2023	101.93	-	-	3707.56
				09/18/2023	102.92	-	-	3706.57
				12/18/2023	103.09	-	-	3706.40
				03/11/2024	102.68	-	-	3706.81
				06/11/2024	103.20	-	-	3706.29
				09/16/2024	103.92	-	-	3705.57
				12/12/2024	103.80	-	-	3705.69
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
				03/10/2021	98.73	-	-	3711.20
				06/11/2021	98.22	-	-	3711.71
				09/14/2021	99.83	-	-	3710.10
				12/13/2021	100.20	-	-	3709.73
				03/18/2022	100.13	-	-	3709.80
				06/20/2022	100.71	-	-	3709.22
				09/19/2022	101.65	-	-	3708.28
				12/19/2022	101.62	-	-	3708.31
				03/17/2023	101.69	-	-	3708.24
				06/16/2023	102.16	-	-	3707.77
				09/18/2023	103.03	-	-	3706.90
				12/18/2023	103.30	-	-	3706.63
				03/11/2024	102.95	-	-	3706.98
				06/11/2024	103.38	-	-	3706.55
				09/16/2024	104.10	-	-	3705.83
				12/12/2024	104.05	-	-	3705.88

Table 1 - Groundwater Gauging and NAPL Thickness - Historical  
 CS Caylor  
 Lea County, NM  
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Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-15 2"	3810.93	72.2	92.2	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
				03/10/2021	99.39	-	-	3711.37
				06/11/2021	99.87	-	-	3710.89
				09/14/2021	100.44	-	-	3710.32
				12/13/2021	100.80	-	-	3709.96
				03/18/2022	100.75	-	-	3710.01
				06/20/2022	101.33	-	-	3709.43
				09/19/2022	102.20	-	-	3708.56
				12/19/2022	102.25	-	-	3708.51
				03/17/2023	102.35	-	-	3708.41
				06/16/2023	102.81	-	-	3707.95
				09/18/2023	103.61	-	-	3707.15
				12/18/2023	103.90	-	-	3706.86
				03/11/2024	103.60	-	-	3707.16
				06/11/2024	104.00	-	-	3706.76
				09/16/2024	104.70	-	-	3706.06
				12/12/2024	104.73	-	-	3706.03
MW-16 2"	3812.23	71.2	91.2	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
				03/10/2021	100.22	-	-	3711.50
				06/11/2021	100.70	-	-	3711.02
				09/14/2021	101.25	-	-	3710.47
				12/13/2021	101.62	-	-	3710.10
				03/18/2022	101.60	-	-	3710.12
				06/20/2022	102.15	-	-	3709.57
				09/19/2022	103.03	-	-	3708.69
				12/19/2022	103.06	-	-	3708.66
				03/17/2023	103.17	-	-	3708.55
				06/16/2023	103.85	-	-	3707.87
				09/18/2023	104.40	-	-	3707.32
				12/18/2023	104.73	-	-	3706.99
				03/11/2024	104.43	-	-	3707.29
				06/11/2024	104.80	-	-	3706.92
				09/16/2024	105.50	-	-	3706.22
				12/12/2024	105.58	-	-	3706.14

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	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-17 2"	3810.57	71	92.7	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
				03/10/2021	99.01	-	-	3711.62
				06/11/2021	99.48	-	-	3711.15
				09/14/2021	100.02	-	-	3710.61
				12/13/2021	100.41	-	-	3710.22
				03/18/2022	100.40	-	-	3710.23
				06/20/2022	100.94	-	-	3709.69
				09/19/2022	101.78	-	-	3708.85
				12/19/2022	101.85	-	-	3708.78
				03/17/2023	101.99	-	-	3708.64
				06/16/2023	102.44	-	-	3708.19
				09/18/2023	103.15	-	-	3707.48
				12/18/2023	103.50	-	-	3707.13
				03/11/2024	103.21	-	-	3707.42
				06/11/2024	103.56	-	-	3707.07
				09/16/2024	104.25	-	-	3706.38
				12/12/2024	104.35	-	-	3706.28
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
				03/10/2021	98.75	-	-	3710.71
				06/11/2021	99.23	-	-	3710.23
				09/14/2021	100.14	-	-	3709.32
				12/13/2021	100.35	-	-	3709.11
				03/18/2022	100.22	-	-	3709.24
				06/20/2022	100.99	-	-	3708.47
				09/19/2022	102.05	-	-	3707.41
				12/19/2022	101.78	-	-	3707.68
				03/17/2023	101.76	-	-	3707.70
				06/16/2023	102.26	-	-	3707.20
				09/18/2023	103.46	-	-	3706.00
				12/18/2023	103.45	-	-	3706.01
				03/11/2024	102.97	-	-	3706.49
				06/11/2024	103.66	-	-	3705.80
				09/16/2024	104.34	-	-	3705.12
				12/12/2024	104.02	-	-	3705.44

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	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	2.70	3713.29
				12/12/2018	98.90	97.30	1.60	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
				03/10/2021	105.58	98.97	6.61	3710.99
				06/11/2021	105.47	99.29	6.18	3710.74
				09/15/2021	111.10	100.08	11.02	3709.15
				12/13/2021	107.02	100.36	6.66	3709.59
				03/18/2022	106.35	100.40	5.95	3709.67
				06/20/2022	107.50	100.90	6.60	3709.06
				09/19/2022	108.05	101.41	6.64	3708.54
				12/19/2022	107.50	101.98	5.52	3708.16
				03/17/2023	107.29	102.00	5.29	3708.18
				06/16/2023	OB	-	-	-
				09/18/2023	109.00	103.42	5.58	3706.71
				12/18/2023	OB	-	-	-
				03/11/2024	OB	-	-	-
				06/11/2024	OB	-	-	-
				09/16/2024	OB	-	-	-
				12/12/2024	106.59	105.01	1.58	3705.78
MW-20 2"	3810.00	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
				03/10/2021	98.52	-	-	3711.48
				06/11/2021	99.03	-	-	3710.97
				09/14/2021	99.59	-	-	3710.41
				12/13/2021	100.00	-	-	3710.00

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	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
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
				03/10/2021	98.18	-	-	3710.88
				06/11/2021	98.61	-	-	3710.45
				09/14/2021	99.36	-	-	3709.70
				12/13/2021	99.65	-	-	3709.41
				03/18/2022	99.57	-	-	3709.49
				06/20/2022	100.25	-	-	3708.81
				09/19/2022	101.24	-	-	3707.82
				12/19/2022	101.08	-	-	3707.98
				03/17/2023	101.11	-	-	3707.95
				06/16/2023	101.60	-	-	3707.46
				09/18/2023	102.68	-	-	3706.38
				12/18/2023	102.73	-	-	3706.33
				03/11/2024	102.30	-	-	3706.76
				06/11/2024	102.90	-	-	3706.16
				09/16/2024	103.60	-	-	3705.46
				12/12/2024	103.36	-	-	3705.70

Specific Gravity = 0.835

Notes:

DR = Well DR

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)
<b>NMWQCC - Groundwater</b>	0.010	0.750	0.750	0.620	-	
MW-6A	03/22/2016	<b>0.0693</b>	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	<b>0.0148</b>	<0.00100	<0.000657	<0.000642	-
	03/14/2017	<b>0.0241</b>	0.00205	<0.000657	<0.000630	0.0262
	06/07/2017	<b>0.652</b>	0.0551	0.0304	0.0354	0.773
	09/19/2017	<b>0.235 X</b>	0.0231	0.00911	0.00926	0.276
	12/19/2017	<b>0.0699</b>	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	<b>0.0329</b>	0.00300	0.00110	0.000800 J	0.0378
	09/28/2018	<b>0.0522</b>	0.00423	<0.000657	0.00201	0.0584
	12/12/2018	<b>0.163</b>	0.0139	0.0090	0.0147	0.201
	03/22/2019	<b>0.0748</b>	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
	03/12/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00200
	06/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	09/15/2021	<b>0.08408</b>	<0.00200	<0.00200	0.000702 J	0.00285 J
	12/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	03/22/2022	<0.000408	<0.000367	<0.000657	0.000781 J	0.000781 J
	06/21/2022	0.00178 J	0.000492 J	<0.000657	<0.000642	0.00227 J
	09/23/2022	0.00243	<0.000367	<0.000657	<0.000642	0.00243 J
	12/27/2022	0.000741 J	<0.000367	<0.000657	<0.000642	0.000741 J
	03/22/2023	<0.000408	0.000622 J	<0.000657	<0.000642	<0.000657
	06/21/2023	<0.00500	<0.00500	<0.00500	<0.00500	-
	09/19/2023	<0.00100	<0.00100	<0.00100	<0.00100	0.000800
	12/20/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	03/13/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/13/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/17/2024	<b>0.0538</b>	<0.00100	<0.00100	0.00131	0.0551
	12/13/2024	<b>0.0131</b>	<0.00100	<0.00100	<0.00100	0.0131
MW-8A	03/22/2016	<b>0.0799</b>	0.0304	0.00380	0.0138	-
	06/16/2016	0.00950	0.00210	<0.000763	0.00110	-
	09/13/2016	<b>0.0171</b>	0.00250	<0.000763	0.00140	-
	11/29/2016	<b>0.0190</b>	0.00464	<0.000657	<0.000642	-
	03/14/2017	<b>0.0220</b>	0.00785	0.00221	0.00462	0.0367
	06/07/2017	<b>0.0281</b>	0.00902	0.00165 J	0.00465	0.0434
	09/19/2017	<b>0.0398</b>	0.00721	0.000980 J	0.00324	0.0512
	12/19/2017	<b>0.0162</b>	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	<b>0.0363</b>	0.00535	<0.000657	0.00296	0.0446
	12/12/2018	<b>0.0135</b>	0.003	0.001 J	0.0022	0.0197
	03/23/2019	<b>0.0303</b>	0.00174	0.00229	0.00188	0.0362
	06/17/2019	<b>0.0259</b>	0.00410	<0.000616	0.00450	0.0345
	09/19/2019	<b>0.0519</b>	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	<b>0.0252</b>	0.00782	<0.000657	0.00550	0.0385
	09/23/2020	<b>0.0495</b>	0.0121	<0.000657	0.00754	0.0691
	12/10/2020	<b>0.0378</b>	0.00923	0.000890 J	0.00654	0.05446
	03/12/2021	<b>0.0943</b>	0.0341	0.00133 J	0.0603	0.190
	06/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	09/15/2021	<b>0.488 *1</b>	0.202	0.00982	0.198	0.975
	03/21/2022	<b>0.0817</b>	0.0235	0.00123 J	0.0683	0.175

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)
<b>NMWQCC - Groundwater</b>		0.010	0.750	0.750	0.620	-
MW-9A	03/22/2016	<b>0.147</b>	0.000700 J	0.00590	0.00170	-
	06/16/2016	<b>0.0400</b>	<0.000621	0.00160	0.000300 J	-
	09/13/2016	<b>0.0382</b>	<0.00329	<0.00404	<0.00136	-
	11/29/2016	<b>0.106</b>	0.00332	0.00406	0.00244	-
	03/14/2017	<b>0.381</b>	<0.000367	0.0186	0.00401	0.404
	06/07/2017	<b>0.394</b>	0.00412	0.0123	0.00456	0.415
	09/19/2017	<b>0.253</b>	0.00110 J	0.00623	0.00164 J	0.262
	12/19/2017	<b>0.0404</b>	<0.000367	0.000800 J	0.00115 J	0.0424
	03/27/2018	<b>0.0168</b>	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	<b>0.0160</b>	<0.000367	<0.000657	<0.000630	0.0160
	12/12/2018	<b>0.0607</b>	<0.000512	0.0018	0.0005 J	0.0630
	03/23/2019	<b>0.0205</b>	<0.0005	<0.0005	<0.0005	0.0205
	06/18/2019	<b>0.0322</b>	<0.000512	0.00200	<0.00027	0.0342
	09/18/2019	<b>0.276</b>	<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
	03/12/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00200
	06/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	09/15/2021	0.00747	0.00343	<0.00200	0.00430	0.0152
	03/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	06/20/2022	0.000694 J	0.000461 J	<0.000657	<0.000642	0.00116 J
	09/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	12/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	03/22/2023	<0.000408	0.000769 J	<0.000657	<0.000642	0.000769 J
	08/23/2023	<0.00100	<0.00100	<0.00100	<0.00100	0.000800
	09/19/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/18/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	03/11/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/11/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10A	03/22/2016	<b>0.0227</b>	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	<b>0.0144</b>	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	<b>0.0129</b>	<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	<0.0020000
	03/12/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00200
	06/14/2021	<b>0.0136</b>	0.000542 J	<0.00200	<0.00400	0.0141
	09/15/2021	0.00146 J	0.000720 J	<0.00200	0.000819 J	0.00300 J
	12/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	03/22/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	06/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	09/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	12/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	03/20/2023	<0.000408	0.000371 J	<0.000657 *1	<0.000642 *1	<0.000657
	06/20/2023	<0.00500	<0.00500	<0.00500	<0.00500	-
	09/19/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/19/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	03/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/16/2024	0.00501	<0.00100	<0.00100	<0.00100	0.00501
	12/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

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)
<b>NMWQCC - Groundwater</b>		0.010	0.750	0.750	0.620	-
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	<b>0.0159</b>	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	<b>0.0156</b>	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
	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
	03/12/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00200
	06/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	12/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	03/21/2022	0.00134 J	<0.000367	<0.000657	0.000759 J	0.00210 J
	06/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	09/22/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	12/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	03/22/2023	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	06/20/2023	<0.00500	<0.00500	<0.00500	<0.00500	-
	09/19/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/19/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	03/13/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/13/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/17/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-12A	03/22/2016	<b>4.46</b>	0.0159 J	0.195	0.233	-
	09/13/2016	<b>5.70</b>	<0.0329	0.208	0.179	-
	11/29/2016	<b>12.8</b>	<0.0500	0.539	0.327	-
	03/14/2017	<b>11.8</b>	<0.0367	0.539	<0.0630	12.3
	06/07/2017	<b>26.4</b>	<0.100	<b>0.985</b>	0.473	27.9
	09/19/2017	<b>16.2 D</b>	0.0427	0.597 D	0.253	17.1
	12/19/2017	<b>5.34 D</b>	0.0260	0.217	0.123	5.71
	03/27/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2018	<b>6.35</b>	<0.0512	0.260	<0.0270	6.61
	09/28/2018	<b>19.7 D</b>	0.159	0.65 D	0.289	20.8
	12/12/2018	<b>12.2</b>	0.045 J	0.475	0.39	13.1
	03/22/2019	<b>23.5</b>	0.106	<b>1.22</b>	<b>1.09</b>	25.9
	06/17/2019	<b>19.2</b>	0.115	<b>0.815</b>	<b>0.715</b>	20.8
	03/21/2022	<b>1.67 B</b>	<b>5.63 B</b>	0.0986	0.136	7.53
	08/24/2023	<b>3.63</b>	0.00575	0.324	0.531	4.49

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)
<b>NMWQCC - Groundwater</b>	0.010	0.750	0.750	0.620	-	
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	<b>0.0294</b>	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
	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
	03/12/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00200
	06/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	09/15/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	12/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	03/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	06/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	09/22/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	12/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	03/22/2023	<0.000408	0.000951 J	<0.000657	<0.000642	0.000951 J
	08/24/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/20/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/20/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	03/14/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/11/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/17/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-14A	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	<b>0.0169</b>	0.000560	0.00438	0.00562	0.0275
	06/17/2019	<b>0.0392</b>	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
	03/12/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00200
	06/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	09/15/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	12/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	03/22/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	06/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	09/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	12/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	03/22/2023	<0.000408	0.00112 J	<0.000657	<0.000642	0.00112 J
	08/23/2023	<0.00100	<0.00100	<0.00100	<0.00100	0.000790
	09/20/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/18/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	03/14/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/11/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/17/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

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)
<b>NMWQCC - Groundwater</b>		0.010	0.750	0.750	0.620	-
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	<b>0.264</b>	0.0081	0.0177	0.0114	0.301
	03/23/2019	<b>0.0223</b>	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
	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
	03/12/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00200
	06/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	09/15/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	12/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	03/22/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	06/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	09/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	12/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	03/22/2023	<0.000408	0.000880 J	<0.000657	<0.000642	0.000880 J
	08/23/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/20/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/20/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	03/14/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/11/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/17/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-16A	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	<b>0.13</b>	0.0041	0.0111	0.0068	0.152
	03/23/2019	<b>0.0261</b>	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
	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
	03/12/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00200
	06/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	09/15/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	12/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	03/22/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	06/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	09/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	12/27/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	03/22/2023	<0.000408	0.000657 J	<0.000657	<0.000642	0.000657 J
	08/23/2023	0.00210	<0.00100	0.0226	0.0208	0.0455
	09/20/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/18/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	03/14/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/11/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/17/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

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)
<b>NMWQCC - Groundwater</b>		0.010	0.750	0.750	0.620	-
MW-17A	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	<b>0.0161</b>	0.000540	0.00388	0.00157	0.0221
	06/17/2019	<0.00048	0.00170	<0.000616	<0.00027	0.00170
	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
	03/12/2021	0.00119 J	<0.00200	<0.00200	<0.00400	0.00119 J
	06/14/2021	0.000820 J	<0.00200	<0.00200	<0.00400	0.000820 J
	09/15/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	12/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	03/21/2022	<0.000408	0.000426 J	<0.000657	<0.000642	<0.000657
	06/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	09/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	12/27/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	03/22/2023	<0.000408	0.00103 J	<0.000657	<0.000642	0.00103 J
	08/23/2023	0.00499	<0.00100	0.0599	0.0534	0.118
	09/20/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/18/2023	<0.00100	<0.00100	<0.00100	<0.00100	0.000730
	03/14/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/11/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/17/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-18A	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	<b>0.0620</b>	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	<b>0.0467</b>	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
	03/12/2021	<0.00200	<0.00200 N1	<0.00200 N1	<0.00400	<0.00200
	06/14/2021	<0.00200	0.000405 J	<0.00200	0.00125 J	0.00166 J
	09/15/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	12/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	03/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	06/20/2022	<0.000408	0.000598 J	<0.000657	<0.000642	<0.000657
	09/20/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	12/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	03/22/2023	<0.000408	0.000761 J	<0.000657	<0.000642	0.000761 J
	08/24/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/20/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/18/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	03/11/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/11/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/17/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

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)
<b>NMWQCC - Groundwater</b>		0.010	0.750	0.750	0.620	-
MW-20	07/12/2016	<b>0.0364</b>	0.00851	0.000840 J	0.04491	-
	09/13/2016	<b>0.382</b>	0.0478	0.00590	0.00630	-
	11/29/2016	<b>0.244</b>	0.0262	0.00378	0.00620	-
	03/14/2017	<b>0.306</b>	0.0177	<0.000657	<0.000630	0.324
	06/07/2017	<b>0.0449</b>	0.00532	<0.000657	<0.000642	0.0502
	09/19/2017	<b>1.89 D</b>	0.221	0.0252	0.0223	2.16
	12/19/2017	<b>0.275</b>	0.00877	0.0163	0.00765	0.308
	03/27/2018	<b>0.0896</b>	0.00241	0.00594	0.00103 J	0.0990
	06/13/2018	<b>0.496</b>	<0.00256	0.00650	<0.00135	0.503
	09/28/2018	<b>0.0455</b>	<0.000367	0.00333	0.00277	0.0516
	12/12/2018	<b>0.155</b>	0.0032	0.0086	0.002	0.169
	03/23/2019	<b>0.0614</b>	<0.0005	0.00444	0.00106	0.0669
	06/18/2019	<b>0.0968</b>	0.00160	0.000900	<0.00027	0.0993
	09/19/2019	<b>0.353</b>	0.00435	0.0283	<0.002	0.386
	12/10/2019	<b>0.102</b>	0.000650	<0.000657	<0.000630	0.103
	03/12/2020	<b>0.0153</b>	<0.000512	<0.000616	<0.000270	0.0153
	06/08/2020	<b>0.0382</b>	0.00121 J	<0.000657	<0.000630	0.0394
	09/23/2020	<b>0.0627</b>	0.00198 J	0.00228	<0.000630	0.0670
	12/10/2020	<b>0.0556</b>	0.0139	0.00318	0.00428	0.07696
	03/12/2021	<b>0.00277</b>	<0.00200	<0.00200	<0.00400	0.00277
	09/15/2021	<b>0.0506</b>	<0.00200	<0.00200	<0.00400	0.0506
	12/14/2021	<b>0.0991 F1</b>	0.00104 J	<0.00200	0.000979 J	0.101
MW-21	07/12/2016	<0.340	<0.350	<0.260	<0.480	-
	09/13/2016	<b>0.136</b>	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	<b>0.0233</b>	<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	<0.00200	<0.00200	0.001830 J
	03/12/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00200
	06/14/2021	<0.00200	0.000371 J	0.000906 J	0.00211 J	0.00339 J
	09/15/2021	0.000860 J	<0.00200	<0.00200	<0.00400	0.000860 J
	12/14/2021	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400
	03/21/2022	<0.000408	<0.000367	<0.000657	0.000721 J	0.000721 J
	06/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	09/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	12/21/2022	<0.000408	<0.000367	<0.000657	<0.000642	<0.000657
	03/21/2023	<0.000408	<0.000367	<0.000657 *1	<0.000642 *1	<0.000657
	06/20/2023	<0.00500	<0.00500	<0.00500	<0.00500	-
	09/19/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/19/2023	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	03/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	06/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	09/16/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/12/2024	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Notes:

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

Analyte concentration exceeds the standard for:

**NMWQCC - Groundwater Standard**

Table 3 - Groundwater Analytical Data - Historical - PAH Supplement  
 CS Gaylor  
 Lea County, New Mexico  
 SRS#: 2002-10250

Sample ID	Date Sampled	1-Methylnaphthalene	2-Methylnaphthalene	Azenaphthene	Azenaphthylene	Antracene	Benz(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(d)perylene	Benz(e)fluoranthene	Benz(g,h)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NMOCDD-Groundwater																					
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	<0.0000250
	03/22/2022	-	-	<0.000101	<0.0000847	<0.0000905	<0.0000574	<0.0000704	<0.000114	<0.000117	<0.000157	<0.000101	<0.000102	<0.0000918	<0.0000977	<0.000102	<0.000102	<0.000102	<0.000131	<0.0000855	<0.000131
	03/22/2023	-	-	<0.0000987	<0.0000831	<0.0000889	<0.000132	<0.0000564	<0.0000691	<0.000112	<0.0001150	<0.000154	<0.0000750	<0.0000987	<0.000155	<0.0000997	<0.0000902	<0.0000960	<0.0000839	<0.000128	<0.0000839
	03/13/2024	<0.000018	<0.000018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	
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	<0.0000250	<0.0000250	<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	<0.000108	<0.000108	<0.000108	
	03/23/2019	-	-	<0.000041	<0.000073	<0.000076	<0.000063	<0.000095	<0.000091	<0.000080	<0.000078	<0.000049	<0.000099	<0.000053	<0.000090	<0.000055	<0.000049	<0.000045	<0.000055	<0.000092	
	03/12/2020	-	-	<0.000107	<0.000093	<0.0000929	<0.000144	<0.0000624	<0.0000762	<0.000121	<0.000125	<0.000167	<0.0000815	-	<0.000169	<0.000169	<0.0000979	<0.000104	<0.0000912	<0.000140	
MW-10A	03/22/2022	-	-	<0.0000966	<0.0000830	<0.0000887	<0.000132	<0.0000563	<0.0000690	<0.000111	<0.000114	<0.000154	<0.0000749	<0.0000966	<0.000155	<0.0000996	<0.0000900	<0.0000968	<0.0000838	<0.000128	
	03/20/2023	-	-	<0.000103	<0.0000867	<0.0000927	<0.000138	<0.0000588	<0.0000721	<0.000116	<0.000119	<0.000161	<0.0000783	<0.000103	<0.000162	<0.000104	<0.0000940	<0.000110	<0.0000875	<0.000134	
	03/12/2024	<0.000011	<0.000011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	
MW-11A	03/22/2023	-	-	<0.0000960	<0.0000825	<0.0000882	<0.000131	<0.0000560	<0.0000686	<0.000111	<0.000114	<0.000154	<0.0000745	<0.0000960	<0.000154	<0.0000990	<0.000154	<0.0000993	<0.0000833	<0.000127	
	03/13/2024	<0.000011	<0.000011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	
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	<0.0000492	<0.0000537	<0.0000638	<0.0000537	<0.0000415	<0.0000338	<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	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	
	03/23/2022	-	-	<0.000075	<0.000063	<0.000063	<0.000133	<0.0000562	<0.000062	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	
MW-13A	03/21/2022	-	-	<0.0000896	<0.0000754	<0.0000806	<0.000120	<0.0000511	<0.0000627	<0.000101	<0.000104	<0.000146	<0.0000831	<0.0000896	<0.000141	<0.0000805	<0.0000818	<0.0000871	<0.0000781	<0.000116	
	03/22/2023	-	-	<0.000075	<0.0000821	<0.0000878	<0.000131	<0.0000557	<0.0000683	<0.000110	<0.000113	<0.000152	<0.0000975	<0.000153	<0.0000895	<0.0000890	<0.0000948	<0.0000829	<0.000127		
	03/14/2024	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	
MW-14A	03/22/2022	-	-	<0.0000898	<0.0000833	<0.0000890	<0.000133	<0.0000565	<0.0000692	<0.000112	<0.000115	<0.000154	<0.0000752	<0.0000898	<0.000155	<0.0000999	<0.0000903	<0.0000862	<0.0000841	<0.000128	
	03/22/2023	-	-	<0.0000898	<0.0000833	<0.0000890	<0.000133	<0.0000565	<0.0000692	<0.000112	<0.000115	<0.000154	<0.0000752	<0.0000898	<0.000155	<0.0000999	<0.0000903	<0.0000862	<0.0000841	<0.000128	
	03/14/2024	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		
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	<0.0000639	<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	-	-	<0.0000402	<0.0000402	<0.0000077	<0.0000077	<0.0000065	<0.0000097	<0.0000093	<0.0000081	<0.0000079	<0.0000090	<0.0000050	<0.0000050	<0.0000873	<0.0000056	<0.0000056	<0.000094		
	03/13/2020	-	-	<0.0000966	<0.0000839	<0.0000863	<0.000134	<0.0000569	<0.0000708	<0.000113	<0.000116	<0.000156	<0.0000757	-	<0.000157	<0.000100	<0.000091	<0.000069	<0.0000848		
MW-16A	07/12/2016	-	-	<0.0000332	<0.0000581	<0.0000321	<0.0000721	<0.0000418	<0.0000706	<0.0000516	<0.0000561	<0.0000811	<0.0000562	<0.0000208	<0.0000638	<0.0000537	<0.0000656	<0.0000516	<0.0000415		
	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	-	-	<0.0000402	<0.0000402	<0.0000077	<0.0000077	<0.0000065	<0.0000097	<0.0000093	<0.0000081	<0.0000079	<0.0000077	<0.0000087	<0.0000052	<0.0000069	<0.0000054	<0.0000091	<0.0000055	<0.000091	
	03/21/2022	-	-	<0.0000987	<0.0000831	<0.0000889	<0.000206	<0.0000302	<0.0000335	<0.0000629	<0.0000578	<0.0000421	<0.0000967	<0.0000655	<0.0000997	<0.0000902	<0.000245 J	<0.0000839	<0.000128		
	03/22/2023	-	-	<0.000101	<0.0000948	<0.0000907	<0.000135	<0.0000575	<0.0000705	<0.000114	<0.000117	<0.000157	<0.0000766	<0.000101	<0.000158	<0.0000920	<0.0000979	<0.0000856	<0.000131		
	03/13/2020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		
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	<0.000207	<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	-	-	<0.000040																	

Table 4 - Groundwater Analytical Data - Historical - MNA Supplement  
 CS Caylor  
 Lea County, New Mexico  
 SRS#: 2002-10250

Sample ID	Date Sampled	Methane (mg/L)*	Ferrous Iron (mg/L)	Manganese (mg/L)	Ethane (mg/L)	Ethene (mg/L)	Phenolphthalein Alkalinity (mg/L)	Bicarbonate Alkalinity (mg/L)	Hydroxide Alkalinity (mg/L)	Carbonate Alkalinity (mg/L)	Alkalinity (mg/L)	Sulfate (mg/L)	Nitrate as N (mg/L)
MW-6A	12/14/2021	<5.00	<0.0500 HF	0.0122	-	-	<4.00	254	<4.00	<4.00	254	52.3	1.93
	03/22/2022	<0.453	<0.0280 HF	0.0174	-	-	<4.00	303	<4.00	<4.00	303	53.5	1.86
	06/21/2022	4.93 J	0.0400 J HF	0.0687 B	-	-	<4.00	337	<4.00	<4.00	337	47.7	1.60
	09/23/2022	0.635 J	0.0300 J HF	0.00654	-	-	<4.00	318	<4.00	<4.00	318	44.6	1.45
	12/27/2022	0.457 J	0.0800	0.0318	-	-	<4.00	354	<4.00	<4.00	354	50.0	1.77
	03/22/2023	<0.453	0.110 HF	0.0154	-	-	<4.00	339	<4.00	<4.00	339	54.7	1.45 H
	06/21/2023	<500	<0.200	0.00650	<1.00	<1.00	-	<10.0	<10.0	<10.0	350	52.1	1.98
	09/19/2023	0.875	3.58	0.0373	<0.00100	<0.00100	-	<10.0	<10.0	<10.0	340	42.2	1.36
	12/20/2023	<5.00	<0.200	<0.00500	<1.00	<1.00	-	<10.0	<10.0	<10.0	150	55.8	1.71
	03/13/2024	0.000634	0.258	0.0116	<0.00100	<0.00100	-	<10.0	<10.0	<10.0	345	48.3	<0.200
	06/13/2024	0.00104	<0.200	0.00862	<0.00100	<0.00100	-	79.0	<10.0	<10.0	79.0	59.1	1.82
	09/17/2024	0.00296	<0.200	0.0152	<0.00100	<0.00100	-	314	<10.0	<10.0	314	51.5	2.46
	12/13/2024	0.00172	<0.200	0.00758	<0.00100	<0.00100	-	290	<10.0	<10.0	290	68.7	1.62
MW-10A	12/14/2021	0.796 J	<0.0500 HF	0.00665	-	-	<4.00	375	<4.00	<4.00	375	52.2	0.979
	03/22/2022	0.627 J	0.0700	0.0186	-	-	<4.00	398	<4.00	<4.00	398	57.9	1.27
	06/20/2022	1.07 J	0.0500	0.0180	-	-	<4.00	352	<4.00	<4.00	352	73.0	1.77
	09/20/2022	<0.453	1.48	0.0294	-	-	<4.00	263	<4.00	<4.00	263	81.9	2.18
	12/20/2022	0.658 J	1.87	0.111	-	-	<4.00	262	<4.00	<4.00	262	81.7	2.16
	03/20/2023	<0.453	0.0700 HF	0.00803	-	-	<4.00	227	<4.00	<4.00	227	84.0	2.53 H
	06/20/2023	0.679	0.369	0.0189	<0.00100	<0.00100	-	-	-	-	219	81.4	2.12
	09/19/2023	0.956	1.15	0.0738	<0.00100	<0.00100	-	<10.0	<10.0	<10.0	130	67.1	1.96
	12/19/2023	<5.00	<0.200	0.0135	<1.00	<1.00	-	<10.0	<10.0	<10.0	1500	105	1.78
	03/12/2024	0.000620	0.305	0.0137	<0.00100	<0.00100	-	<10.0	<10.0	<10.0	138	44.4	1.01
	06/12/2024	0.00107	0.576	0.0291	<0.00100	<0.00100	-	58.0	<10.0	<10.0	58.0	63.7	1.58
	09/16/2024	0.00106	<0.200	0.00534	<0.00100	<0.00100	-	286	<10.0	<10.0	286	41.2	2.23
	12/12/2024	0.000965	<0.200	0.0106	<0.00100	<0.00100	-	-	-	-	286	66.8	1.64
MW-11A	12/14/2021	<5.00	<0.0500 HF	0.0168	-	-	<4.00	243	<4.00	<4.00	243	89.5	1.63
	06/20/2022	1.62 J	0.0400 J HF	0.0235 B	-	-	<4.00	298	<4.00	<4.00	298	83.2	1.33
	09/20/2022	<0.453	0.0600	0.00999	-	-	<4.00	273	<4.00	<4.00	273	85.7	1.17
	12/20/2022	<0.453	0.400	0.0579	-	-	<4.00	289	<4.00	<4.00	289	80.1	1.27 H
	03/22/2023	<0.453	0.750 HF	0.0459	-	-	<4.00	289	<4.00	<4.00	289	80.4	1.19 H
	09/19/2023	0.706	0.270	0.00930	<0.00100	<0.00100	-	<10.0	<10.0	<10.0	230	68.7	1.20
	12/19/2023	<5.00	<0.200	0.0103	<1.00	<1.00	-	<10.0	<10.0	<10.0	160	74.2	1.55
	03/13/2024	<0.000500	<0.200	<0.00500	<0.00100	<0.00100	-	<10.0	<10.0	<10.0	225	53.1	<0.200
	06/13/2024	0.00125	0.488	0.0106	<0.00100	<0.00100	-	70.0	<10.0	<10.0	70.0	63.6	1.38
	09/17/2024	0.00149	<0.200	<0.00500	<0.00100	<0.00100	-	370	<10.0	<10.0	370	45.0	2.24
	12/12/2024	0.00141	<0.200	0.00667	<0.00100	<0.00100	-	-	-	-	344	80.2	2.10
MW-20	07/12/2016	-	-	0.312	-	-	-	159	<20.0	<20.0	159	55.5	1.55
MW-21	07/12/2016	-	-	0.039	-	-	-	206	<20.0	<20.0	206	109	2.39
	03/22/2022	<0.453	0.0500	0.0839	-	-	<4.00	306	<4.00	<4.00	306	69.9	1.58 H
	06/20/2022	1.90 J	0.0300 J HF	0.0892 B	-	-	<4.00	283	<4.00	<4.00	283	71.0	1.27
	09/20/2022	<0.453	0.860	0.103	-	-	<4.00	277	<4.00	<4.00	277	68.7	1.52
	12/20/2022	<0.453	2.87	0.207	-	-	<4.00	298	<4.00	<4.00	298	65.8	1.38 H
	03/21/2023	<0.453	1.64 HF	0.211	-	-	<4.00	258	<4.00	<4.00	258	69.1	1.34
	06/20/2023	0.838	<0.200	0.301	<0.00100	<0.00100	-	-	-	-	295	58.6	0.641
	09/19/2023	0.704	<0.200	0.324	<0.00100	<0.00100	-	<10.0	<10.0	<10.0	260	51.8	0.678
	12/19/2023	<5.00	<0.200	0.519	<1.00	<1.00	-	<10.0	<10.0	<10.0	270	68.0	1.71
	03/12/2024	0.000748	<0.200	0.307	<0.00100	<0.00100	-	<10.0	<10.0	<10.0	345	114	1.54
	06/12/2024	0.000541	<0.200	0.342	<0.00100	<0.00100	-	65.0	<10.0	<10.0	65.0	63.0	1.37
	09/16/2024	0.00134	<0.200	0.267	<0.00100	<0.00100	-	298	<10.0	<10.0	298	42.4	1.98
	12/12/2024	0.00147	<0.200	0.261	<0.00100	<0.00100	-	-	-	-	303	63.4	1.32

Notes:

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

(mg/L)\* Data prior to 2024 reported in µg/L



## APPENDIX C

### Laboratory Analytical Data Reports and Chain of Custody Documentation

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lovington Hwy, NM

Lab Order Number: 4C13012



**Current Certification**

Report Date: 04/29/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-10A	4C13012-01	Water	03/12/24 10:50	03-13-2024 09:49
MW-21	4C13012-02	Water	03/12/24 12:21	03-13-2024 09:49
MW-9A	4C13012-03	Water	03/11/24 12:03	03-13-2024 09:49
MW-18A	4C13012-04	Water	03/11/24 12:36	03-13-2024 09:49

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-10A****4C13012-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****BTEX by 8021B**

Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/13/24 10:44	03/13/24 20:24	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/13/24 10:44	03/13/24 20:24	EPA 8021B

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 20:24	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 20:24	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 20:24	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 20:24	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 20:24	EPA 8021B
Surrogate: 4-Bromo fluorobenzene	89.9 %	80-120			P4C1309	03/13/24 10:44	03/13/24 20:24	EPA 8021B
Surrogate: 1,4-Difluorobenzene	101 %	80-120			P4C1309	03/13/24 10:44	03/13/24 20:24	EPA 8021B
Ethane	ND	0.00100	mg/L	1	P4D0406	03/18/24 15:21	03/18/24 15:21	8015M
Ethene	ND	0.00100	mg/L	1	P4D0406	03/18/24 15:21	03/18/24 15:21	8015M
Methane	<b>0.000620</b>	0.000500	mg/L	1	P4D0406	03/18/24 15:21	03/18/24 15:21	8015M

**General Chemistry Parameters by EPA / Standard Methods**

Total Alkalinity	<b>138</b>	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Bicarbonate Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Nitrate as N	<b>1.01</b>	0.200	mg/L	1	P4C1911	03/14/24 10:32	03/19/24 21:36	EPA 300.0
Sulfate	<b>44.4</b>	10.0	mg/L	10	P4C2014	03/20/24 15:58	03/22/24 01:38	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

Iron	<b>0.305</b>	0.200	mg/L	1	P4D0406	03/19/24 08:00	03/19/24 11:45	EPA 6020A
Manganese	<b>0.0137</b>	0.00500	mg/L	1	P4D0406	03/19/24 08:00	03/19/24 11:45	EPA 6020A

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-10A**  
**4C13012-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**PAH compounds by Semivolatile GCMS**

1-Methylnaphthalene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
2-Methylnaphthalene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Acenaphthene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Acenaphthylene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Anthracene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Benzo (a) anthracene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Benzo (a) pyrene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Benzo (b) fluoranthene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Benzo (g,h,i) perlylene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Benzo (k) fluoranthene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Chrysene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Dibeno (a,h) anthracene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Dibenzofuran	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Fluoranthene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Fluorene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Indeno (1,2,3-cd) pyrene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Naphthalene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Phenanthrene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C
Pyrene	ND	0.00011	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:29	8270C

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-21****4C13012-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****BTEX by 8021B**

Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/13/24 10:44	03/13/24 20:47	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/13/24 10:44	03/13/24 20:47	EPA 8021B

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 20:47	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 20:47	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 20:47	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 20:47	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 20:47	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>		89.2 %	80-120		P4C1309	03/13/24 10:44	03/13/24 20:47	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		100 %	80-120		P4C1309	03/13/24 10:44	03/13/24 20:47	EPA 8021B
Ethane	ND	0.00100	mg/L	1	P4D0406	03/18/24 15:08	03/18/24 15:08	8015M
Ethene	ND	0.00100	mg/L	1	P4D0406	03/18/24 15:08	03/18/24 15:08	8015M
<b>Methane</b>	<b>0.000748</b>	0.000500	mg/L	1	P4D0406	03/18/24 15:08	03/18/24 15:08	8015M

**General Chemistry Parameters by EPA / Standard Methods**

<b>Total Alkalinity</b>	<b>345</b>	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Bicarbonate Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
<b>Nitrate as N</b>	<b>1.54</b>	0.200	mg/L	1	P4C1911	03/14/24 10:32	03/19/24 21:55	EPA 300.0
<b>Sulfate</b>	<b>114</b>	10.0	mg/L	10	P4C2014	03/20/24 15:58	03/22/24 01:58	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4D0406	03/19/24 08:00	03/18/24 15:21	EPA 6020A
<b>Manganese</b>	<b>0.307</b>	0.307	mg/L	1	P4D0406	03/19/24 08:00	03/18/24 15:21	EPA 6020A

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-21**  
**4C13012-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**PAH compounds by Semivolatile GCMS**

1-Methylnaphthalene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
2-Methylnaphthalene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Acenaphthene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Acenaphthylene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Anthracene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Benzo (a) anthracene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Benzo (a) pyrene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Benzo (b) fluoranthene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Benzo (g,h,i) perlylene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Benzo (k) fluoranthene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Chrysene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Dibeno (a,h) anthracene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Dibenzofuran	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Fluoranthene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Fluorene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Indeno (1,2,3-cd) pyrene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Naphthalene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Phenanthrene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C
Pyrene	ND	0.00010	mg/L	1	P4D0406	03/19/24 08:00	03/20/24 19:49	8270C

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-9A****4C13012-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****BTEX by 8021B**

Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/13/24 10:44	03/13/24 21:10	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/13/24 10:44	03/13/24 21:10	EPA 8021B

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 21:10	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 21:10	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 21:10	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 21:10	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 21:10	EPA 8021B
<i>Surrogate: 4-Bromo fluorobenzene</i>		89.9 %	80-120		P4C1309	03/13/24 10:44	03/13/24 21:10	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		101 %	80-120		P4C1309	03/13/24 10:44	03/13/24 21:10	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-18A**  
**4C13012-04 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/13/24 10:44	03/13/24 21:33	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/13/24 10:44	03/13/24 21:33	EPA 8021B

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 21:33	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 21:33	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 21:33	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 21:33	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4C1309	03/13/24 10:44	03/13/24 21:33	EPA 8021B
<i>Surrogate: 4-Bromo fluorobenzene</i>		89.1 %	80-120		P4C1309	03/13/24 10:44	03/13/24 21:33	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		102 %	80-120		P4C1309	03/13/24 10:44	03/13/24 21:33	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4C1309 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4C1309-BLK1)</b>		Prepared & Analyzed: 03/13/24					
Benzene	ND	0.00100	mg/L				
Toluene	ND	0.00100	"				
Ethylbenzene	ND	0.00100	"				
Xylene (p/m)	ND	0.00200	"				
Xylene (o)	ND	0.00100	"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.102		"	0.120	85.1	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.120		"	0.120	99.9	80-120	

<b>LCS (P4C1309-BS1)</b>		Prepared & Analyzed: 03/13/24					
Benzene	0.113	0.00100	mg/L	0.100	113	80-120	
Toluene	0.0957	0.00100	"	0.100	95.7	80-120	
Ethylbenzene	0.0953	0.00100	"	0.100	95.3	80-120	
Xylene (p/m)	0.188	0.00200	"	0.200	93.8	80-120	
Xylene (o)	0.0884	0.00100	"	0.100	88.4	80-120	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.102		"	0.120	84.9	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.122		"	0.120	102	80-120	

<b>LCS Dup (P4C1309-BSD1)</b>		Prepared & Analyzed: 03/13/24					
Benzene	0.103	0.00100	mg/L	0.100	103	80-120	8.50
Toluene	0.0879	0.00100	"	0.100	87.9	80-120	8.44
Ethylbenzene	0.0883	0.00100	"	0.100	88.3	80-120	7.68
Xylene (p/m)	0.176	0.00200	"	0.200	88.2	80-120	6.14
Xylene (o)	0.0843	0.00100	"	0.100	84.3	80-120	4.70
<i>Surrogate: 4-Bromofluorobenzene</i>	0.104		"	0.120	86.4	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.122		"	0.120	101	80-120	

<b>Calibration Blank (P4C1309-CCB1)</b>		Prepared & Analyzed: 03/13/24					
Benzene	0.200		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.230		"				
Xylene (p/m)	0.350		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.104		"	0.120	87.0	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.122		"	0.120	102	80-120	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Notes
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**Batch P4C1309 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4C1309-CCB2)</b>		Prepared & Analyzed: 03/13/24					
Benzene	0.00		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.190		"				
Xylene (p/m)	0.410		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.107		"	0.120		89.1	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.120		"	0.120		100	80-120

<b>Calibration Blank (P4C1309-CCB3)</b>		Prepared & Analyzed: 03/13/24					
Benzene	0.00		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.220		"				
Xylene (p/m)	0.350		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.105		"	0.120		87.6	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.119		"	0.120		99.4	80-120

<b>Calibration Check (P4C1309-CCV1)</b>		Prepared & Analyzed: 03/13/24					
Benzene	0.116	0.00100	mg/L	0.100		116	80-120
Toluene	0.0988	0.00100	"	0.100		98.8	80-120
Ethylbenzene	0.0908	0.00100	"	0.100		90.8	80-120
Xylene (p/m)	0.188	0.00200	"	0.200		94.0	80-120
Xylene (o)	0.0918	0.00100	"	0.100		91.8	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.102		"	0.120		85.0	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.122		"	0.120		102	80-120

<b>Calibration Check (P4C1309-CCV2)</b>		Prepared & Analyzed: 03/13/24					
Benzene	0.120	0.00100	mg/L	0.100		120	80-120
Toluene	0.105	0.00100	"	0.100		105	80-120
Ethylbenzene	0.0977	0.00100	"	0.100		97.7	80-120
Xylene (p/m)	0.205	0.00200	"	0.200		102	80-120
Xylene (o)	0.0995	0.00100	"	0.100		99.5	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0994		"	0.120		82.8	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.118		"	0.120		98.2	80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4C1309 - \*\*\* DEFAULT PREP \*\*\*****Calibration Check (P4C1309-CCV3)**

	Prepared & Analyzed: 03/13/24					
Benzene	0.117	0.00100	mg/L	0.100	117	80-120
Toluene	0.0996	0.00100	"	0.100	99.6	80-120
Ethylbenzene	0.0923	0.00100	"	0.100	92.3	80-120
Xylene (p/m)	0.195	0.00200	"	0.200	97.6	80-120
Xylene (o)	0.0951	0.00100	"	0.100	95.1	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.102</i>		"	<i>0.120</i>	<i>85.1</i>	<i>80-120</i>
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>0.122</i>		"	<i>0.120</i>	<i>101</i>	<i>80-120</i>

**Matrix Spike (P4C1309-MS1)****Source: 4C08015-01**

	Prepared & Analyzed: 03/13/24							
Benzene	0.122	0.00100	mg/L	0.100	ND	122	80-120	QM-05
Toluene	0.104	0.00100	"	0.100	ND	104	80-120	
Ethylbenzene	0.103	0.00100	"	0.100	ND	103	80-120	
Xylene (p/m)	0.204	0.00200	"	0.200	ND	102	80-120	
Xylene (o)	0.0972	0.00100	"	0.100	ND	97.2	80-120	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.104</i>		"	<i>0.120</i>		<i>86.3</i>	<i>80-120</i>	
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>0.121</i>		"	<i>0.120</i>		<i>101</i>	<i>80-120</i>	

**Matrix Spike Dup (P4C1309-MSD1)****Source: 4C08015-01**

	Prepared & Analyzed: 03/13/24									
Benzene	0.121	0.00100	mg/L	0.100	ND	121	80-120	0.784	20	QM-05
Toluene	0.102	0.00100	"	0.100	ND	102	80-120	1.54	20	
Ethylbenzene	0.103	0.00100	"	0.100	ND	103	80-120	0.631	20	
Xylene (p/m)	0.203	0.00200	"	0.200	ND	101	80-120	0.762	20	
Xylene (o)	0.0961	0.00100	"	0.100	ND	96.1	80-120	1.14	20	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.103</i>		"	<i>0.120</i>		<i>85.6</i>	<i>80-120</i>			
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>0.121</i>		"	<i>0.120</i>		<i>101</i>	<i>80-120</i>			

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

### Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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#### **Batch P4C1911 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4C1911-BLK1)</b>										Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	ND	0.200	mg/L							
<b>LCS (P4C1911-BS1)</b>										Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	21.8		mg/L	20.0		109	90-110			
<b>LCS Dup (P4C1911-BSD1)</b>										Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	21.8		mg/L	20.0		109	90-110	0.00918	10	
<b>Calibration Check (P4C1911-CCV1)</b>										Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	21.8		mg/L	20.0		109	90-110			
<b>Calibration Check (P4C1911-CCV2)</b>										Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	21.2		mg/L	20.0		106	90-110			
<b>Matrix Spike (P4C1911-MS1)</b>		<b>Source: 4C07008-01</b>								Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	32.7		mg/L	20.0	0.890	159	80-120			QM-05
<b>Matrix Spike (P4C1911-MS2)</b>		<b>Source: 4C13009-05</b>								Prepared: 03/14/24 Analyzed: 03/19/24
Nitrate as N	23.6		mg/L	20.0	0.125	118	80-120			
<b>Matrix Spike Dup (P4C1911-MSD1)</b>		<b>Source: 4C07008-01</b>								Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	32.4		mg/L	20.0	0.890	158	80-120	0.833	20	QM-05
<b>Matrix Spike Dup (P4C1911-MSD2)</b>		<b>Source: 4C13009-05</b>								Prepared: 03/14/24 Analyzed: 03/19/24
Nitrate as N	23.7		mg/L	20.0	0.125	118	80-120	0.401	20	

#### **Batch P4C2014 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4C2014-BLK1)</b>										Prepared: 03/20/24 Analyzed: 03/21/24
Sulfate	ND	1.00	mg/L							

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

### Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4C2014 - \*\*\* DEFAULT PREP \*\*\***

<b>LCS (P4C2014-BS1)</b>		Prepared: 03/20/24 Analyzed: 03/21/24								
Sulfate	17.9		mg/L	18.0		99.7	90-110			
<b>LCS Dup (P4C2014-BSD1)</b>		Prepared: 03/20/24 Analyzed: 03/21/24								
Sulfate	18.0		mg/L	18.0		100	90-110	0.489	10	
<b>Calibration Check (P4C2014-CCV1)</b>		Prepared: 03/20/24 Analyzed: 03/21/24								
Sulfate	17.6		mg/L	18.0		97.8	90-110			
<b>Calibration Check (P4C2014-CCV2)</b>		Prepared: 03/20/24 Analyzed: 03/21/24								
Sulfate	17.7		mg/L	18.0		98.2	90-110			
<b>Matrix Spike (P4C2014-MS1)</b>		<b>Source: 4C07008-01</b>			Prepared: 03/20/24 Analyzed: 03/21/24					
Sulfate	107		mg/L	100	9.66	97.7	80-120			
<b>Matrix Spike (P4C2014-MS2)</b>		<b>Source: 4C13009-05</b>			Prepared: 03/20/24 Analyzed: 03/22/24					
Sulfate	107		mg/L	100	7.37	99.8	80-120			
<b>Matrix Spike Dup (P4C2014-MSD1)</b>		<b>Source: 4C07008-01</b>			Prepared: 03/20/24 Analyzed: 03/21/24					
Sulfate	108		mg/L	100	9.66	98.7	80-120	0.915	20	
<b>Matrix Spike Dup (P4C2014-MSD2)</b>		<b>Source: 4C13009-05</b>			Prepared: 03/20/24 Analyzed: 03/22/24					
Sulfate	107		mg/L	100	7.37	99.9	80-120	0.0270	20	

**Batch P4C2608 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4C2608-BLK1)</b>				Prepared & Analyzed: 04/15/24						
Total Alkalinity	ND	10.0	mg/L							
Carbonate Alkalinity	ND	10.0	"							
Bicarbonate Alkalinity	ND	10.0	"							
Hydroxide Alkalinity	ND	10.0	"							

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4C2608 - \*\*\* DEFAULT PREP \*\*\***

<b>LCS (P4C2608-BS1)</b>		Prepared & Analyzed: 04/15/24								
Total Alkalinity	217		mg/L	250	86.8	80-120				
Carbonate Alkalinity	ND	10.0	"			80-120				
Bicarbonate Alkalinity	ND	10.0	"			80-120				
Hydroxide Alkalinity	ND	10.0	"			80-120				
<b>Duplicate (P4C2608-DUP1)</b>		<b>Source: 4C13012-01</b>		Prepared & Analyzed: 04/15/24						
Total Alkalinity	222	10.0	mg/L		138		46.7	20		
Carbonate Alkalinity	ND	10.0	"		ND			20		
Bicarbonate Alkalinity	ND	10.0	"		ND			20		
Hydroxide Alkalinity	ND	10.0	"		ND			20		

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 4/29/2024

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

**PBM LAB****CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

L: \_\_\_\_\_ CH: \_\_\_\_\_ W: \_\_\_\_\_  
 Permian Basin Environmental Lab, LP  
 1400 Rankin Hwy  
 Midland, Texas 79701

V: \_\_\_\_\_  
 Phone: 432-686-7235

**Project Manager:** David Adkins

Talon LPE

**Company Name:** 408 Texas St.

**Company Address:** Artesia, NM 88210

**City/State/Zip:** 575-441-4835

**Telephone No:** \_\_\_\_\_

**Sampler Signature:** Bartlett Medley

(Lab use only)

**ORDER #:** 4C13012

**Fax No:** \_\_\_\_\_

**e-mail:** dadkins@talonlpe.com, mgomez@talonlpe.com

**Report Format:**  Standard  TRRP  NPDES

**Analyze For:**

Preservation & # of Containers		Matrix	TCPLP:	TOTAL:
Field Filtered	Total #. of Containers			
Ice	5	GW	X	X
HNO <sub>3</sub>	5	GW	X	X
HCl	1	GW	X	X
H <sub>2</sub> SO <sub>4</sub>	1	GW	X	X
NaOH	1	GW	X	X
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	1	GW	X	X
None	1	GW	X	X
Other (Specify)				
DW=Drinking Water SL=Sludge				
GW = Groundwater S=Soil/Solid				
NP=Non-Potable Specify Other				
TPH: TX 1005 TX 1006				
Anions (Cl, SO <sub>4</sub> , Alkalinity)				
BTEX 8021B/5030 or BTEX 8260				
MNA Parameters				
PAH				

RUSH TAT (Pre-Schedule) 24, 48, 72 h

Standard TAT

**Project Name:** CS Caylor

**Project #:** Plains All American Pipeline

**Project Loc:** Lea County, NM

**PO #:** SRS# 2002-10250

**Special Instructions:**

Email Analyticals to: CJ.Bryant@paalp.com, Maochoa@paalp.com, and KHudgens@paalp.com

Relinquished by:	Date	Time	Received by:	Date	Time	Received by:	Date	Time	Received by:	Date	Time	Received by:
<u>Bartlett Medley</u>	3-12-24	12:42	<u>Joe Blende</u>	03/12/24	12:43							
<u>Jose Blende</u>	3-12-24	16:42										

**Laboratory Comments:**

VOCs Free of Headspace?  
 Labels on container(s)  
 Custody seals on container(s)  
 Sample Hand Delivered  
 by Sampler/Client Rep.?  
 by Courier?  
 Temperature Upon Receipt:  
 Received: 4.8 °C  
 Adjusted: 4.8 °C  
 Thermometer: NCF  
 Factor: 1.3





## **CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**Permian Basin Environmental Lab, L.L.C.**  
**1400 Rankin HWY**  
**Midland, Texas 79701**

Phone: 432-686-7235  
PBELAB SUB COC V2

Project Manager: Brent Barron

**Project Name:** SUBCONTRACT

Company Name PBEL

**Project #:**

Company Address: 1400 Rankin HWY

**Project Loc:**

City/State/Zip: Midland Texas 79701

**PO #:**

Telephone No: 432-661-4184 Fax No:

Fax No:

**Report Format:**  Standard  TRRP  NPDES

Sampler Signature: N/A e-mail: brentbarron@pbelab.com

e-mail: brentbarron@pbelab.com

**Laboratory Comments:**

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N
by Courier?      UPS      DHL      FedEx      Lone Star		
Temperature Upon Receipt:		
Received:	°C	
Adjusted:	°C	Factor



right solutions.  
right partner.

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10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

March 19, 2024

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS24030719**

Laboratory Results for: **4C13021**

Dear Brent Barron,

ALS Environmental received 1 sample(s) on Feb 28, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL  
Anna Kinchen  
Project Manager

---

alsglobal.com

**ALS Houston, US**

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**Work Order:** HS24030719

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24030719-01	4C13021	Soil		28-Feb-2024 13:20	14-Mar-2024 09:30	<input type="checkbox"/>

ALS Houston, US

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**Work Order:** HS24030719

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**CASE NARRATIVE**

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**Metals by Method SW7470A**

**Batch ID: 209037**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

---

**Metals by Method SW1311/6020**

**Batch ID: 208924**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 19-Mar-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4C13021  
 Sample ID: 4C13021  
 Collection Date: 28-Feb-2024 13:20

**ANALYTICAL REPORT**  
 WorkOrder:HS24030719  
 Lab ID:HS24030719-01  
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>TCLP METALS BY SW6020A</b>		<b>Method:SW1311/6020</b>				
Antimony	ND		0.0500	mg/L	1	16-Mar-2024 00:43
Arsenic	ND		0.0500	mg/L	1	16-Mar-2024 00:43
<b>Barium</b>	<b>0.611</b>		<b>0.200</b>	<b>mg/L</b>	1	16-Mar-2024 00:43
Beryllium	ND		0.0200	mg/L	1	16-Mar-2024 00:43
Cadmium	ND		0.0500	mg/L	1	16-Mar-2024 00:43
Chromium	ND		0.0500	mg/L	1	16-Mar-2024 00:43
Lead	ND		0.0500	mg/L	1	16-Mar-2024 00:43
Nickel	ND		0.0500	mg/L	1	16-Mar-2024 00:43
Selenium	ND		0.0500	mg/L	1	16-Mar-2024 00:43
Silver	ND		0.0500	mg/L	1	16-Mar-2024 00:43
<b>TCLP MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>				
Mercury	ND		0.000200	mg/L	1	19-Mar-2024 14:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

## Weight / Prep Log

**Client:** Permian Basin Environmental Lab, LP**Project:** 4C13021**WorkOrder:** HS24030719**Batch ID:** 208876      **Start Date:** 14 Mar 2024 15:00      **End Date:** 14 Mar 2024 15:00**Method:** TCLP MERCURY EXTRACTION BY SW1311      **Prep Code:** 1311LHG EXT

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS24030719-01		100 (grams)	2000 (mL)	20 4-oz glass, Neat

**Batch ID:** 208878      **Start Date:** 14 Mar 2024 15:00      **End Date:** 14 Mar 2024 15:00**Method:** TCLP METALS EXTRACTION BY SW1311      **Prep Code:** 1311LM EXT

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS24030719-01		100 (grams)	2000 (mL)	20 4-oz glass, Neat

**Batch ID:** 208924      **Start Date:** 15 Mar 2024 10:00      **End Date:** 15 Mar 2024 10:00**Method:** TCLP LEACHATE DIGESTION BY SW3010A      **Prep Code:** 3010A\_TCLP

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS24030719-01		1 (mL)	10 (mL)	10 4-oz glass, Neat

**Batch ID:** 209037      **Start Date:** 19 Mar 2024 08:00      **End Date:** 19 Mar 2024 08:00**Method:** MERCURY TCLP PREP BY SW7470A      **Prep Code:** 1311\_HGPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS24030719-01		10 (mL)	10 (mL)	1 4-oz glass, Neat

ALS Houston, US

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**WorkOrder:** HS24030719

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 208924 ( 0 )	<b>Test Name :</b> TCLP METALS BY SW6020A					<b>Matrix:</b> Soil
HS24030719-01	4C13021	28 Feb 2024 13:20	15 Mar 2024 08:00	15 Mar 2024 10:00	16 Mar 2024 00:43	1
<b>Batch ID:</b> 209037 ( 0 )	<b>Test Name :</b> TCLP MERCURY BY SW7470A					<b>Matrix:</b> Soil
HS24030719-01	4C13021	28 Feb 2024 13:20	15 Mar 2024 08:00	19 Mar 2024 08:00	19 Mar 2024 14:22	1

ALS Houston, US

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**WorkOrder:** HS24030719

**QC BATCH REPORT**

**Batch ID:** 208924 ( 0 )      **Instrument:** ICPMS07      **Method:** TCLP METALS BY SW6020A

MBLK		Sample ID: MBLKT2-208877		Units: mg/L		Analysis Date: 15-Mar-2024 23:44			
Client ID:		Run ID:	ICPMS07_461410	SeqNo:	7891796	PrepDate:	15-Mar-2024	DF:	1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony		ND		0.0500					
Arsenic		ND		0.0500					
Barium		ND		0.200					
Beryllium		ND		0.0200					
Cadmium		ND		0.0500					
Chromium		ND		0.0500					
Lead		ND		0.0500					
Nickel		ND		0.0500					
Selenium		ND		0.0500					
Silver		ND		0.0500					

MBLK		Sample ID: MBLKT3-208878		Units: mg/L		Analysis Date: 15-Mar-2024 23:46			
Client ID:		Run ID:	ICPMS07_461410	SeqNo:	7891797	PrepDate:	15-Mar-2024	DF:	1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony		ND		0.0500					
Arsenic		ND		0.0500					
Barium		ND		0.200					
Beryllium		ND		0.0200					
Cadmium		ND		0.0500					
Chromium		ND		0.0500					
Lead		ND		0.0500					
Nickel		ND		0.0500					
Selenium		ND		0.0500					
Silver		ND		0.0500					

ALS Houston, US

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**WorkOrder:** HS24030719

**QC BATCH REPORT**

**Batch ID:** 208924 (0)      **Instrument:** ICPMS07      **Method:** TCLP METALS BY SW6020A

MBLK		Sample ID: MBLKT1-208891		Units: mg/L		Analysis Date: 15-Mar-2024 23:42			
Client ID:		Run ID:	ICPMS07_461410	SeqNo:	7891795	PrepDate:	15-Mar-2024	DF:	1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony		ND	0.0500						
Arsenic		ND	0.0500						
Barium		ND	0.200						
Beryllium		ND	0.0200						
Cadmium		ND	0.0500						
Chromium		ND	0.0500						
Lead		ND	0.0500						
Nickel		ND	0.0500						
Selenium		ND	0.0500						
Silver		ND	0.0500						

MBLK		Sample ID: MBLK-208924		Units: mg/L		Analysis Date: 15-Mar-2024 23:39			
Client ID:		Run ID:	ICPMS07_461410	SeqNo:	7891794	PrepDate:	15-Mar-2024	DF:	1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony		ND	0.00500						
Arsenic		ND	0.00500						
Barium		ND	0.0200						
Beryllium		ND	0.00200						
Cadmium		ND	0.00500						
Chromium		ND	0.00500						
Lead		ND	0.00500						
Nickel		ND	0.00500						
Selenium		ND	0.00500						
Silver		ND	0.00500						

LCS		Sample ID: LCS-208924		Units: mg/L		Analysis Date: 18-Mar-2024 11:52			
Client ID:		Run ID:	ICPMS07_461492	SeqNo:	7892264	PrepDate:	15-Mar-2024	DF:	1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony		0.04341	0.00500	0.05	0	86.8	80 - 120		
Chromium		0.04573	0.00500	0.05	0	91.5	80 - 120		

ALS Houston, US

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**WorkOrder:** HS24030719

**QC BATCH REPORT**

**Batch ID:** 208924 ( 0 )      **Instrument:** ICPMS07      **Method:** TCLP METALS BY SW6020A

LCS	Sample ID:	Units: mg/L		Analysis Date: 15-Mar-2024 23:49				
Client ID:		Run ID:	ICPMS07_461410	SeqNo: 7891798	PrepDate: 15-Mar-2024	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Arsenic	0.04239	0.00500	0.05	0	84.8	80 - 120		
Barium	0.04398	0.0200	0.05	0	88.0	80 - 120		
Beryllium	0.04408	0.00200	0.05	0	88.2	80 - 120		
Cadmium	0.04384	0.00500	0.05	0	87.7	80 - 120		
Lead	0.0446	0.00500	0.05	0	89.2	80 - 120		
Nickel	0.04362	0.00500	0.05	0	87.2	80 - 120		
Selenium	0.04222	0.00500	0.05	0	84.4	80 - 120		
Silver	0.04772	0.00500	0.05	0	95.4	80 - 120		

MS	Sample ID:	Units: mg/L		Analysis Date: 16-Mar-2024 00:00				
Client ID:		Run ID:	ICPMS07_461410	SeqNo: 7891805	PrepDate: 15-Mar-2024	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony	0.4116	0.0500	0.5	0.0004	82.2	80 - 120		
Arsenic	0.4488	0.0500	0.5	0.00416	88.9	80 - 120		
Barium	0.5689	0.200	0.5	0.1341	87.0	80 - 120		
Beryllium	0.4565	0.0200	0.5	0.00012	91.3	80 - 120		
Cadmium	0.4496	0.0500	0.5	0.00003	89.9	80 - 120		
Chromium	0.4058	0.0500	0.5	-0.0001	81.2	80 - 120		
Lead	0.4536	0.0500	0.5	0.00025	90.7	80 - 120		
Nickel	0.4613	0.0500	0.5	0.00815	90.6	80 - 120		
Selenium	0.4438	0.0500	0.5	-0.00077	88.9	80 - 120		
Silver	0.4823	0.0500	0.5	0.00021	96.4	80 - 120		

ALS Houston, US

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**WorkOrder:** HS24030719

**QC BATCH REPORT**

**Batch ID:** 208924 ( 0 )      **Instrument:** ICPMS07      **Method:** TCLP METALS BY SW6020A

MSD	Sample ID:	HS24030666-01MSD		Units: mg/L		Analysis Date: 16-Mar-2024 00:03			
Client ID:		Run ID: ICPMS07_461410		SeqNo: 7891806		PrepDate: 15-Mar-2024		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony		0.4394	0.0500	0.5	0.0004	87.8	80 - 120	0.4116	6.55 20
Arsenic		0.4846	0.0500	0.5	0.00416	96.1	80 - 120	0.4488	7.66 20
Barium		0.614	0.200	0.5	0.1341	96.0	80 - 120	0.5689	7.62 20
Beryllium		0.4801	0.0200	0.5	0.00012	96.0	80 - 120	0.4565	5.04 20
Cadmium		0.4708	0.0500	0.5	0.00003	94.1	80 - 120	0.4496	4.6 20
Chromium		0.4366	0.0500	0.5	-0.0001	87.3	80 - 120	0.4058	7.31 20
Lead		0.4842	0.0500	0.5	0.00025	96.8	80 - 120	0.4536	6.53 20
Nickel		0.4921	0.0500	0.5	0.00815	96.8	80 - 120	0.4613	6.47 20
Selenium		0.4745	0.0500	0.5	-0.00077	95.1	80 - 120	0.4438	6.69 20
Silver		0.5005	0.0500	0.5	0.00021	100	80 - 120	0.4823	3.71 20

PDS	Sample ID:	HS24030666-01PDS		Units: mg/L		Analysis Date: 16-Mar-2024 00:05			
Client ID:		Run ID: ICPMS07_461410		SeqNo: 7891807		PrepDate: 15-Mar-2024		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Antimony		0.9645	0.0500	1	0.0004	96.4	75 - 125		
Arsenic		0.948	0.0500	1	0.00416	94.4	75 - 125		
Barium		1.074	0.200	1	0.1341	94.0	75 - 125		
Beryllium		0.9179	0.0200	1	0.00012	91.8	75 - 125		
Cadmium		0.9388	0.0500	1	0.00003	93.9	75 - 125		
Chromium		0.9162	0.0500	1	-0.0001	91.6	75 - 125		
Lead		0.9784	0.0500	1	0.00025	97.8	75 - 125		
Nickel		0.9511	0.0500	1	0.00815	94.3	75 - 125		
Selenium		0.944	0.0500	1	-0.00077	94.5	75 - 125		

ALS Houston, US

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**WorkOrder:** HS24030719

**QC BATCH REPORT**

**Batch ID:** 208924 ( 0 )      **Instrument:** ICPMS07      **Method:** TCLP METALS BY SW6020A

SD	Sample ID:	HS24030666-01SD		Units:	mg/L	Analysis Date: 15-Mar-2024 23:58				
Client ID:		Run ID: ICPMS07_461410		SeqNo:	7891802	PrepDate:	15-Mar-2024	DF:	5	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual
Antimony		ND	0.250					0.0004	0	10
Arsenic		ND	0.250					0.00416	0	10
Barium		0.1338	1.00					0.1341	0	10
Beryllium		ND	0.100					0.00012	0	10
Cadmium		ND	0.250					0.00003	0	10
Chromium		ND	0.250					-0.0001	0	10
Lead		ND	0.250					0.00025	0	10
Nickel		ND	0.250					0.00815	0	10
Selenium		ND	0.250					-0.00077	0	10
Silver		ND	0.250					0.00021	0	10

The following samples were analyzed in this batch: HS24030719-01

ALS Houston, US

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**WorkOrder:** HS24030719

**QC BATCH REPORT**

**Batch ID:** 209037 ( 0 )      **Instrument:** HG04      **Method:** TCLP MERCURY BY SW7470A

<b>MBLK</b>	Sample ID:	<b>MBLKT2-208875</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:29			
Client ID:		Run ID:	<b>HG04_461663</b>	SeqNo:	<b>7895404</b>	PrepDate:	<b>19-Mar-2024</b>	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID:	<b>MBLKT4-208890</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:33			
Client ID:		Run ID:	<b>HG04_461663</b>	SeqNo:	<b>7895406</b>	PrepDate:	<b>19-Mar-2024</b>	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID:	<b>MBLKT6-208828</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:36			
Client ID:		Run ID:	<b>HG04_461663</b>	SeqNo:	<b>7895408</b>	PrepDate:	<b>19-Mar-2024</b>	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID:	<b>MBLKT8-208816</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:40			
Client ID:		Run ID:	<b>HG04_461663</b>	SeqNo:	<b>7895410</b>	PrepDate:	<b>19-Mar-2024</b>	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID:	<b>MBLKT9-208962</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:47			
Client ID:		Run ID:	<b>HG04_461663</b>	SeqNo:	<b>7895413</b>	PrepDate:	<b>19-Mar-2024</b>	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID:	<b>MBLKT7-208618</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:38			
Client ID:		Run ID:	<b>HG04_461663</b>	SeqNo:	<b>7895409</b>	PrepDate:	<b>19-Mar-2024</b>	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury ND 0.000200

ALS Houston, US

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**WorkOrder:** HS24030719

**QC BATCH REPORT**

**Batch ID:** 209037 ( 0 )      **Instrument:** HG04      **Method:** TCLP MERCURY BY SW7470A

<b>MBLK</b>	Sample ID:	<b>MBLKT5-208876</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:35			
Client ID:		Run ID: <b>HG04_461663</b>	SeqNo:	7895407	PrepDate:	19-Mar-2024	DF:	1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID:	<b>MBLKT3-208943</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:31			
Client ID:		Run ID: <b>HG04_461663</b>	SeqNo:	7895405	PrepDate:	19-Mar-2024	DF:	1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID:	<b>MBLKT1-208545</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:28			
Client ID:		Run ID: <b>HG04_461663</b>	SeqNo:	7895403	PrepDate:	19-Mar-2024	DF:	1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury ND 0.000200

<b>MBLK</b>	Sample ID:	<b>MBLK-209037</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:24			
Client ID:		Run ID: <b>HG04_461663</b>	SeqNo:	7895401	PrepDate:	19-Mar-2024	DF:	1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury ND 0.000200

<b>LCS</b>	Sample ID:	<b>LCS-209037</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 12:26			
Client ID:		Run ID: <b>HG04_461663</b>	SeqNo:	7895402	PrepDate:	19-Mar-2024	DF:	1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury 0.00489 0.000200 0.005 0 97.8 80 - 120

<b>MS</b>	Sample ID:	<b>HS24030454-01MS</b>	Units:	mg/L	Analysis Date: 19-Mar-2024 14:12			
Client ID:		Run ID: <b>HG04_461663</b>	SeqNo:	7895427	PrepDate:	19-Mar-2024	DF:	1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Mercury 0.00459 0.000200 0.005 0.000001 91.8 75 - 125

ALS Houston, US

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**WorkOrder:** HS24030719

**QC BATCH REPORT**

**Batch ID:** 209037 ( 0 )      **Instrument:** HG04      **Method:** TCLP MERCURY BY SW7470A

MSD	Sample ID:	HS24030454-01MSD	Units:	mg/L	Analysis Date: 19-Mar-2024 14:14			
Client ID:		Run ID:	HG04_461663		SeqNo: 7895428	PrepDate: 19-Mar-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Mercury	0.00437	0.000200	0.005	0.000001	87.4	75 - 125	0.00459	4.91 20

The following samples were analyzed in this batch: HS24030719-01

**ALS Houston, US**

Date: 19-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13021  
**WorkOrder:** HS24030719

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**Unit Reported      Description**

Date  
mg/L      Milligrams per Liter

**ALS Houston, US**

Date: 19-Mar-24

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L22-90-R2	31-Mar-2024
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231-23-32	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US

Date: 19-Mar-24

**Sample Receipt Checklist**

Work Order ID: HS24030719

Date/Time Received:

28-Feb-2024 13:20

Client Name: Permian Basin Lab

Received by:

Jacob CoronadoCompleted By: /S/ Monica Smith

eSignature

14-Mar-2024 13:09

Reviewed by: /S/ Anna Kinchen

Date/Time

15-Mar-2024 10:39

eSignature

Matrices:

Soil

Carrier name:

FedEx

Shipping container/cooler in good condition?

Yes No Not Present 

Custody seals intact on shipping container/cooler?

Yes No Not Present 

Custody seals intact on sample bottles?

Yes No Not Present 

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes No Not Present 

Chain of custody present?

Yes No 

1 Page(s)

Chain of custody signed when relinquished and received?

Yes No 

COC IDs:PBEL COC- No ID

Samplers name present on COC?

Yes No 

Chain of custody agrees with sample labels?

Yes No 

Samples in proper container/bottle?

Yes No 

Sample containers intact?

Yes No 

Sufficient sample volume for indicated test?

Yes No 

All samples received within holding time?

Yes No 

Container/Temp Blank temperature in compliance?

Yes No 

Temperature(s)/Thermometer(s):

1.2 uc/1.1 c |IR31

Cooler(s)/Kit(s):

Red

Date/Time sample(s) sent to storage:

03/14/2024 1310

Water - VOA vials have zero headspace?

Yes No 

No VOA vials submitted

Water - pH acceptable upon receipt?

Yes No N/A 

pH adjusted?

Yes No N/A 

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



## **CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701**

Phone: 432-686-7235  
PBE LAB SUB COC V2

**Project Manager:** Brent Barron

**Project Name:** SUBCONTRACT

**Company Name** PBEL

**Project #:** \_\_\_\_\_

**Company Address:** 1400 Rankin HWY

**Project Loc:**  THIS FIELD IS FOR INTERNAL USE ONLY. DO NOT ENTER ANYTHING HERE.

City/State/Zip: Midland Texas 79701

PO #:

Telephone No: 432-661-4184 Fax No:

**Fax No:** \_\_\_\_\_ **Report Format:**  X Standard  TRRP  NPDES

Sampler Signature: N/A e-mail: brentbarron@pbelab.com

e-mail: brentbarron@pbelab.com

**ORDER #:**

				Preservation & # of Containers	
Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers
		2/28/2024	13:20	1	X
				ICE	
				HNO <sub>3</sub> 250 poly 1	
				HCl 3 40mL VOA	
				H <sub>2</sub> SO <sub>4</sub> 1 AMBER 500/250POLY	
				NaOH / Ascorbic Acid 250ML P	
				Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	

HS24030719

Permian Basin Environmental Lab, LP  
4C13021



Relinquished by: Brent Barron	Date <u>8/13/24</u>	Time <u>17:00</u>	Received by:
Relinquished by:	Date	Time	Received by: <u>SC</u> <u>8/14/24</u> <u>Ned 1.2</u>
Relinquished by:	Date	Time	Received by:

Sample Hand Delivered Y N  
 by Sampler/Client Rep. Y N  
 by Counter? UPS DHL FedEx Lane Star  
 Temperature Upon Receipt  
 Received  
 Adjusted: C Factor



After printing this label:  
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH  
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2. Place label in shipping pouch and affix it to your shipment!

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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lovington Hwy, NM

Lab Order Number: 4C13025



**Current Certification**

Report Date: 04/30/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-11A	4C13025-01	Water	03/13/24 09:30	03-13-2024 16:41
MW-6A	4C13025-02	Water	03/13/24 12:21	03-13-2024 16:41

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-11A****4C13025-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****BTEX by 8021B**

Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/14/24 13:58	03/14/24 17:13	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/14/24 13:58	03/14/24 17:13	EPA 8021B

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C1407	03/14/24 13:58	03/14/24 17:13	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4C1407	03/14/24 13:58	03/14/24 17:13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4C1407	03/14/24 13:58	03/14/24 17:13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4C1407	03/14/24 13:58	03/14/24 17:13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4C1407	03/14/24 13:58	03/14/24 17:13	EPA 8021B	
Surrogate: 4-Bromo fluorobenzene		87.2 %	80-120		P4C1407	03/14/24 13:58	03/14/24 17:13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	80-120		P4C1407	03/14/24 13:58	03/14/24 17:13	EPA 8021B	
Ethane	ND	0.00100	mg/L	1	P4C2607	03/19/24 10:46	03/26/24 08:26	8015M	SUB-13
Ethene	ND	0.000100	mg/L	1	P4C2607	03/19/24 10:46	03/26/24 08:26	8015M	SUB-13
Methane	ND	0.000500	mg/L	1	P4C2607	03/19/24 10:46	03/26/24 08:26	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

Total Alkalinity	225	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Bicarbonate Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Nitrate as N	ND	0.200	mg/L	1	P4C1911	03/14/24 10:32	03/19/24 22:14	EPA 300.0
Sulfate	53.1	10.0	mg/L	10	P4C2014	03/20/24 15:58	03/22/24 02:17	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4C2607	03/20/24 13:30	03/26/24 08:26	EPA 6020A	SUB-13
Manganese	ND	0.00500	mg/L	1	P4C2607	03/20/24 13:30	03/26/24 08:26	EPA 6020A	SUB-13

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-11A**  
**4C13025-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**PAH compounds by Semivolatile GCMS**

1-Methylnaphthalene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
2-Methylnaphthalene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Acenaphthene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Acenaphthylene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Anthracene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Benzo (a) anthracene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Benzo (a) pyrene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Benzo (g,h,i) perlylene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Chrysene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Dibeno (a,h) anthracene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Dibenzofuran	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Fluoranthene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Fluorene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Naphthalene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Phenanthrene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Pyrene	ND	0.00011	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-6A**  
**4C13025-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/14/24 13:58	03/14/24 17:36	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/14/24 13:58	03/14/24 17:36	EPA 8021B

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C1407	03/14/24 13:58	03/14/24 17:36	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4C1407	03/14/24 13:58	03/14/24 17:36	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4C1407	03/14/24 13:58	03/14/24 17:36	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4C1407	03/14/24 13:58	03/14/24 17:36	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4C1407	03/14/24 13:58	03/14/24 17:36	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.0 %	80-120		P4C1407	03/14/24 13:58	03/14/24 17:36	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		99.2 %	80-120		P4C1407	03/14/24 13:58	03/14/24 17:36	EPA 8021B	
Ethane	ND	0.00100	mg/L	1	P4C2607	03/19/24 10:58	03/26/24 08:26	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4C2607	03/19/24 10:58	03/26/24 08:26	8015M	SUB-13
<b>Methane</b>	<b>0.000634</b>	0.000500	mg/L	1	P4C2607	03/19/24 10:58	03/26/24 08:26	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Total Alkalinity</b>	<b>345</b>	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Bicarbonate Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4C2608	04/15/24 13:44	04/15/24 13:44	EPA 310.1M
Nitrate as N	ND	0.200	mg/L	1	P4C1911	03/14/24 10:32	03/19/24 22:34	EPA 300.0
<b>Sulfate</b>	<b>48.3</b>	5.00	mg/L	5	P4C2014	03/20/24 15:58	03/22/24 02:37	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

<b>Iron</b>	<b>0.258</b>	0.200	mg/L	1	P4C2607	03/20/24 13:30	03/26/24 08:26	EPA 6020A	SUB-13
<b>Manganese</b>	<b>0.0116</b>	0.00500	mg/L	1	P4C2607	03/20/24 13:30	03/26/24 08:26	EPA 6020A	SUB-13

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-6A**  
**4C13025-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**PAH compounds by Semivolatile GCMS**

1-Methylnaphthalene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
2-Methylnaphthalene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Acenaphthene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Acenaphthylene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Anthracene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Benzo (a) anthracene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Benzo (a) pyrene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Benzo (g,h,i) perlylene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Chrysene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Dibeno (a,h) anthracene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Dibenzofuran	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Fluoranthene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Fluorene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Naphthalene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Phenanthrene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13
Pyrene	ND	0.00018	mg/L	1	P4C2607	03/19/24 08:00	03/26/24 08:26	8270C	SUB-13

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4C1407 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4C1407-BLK1)</b>		Prepared & Analyzed: 03/14/24					
Benzene	ND	0.00100	mg/L				
Toluene	ND	0.00100	"				
Ethylbenzene	ND	0.00100	"				
Xylene (p/m)	ND	0.00200	"				
Xylene (o)	ND	0.00100	"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.104		"	0.120	86.9	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.117		"	0.120	97.7	80-120	

<b>LCS (P4C1407-BS1)</b>		Prepared & Analyzed: 03/14/24					
Benzene	0.113	0.00100	mg/L	0.100	113	80-120	
Toluene	0.0977	0.00100	"	0.100	97.7	80-120	
Ethylbenzene	0.0994	0.00100	"	0.100	99.4	80-120	
Xylene (p/m)	0.195	0.00200	"	0.200	97.6	80-120	
Xylene (o)	0.0932	0.00100	"	0.100	93.2	80-120	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.104		"	0.120	86.3	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.119		"	0.120	99.5	80-120	

<b>LCS Dup (P4C1407-BSD1)</b>		Prepared & Analyzed: 03/14/24					
Benzene	0.105	0.00100	mg/L	0.100	105	80-120	7.60
Toluene	0.0904	0.00100	"	0.100	90.4	80-120	7.78
Ethylbenzene	0.0910	0.00100	"	0.100	91.0	80-120	8.78
Xylene (p/m)	0.179	0.00200	"	0.200	89.3	80-120	8.83
Xylene (o)	0.0847	0.00100	"	0.100	84.7	80-120	9.66
<i>Surrogate: 4-Bromofluorobenzene</i>	0.103		"	0.120	85.8	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.120		"	0.120	100	80-120	

<b>Calibration Blank (P4C1407-CCB1)</b>		Prepared & Analyzed: 03/14/24					
Benzene	0.240		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.240		"				
Xylene (p/m)	0.220		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.103		"	0.120	85.9	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.118		"	0.120	98.3	80-120	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4C1407 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4C1407-CCB2)</b>		Prepared & Analyzed: 03/14/24					
Benzene	0.00		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.290		"				
Xylene (p/m)	0.250		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.106		"	0.120		87.9	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.120		"	0.120		99.6	80-120

<b>Calibration Check (P4C1407-CCV1)</b>		Prepared & Analyzed: 03/14/24					
Benzene	0.112	0.00100	mg/L	0.100		112	80-120
Toluene	0.0965	0.00100	"	0.100		96.5	80-120
Ethylbenzene	0.0907	0.00100	"	0.100		90.7	80-120
Xylene (p/m)	0.189	0.00200	"	0.200		94.5	80-120
Xylene (o)	0.0913	0.00100	"	0.100		91.3	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.104		"	0.120		86.4	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.120		"	0.120		99.9	80-120

<b>Calibration Check (P4C1407-CCV2)</b>		Prepared & Analyzed: 03/14/24					
Benzene	0.119	0.00100	mg/L	0.100		119	80-120
Toluene	0.103	0.00100	"	0.100		103	80-120
Ethylbenzene	0.0957	0.00100	"	0.100		95.7	80-120
Xylene (p/m)	0.201	0.00200	"	0.200		100	80-120
Xylene (o)	0.0981	0.00100	"	0.100		98.1	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.103		"	0.120		85.6	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.119		"	0.120		99.3	80-120

<b>Calibration Check (P4C1407-CCV3)</b>		Prepared: 03/14/24 Analyzed: 03/15/24					
Benzene	0.120	0.00100	mg/L	0.100		120	80-120
Toluene	0.106	0.00100	"	0.100		106	80-120
Ethylbenzene	0.0992	0.00100	"	0.100		99.2	80-120
Xylene (p/m)	0.210	0.00200	"	0.200		105	80-120
Xylene (o)	0.102	0.00100	"	0.100		102	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.104		"	0.120		86.8	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.122		"	0.120		102	80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4C1407 - \*\*\* DEFAULT PREP \*\*\***

Matrix Spike (P4C1407-MS1)	Source: 4C13025-01			Prepared: 03/14/24 Analyzed: 03/15/24			
Benzene	0.120	0.00100	mg/L	0.100	ND	120	80-120
Toluene	0.105	0.00100	"	0.100	ND	105	80-120
Ethylbenzene	0.105	0.00100	"	0.100	ND	105	80-120
Xylene (p/m)	0.209	0.00200	"	0.200	ND	105	80-120
Xylene (o)	0.0990	0.00100	"	0.100	ND	99.0	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.104</i>		<i>"</i>	<i>0.120</i>		<i>87.0</i>	<i>80-120</i>
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>0.121</i>		<i>"</i>	<i>0.120</i>		<i>101</i>	<i>80-120</i>

Matrix Spike Dup (P4C1407-MSD1)	Source: 4C13025-01			Prepared: 03/14/24 Analyzed: 03/15/24			
Benzene	0.106	0.00100	mg/L	0.100	ND	106	80-120
Toluene	0.0930	0.00100	"	0.100	ND	93.0	80-120
Ethylbenzene	0.0935	0.00100	"	0.100	ND	93.5	80-120
Xylene (p/m)	0.187	0.00200	"	0.200	ND	93.5	80-120
Xylene (o)	0.0870	0.00100	"	0.100	ND	87.0	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.105</i>		<i>"</i>	<i>0.120</i>		<i>87.4</i>	<i>80-120</i>
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>0.122</i>		<i>"</i>	<i>0.120</i>		<i>102</i>	<i>80-120</i>

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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#### Batch P4C1911 - \*\*\* DEFAULT PREP \*\*\*

<b>Blank (P4C1911-BLK1)</b>										Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	ND	0.200	mg/L							
<b>LCS (P4C1911-BS1)</b>										Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	21.8		mg/L	20.0		109	90-110			
<b>LCS Dup (P4C1911-BSD1)</b>										Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	21.8		mg/L	20.0		109	90-110	0.00918	10	
<b>Calibration Check (P4C1911-CCV1)</b>										Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	21.8		mg/L	20.0		109	90-110			
<b>Calibration Check (P4C1911-CCV2)</b>										Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	21.2		mg/L	20.0		106	90-110			
<b>Matrix Spike (P4C1911-MS1)</b>		<b>Source: 4C07008-01</b>								Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	32.7		mg/L	20.0	0.890	159	80-120			QM-05
<b>Matrix Spike (P4C1911-MS2)</b>		<b>Source: 4C13009-05</b>								Prepared: 03/14/24 Analyzed: 03/19/24
Nitrate as N	23.6		mg/L	20.0	0.125	118	80-120			
<b>Matrix Spike Dup (P4C1911-MSD1)</b>		<b>Source: 4C07008-01</b>								Prepared: 03/08/24 Analyzed: 03/19/24
Nitrate as N	32.4		mg/L	20.0	0.890	158	80-120	0.833	20	QM-05
<b>Matrix Spike Dup (P4C1911-MSD2)</b>		<b>Source: 4C13009-05</b>								Prepared: 03/14/24 Analyzed: 03/19/24
Nitrate as N	23.7		mg/L	20.0	0.125	118	80-120	0.401	20	

#### Batch P4C2014 - \*\*\* DEFAULT PREP \*\*\*

<b>Blank (P4C2014-BLK1)</b>										Prepared: 03/20/24 Analyzed: 03/21/24
Sulfate	ND	1.00	mg/L							

Permian Basin Environmental Lab, L.P.

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Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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#### **Batch P4C2014 - \*\*\* DEFAULT PREP \*\*\***

<b>LCS (P4C2014-BS1)</b>		Prepared: 03/20/24 Analyzed: 03/21/24								
Sulfate	17.9		mg/L	18.0		99.7	90-110			
<b>LCS Dup (P4C2014-BSD1)</b>		Prepared: 03/20/24 Analyzed: 03/21/24								
Sulfate	18.0		mg/L	18.0		100	90-110	0.489	10	
<b>Calibration Check (P4C2014-CCV1)</b>		Prepared: 03/20/24 Analyzed: 03/21/24								
Sulfate	17.6		mg/L	18.0		97.8	90-110			
<b>Calibration Check (P4C2014-CCV2)</b>		Prepared: 03/20/24 Analyzed: 03/21/24								
Sulfate	17.7		mg/L	18.0		98.2	90-110			
<b>Matrix Spike (P4C2014-MS1)</b>		<b>Source: 4C07008-01</b>			Prepared: 03/20/24 Analyzed: 03/21/24					
Sulfate	107		mg/L	100	9.66	97.7	80-120			
<b>Matrix Spike (P4C2014-MS2)</b>		<b>Source: 4C13009-05</b>			Prepared: 03/20/24 Analyzed: 03/22/24					
Sulfate	107		mg/L	100	7.37	99.8	80-120			
<b>Matrix Spike Dup (P4C2014-MSD1)</b>		<b>Source: 4C07008-01</b>			Prepared: 03/20/24 Analyzed: 03/21/24					
Sulfate	108		mg/L	100	9.66	98.7	80-120	0.915	20	
<b>Matrix Spike Dup (P4C2014-MSD2)</b>		<b>Source: 4C13009-05</b>			Prepared: 03/20/24 Analyzed: 03/22/24					
Sulfate	107		mg/L	100	7.37	99.9	80-120	0.0270	20	

#### **Batch P4C2608 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4C2608-BLK1)</b>				Prepared & Analyzed: 04/15/24						
Total Alkalinity	ND	10.0	mg/L							
Carbonate Alkalinity	ND	10.0	"							
Bicarbonate Alkalinity	ND	10.0	"							
Hydroxide Alkalinity	ND	10.0	"							

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4C2608 - \*\*\* DEFAULT PREP \*\*\***

<b>LCS (P4C2608-BS1)</b>		Prepared & Analyzed: 04/15/24								
Total Alkalinity	217		mg/L	250	86.8	80-120				
Carbonate Alkalinity	ND	10.0	"			80-120				
Bicarbonate Alkalinity	ND	10.0	"			80-120				
Hydroxide Alkalinity	ND	10.0	"			80-120				
<b>Duplicate (P4C2608-DUP1)</b>		<b>Source: 4C13012-01</b>		Prepared & Analyzed: 04/15/24						
Total Alkalinity	222	10.0	mg/L		138		46.7	20		
Carbonate Alkalinity	ND	10.0	"		ND			20		
Bicarbonate Alkalinity	ND	10.0	"		ND			20		
Hydroxide Alkalinity	ND	10.0	"		ND			20		

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

- SUB-13 Subcontract of analyte/analysis to ALS Houston.
- ROI Received on Ice
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- pH1 The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
- NPBEL C Chain of Custody was not generated at PBELAB
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:



Date: 4/30/2024

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.





## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701

Phone: 432-686-7235  
PBELAB\_SUB\_COV\_V2

Project Manager: Brent Barron Project Name: SUBCONTRACT  
 Company Name: PBEL Project #: \_\_\_\_\_  
 Company Address: 1400 Rankin HWY Project Loc: \_\_\_\_\_  
 City/State/Zip: Midland Texas 79701 PO #: \_\_\_\_\_  
 Telephone No: 432-661-4184 Fax No: \_\_\_\_\_ Report Format: X Standard  TRRP  NPDES  
 Sampler Signature: N/A e-mail: [brentbarron@pbelab.com](mailto:brentbarron@pbelab.com)

ORDER #:										Analyze For:									
LAB # (lab use only)		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers		Matrix	DW=Drinking Water S=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	8270C PAH LL	RSK SOP-175	Mn DISS ICP MS 6020A	Fe DISS ICP MS 6020A	24 HOUR RUSH	STANDARD		
								ICE	HNO <sub>3</sub> 250 poly 1										
	4C13025-01			3/13/2024	9:30	Y	7	X X X	X			X	W	X X X X			X		
	4C13025-02			3/13/2024	12:21	Y	7	X X X	X			X	W	X X X X			X		
Relinquished by: Brent Barron																			
Relinquished by: _____																			
Relinquished by: _____																			

Laboratory Comments:	
Sample Containers Intact?	Y N
VOCs Free of Headspace?	Y N
Labels on container(s)	Y N
Custody seals on container(s)	Y N
Custody seals on cooler(s)	Y N
Sample Hand Delivered	Y N
by Sampler/Client Rep. ?	Y N
by Courier? UPS DHL FedEx Lone Star	
Temperature Upon Receipt:	
Received:	°C
Adjusted:	°C Factor



right solutions.  
right partner.

---

10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

March 25, 2024

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS24030894**

Laboratory Results for: **4C13025**

Dear Brent Barron,

ALS Environmental received 2 sample(s) on Mar 14, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER

Anna Kinchen  
Project Manager

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alsglobal.com

Page 1 of 19

**ALS Houston, US**

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**Work Order:** HS24030894

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24030894-01	4C13025-01	Water		13-Mar-2024 09:30	14-Mar-2024 09:15	<input type="checkbox"/>
HS24030894-02	4C13025-02	Water		13-Mar-2024 12:21	14-Mar-2024 09:15	<input type="checkbox"/>

ALS Houston, US

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**Work Order:** HS24030894

---

**CASE NARRATIVE**

---

**GC Semivolatiles by Method RSK-175**

**Batch ID: R461671**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

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**GCMS Semivolatiles by Method SW8270**

**Batch ID: 209017**

**Sample ID: HS24030802-02MSD**

- MSD is for an unrelated sample (Chrysene)

---

**Metals by Method SW6020A**

**Batch ID: 209137**

**Sample ID: HS24030979-02MS**

- MS/MSD and DUPs are for an unrelated sample

ALS Houston, US

Date: 25-Mar-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4C13025  
 Sample ID: 4C13025-01  
 Collection Date: 13-Mar-2024 09:30

**ANALYTICAL REPORT**  
 WorkOrder:HS24030894  
 Lab ID:HS24030894-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW-LEVEL PAHS - 8270D</b>		<b>Method:SW8270</b>				
1-Methylnaphthalene	ND	n	0.106	ug/L	1	22-Mar-2024 16:59
2-Methylnaphthalene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Acenaphthene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Acenaphthylene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Anthracene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Benz(a)anthracene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Benzo(a)pyrene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Benzo(b)fluoranthene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Benzo(g,h,i)perylene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Benzo(k)fluoranthene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Chrysene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Dibenz(a,h)anthracene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Fluoranthene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Fluorene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Indeno(1,2,3-cd)pyrene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Naphthalene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Phenanthrene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Pyrene	ND		0.106	ug/L	1	22-Mar-2024 16:59
Surr: 2-Fluorobiphenyl	46.7		32-130	%REC	1	22-Mar-2024 16:59
Surr: 4-Terphenyl-d14	47.8		40-135	%REC	1	22-Mar-2024 16:59
Surr: Nitrobenzene-d5	49.7		45-142	%REC	1	22-Mar-2024 16:59
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>				
Ethane	ND		1.00	ug/L	1	19-Mar-2024 10:46
Ethene	ND		1.00	ug/L	1	19-Mar-2024 10:46
Methane	0.540		0.500	ug/L	1	19-Mar-2024 10:46
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>				
Iron	ND		0.200	mg/L	1	20-Mar-2024 22:38
Manganese	ND		0.00500	mg/L	1	20-Mar-2024 22:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 25-Mar-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4C13025  
 Sample ID: 4C13025-02  
 Collection Date: 13-Mar-2024 12:21

**ANALYTICAL REPORT**  
 WorkOrder:HS24030894  
 Lab ID:HS24030894-02  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW-LEVEL PAHS - 8270D</b>		<b>Method:SW8270</b>				
1-Methylnaphthalene	ND	n	0.176	ug/L	1	22-Mar-2024 17:20
2-Methylnaphthalene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Acenaphthene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Acenaphthylene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Anthracene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Benz(a)anthracene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Benzo(a)pyrene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Benzo(b)fluoranthene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Benzo(g,h,i)perylene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Benzo(k)fluoranthene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Chrysene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Dibenz(a,h)anthracene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Fluoranthene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Fluorene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Indeno(1,2,3-cd)pyrene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Naphthalene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Phenanthrene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Pyrene	ND		0.176	ug/L	1	22-Mar-2024 17:20
Surr: 2-Fluorobiphenyl	60.4		32-130	%REC	1	22-Mar-2024 17:20
Surr: 4-Terphenyl-d14	48.8		40-135	%REC	1	22-Mar-2024 17:20
Surr: Nitrobenzene-d5	75.0		45-142	%REC	1	22-Mar-2024 17:20
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>				
Ethane	ND		1.00	ug/L	1	19-Mar-2024 10:58
Ethene	ND		1.00	ug/L	1	19-Mar-2024 10:58
Methane	0.634		0.500	ug/L	1	19-Mar-2024 10:58
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>				
Iron	0.258		0.200	mg/L	1	20-Mar-2024 22:40
Manganese	0.0116		0.00500	mg/L	1	20-Mar-2024 22:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Weight / Prep Log****Client:** Permian Basin Environmental Lab, LP**Project:** 4C13025**WorkOrder:** HS24030894**Batch ID:** 209017**Start Date:** 19 Mar 2024 08:00**End Date:** 19 Mar 2024 08:00**Method:** SW3511**Prep Code:** 3511\_PAH

<b>Sample ID</b>	<b>Container</b>	<b>Sample Wt/Vol</b>	<b>Final Volume</b>	<b>Prep Factor</b>
HS24030894-01		31.25 (mL)	2 (mL)	0.064
HS24030894-02		18.8 (mL)	2 (mL)	0.1064

**Batch ID:** 209137**Start Date:** 20 Mar 2024 13:30**End Date:** 20 Mar 2024 13:30**Method:** DISS METALS PREP - WATER - SW3010A**Prep Code:** 3010A DISS

<b>Sample ID</b>	<b>Container</b>	<b>Sample Wt/Vol</b>	<b>Final Volume</b>	<b>Prep Factor</b>
HS24030894-01		10 (mL)	10 (mL)	1
HS24030894-02		10 (mL)	10 (mL)	1

ALS Houston, US

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**WorkOrder:** HS24030894

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 209017 ( 0 )		<b>Test Name :</b> LOW-LEVEL PAHS - 8270D				<b>Matrix:</b> Water
HS24030894-01	4C13025-01	13 Mar 2024 09:30		19 Mar 2024 08:00	22 Mar 2024 16:59	1
HS24030894-02	4C13025-02	13 Mar 2024 12:21		19 Mar 2024 08:00	22 Mar 2024 17:20	1
<b>Batch ID:</b> 209137 ( 0 )		<b>Test Name :</b> DISSOLVED METALS BY SW6020A				<b>Matrix:</b> Water
HS24030894-01	4C13025-01	13 Mar 2024 09:30		20 Mar 2024 13:30	20 Mar 2024 22:38	1
HS24030894-02	4C13025-02	13 Mar 2024 12:21		20 Mar 2024 13:30	20 Mar 2024 22:40	1
<b>Batch ID:</b> R461671 ( 0 )		<b>Test Name :</b> DISSOLVED GASES BY RSK-175				<b>Matrix:</b> Water
HS24030894-01	4C13025-01	13 Mar 2024 09:30			19 Mar 2024 10:46	1
HS24030894-02	4C13025-02	13 Mar 2024 12:21			19 Mar 2024 10:58	1

ALS Houston, US

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**WorkOrder:** HS24030894

**QC BATCH REPORT**

**Batch ID:** R461671 (0)      **Instrument:** FID-4      **Method:** DISSOLVED GASES BY RSK-175

<b>MLBK</b>	Sample ID: MBLK-240319	Units: ug/L		Analysis Date: 19-Mar-2024 08:03				
Client ID:	Run ID: FID-4_461671		SeqNo: 7895885	PrepDate:	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD	RPD Limit Qual

Ethane	ND	1.00
Ethene	ND	1.00
Methane	ND	0.500

**LCS**      Sample ID: LCS-240319      Units: ug/L      Analysis Date: 19-Mar-2024 08:14

<b>LCS</b>	Sample ID: LCS-240319	Units: ug/L		Analysis Date: 19-Mar-2024 08:14				
Client ID:	Run ID: FID-4_461671		SeqNo: 7895886	PrepDate:	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD	RPD Limit Qual

Ethane	17.06	1.00	18.04	0	94.5	75 - 125
Ethene	15.89	1.00	16.8	0	94.6	75 - 125
Methane	9.692	0.500	9.647	0	100	75 - 125

**LCSD**      Sample ID: LCSD-240319      Units: ug/L      Analysis Date: 19-Mar-2024 08:25

<b>LCSD</b>	Sample ID: LCSD-240319	Units: ug/L		Analysis Date: 19-Mar-2024 08:25				
Client ID:	Run ID: FID-4_461671		SeqNo: 7895887	PrepDate:	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD	RPD Limit Qual

Ethane	17.32	1.00	18.04	0	96.0	75 - 125	17.06	1.52	30
Ethene	15.52	1.00	16.8	0	92.4	75 - 125	15.89	2.36	30
Methane	9.755	0.500	9.647	0	101	75 - 125	9.692	0.649	30

The following samples were analyzed in this batch: HS24030894-01      HS24030894-02

ALS Houston, US

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**WorkOrder:** HS24030894

**QC BATCH REPORT**

**Batch ID:** 209137 ( 0 )      **Instrument:** ICPMS06      **Method:** DISSOLVED METALS BY SW6020A (DISSOLVED)

<b>MLBK</b>	Sample ID:	MLBK-209137	Units:	mg/L	Analysis Date: 20-Mar-2024 21:50			
Client ID:		Run ID: ICPMS06_461723	SeqNo:	7898451	PrepDate:	20-Mar-2024	DF:	1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Iron	ND	0.200
Manganese	ND	0.00500

<b>LCS</b>	Sample ID:	LCS-209137	Units:	mg/L	Analysis Date: 20-Mar-2024 21:52			
Client ID:		Run ID: ICPMS06_461723	SeqNo:	7898452	PrepDate:	20-Mar-2024	DF:	1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Iron	4.893	0.200	5	0	97.9	80 - 120
Manganese	0.04698	0.00500	0.05	0	94.0	80 - 120

<b>MS</b>	Sample ID:	HS24030979-02MS	Units:	mg/L	Analysis Date: 20-Mar-2024 22:27			
Client ID:		Run ID: ICPMS06_461723	SeqNo:	7898440	PrepDate:	20-Mar-2024	DF:	10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Iron	22.11	2.00	5	12.97	183	75 - 125	S
Manganese	9.408	0.0500	0.05	7.459	3900	75 - 125	SO

<b>MSD</b>	Sample ID:	HS24030979-02MSD	Units:	mg/L	Analysis Date: 20-Mar-2024 22:28			
Client ID:		Run ID: ICPMS06_461723	SeqNo:	7898441	PrepDate:	20-Mar-2024	DF:	10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Iron	22.08	2.00	5	12.97	182	75 - 125	22.11	0.102	20	S
Manganese	9.182	0.0500	0.05	7.459	3450	75 - 125	9.408	2.43	20	SO

<b>PDS</b>	Sample ID:	HS24030979-02PDS	Units:	mg/L	Analysis Date: 20-Mar-2024 22:30			
Client ID:		Run ID: ICPMS06_461723	SeqNo:	7898442	PrepDate:	20-Mar-2024	DF:	10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Iron	113.4	2.00	100	12.97	100	75 - 125
Manganese	9.603	0.0500	1	7.459	214	75 - 125
						SO

ALS Houston, US

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**WorkOrder:** HS24030894

**QC BATCH REPORT**

Batch ID: 209137 ( 0 )		Instrument: ICPMS06		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)					
SD	Sample ID: HS24030979-02SD	Units: mg/L		Analysis Date: 20-Mar-2024 22:25					
Client ID:	Run ID: ICPMS06_461723	SeqNo: 7898439	PrepDate: 20-Mar-2024	DF: 50					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %D		
Iron	13.16	10.0				12.97	1.44 10		
Manganese	7.508	0.250				7.459	0.651 10		

The following samples were analyzed in this batch: HS24030894-01 HS24030894-02

ALS Houston, US

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**WorkOrder:** HS24030894

**QC BATCH REPORT**

**Batch ID:** 209017 ( 0 )      **Instrument:** SV-6      **Method:** LOW-LEVEL PAHS - 8270D

Analyte	Result	PQL	SPK Val	SPK Ref		Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
				Value	%REC				
1-Methylnaphthalene	ND	0.100							
2-Methylnaphthalene	ND	0.100							
Acenaphthene	ND	0.100							
Acenaphthylene	ND	0.100							
Anthracene	ND	0.100							
Benz(a)anthracene	ND	0.100							
Benzo(a)pyrene	ND	0.100							
Benzo(b)fluoranthene	ND	0.100							
Benzo(g,h,i)perylene	ND	0.100							
Benzo(k)fluoranthene	ND	0.100							
Chrysene	ND	0.100							
Dibenz(a,h)anthracene	ND	0.100							
Fluoranthene	ND	0.100							
Fluorene	ND	0.100							
Indeno(1,2,3-cd)pyrene	ND	0.100							
Naphthalene	ND	0.100							
Phenanthrene	ND	0.100							
Pyrene	ND	0.100							
<i>Surr: 2-Fluorobiphenyl</i>	1.431	0.100	3.03	0	47.2	32 - 130			
<i>Surr: 4-Terphenyl-d14</i>	1.231	0.100	3.03	0	40.6	40 - 135			
<i>Surr: Nitrobenzene-d5</i>	1.607	0.100	3.03	0	53.0	45 - 142			

ALS Houston, US

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**WorkOrder:** HS24030894

**QC BATCH REPORT**

**Batch ID:** 209017 ( 0 )      **Instrument:** SV-6      **Method:** LOW-LEVEL PAHS - 8270D

LCS	Sample ID:	LCS-209017		Units:	ug/L		Analysis Date: 19-Mar-2024 18:03			
Client ID:		Run ID: SV-6_461944		SeqNo:	7901936	PrepDate:	19-Mar-2024	DF:	1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
1-Methylnaphthalene		1.934	0.100	3.03	0	63.8	40 - 140			
2-Methylnaphthalene		1.916	0.100	3.03	0	63.2	40 - 140			
Acenaphthene		2.006	0.100	3.03	0	66.2	40 - 140			
Acenaphthylene		1.964	0.100	3.03	0	64.8	40 - 140			
Anthracene		1.837	0.100	3.03	0	60.6	40 - 140			
Benz(a)anthracene		1.556	0.100	3.03	0	51.4	40 - 140			
Benzo(a)pyrene		1.722	0.100	3.03	0	56.8	40 - 140			
Benzo(b)fluoranthene		1.236	0.100	3.03	0	40.8	40 - 140			
Benzo(g,h,i)perylene		1.521	0.100	3.03	0	50.2	40 - 140			
Benzo(k)fluoranthene		1.883	0.100	3.03	0	62.2	40 - 140			
Chrysene		1.996	0.100	3.03	0	65.9	40 - 140			
Dibenz(a,h)anthracene		2.056	0.100	3.03	0	67.9	40 - 140			
Fluoranthene		1.993	0.100	3.03	0	65.8	40 - 140			
Fluorene		1.877	0.100	3.03	0	62.0	40 - 140			
Indeno(1,2,3-cd)pyrene		1.801	0.100	3.03	0	59.4	40 - 140			
Naphthalene		2.023	0.100	3.03	0	66.8	40 - 140			
Phenanthrene		1.291	0.100	3.03	0	42.6	40 - 140			
Pyrene		1.559	0.100	3.03	0	51.5	40 - 140			
Surr: 2-Fluorobiphenyl		1.648	0.100	3.03	0	54.4	32 - 130			
Surr: 4-Terphenyl-d14		1.515	0.100	3.03	0	50.0	40 - 135			
Surr: Nitrobenzene-d5		1.713	0.100	3.03	0	56.5	45 - 142			

ALS Houston, US

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**WorkOrder:** HS24030894

**QC BATCH REPORT**

**Batch ID:** 209017 (0)      **Instrument:** SV-6      **Method:** LOW-LEVEL PAHS - 8270D

MS	Sample ID:	HS24030802-02MS		Units:	ug/L		Analysis Date: 19-Mar-2024 18:44			
Client ID:		Run ID: SV-6_461944		SeqNo:	7901938	PrepDate:	19-Mar-2024	DF:	1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
1-Methylnaphthalene		4.261	0.104	3.141	0.9861	104	40 - 140			
2-Methylnaphthalene		2.896	0.104	3.141	0.6834	70.4	40 - 140			
Acenaphthene		2.047	0.104	3.141	0.5094	48.9	40 - 140			
Acenaphthylene		1.553	0.104	3.141	0	49.4	40 - 140			
Anthracene		2.553	0.104	3.141	0.331	70.7	40 - 140			
Benz(a)anthracene		1.563	0.104	3.141	0	49.8	40 - 140			
Benzo(a)pyrene		1.763	0.104	3.141	0	56.1	40 - 140			
Benzo(b)fluoranthene		1.276	0.104	3.141	0	40.6	40 - 140			
Benzo(g,h,i)perylene		1.71	0.104	3.141	0	54.4	40 - 140			
Benzo(k)fluoranthene		1.896	0.104	3.141	0	60.4	40 - 140			
Chrysene		2.265	0.104	3.141	0	72.1	40 - 140			
Dibenz(a,h)anthracene		2.006	0.104	3.141	0	63.9	40 - 140			
Fluoranthene		2.68	0.104	3.141	0	85.3	40 - 140			
Fluorene		1.921	0.104	3.141	0.2393	53.5	40 - 140			
Indeno(1,2,3-cd)pyrene		1.819	0.104	3.141	0	57.9	40 - 140			
Naphthalene		7.219	0.104	3.141	4.949	72.3	40 - 140			
Phenanthrene		1.781	0.104	3.141	0.5131	40.4	40 - 140			
Pyrene		2.099	0.104	3.141	0	66.8	40 - 140			
Surr: 2-Fluorobiphenyl		1.435	0.104	3.141	0	45.7	32 - 130			
Surr: 4-Terphenyl-d14		1.565	0.104	3.141	0	49.8	40 - 135			
Surr: Nitrobenzene-d5		1.994	0.104	3.141	0	63.5	45 - 142			

ALS Houston, US

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**WorkOrder:** HS24030894

**QC BATCH REPORT**

**Batch ID:** 209017 (0)      **Instrument:** SV-6      **Method:** LOW-LEVEL PAHS - 8270D

MSD	Sample ID:	HS24030802-02MSD		Units:	ug/L		Analysis Date: 19-Mar-2024 19:04			
Client ID:		Run ID: SV-6_461944		SeqNo:	7901939	PrepDate:	19-Mar-2024	DF:	1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
1-Methylnaphthalene		4.419	0.101	3.072	0.9861	112	40 - 140	4.261	3.65 25	
2-Methylnaphthalene		3.001	0.101	3.072	0.6834	75.4	40 - 140	2.896	3.56 25	
Acenaphthene		2.142	0.101	3.072	0.5094	53.1	40 - 140	2.047	4.54 25	
Acenaphthylene		1.894	0.101	3.072	0	61.6	40 - 140	1.553	19.8 25	
Anthracene		3.005	0.101	3.072	0.331	87.1	40 - 140	2.553	16.3 25	
Benz(a)anthracene		1.693	0.101	3.072	0	55.1	40 - 140	1.563	7.99 25	
Benzo(a)pyrene		1.644	0.101	3.072	0	53.5	40 - 140	1.763	7.01 25	
Benzo(b)fluoranthene		1.401	0.101	3.072	0	45.6	40 - 140	1.276	9.37 25	
Benzo(g,h,i)perylene		1.42	0.101	3.072	0	46.2	40 - 140	1.71	18.5 25	
Benzo(k)fluoranthene		2.301	0.101	3.072	0	74.9	40 - 140	1.896	19.3 25	
Chrysene		3.182	0.101	3.072	0	104	40 - 140	2.265	33.7 25 R	
Dibenz(a,h)anthracene		1.76	0.101	3.072	0	57.3	40 - 140	2.006	13.1 25	
Fluoranthene		2.859	0.101	3.072	0	93.1	40 - 140	2.68	6.48 25	
Fluorene		2.149	0.101	3.072	0.2393	62.2	40 - 140	1.921	11.2 25	
Indeno(1,2,3-cd)pyrene		1.647	0.101	3.072	0	53.6	40 - 140	1.819	9.96 25	
Naphthalene		7.44	0.101	3.072	4.949	81.1	40 - 140	7.219	3 25	
Phenanthrene		1.89	0.101	3.072	0.5131	44.8	40 - 140	1.781	5.96 25	
Pyrene		2.371	0.101	3.072	0	77.2	40 - 140	2.099	12.1 25	
Surr: 2-Fluorobiphenyl		1.53	0.101	3.072	0	49.8	32 - 130	1.435	6.39 25	
Surr: 4-Terphenyl-d14		1.393	0.101	3.072	0	45.3	40 - 135	1.565	11.6 25	
Surr: Nitrobenzene-d5		1.916	0.101	3.072	0	62.4	45 - 142	1.994	4 25	

The following samples were analyzed in this batch: HS24030894-01      HS24030894-02

**ALS Houston, US**

Date: 25-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C13025  
**WorkOrder:** HS24030894

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**ALS Houston, US**

Date: 25-Mar-24

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L22-90-R2	31-Mar-2024
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231-23-32	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US

Date: 25-Mar-24

**Sample Receipt Checklist**

Work Order ID: HS24030894

Date/Time Received:

14-Mar-2024 12:00

Client Name: Permian Basin Lab

Received by:

Jacob CoronadoCompleted By: /S/ Kaycee Rogers

eSignature

18-Mar-2024 11:37

Reviewed by: /S/ Anna Kinchen

Date/Time

19-Mar-2024 08:19

eSignature

Matrices:

w

Carrier name:

FedEx

Shipping container/cooler in good condition?

Yes No Not Present 

Custody seals intact on shipping container/cooler?

Yes No Not Present 

Custody seals intact on sample bottles?

Yes No Not Present 

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes No Not Present 

Chain of custody present?

Yes No 

1 Page(s)

Chain of custody signed when relinquished and received?

Yes No 

Samplers name present on COC?

Yes No 

Chain of custody agrees with sample labels?

Yes No 

Samples in proper container/bottle?

Yes No 

Sample containers intact?

Yes No 

Sufficient sample volume for indicated test?

Yes No 

All samples received within holding time?

Yes No 

Container/Temp Blank temperature in compliance?

Yes No 

Temperature(s)/Thermometer(s):

1.7uc/1.6c  31 

Cooler(s)/Kit(s):

red 

Date/Time sample(s) sent to storage:

03/18/2024 11:38 

Water - VOA vials have zero headspace?

Yes  No  No VOA vials submitted 

Water - pH acceptable upon receipt?

Yes  No  N/A 

pH adjusted?

Yes  No  N/A 

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**Permian Basin Environmental Lab, LP**  
**1400 Rankin HWY**  
**Midland, Texas 79701**

Phone: 432-686-7235  
PBELAB SUB COC V2

**Project Manager:** Brent Barron

**Project Name:** SUBCONTRACT

**Company Name** PBEL

HS24030894

**Company Address:** 1400 Rankin HWY  
1400 Rankin Hwy, Suite 100, Rankin, MS 38668

Permian Basin Environmental Lab, LP  
SUBCONTRACT

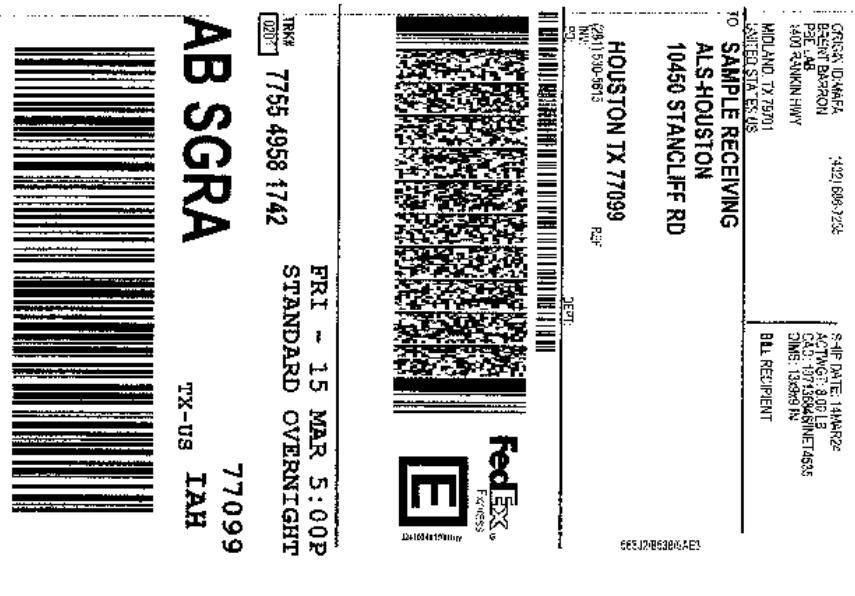
City/State/Zip: Midland Texas 79701

Telephone No: 432-661-4184 Fax No:

Sampler Signature: N/A e-mail: brentbarron@pbelab.com

Relinquished by: Brent Barron	Date <i>3/14/24</i>	Time <i>17:00</i>	Received by:	Date	Time	Sample Hand Delivered by Sampler/Client Rep. by Courier?      UPS      DHL      FedEx      Lone Star
Relinquished by:	Date	Time	Received by: <i>JC</i>	Date <i>3/18/24</i>	Time <i>07:15</i>	Custody seals on container(s) Broken seal on container(s)
Relinquished by:	Date	Time	Received by: <i>Red</i>	Date	Time	Temperature Upon Receipt: Received:      °C Adjusted:      °C Factor

Page 18 of 19



After printing this label:  
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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lovington Hwy, NM

Lab Order Number: 4C14018



**Current Certification**

Report Date: 04/29/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-16A	4C14018-01	Water	03/14/24 11:15	03-14-2024 16:03
MW-15A	4C14018-02	Water	03/14/24 10:44	03-14-2024 16:03
MW-17A	4C14018-03	Water	03/14/24 11:52	03-14-2024 16:03
MW-14A	4C14018-04	Water	03/14/24 10:16	03-14-2024 16:03
MW-13A	4C14018-05	Water	03/14/24 09:40	03-14-2024 16:03

Low level PAH analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:

[https://www.tceq.texas.gov/assets/public/compliance/compliance\\_support/qa/labs/als\\_svcs\\_houston.pdf](https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf)

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-16A****4C14018-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:02	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:02	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:02	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:02	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:02	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>	90.7 %	80-120			P4C2009	03/20/24 09:11	03/20/24 14:02	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>	101 %	80-120			P4C2009	03/20/24 09:11	03/20/24 14:02	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/20/24 09:11	03/20/24 14:02	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/20/24 09:11	03/20/24 14:02	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-15A**  
**4C14018-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:24	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:24	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:24	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:24	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:24	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>		90.2 %	80-120		P4C2009	03/20/24 09:11	03/20/24 14:24	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		101 %	80-120		P4C2009	03/20/24 09:11	03/20/24 14:24	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/20/24 09:11	03/20/24 14:24	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/20/24 09:11	03/20/24 14:24	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-17A**  
**4C14018-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:46	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:46	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:46	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:46	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 14:46	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>		91.1 %	80-120		P4C2009	03/20/24 09:11	03/20/24 14:46	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		101 %	80-120		P4C2009	03/20/24 09:11	03/20/24 14:46	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/20/24 09:11	03/20/24 14:46	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/20/24 09:11	03/20/24 14:46	EPA 8021B

**PAH compounds by Semivolatile GCMS**

1-Methylnaphthalene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
2-Methylnaphthalene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Acenaphthene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Acenaphthylene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Anthracene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Benzo (a) anthracene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Benzo (a) pyrene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Benzo (g,h,i) perylene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Chrysene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Dibenzo (a,h) anthracene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Dibenzofuran	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Fluoranthene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Fluorene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Naphthalene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Phenanthrene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13
Pyrene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:34	8270C	SUB-13

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-14A**  
**4C14018-04 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 15:09	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 15:09	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 15:09	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 15:09	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 15:09	EPA 8021B
<i>Surrogate: 4-BromoFluorobenzene</i>		90.1 %	80-120		P4C2009	03/20/24 09:11	03/20/24 15:09	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		101 %	80-120		P4C2009	03/20/24 09:11	03/20/24 15:09	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/20/24 09:11	03/20/24 15:09	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/20/24 09:11	03/20/24 15:09	EPA 8021B

**PAH compounds by Semivolatile GCMS**

1-Methylnaphthalene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
2-Methylnaphthalene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Acenaphthene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Acenaphthylene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Anthracene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Benzo (a) anthracene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Benzo (a) pyrene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Benzo (g,h,i) perylene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Chrysene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Dibenzo (a,h) anthracene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Dibenzofuran	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Fluoranthene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Fluorene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Naphthalene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Phenanthrene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13
Pyrene	ND	0.00010	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 13:55	8270C	SUB-13

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-13A**  
**4C14018-05 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 15:31	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 15:31	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 15:31	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 15:31	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4C2009	03/20/24 09:11	03/20/24 15:31	EPA 8021B
<i>Surrogate: 4-Bromo</i> fluorobenzene	90.9 %	80-120			P4C2009	03/20/24 09:11	03/20/24 15:31	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>	101 %	80-120			P4C2009	03/20/24 09:11	03/20/24 15:31	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	03/20/24 09:11	03/20/24 15:31	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	03/20/24 09:11	03/20/24 15:31	EPA 8021B

**PAH compounds by Semivolatile GCMS**

1-Methylnaphthalene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
2-Methylnaphthalene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Acenaphthene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Acenaphthylene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Anthracene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Benzo (a) anthracene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Benzo (a) pyrene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Benzo (g,h,i) perylene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Chrysene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Dibenzo (a,h) anthracene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Dibenzofuran	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Fluoranthene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Fluorene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Naphthalene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Phenanthrene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13
Pyrene	ND	0.000097	mg/L	1	P4C2707	03/19/24 16:30	03/26/24 14:15	8270C	SUB-13

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4C2009 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4C2009-BLK1)</b>		Prepared & Analyzed: 03/20/24					
Benzene	ND	0.00100	mg/L				
Toluene	ND	0.00100	"				
Ethylbenzene	ND	0.00100	"				
Xylene (p/m)	ND	0.00200	"				
Xylene (o)	ND	0.00100	"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.108		"	0.120		89.7	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.118		"	0.120		98.6	80-120

<b>LCS (P4C2009-BS1)</b>		Prepared & Analyzed: 03/20/24					
Benzene	0.108	0.00100	mg/L	0.100		108	80-120
Toluene	0.0998	0.00100	"	0.100		99.8	80-120
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120
Xylene (p/m)	0.205	0.00200	"	0.200		103	80-120
Xylene (o)	0.0955	0.00100	"	0.100		95.5	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.106		"	0.120		88.3	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.119		"	0.120		99.4	80-120

<b>LCS Dup (P4C2009-BSD1)</b>		Prepared & Analyzed: 03/20/24					
Benzene	0.112	0.00100	mg/L	0.100		112	80-120
Toluene	0.103	0.00100	"	0.100		103	80-120
Ethylbenzene	0.105	0.00100	"	0.100		105	80-120
Xylene (p/m)	0.211	0.00200	"	0.200		105	80-120
Xylene (o)	0.0984	0.00100	"	0.100		98.4	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.105		"	0.120		87.6	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.118		"	0.120		98.5	80-120

<b>Calibration Blank (P4C2009-CCB1)</b>		Prepared & Analyzed: 03/20/24					
Benzene	0.00		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.00		"				
Xylene (p/m)	0.00		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.106		"	0.120		88.1	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.118		"	0.120		98.2	80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4C2009 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4C2009-CCB2)</b>		Prepared & Analyzed: 03/20/24					
Benzene	0.00		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.00		"				
Xylene (p/m)	0.00		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.106		"	0.120		88.3	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.118		"	0.120		98.2	80-120

<b>Calibration Check (P4C2009-CCV1)</b>		Prepared & Analyzed: 03/20/24					
Benzene	0.115	0.00100	mg/L	0.100		115	80-120
Toluene	0.103	0.00100	"	0.100		103	80-120
Ethylbenzene	0.0981	0.00100	"	0.100		98.1	80-120
Xylene (p/m)	0.209	0.00200	"	0.200		105	80-120
Xylene (o)	0.0996	0.00100	"	0.100		99.6	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.104		"	0.120		86.9	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.118		"	0.120		98.7	80-120

<b>Calibration Check (P4C2009-CCV2)</b>		Prepared & Analyzed: 03/20/24					
Benzene	0.112	0.00100	mg/L	0.100		112	80-120
Toluene	0.0977	0.00100	"	0.100		97.7	80-120
Ethylbenzene	0.0923	0.00100	"	0.100		92.3	80-120
Xylene (p/m)	0.194	0.00200	"	0.200		97.1	80-120
Xylene (o)	0.0942	0.00100	"	0.100		94.2	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.103		"	0.120		85.4	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.118		"	0.120		98.5	80-120

<b>Calibration Check (P4C2009-CCV3)</b>		Prepared & Analyzed: 03/20/24					
Benzene	0.119	0.00100	mg/L	0.100		119	80-120
Toluene	0.108	0.00100	"	0.100		108	80-120
Ethylbenzene	0.103	0.00100	"	0.100		103	80-120
Xylene (p/m)	0.219	0.00200	"	0.200		109	80-120
Xylene (o)	0.104	0.00100	"	0.100		104	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.102		"	0.120		85.4	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.117		"	0.120		97.1	80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4C2009 - \*\*\* DEFAULT PREP \*\*\***

Matrix Spike (P4C2009-MS1)	Source: 4C14016-11			Prepared & Analyzed: 03/20/24					
Benzene	0.108	0.00100	mg/L	0.100	ND	108	80-120		
Toluene	0.0974	0.00100	"	0.100	ND	97.4	80-120		
Ethylbenzene	0.0996	0.00100	"	0.100	ND	99.6	80-120		
Xylene (p/m)	0.199	0.00200	"	0.200	ND	99.4	80-120		
Xylene (o)	0.0923	0.00100	"	0.100	ND	92.3	80-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.103</i>		<i>"</i>	<i>0.120</i>		<i>86.0</i>	<i>80-120</i>		
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>0.116</i>		<i>"</i>	<i>0.120</i>		<i>96.9</i>	<i>80-120</i>		

Matrix Spike Dup (P4C2009-MSD1)	Source: 4C14016-11			Prepared & Analyzed: 03/20/24					
Benzene	0.102	0.00100	mg/L	0.100	ND	102	80-120	5.98	20
Toluene	0.0909	0.00100	"	0.100	ND	90.9	80-120	6.95	20
Ethylbenzene	0.0935	0.00100	"	0.100	ND	93.5	80-120	6.38	20
Xylene (p/m)	0.188	0.00200	"	0.200	ND	94.2	80-120	5.46	20
Xylene (o)	0.0862	0.00100	"	0.100	ND	86.2	80-120	6.89	20
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.102</i>		<i>"</i>	<i>0.120</i>		<i>84.7</i>	<i>80-120</i>		
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>0.117</i>		<i>"</i>	<i>0.120</i>		<i>97.4</i>	<i>80-120</i>		

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

SUB-13	Subcontract of analyte/analysis to ALS Houston.
ROI	Received on Ice
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 4/29/2024

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

PBM

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**YSIS REQUEST**  
Permian Basin Environmental Lab, LP  
**1400 Rankin HWY**  
**Midland, Texas 79701**

CH: \_\_\_\_\_ WI: \_\_\_\_\_  
Phone: 432-686-7235



## **CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701**

Phone: 432-686-7235  
PBELAB SUB COC V2

Project Manager: Brent Barron

**Project Name:** SUBCONTRACT

Company Name PBEL

**Project #:**

Company Address: 1400 Rankin HWY

**Project Loc:**

City/State/Zip: Midland Texas 79701

**PO #:**

Telephone No: 432-661-4184 Fax No:

Fax No:

**Report Format:**  Standard  TRRP  NPDES

Sampler Signature: N/A e-mail: brentbarron@pbelab.com

e-mail: [brentbarron@pbelab.com](mailto:brentbarron@pbelab.com)

**Report Format:**  Standard  TRRP  NPDES

<b>Laboratory Comments:</b>	
Sample Containers Intact?	Y N
VOCs Free of Headspace?	Y N
Labels on container(s)	Y N
Custody seals on container(s)	Y N
Custody seals on cooler(s)	Y N
Sample Hand Delivered	Y N
by Sampler/Client Rep. ?	Y N
by Courier?      UPS      DHL	FedEx      Lone Star
Temperature Upon Receipt:	
Received:	°C
Adjusted:	°C Factor

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Labels on container(s)      Y      N

**Relinquished by:** \_\_\_\_\_ **Date** \_\_\_\_\_ **Time** \_\_\_\_\_ **Received by:** \_\_\_\_\_ **Date** \_\_\_\_\_ **Time** \_\_\_\_\_

Labels on container(s) Y N

For more information about the study, please contact Dr. John D. Cawley at (609) 258-4626 or via email at [jdcawley@princeton.edu](mailto:jdcawley@princeton.edu).

Custody seals on container(s) Y N

**Relinquished by:** \_\_\_\_\_ **Date** \_\_\_\_\_ **Time** \_\_\_\_\_ **Received by:** \_\_\_\_\_ **Date** \_\_\_\_\_ **Time** \_\_\_\_\_

Custody seals on cooler(s) Y N

Table 1. Summary of the main characteristics of the four groups of patients.

Sample Hand Delivered Y N

*Released to Imaging: 9/18/2025 2:49:54 PM*



right solutions.  
right partner.

---

10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

March 26, 2024

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS24030967**

Laboratory Results for: **4C14018**

Dear Brent Barron,

ALS Environmental received 3 sample(s) on Mar 19, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL  
Anna Kinchen  
Project Manager

---

alsglobal.com

**ALS Houston, US**

Date: 26-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C14018  
**Work Order:** HS24030967

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24030967-01	4C14018-03	Water		14-Mar-2024 11:52	19-Mar-2024 09:25	<input type="checkbox"/>
HS24030967-02	4C14018-04	Water		14-Mar-2024 10:16	19-Mar-2024 09:25	<input type="checkbox"/>
HS24030967-03	4C14018-05	Water		14-Mar-2024 09:40	19-Mar-2024 09:25	<input type="checkbox"/>

ALS Houston, US

Date: 26-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C14018  
**Work Order:** HS24030967

**CASE NARRATIVE**

**GCMS Semivolatiles by Method SW8270**

**Batch ID: 209081**

**Sample ID: LCSD-209081**

- LCSD RPD was above the upper control limit. The individual recoveries were in control.

ALS Houston, US

Date: 26-Mar-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4C14018  
 Sample ID: 4C14018-03  
 Collection Date: 14-Mar-2024 11:52

**ANALYTICAL REPORT**  
 WorkOrder:HS24030967  
 Lab ID:HS24030967-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW-LEVEL PAHS - 8270D</b>		<b>Method:SW8270</b>				Prep:SW3511 / 19-Mar-2024      Analyst: MBG
1-Methylnaphthalene	ND	n	0.103	ug/L	1	26-Mar-2024 13:34
2-Methylnaphthalene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Acenaphthene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Acenaphthylene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Anthracene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Benz(a)anthracene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Benzo(a)pyrene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Benzo(b)fluoranthene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Benzo(g,h,i)perylene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Benzo(k)fluoranthene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Chrysene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Dibenz(a,h)anthracene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Fluoranthene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Fluorene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Indeno(1,2,3-cd)pyrene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Naphthalene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Phenanthrene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Pyrene	ND		0.103	ug/L	1	26-Mar-2024 13:34
Surr: 2-Fluorobiphenyl	64.0		32-130	%REC	1	26-Mar-2024 13:34
Surr: 4-Terphenyl-d14	52.6		40-135	%REC	1	26-Mar-2024 13:34
Surr: Nitrobenzene-d5	67.0		45-142	%REC	1	26-Mar-2024 13:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 26-Mar-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4C14018  
 Sample ID: 4C14018-04  
 Collection Date: 14-Mar-2024 10:16

**ANALYTICAL REPORT**  
 WorkOrder:HS24030967  
 Lab ID:HS24030967-02  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW-LEVEL PAHS - 8270D</b>		<b>Method:SW8270</b>				Prep:SW3511 / 19-Mar-2024      Analyst: MBG
1-Methylnaphthalene	ND	n	0.100	ug/L	1	26-Mar-2024 13:55
2-Methylnaphthalene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Acenaphthene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Acenaphthylene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Anthracene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Benz(a)anthracene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Benzo(a)pyrene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Benzo(b)fluoranthene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Benzo(g,h,i)perylene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Benzo(k)fluoranthene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Chrysene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Dibenz(a,h)anthracene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Fluoranthene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Fluorene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Indeno(1,2,3-cd)pyrene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Naphthalene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Phenanthrene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Pyrene	ND		0.100	ug/L	1	26-Mar-2024 13:55
Surr: 2-Fluorobiphenyl	54.0		32-130	%REC	1	26-Mar-2024 13:55
Surr: 4-Terphenyl-d14	57.4		40-135	%REC	1	26-Mar-2024 13:55
Surr: Nitrobenzene-d5	54.7		45-142	%REC	1	26-Mar-2024 13:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 26-Mar-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4C14018  
 Sample ID: 4C14018-05  
 Collection Date: 14-Mar-2024 09:40

**ANALYTICAL REPORT**  
 WorkOrder:HS24030967  
 Lab ID:HS24030967-03  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW-LEVEL PAHS - 8270D</b>		<b>Method:SW8270</b>				
1-Methylnaphthalene	ND	n	0.0972	ug/L	1	26-Mar-2024 14:15
2-Methylnaphthalene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Acenaphthene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Acenaphthylene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Anthracene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Benz(a)anthracene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Benzo(a)pyrene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Benzo(b)fluoranthene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Benzo(g,h,i)perylene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Benzo(k)fluoranthene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Chrysene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Dibenz(a,h)anthracene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Fluoranthene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Fluorene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Indeno(1,2,3-cd)pyrene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Naphthalene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Phenanthrene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Pyrene	ND		0.0972	ug/L	1	26-Mar-2024 14:15
Surr: 2-Fluorobiphenyl	54.8		32-130	%REC	1	26-Mar-2024 14:15
Surr: 4-Terphenyl-d14	59.6		40-135	%REC	1	26-Mar-2024 14:15
Surr: Nitrobenzene-d5	64.0		45-142	%REC	1	26-Mar-2024 14:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Weight / Prep Log****Client:** Permian Basin Environmental Lab, LP**Project:** 4C14018**WorkOrder:** HS24030967**Batch ID:** 209081**Start Date:** 19 Mar 2024 16:30**End Date:** 19 Mar 2024 16:30**Method:** SW3511**Prep Code:** 3511\_PAH

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24030967-01		32.1 (mL)	2 (mL)	0.06231	40 mL Amber
HS24030967-02		32.9 (mL)	2 (mL)	0.06079	40 mL Amber
HS24030967-03		33.96 (mL)	2 (mL)	0.05889	40 mL Amber

ALS Houston, US

Date: 26-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C14018  
**WorkOrder:** HS24030967

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 209081 ( 0 )		<b>Test Name :</b> LOW-LEVEL PAHS - 8270D				
HS24030967-01	4C14018-03	14 Mar 2024 11:52		19 Mar 2024 16:30	26 Mar 2024 13:34	1
HS24030967-02	4C14018-04	14 Mar 2024 10:16		19 Mar 2024 16:30	26 Mar 2024 13:55	1
HS24030967-03	4C14018-05	14 Mar 2024 09:40		19 Mar 2024 16:30	26 Mar 2024 14:15	1

ALS Houston, US

Date: 26-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C14018  
**WorkOrder:** HS24030967

**QC BATCH REPORT**

**Batch ID:** 209081 ( 0 )      **Instrument:** SV-6      **Method:** LOW-LEVEL PAHS - 8270D

Analyte	Result	PQL	SPK Val	SPK Ref		Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
				Value	%REC				
1-Methylnaphthalene	ND	0.100							
2-Methylnaphthalene	ND	0.100							
Acenaphthene	ND	0.100							
Acenaphthylene	ND	0.100							
Anthracene	ND	0.100							
Benz(a)anthracene	ND	0.100							
Benzo(a)pyrene	ND	0.100							
Benzo(b)fluoranthene	ND	0.100							
Benzo(g,h,i)perylene	ND	0.100							
Benzo(k)fluoranthene	ND	0.100							
Chrysene	ND	0.100							
Dibenz(a,h)anthracene	ND	0.100							
Fluoranthene	ND	0.100							
Fluorene	ND	0.100							
Indeno(1,2,3-cd)pyrene	ND	0.100							
Naphthalene	ND	0.100							
Phenanthrene	ND	0.100							
Pyrene	ND	0.100							
<i>Surr: 2-Fluorobiphenyl</i>	2.334	0.100	3.03	0	77.0	32 - 130			
<i>Surr: 4-Terphenyl-d14</i>	1.502	0.100	3.03	0	49.6	40 - 135			
<i>Surr: Nitrobenzene-d5</i>	2.041	0.100	3.03	0	67.4	45 - 142			

ALS Houston, US

Date: 26-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C14018  
**WorkOrder:** HS24030967

**QC BATCH REPORT**

**Batch ID:** 209081 (0)      **Instrument:** SV-6      **Method:** LOW-LEVEL PAHS - 8270D

LCS	Sample ID:	Units: ug/L		Analysis Date: 20-Mar-2024 21:51				
Client ID:		Run ID:	SV-6_461980	SeqNo:	7902656	PrepDate:	19-Mar-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
1-Methylnaphthalene	3.118	0.100	3.03	0	103	40 - 140		
2-Methylnaphthalene	2.266	0.100	3.03	0	74.8	40 - 140		
Acenaphthene	2.219	0.100	3.03	0	73.2	40 - 140		
Acenaphthylene	2.496	0.100	3.03	0	82.4	40 - 140		
Anthracene	2.694	0.100	3.03	0	88.9	40 - 140		
Benz(a)anthracene	2.263	0.100	3.03	0	74.7	40 - 140		
Benzo(a)pyrene	2.164	0.100	3.03	0	71.4	40 - 140		
Benzo(b)fluoranthene	2.319	0.100	3.03	0	76.5	40 - 140		
Benzo(g,h,i)perylene	2.639	0.100	3.03	0	87.1	40 - 140		
Benzo(k)fluoranthene	2.472	0.100	3.03	0	81.6	40 - 140		
Chrysene	1.966	0.100	3.03	0	64.9	40 - 140		
Dibenz(a,h)anthracene	3.117	0.100	3.03	0	103	40 - 140		
Fluoranthene	2.506	0.100	3.03	0	82.7	40 - 140		
Fluorene	2.475	0.100	3.03	0	81.7	40 - 140		
Indeno(1,2,3-cd)pyrene	2.752	0.100	3.03	0	90.8	40 - 140		
Naphthalene	3.058	0.100	3.03	0	101	40 - 140		
Phenanthrene	2.064	0.100	3.03	0	68.1	40 - 140		
Pyrene	1.673	0.100	3.03	0	55.2	40 - 140		
Surr: 2-Fluorobiphenyl	2.167	0.100	3.03	0	71.5	32 - 130		
Surr: 4-Terphenyl-d14	1.748	0.100	3.03	0	57.7	40 - 135		
Surr: Nitrobenzene-d5	2.045	0.100	3.03	0	67.5	45 - 142		

ALS Houston, US

Date: 26-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C14018  
**WorkOrder:** HS24030967

**QC BATCH REPORT**

**Batch ID:** 209081 ( 0 )      **Instrument:** SV-6      **Method:** LOW-LEVEL PAHS - 8270D

LCSD	Sample ID:	LCSD-209081		Units:	ug/L		Analysis Date: 20-Mar-2024 22:12			
Client ID:		Run ID: SV-6_461980		SeqNo:	7908504	PrepDate:	19-Mar-2024	DF:	1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
1-Methylnaphthalene		2.958	0.100	3.03	0	97.6	40 - 140	3.118	5.26 25	
2-Methylnaphthalene		1.897	0.100	3.03	0	62.6	40 - 140	2.266	17.7 25	
Acenaphthene		1.778	0.100	3.03	0	58.7	40 - 140	2.219	22.1 25	
Acenaphthylene		2.017	0.100	3.03	0	66.6	40 - 140	2.496	21.3 25	
Anthracene		2.457	0.100	3.03	0	81.1	40 - 140	2.694	9.22 25	
Benz(a)anthracene		1.891	0.100	3.03	0	62.4	40 - 140	2.263	17.9 25	
Benzo(a)pyrene		1.9	0.100	3.03	0	62.7	40 - 140	2.164	13 25	
Benzo(b)fluoranthene		1.788	0.100	3.03	0	59.0	40 - 140	2.319	25.8 25 R	
Benzo(g,h,i)perylene		1.762	0.100	3.03	0	58.2	40 - 140	2.639	39.8 25 R	
Benzo(k)fluoranthene		1.887	0.100	3.03	0	62.3	40 - 140	2.472	26.8 25 R	
Chrysene		1.745	0.100	3.03	0	57.6	40 - 140	1.966	11.9 25	
Dibenz(a,h)anthracene		2.446	0.100	3.03	0	80.7	40 - 140	3.117	24.1 25	
Fluoranthene		2.126	0.100	3.03	0	70.2	40 - 140	2.506	16.4 25	
Fluorene		1.989	0.100	3.03	0	65.6	40 - 140	2.475	21.8 25	
Indeno(1,2,3-cd)pyrene		1.968	0.100	3.03	0	65.0	40 - 140	2.752	33.2 25 R	
Naphthalene		2.101	0.100	3.03	0	69.3	40 - 140	3.058	37.1 25 R	
Phenanthrene		1.692	0.100	3.03	0	55.8	40 - 140	2.064	19.8 25	
Pyrene		1.522	0.100	3.03	0	50.2	40 - 140	1.673	9.43 25	
Surr: 2-Fluorobiphenyl		1.696	0.100	3.03	0	56.0	32 - 130	2.167	24.4 25	
Surr: 4-Terphenyl-d14		1.434	0.100	3.03	0	47.3	40 - 135	1.748	19.7 25	
Surr: Nitrobenzene-d5		1.734	0.100	3.03	0	57.2	45 - 142	2.045	16.5 25	

The following samples were analyzed in this batch: HS24030967-01      HS24030967-02      HS24030967-03

**ALS Houston, US**

Date: 26-Mar-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4C14018  
**WorkOrder:** HS24030967

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**ALS Houston, US**

Date: 26-Mar-24

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L22-90-R2	31-Mar-2024
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231-23-32	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US

Date: 26-Mar-24

**Sample Receipt Checklist**

Work Order ID: HS24030967

Date/Time Received:

19-Mar-2024 09:25

Client Name: Permian Basin Lab

Received by:

Jacob CoronadoCompleted By: /S/ Belinda Gomez

eSignature

19-Mar-2024 12:38

Reviewed by: /S/ Anna Kinchen

Date/Time

20-Mar-2024 14:29

eSignature

Matrices:

w

Carrier name:

FedEx

Shipping container/cooler in good condition?

Yes No Not Present 

Custody seals intact on shipping container/cooler?

Yes No Not Present 

Custody seals intact on sample bottles?

Yes No Not Present 

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes No Not Present 

Chain of custody present?

Yes No 

1 Page(s)

Chain of custody signed when relinquished and received?

Yes No 

Samplers name present on COC?

Yes No 

Chain of custody agrees with sample labels?

Yes No 

Samples in proper container/bottle?

Yes No 

Sample containers intact?

Yes No 

Sufficient sample volume for indicated test?

Yes No 

All samples received within holding time?

Yes No 

Container/Temp Blank temperature in compliance?

Yes No 

Temperature(s)/Thermometer(s):

1.7uc/1.6c  ir31

Cooler(s)/Kit(s):

red 

Date/Time sample(s) sent to storage:

3/19/24 1239 

Water - VOA vials have zero headspace?

Yes  No  No VOA vials submitted 

Water - pH acceptable upon receipt?

Yes  No  N/A 

pH adjusted?

Yes  No  N/A 

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**Permian Basin Environmental Lab, LP**  
**1400 Rankin HWY**  
**Midland, Texas 79701**

Phone: 432-686-7235  
PBELAB SUB COC V2

Project Manager: Brent Barron

Company Name PBEL

Company Address: 1400 Rankin HWY

City/State/Zip: Midland Texas 79701

Telephone No: 432-661-4184

Sampler Signature: N/A

Permian Basin Environmental Lab, LP  
4C14018

HS24030967

4C14018



e-mail: brentbarron@pbelab.com

**Project Name:** SUBCONTRACT

## Project #

## Project Location

PO #

**Report Format:** X Standard

TRRF

NPOES

						Laboratory Comments:	
						Sample Container(s) intact?	
						VOCS Free of Headspace?	
Relinquished by: Brent Barron	Date 3/18/24	Time 17:00	Received by: JL	Date	Time	Label Adhesive Custody seals on container(s) Container(s) clean?	Y N
Relinquished by:	Date 3/19/24	Time 9:25	Received by: JL	Date	Time	Sample Hand Delivered by Sampler/Client Rep.? by Courier? UPS DHL FedEx	Y N Y N
Relinquished by:	Date	Time	Received by:	Date	Time	Temperature Upon Receipt: Received: °C Adjusted: °C Factor	

Page 15 of 16

ORIGIN ADDRESS  
BRIAN BARRETT  
1000 FRANKLIN RD  
MICHIGAN CITY  
IN 46360-3701  
UNITED STATES US

(132) 686-7225

SHIP DATE: 18 MAR 24  
ACTUAL SHIP DATE: 18 MAR 24  
CARRIER: FEDEX  
DISPATCHER: 3499 N  
BILL RECIPIENT

TO: SAMPLE RECEIVING

ALS-HOUSTON  
10450 STANCILIFF RD

HOUSTON TX 77099

REF:

583.285194A3

120150515  
NOV 2023

DRAFT

TUE - 19 MAR 5:00P  
STANDARD OVERNIGHT

TRK# 7755 8786 0489

DATE

AB SGRA  
TX-US IAH  
77099

After printing this label:

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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4F12008



**Current Certification**

Report Date: 06/19/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-17A	4F12008-01	Water	06/11/24 10:35	06-12-2024 15:53
MW-16A	4F12008-02	Water	06/11/24 11:12	06-12-2024 15:53
MW-15A	4F12008-03	Water	06/11/24 11:57	06-12-2024 15:53
MW-14A	4F12008-04	Water	06/11/24 12:36	06-12-2024 15:53
MW-13A	4F12008-05	Water	06/11/24 13:41	06-12-2024 15:53
MW-18A	4F12008-06	Water	06/11/24 14:41	06-12-2024 15:53
MW-21	4F12008-07	Water	06/12/24 12:03	06-12-2024 15:53
MW-10A	4F12008-08	Water	06/12/24 10:45	06-12-2024 15:53
MW-9A	4F12008-09	Water	06/11/24 09:57	06-12-2024 15:53

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-17A**  
**4F12008-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 18:34	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 18:34	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 18:34	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 18:34	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 18:34	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	80-120		P4F1306	06/13/24 09:03	06/13/24 18:34	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		95.1 %	80-120		P4F1306	06/13/24 09:03	06/13/24 18:34	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/13/24 09:03	06/13/24 18:34	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/13/24 09:03	06/13/24 18:34	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-16A**  
**4F12008-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 18:57	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 18:57	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 18:57	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 18:57	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 18:57	EPA 8021B
<i>Surrogate: 4-Bromo fluoro benzene</i>		104 %	80-120		P4F1306	06/13/24 09:03	06/13/24 18:57	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		97.9 %	80-120		P4F1306	06/13/24 09:03	06/13/24 18:57	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/13/24 09:03	06/13/24 18:57	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/13/24 09:03	06/13/24 18:57	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-15A****4F12008-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 19:19	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 19:19	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 19:19	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 19:19	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 19:19	EPA 8021B
<i>Surrogate: 4-Bromo fluoro benzene</i>		103 %	80-120		P4F1306	06/13/24 09:03	06/13/24 19:19	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		97.3 %	80-120		P4F1306	06/13/24 09:03	06/13/24 19:19	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/13/24 09:03	06/13/24 19:19	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/13/24 09:03	06/13/24 19:19	EPA 8021B

Talon LPE  
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Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-14A****4F12008-04 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 19:41	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 19:41	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 19:41	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 19:41	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 19:41	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>		104 %	80-120		P4F1306	06/13/24 09:03	06/13/24 19:41	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		97.2 %	80-120		P4F1306	06/13/24 09:03	06/13/24 19:41	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/13/24 09:03	06/13/24 19:41	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/13/24 09:03	06/13/24 19:41	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-13A**  
**4F12008-05 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 20:03	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 20:03	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 20:03	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 20:03	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1306	06/13/24 09:03	06/13/24 20:03	EPA 8021B
<i>Surrogate: 4-Bromo fluoro benzene</i>		104 %	80-120		P4F1306	06/13/24 09:03	06/13/24 20:03	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		96.8 %	80-120		P4F1306	06/13/24 09:03	06/13/24 20:03	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/13/24 09:03	06/13/24 20:03	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/13/24 09:03	06/13/24 20:03	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-18A**  
**4F12008-06 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 19:22	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 19:22	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 19:22	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 19:22	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 19:22	EPA 8021B
<i>Surrogate: 4-Bromo</i> fluorobenzene		105 %	80-120		P4F1404	06/14/24 15:16	06/14/24 19:22	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		95.9 %	80-120		P4F1404	06/14/24 15:16	06/14/24 19:22	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/14/24 19:22	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/14/24 19:22	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-21**  
**4F12008-07 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 19:44	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 19:44	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 19:44	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 19:44	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 19:44	EPA 8021B
<i>Surrogate: 4-Bromo</i> fluorobenzene		104 %	80-120		P4F1404	06/14/24 15:16	06/14/24 19:44	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		97.0 %	80-120		P4F1404	06/14/24 15:16	06/14/24 19:44	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/14/24 19:44	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/14/24 19:44	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-10A**  
**4F12008-08 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 20:07	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 20:07	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 20:07	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 20:07	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 20:07	EPA 8021B
<i>Surrogate: 4-Bromo</i> fluorobenzene		101 %	80-120		P4F1404	06/14/24 15:16	06/14/24 20:07	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		97.1 %	80-120		P4F1404	06/14/24 15:16	06/14/24 20:07	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/14/24 20:07	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/14/24 20:07	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-9A****4F12008-09 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 20:29	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 20:29	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 20:29	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 20:29	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/14/24 20:29	EPA 8021B
<i>Surrogate: 4-Bromo fluoro benzene</i>		103 %	80-120		P4F1404	06/14/24 15:16	06/14/24 20:29	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		98.3 %	80-120		P4F1404	06/14/24 15:16	06/14/24 20:29	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/14/24 20:29	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/14/24 20:29	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1306 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4F1306-BLK1)</b>		Prepared & Analyzed: 06/13/24					
Benzene	ND	0.00100	mg/L				
Toluene	ND	0.00100	"				
Ethylbenzene	ND	0.00100	"				
Xylene (p/m)	ND	0.00200	"				
Xylene (o)	ND	0.00100	"				
Surrogate: 4-Bromofluorobenzene	0.122		"	0.120		102	80-120
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.2	80-120

<b>LCS (P4F1306-BS1)</b>		Prepared & Analyzed: 06/13/24					
Benzene	0.115	0.00100	mg/L	0.100		115	80-120
Toluene	0.107	0.00100	"	0.100		107	80-120
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120
Xylene (p/m)	0.231	0.00200	"	0.200		115	80-120
Xylene (o)	0.102	0.00100	"	0.100		102	80-120
Surrogate: 4-Bromofluorobenzene	0.126		"	0.120		105	80-120
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120

<b>LCS Dup (P4F1306-BSD1)</b>		Prepared & Analyzed: 06/13/24					
Benzene	0.113	0.00100	mg/L	0.100		113	80-120
Toluene	0.105	0.00100	"	0.100		105	80-120
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120
Xylene (p/m)	0.227	0.00200	"	0.200		114	80-120
Xylene (o)	0.100	0.00100	"	0.100		100	80-120
Surrogate: 4-Bromofluorobenzene	0.125		"	0.120		104	80-120
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	80-120

<b>Calibration Blank (P4F1306-CCB1)</b>		Prepared & Analyzed: 06/13/24					
Benzene	0.100		ug/l				
Toluene	0.100		"				
Ethylbenzene	0.0800		"				
Xylene (p/m)	0.200		"				
Xylene (o)	0.00		"				
Surrogate: 4-Bromofluorobenzene	0.122		"	0.120		102	80-120
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.1	80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1306 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4F1306-CCB2)</b>		Prepared & Analyzed: 06/13/24					
Benzene	0.100		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.120		"				
Xylene (p/m)	0.230		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.126		"	0.120		105	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.112		"	0.120		93.0	80-120

<b>Calibration Check (P4F1306-CCV1)</b>		Prepared & Analyzed: 06/13/24					
Benzene	0.120	0.00100	mg/L	0.100		120	80-120
Toluene	0.112	0.00100	"	0.100		112	80-120
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120
Xylene (p/m)	0.234	0.00200	"	0.200		117	80-120
Xylene (o)	0.107	0.00100	"	0.100		107	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.121		"	0.120		101	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.125		"	0.120		104	80-120

<b>Calibration Check (P4F1306-CCV2)</b>		Prepared & Analyzed: 06/13/24					
Benzene	0.112	0.00100	mg/L	0.100		112	80-120
Toluene	0.105	0.00100	"	0.100		105	80-120
Ethylbenzene	0.0999	0.00100	"	0.100		99.9	80-120
Xylene (p/m)	0.222	0.00200	"	0.200		111	80-120
Xylene (o)	0.101	0.00100	"	0.100		101	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.127		"	0.120		106	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.126		"	0.120		105	80-120

<b>Calibration Check (P4F1306-CCV3)</b>		Prepared & Analyzed: 06/13/24					
Benzene	0.119	0.00100	mg/L	0.100		119	80-120
Toluene	0.112	0.00100	"	0.100		112	80-120
Ethylbenzene	0.107	0.00100	"	0.100		107	80-120
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120
Xylene (o)	0.107	0.00100	"	0.100		107	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.122		"	0.120		102	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.125		"	0.120		104	80-120

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

Permian Basin Environmental Lab, L.P.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1306 - \*\*\* DEFAULT PREP \*\*\***

Matrix Spike (P4F1306-MS1)	Source: 4F12006-09			Prepared & Analyzed: 06/13/24					
Benzene	0.186	0.00100	mg/L	0.100	0.0924	93.9	80-120		
Toluene	0.128	0.00100	"	0.100	0.0137	115	80-120		
Ethylbenzene	0.122	0.00100	"	0.100	0.000780	121	80-120		QM-05
Xylene (p/m)	0.242	0.00200	"	0.200	0.00244	120	80-120		
Xylene (o)	0.107	0.00100	"	0.100	0.000920	106	80-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	0.122		"	0.120		102	80-120		
<i>Surrogate: 1,4-Difluorobenzene</i>	0.126		"	0.120		105	80-120		

Matrix Spike Dup (P4F1306-MSD1)	Source: 4F12006-09			Prepared & Analyzed: 06/13/24					
Benzene	0.214	0.00100	mg/L	0.100	0.0924	121	80-120	25.7	20
Toluene	0.141	0.00100	"	0.100	0.0137	128	80-120	10.6	20
Ethylbenzene	0.128	0.00100	"	0.100	0.000780	128	80-120	5.08	20
Xylene (p/m)	0.250	0.00200	"	0.200	0.00244	124	80-120	3.24	20
Xylene (o)	0.114	0.00100	"	0.100	0.000920	113	80-120	5.85	20
<i>Surrogate: 4-Bromofluorobenzene</i>	0.122		"	0.120		101	80-120		
<i>Surrogate: 1,4-Difluorobenzene</i>	0.127		"	0.120		106	80-120		

**Batch P4F1404 - \*\*\* DEFAULT PREP \*\*\***

Blank (P4F1404-BLK1)	Prepared & Analyzed: 06/14/24				
Benzene	ND	0.00100	mg/L		
Toluene	ND	0.00100	"		
Ethylbenzene	ND	0.00100	"		
Xylene (p/m)	ND	0.00200	"		
Xylene (o)	ND	0.00100	"		
<i>Surrogate: 4-Bromofluorobenzene</i>	0.124		"	0.120	103
<i>Surrogate: 1,4-Difluorobenzene</i>	0.114		"	0.120	94.9
					80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1404 - \*\*\* DEFAULT PREP \*\*\***

<b>LCS (P4F1404-BS1)</b>						
Prepared & Analyzed: 06/14/24						
Benzene	0.120	0.00100	mg/L	0.100	120	80-120
Toluene	0.110	0.00100	"	0.100	110	80-120
Ethylbenzene	0.118	0.00100	"	0.100	118	80-120
Xylene (p/m)	0.236	0.00200	"	0.200	118	80-120
Xylene (o)	0.106	0.00100	"	0.100	106	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.126		"	0.120	105	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.128		"	0.120	106	80-120

<b>LCS Dup (P4F1404-BSD1)</b>						
Prepared & Analyzed: 06/14/24						
Benzene	0.120	0.00100	mg/L	0.100	120	80-120
Toluene	0.112	0.00100	"	0.100	112	80-120
Ethylbenzene	0.118	0.00100	"	0.100	118	80-120
Xylene (p/m)	0.239	0.00200	"	0.200	120	80-120
Xylene (o)	0.106	0.00100	"	0.100	106	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.122		"	0.120	102	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.125		"	0.120	104	80-120

<b>Calibration Blank (P4F1404-CCB1)</b>						
Prepared & Analyzed: 06/14/24						
Benzene	0.130		ug/l			
Toluene	0.160		"			
Ethylbenzene	0.180		"			
Xylene (p/m)	0.260		"			
Xylene (o)	0.00		"			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.121		"	0.120	101	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.116		"	0.120	96.5	80-120

<b>Calibration Blank (P4F1404-CCB2)</b>						
Prepared & Analyzed: 06/14/24						
Benzene	0.00		ug/l			
Toluene	0.00		"			
Ethylbenzene	0.200		"			
Xylene (p/m)	0.220		"			
Xylene (o)	0.00		"			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.122		"	0.120	102	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.117		"	0.120	97.9	80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1404 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4F1404-CCB3)</b>		Prepared: 06/14/24 Analyzed: 06/15/24					
Benzene	0.250		ug/l				
Toluene	0.140		"				
Ethylbenzene	0.430		"				
Xylene (p/m)	0.480		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.120		"	0.120	100	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.117		"	0.120	97.7	80-120	

<b>Calibration Check (P4F1404-CCV1)</b>		Prepared & Analyzed: 06/14/24					
Benzene	0.119	0.00100	mg/L	0.100	119	80-120	
Toluene	0.112	0.00100	"	0.100	112	80-120	
Ethylbenzene	0.107	0.00100	"	0.100	107	80-120	
Xylene (p/m)	0.234	0.00200	"	0.200	117	80-120	
Xylene (o)	0.106	0.00100	"	0.100	106	80-120	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.119		"	0.120	99.6	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.124		"	0.120	104	80-120	

<b>Calibration Check (P4F1404-CCV2)</b>		Prepared & Analyzed: 06/14/24					
Benzene	0.115	0.00100	mg/L	0.100	115	80-120	
Toluene	0.113	0.00100	"	0.100	113	80-120	
Ethylbenzene	0.108	0.00100	"	0.100	108	80-120	
Xylene (p/m)	0.238	0.00200	"	0.200	119	80-120	
Xylene (o)	0.108	0.00100	"	0.100	108	80-120	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.126		"	0.120	105	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.126		"	0.120	105	80-120	

<b>Calibration Check (P4F1404-CCV3)</b>		Prepared: 06/14/24 Analyzed: 06/15/24					
Benzene	0.119	0.00100	mg/L	0.100	119	80-120	
Toluene	0.116	0.00100	"	0.100	116	80-120	
Ethylbenzene	0.112	0.00100	"	0.100	112	80-120	
Xylene (p/m)	0.236	0.00200	"	0.200	118	80-120	
Xylene (o)	0.109	0.00100	"	0.100	109	80-120	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.117		"	0.120	97.3	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.123		"	0.120	102	80-120	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1404 - \*\*\* DEFAULT PREP \*\*\***

Matrix Spike (P4F1404-MS1)	Source: 4F12008-06			Prepared: 06/14/24 Analyzed: 06/15/24					
Benzene	0.125	0.00100	mg/L	0.100	ND	125	80-120		QM-05
Toluene	0.116	0.00100	"	0.100	ND	116	80-120		
Ethylbenzene	0.138	0.00100	"	0.100	ND	138	80-120		QM-05
Xylene (p/m)	0.252	0.00200	"	0.200	ND	126	80-120		QM-05
Xylene (o)	0.112	0.00100	"	0.100	ND	112	80-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.125</i>		<i>"</i>	<i>0.120</i>		<i>105</i>	<i>80-120</i>		
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>0.130</i>		<i>"</i>	<i>0.120</i>		<i>108</i>	<i>80-120</i>		

Matrix Spike Dup (P4F1404-MSD1)	Source: 4F12008-06			Prepared: 06/14/24 Analyzed: 06/15/24					
Benzene	0.113	0.00100	mg/L	0.100	ND	113	80-120	9.77	20
Toluene	0.102	0.00100	"	0.100	ND	102	80-120	13.5	20
Ethylbenzene	0.111	0.00100	"	0.100	ND	111	80-120	21.5	20
Xylene (p/m)	0.217	0.00200	"	0.200	ND	109	80-120	14.9	20
Xylene (o)	0.0945	0.00100	"	0.100	ND	94.5	80-120	16.9	20
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.120</i>		<i>"</i>	<i>0.120</i>		<i>100</i>	<i>80-120</i>		
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>0.126</i>		<i>"</i>	<i>0.120</i>		<i>105</i>	<i>80-120</i>		

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: \_\_\_\_\_ Date: 6/19/2024

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

**PBELAB****CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701

L: \_\_\_\_\_ CH: \_\_\_\_\_ W: \_\_\_\_\_  
Phone: 432-686-7235

<b>Project Manager:</b>	David Adkins
<b>Company Name:</b>	Talon LPE
<b>Company Address:</b>	408 Texas St. Artesia, NM 88210
<b>Telephone No:</b>	575-441-4835
<b>Sampler Signature:</b>	Bartlett Medley, Kaylor Taylor
<b>e-mail:</b>	dadkins@talonlpe.com, mgomez@talonlpe.com
<b>Report Format:</b>	<input type="checkbox"/> Standard <input type="checkbox"/> TRRP <input type="checkbox"/> NPDES
<b>Project Name:</b>	CS Caylor
<b>Project #:</b>	Plains All American Pipeline
<b>Project Loc:</b>	Lea County, NM
<b>PO #:</b>	SRS# 2002-10250

(lab use only)																			
<b>LAB # (lab use only)</b>	<b>ORDER #:</b>																		
4F12008																			
<b>FIELD CODE</b>	<b>Beginning Depth</b>																		
	<b>Ending Depth</b>																		
	<b>Date Sampled</b>																		
	<b>Time Sampled</b>																		
<table border="1"> <tr> <td>Field Filtered</td> <td>Total #. of Containers</td> </tr> <tr> <td>Ice</td> <td></td> </tr> <tr> <td>HNO<sub>3</sub></td> <td></td> </tr> <tr> <td>HCl</td> <td></td> </tr> <tr> <td>H<sub>2</sub>SO<sub>4</sub></td> <td></td> </tr> <tr> <td>NaOH</td> <td></td> </tr> <tr> <td>Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub></td> <td></td> </tr> <tr> <td>None</td> <td></td> </tr> <tr> <td>Other (Specify)</td> <td></td> </tr> </table>		Field Filtered	Total #. of Containers	Ice		HNO <sub>3</sub>		HCl		H <sub>2</sub> SO <sub>4</sub>		NaOH		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>		None		Other (Specify)	
Field Filtered	Total #. of Containers																		
Ice																			
HNO <sub>3</sub>																			
HCl																			
H <sub>2</sub> SO <sub>4</sub>																			
NaOH																			
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>																			
None																			
Other (Specify)																			
	<b>Preservation &amp; # of Containers</b>																		
	<b>Matrix</b>																		
<table border="1"> <tr> <td>TCLP:</td> <td></td> </tr> <tr> <td>TOTAL:</td> <td></td> </tr> </table>		TCLP:		TOTAL:															
TCLP:																			
TOTAL:																			
<b>Analyze For:</b> <table border="1"> <tr> <td>RUSH TAT (Pre-Schedule) 24, 48, 72 h</td> </tr> <tr> <td>Standard TAT</td> </tr> </table>		RUSH TAT (Pre-Schedule) 24, 48, 72 h	Standard TAT																
RUSH TAT (Pre-Schedule) 24, 48, 72 h																			
Standard TAT																			

FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered		Total #. of Containers	Preservation & # of Containers	Matrix	TCLP:		TOTAL:
					Ice							
1 MW - 17A	6-11-24	10:35	3	3	3	3	3	3	GW	X	X	X
2 MW - 16A	6-11-24	11:12	3	3	3	3	3	3	GW	X	X	X
3 MW - 15A	6-11-24	11:57	3	3	3	3	3	3	GW	X	X	X
4 MW - 14A	6-11-24	12:36	3	3	3	3	3	3	GW	X	X	X
5 MW - 13A	6-11-24	1:41	3	3	3	3	3	3	GW	X	X	X
6 MW - 18A	6-11-24	2:21	3	3	3	3	3	3	GW	X	X	X
7 MW - 21	6-12-24	12:03	3	3	3	3	3	3	GW	X	X	X
8 MW - 10A	6-12-24	10:45	3	3	3	3	3	3	GW	X	X	X
9 MW - 9A	6-11-24	9:57	3	3	3	3	3	3	GW	X	X	X

**Special Instructions:** Email Analyticals to: CJBryant@paalp.com, Maochoa@paalp.com, and KHDudgens@paalp.com

Received by OCD: 8/20/2025 10:40:36 AM

<b>Relinquished by:</b>	<b>Date</b>	<b>Time</b>	<b>Received by:</b>	<b>Date</b>	<b>Time</b>
Kathy Jon	6/12/24	15:53			
<b>Relinquished by:</b>	<b>Date</b>	<b>Time</b>	<b>Received by:</b>	<b>Date</b>	<b>Time</b>
<b>Relinquished by:</b>	<b>Date</b>	<b>Time</b>	<b>Received by PBLAB:</b>	<b>Date</b>	<b>Time</b>

**Laboratory Comments:**  
 Sample Containers Intact?  
 VOCs Free of Headspace?  
 Labels on container(s)  
 Custody seals on container(s)  
 Custody seals on cooler(s)  
 Sample Hand Delivered  
 by Sampler/Cient. Rep. ?  
 by Courier? UPS DHL FedEx Lone Star  
 Temperature Upon Receipt:  
 Received: 4.8 °C Thermometer:  
 Adjusted: N/A °C Factor: N/A

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4F12009



**Current Certification**

Report Date: 07/05/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-21	4F12009-01	Water	06/12/24 12:03	06-12-2024 15:53
MW-10A	4F12009-02	Water	06/12/24 10:45	06-12-2024 15:53

Dissolved Iron and Manganese and RSK-175 analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:

[https://www.tceq.texas.gov/assets/public/compliance/compliance\\_support/qa/labs/als\\_svcs\\_houston.pdf](https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf)

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-21****4F12009-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4F2102	06/18/24 08:00	06/18/24 10:06	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4F2102	06/18/24 08:00	06/18/24 10:06	8015M	SUB-13
<b>Methane</b>	<b>0.000541</b>	0.000500	mg/L	1	P4F2102	06/18/24 08:00	06/18/24 10:06	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Total Alkalinity</b>	<b>65.0</b>	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
<b>Bicarbonate Alkalinity</b>	<b>65.0</b>	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
<b>Nitrate as N</b>	<b>1.37</b>	0.200	mg/L	1	P4F1403	06/14/24 08:00	06/14/24 16:42	EPA 300.0
<b>Sulfate</b>	<b>63.0</b>	1.00	mg/L	1	P4F1707	06/17/24 10:57	06/17/24 15:42	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4F2102	06/18/24 12:30	06/19/24 21:56	EPA 6020A	SUB-13
<b>Manganese</b>	<b>0.342</b>	0.00500	mg/L	1	P4F2102	06/18/24 12:30	06/19/24 21:56	EPA 6020A	SUB-13

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-10A****4F12009-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4F2102	06/18/24 08:00	06/18/24 10:42	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4F2102	06/18/24 08:00	06/18/24 10:42	8015M	SUB-13
<b>Methane</b>	<b>0.00107</b>	<b>0.000500</b>	mg/L	1	P4F2102	06/18/24 08:00	06/18/24 10:42	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Total Alkalinity</b>	<b>58.0</b>	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
<b>Bicarbonate Alkalinity</b>	<b>58.0</b>	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Nitrate as N	<b>1.58</b>	0.200	mg/L	1	P4F1403	06/14/24 08:00	06/14/24 17:36	EPA 300.0
Sulfate	<b>63.7</b>	1.00	mg/L	1	P4F1707	06/17/24 10:57	06/17/24 16:36	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

<b>Iron</b>	<b>0.576</b>	0.200	mg/L	1	P4F2102	06/18/24 12:30	06/19/24 22:17	EPA 6020A	SUB-13
<b>Manganese</b>	<b>0.0291</b>	0.00500	mg/L	1	P4F2102	06/18/24 12:30	06/19/24 22:17	EPA 6020A	SUB-13

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4F1403 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4F1403-BLK1)</b>	Prepared & Analyzed: 06/14/24									
Nitrate as N	ND	0.200	mg/L							
<b>LCS (P4F1403-BS1)</b>	Prepared & Analyzed: 06/14/24									
Nitrate as N	18.4		mg/L	20.0	91.8	90-110				
<b>LCS Dup (P4F1403-BSD1)</b>	Prepared & Analyzed: 06/14/24									
Nitrate as N	19.7		mg/L	20.0	98.5	90-110	7.14	10		
<b>Calibration Check (P4F1403-CCV1)</b>	Prepared & Analyzed: 06/14/24									
Nitrate as N	21.7		mg/L	20.0	108	90-110				
<b>Matrix Spike (P4F1403-MS1)</b>	<b>Source: 4F12009-01</b>			Prepared & Analyzed: 06/14/24						
Nitrate as N	18.1		mg/L	20.0	0.274	89.3	80-120			
<b>Matrix Spike Dup (P4F1403-MSD1)</b>	<b>Source: 4F12009-01</b>			Prepared & Analyzed: 06/14/24						
Nitrate as N	25.0		mg/L	20.0	0.274	124	80-120	31.9	20	QM-05

**Batch P4F1707 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4F1707-BLK1)</b>	Prepared & Analyzed: 06/17/24								
Sulfate	ND	1.00	mg/L						
<b>LCS (P4F1707-BS1)</b>	Prepared & Analyzed: 06/17/24								
Sulfate	20.4		mg/L	20.0	102	90-110			
<b>LCS Dup (P4F1707-BSD1)</b>	Prepared & Analyzed: 06/17/24								
Sulfate	20.4		mg/L	20.0	102	90-110	0.0688	10	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

### Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1707 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Check (P4F1707-CCV1)</b>		Prepared & Analyzed: 06/17/24								
Sulfate	20.4		mg/L	20.0		102	90-110			
<b>Matrix Spike (P4F1707-MS1)</b>		<b>Source: 4F12009-01</b>			Prepared & Analyzed: 06/17/24					
Sulfate	119		mg/L	100	12.6	107	80-120			
<b>Matrix Spike Dup (P4F1707-MSD1)</b>		<b>Source: 4F12009-01</b>			Prepared & Analyzed: 06/17/24					
Sulfate	120		mg/L	100	12.6	107	80-120	0.455	20	

**Batch P4F2510 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4F2510-BLK1)</b>		Prepared: 06/25/24 Analyzed: 07/03/24								
Total Alkalinity	ND	10.0	mg/L							
Carbonate Alkalinity	ND	10.0	"							
Bicarbonate Alkalinity	ND	10.0	"							
Hydroxide Alkalinity	ND	10.0	"							
<b>LCS (P4F2510-BS1)</b>		Prepared: 06/25/24 Analyzed: 07/03/24								
Total Alkalinity	122	10.0	mg/L	125		97.6	80-120			
Carbonate Alkalinity	ND	10.0	"				80-120			
Bicarbonate Alkalinity	122	10.0	"				80-120			
Hydroxide Alkalinity	ND	10.0	"				80-120			
<b>Duplicate (P4F2510-DUP1)</b>		<b>Source: 4F19018-01</b>			Prepared: 06/25/24 Analyzed: 07/03/24					
Total Alkalinity	71.0	10.0	mg/L		88.0			21.4	20	R2
Carbonate Alkalinity	ND	10.0	"		ND				20	
Bicarbonate Alkalinity	71.0	10.0	"		88.0			21.4	20	R2
Hydroxide Alkalinity	ND	10.0	"		ND				20	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

SUB-13	Subcontract of analyte/analysis to ALS Houston.
R2	The RPD exceeded the acceptance limit.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 7/5/2024

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235





right solutions.  
right partner.

10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

June 20, 2024

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS24060934**

Laboratory Results for: **4F12009**

Dear Brent Barron,

ALS Environmental received 2 sample(s) on Jun 14, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL  
Anna Kinchen  
Project Manager

---

alsglobal.com

**ALS Houston, US**

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F12009  
**Work Order:** HS24060934

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24060934-01	4F12009-01	Water		12-Jun-2024 09:13	14-Jun-2024 09:20	<input type="checkbox"/>
HS24060934-02	4F12009-02	Water		12-Jun-2024 10:45	14-Jun-2024 09:20	<input type="checkbox"/>

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F12009  
**Work Order:** HS24060934

---

**CASE NARRATIVE**

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**GC Semivolatiles by Method RSK-175**

**Batch ID: R469715**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

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**Metals by Method SW6020A**

**Batch ID: 213727**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 20-Jun-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4F12009  
 Sample ID: 4F12009-01  
 Collection Date: 12-Jun-2024 09:13

**ANALYTICAL REPORT**  
 WorkOrder:HS24060934  
 Lab ID:HS24060934-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>				
Ethane	ND		1.00	ug/L	1	18-Jun-2024 10:06
Ethene	ND		1.00	ug/L	1	18-Jun-2024 10:06
Methane	<b>0.541</b>		<b>0.500</b>	<b>ug/L</b>	<b>1</b>	18-Jun-2024 10:06
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>				
Iron	ND		0.200	mg/L	1	19-Jun-2024 21:56
Manganese	<b>0.342</b>		<b>0.00500</b>	<b>mg/L</b>	<b>1</b>	19-Jun-2024 21:56

---

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 20-Jun-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4F12009  
 Sample ID: 4F12009-02  
 Collection Date: 12-Jun-2024 10:45

**ANALYTICAL REPORT**  
 WorkOrder:HS24060934  
 Lab ID:HS24060934-02  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>					
Ethane	ND		1.00	ug/L	1	18-Jun-2024 10:42	
Ethene	ND		1.00	ug/L	1	18-Jun-2024 10:42	
Methane	1.07		0.500	ug/L	1	18-Jun-2024 10:42	
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>					
Iron	0.576		0.200	mg/L	1	19-Jun-2024 22:17	
Manganese	0.0291		0.00500	mg/L	1	19-Jun-2024 22:17	

---

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Weight / Prep Log****Client:** Permian Basin Environmental Lab, LP**Project:** 4F12009**WorkOrder:** HS24060934**Batch ID:** 213727**Start Date:** 18 Jun 2024 12:30**End Date:** 18 Jun 2024 12:30**Method:** DISS METALS PREP - WATER - SW3010A**Prep Code:** 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24060934-01		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2
HS24060934-02		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F12009  
**WorkOrder:** HS24060934

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 213727 ( 0 )		<b>Test Name :</b> DISSOLVED METALS BY SW6020A				
HS24060934-01	4F12009-01	12 Jun 2024 09:13		18 Jun 2024 12:30	19 Jun 2024 21:56	1
HS24060934-02	4F12009-02	12 Jun 2024 10:45		18 Jun 2024 12:30	19 Jun 2024 22:17	1
<b>Batch ID:</b> R469715 ( 0 )		<b>Test Name :</b> DISSOLVED GASES BY RSK-175				
HS24060934-01	4F12009-01	12 Jun 2024 09:13			18 Jun 2024 10:06	1
HS24060934-02	4F12009-02	12 Jun 2024 10:45			18 Jun 2024 10:42	1

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F12009  
**WorkOrder:** HS24060934

**QC BATCH REPORT**

**Batch ID:** R469715 (0)      **Instrument:** FID-4      **Method:** DISSOLVED GASES BY RSK-175

<b>MBLK</b>	Sample ID:	MBLK-240618	Units:	ug/L	Analysis Date: 18-Jun-2024 08:27			
Client ID:		Run ID:	FID-4_469715	SeqNo:	8082538	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	ND	1.00
Ethene	ND	1.00
Methane	ND	0.500

<b>LCS</b>	Sample ID:	LCS-240618	Units:	ug/L	Analysis Date: 18-Jun-2024 08:35			
Client ID:		Run ID:	FID-4_469715	SeqNo:	8082539	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	14.47	1.00	18.04	0	80.2	75 - 125
Ethene	14.68	1.00	16.8	0	87.4	75 - 125
Methane	9.144	0.500	9.647	0	94.8	75 - 125

<b>LCSD</b>	Sample ID:	LCSD-240618	Units:	ug/L	Analysis Date: 18-Jun-2024 08:43			
Client ID:		Run ID:	FID-4_469715	SeqNo:	8082540	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	14.5	1.00	18.04	0	80.4	75 - 125	14.47	0.193 30
Ethene	14.79	1.00	16.8	0	88.0	75 - 125	14.68	0.769 30
Methane	8.334	0.500	9.647	0	86.4	75 - 125	9.144	9.28 30

<b>MS</b>	Sample ID:	HS24061049-01MS	Units:	ug/L	Analysis Date: 18-Jun-2024 15:03			
Client ID:		Run ID:	FID-4_469715	SeqNo:	8083666	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	19.4	1.00	18.04	0	108	75 - 125
Ethene	18.72	1.00	16.8	0.5434	108	75 - 125
Methane	10.37	0.500	9.647	0.5831	101	75 - 125

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F12009  
**WorkOrder:** HS24060934

**QC BATCH REPORT**

**Batch ID:** R469715 ( 0 )      **Instrument:** FID-4      **Method:** DISSOLVED GASES BY RSK-175

MSD	Sample ID:	HS24061049-01MSD		Units:	ug/L		Analysis Date: 18-Jun-2024 15:29		
Client ID:		Run ID: FID-4_469715		SeqNo:	8085383	PrepDate:	DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Ethane		19.25	1.00	18.04	0	107	75 - 125	19.4	0.768 30
Ethene		18.48	1.00	16.8	0.5434	107	75 - 125	18.72	1.29 30
Methane		10.73	0.500	9.647	0.5831	105	75 - 125	10.37	3.4 30

The following samples were analyzed in this batch: HS24060934-01      HS24060934-02

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F12009  
**WorkOrder:** HS24060934

**QC BATCH REPORT**

Batch ID: 213727 (0)		Instrument: ICPMS05		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)				
MLBK	Sample ID: MBLK-213727			Units: mg/L	Analysis Date: 19-Jun-2024 21:52			
Client ID:		Run ID: ICPMS05_469847		SeqNo: 8086945	PrepDate: 18-Jun-2024	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Iron	ND	0.200						
Manganese	ND	0.00500						
LCS	Sample ID: LCS-213727			Units: mg/L	Analysis Date: 19-Jun-2024 21:54			
Client ID:		Run ID: ICPMS05_469847		SeqNo: 8086946	PrepDate: 18-Jun-2024	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Iron	4.871	0.200	5	0	97.4	80 - 120		
Manganese	0.04565	0.00500	0.05	0	91.3	80 - 120		
MS	Sample ID: HS24060934-01MS			Units: mg/L	Analysis Date: 19-Jun-2024 22:00			
Client ID:	4F12009-01	Run ID: ICPMS05_469847		SeqNo: 8086942	PrepDate: 18-Jun-2024	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Iron	4.804	0.200	5	0.03725	95.3	75 - 125		
Manganese	0.3743	0.00500	0.05	0.3419	64.8	75 - 125		SO
MSD	Sample ID: HS24060934-01MSD			Units: mg/L	Analysis Date: 19-Jun-2024 22:02			
Client ID:	4F12009-01	Run ID: ICPMS05_469847		SeqNo: 8086943	PrepDate: 18-Jun-2024	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Iron	4.989	0.200	5	0.03725	99.0	75 - 125	4.804	3.77 20
Manganese	0.3783	0.00500	0.05	0.3419	72.7	75 - 125	0.3743	1.05 20 SO
PDS	Sample ID: HS24060934-01PDS			Units: mg/L	Analysis Date: 19-Jun-2024 22:04			
Client ID:	4F12009-01	Run ID: ICPMS05_469847		SeqNo: 8086944	PrepDate: 18-Jun-2024	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Iron	9.649	0.200	10	0.03725	96.1	75 - 125		
Manganese	0.4202	0.00500	0.1	0.3419	78.3	75 - 125		

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F12009  
**WorkOrder:** HS24060934

**QC BATCH REPORT**

Batch ID: 213727 ( 0 )		Instrument: ICPMS05	Method: DISSOLVED METALS BY SW6020A (DISSOLVED)
SD	Sample ID: HS24060934-01SD	Units: mg/L	Analysis Date: 19-Jun-2024 21:58
Client ID:	Run ID: ICPMS05_469847	SeqNo: 8086948	PrepDate: 18-Jun-2024 DF: 5
Analyte	Result	PQL	SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %D %D Limit Qual
Iron	ND	1.00	0.03725 0 10
Manganese	0.3588	0.0250	0.3419 4.92 10

The following samples were analyzed in this batch: HS24060934-01 HS24060934-02

**ALS Houston, US**

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F12009  
**WorkOrder:** HS24060934

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**ALS Houston, US**

Date: 20-Jun-24

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

Agency	Number	Expire Date
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
Oklahoma	2023-140	31-Aug-2024
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US

Date: 20-Jun-24

**Sample Receipt Checklist**

Work Order ID: HS24060934

Date/Time Received:

14-Jun-2024 09:20

Client Name: Permian Basin Lab

Received by:

Si MaCompleted By: /S/ Hoa Tran

eSignature

14-Jun-2024 18:45

Date/Time

Reviewed by: /S/ Anna Kinchen

eSignature

18-Jun-2024 09:46

Date/Time

Matrices:

w

Carrier name:

FedEx

Shipping container/cooler in good condition?

Yes No Not Present 

Custody seals intact on shipping container/cooler?

Yes No Not Present 

Custody seals intact on sample bottles?

Yes No Not Present 

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes No Not Present 

Chain of custody present?

Yes No 

1 Page(s)

Chain of custody signed when relinquished and received?

Yes No 

Samplers name present on COC?

Yes No 

Chain of custody agrees with sample labels?

Yes No 

Samples in proper container/bottle?

Yes No 

Sample containers intact?

Yes No 

Sufficient sample volume for indicated test?

Yes No 

All samples received within holding time?

Yes No 

Container/Temp Blank temperature in compliance?

Yes No 

Temperature(s)/Thermometer(s):

4.3uc/4.4c  ir31 

Cooler(s)/Kit(s):

red 

Date/Time sample(s) sent to storage:

06/14/2024 1846 

Water - VOA vials have zero headspace?

Yes No No VOA vials submitted 

Water - pH acceptable upon receipt?

Yes No N/A 

pH adjusted?

Yes No N/A 

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701

Phone: 432-686-7235  
PBELAB\_SUB\_CO\_C\_V2

Project Manager: Brent Barron  
Company Name: PBEL  
Company Address: 1400 Rankin HWY  
City/State/Zip: Midland Texas 79701  
Telephone No: 432-661-4184  
Sampler Signature: N/A

Project Name: SUBCONTRACT  
Project #: \_\_\_\_\_  
Project Loc: \_\_\_\_\_  
PO #: \_\_\_\_\_

Fax No: \_\_\_\_\_ Report Format: X Standard  TRRP  NPDES

e-mail: brentbarron@pbelab.com

ORDER #:		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers		Matrix
								HNO <sub>3</sub> 25% pow L	HCl 3.40mL VOA	H <sub>2</sub> SO <sub>4</sub> 1 AMBER 500/250PPOLY
	4F12009-01			6/12/2024	9:13	3 X X X		NaOH /Ascorbic Acid 250mL Re	NaOH/Zn	POLY 500ML 90% POLY 500ML
	4F12009-02			6/12/2024	10:45	3 X X X		POLY 500ML 90% POLY 500ML	NONE	DW=Drinking Water S=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specy Other

**HS24060934**

Permian Basin Environmental Lab, LP  
4F12009




24 HOUR RUSH  
STANDARD

BRENT BARRON	6/13/2024	5:00 PM	Received by: <i>CJM</i>	Date	Time	Laboratory Comments: Sample containers intact? Y N VOCs free of headspace? Y N Label on container? Y N Custody seals on container(s) Y N Current seals on container(s) Y N
Relinquished by:	Date	Time	Received by: <i>CJM</i>	6/13/2024	09:25	Sample Hand Delivered by Sampler/Client Rep.? Y N by Courier? UPS DHL FedEx Lone Star
Relinquished by:	Date	Time	Received by: <i>CJM</i>	Date	Time	Temperature Upon Receipt: Received: °C Adjusted: °C Factor



**AB SGRA**

TX-US  
IAH  
77099

FRI - 14 JUN 5:00P  
TNT® 7768 5731 1607 STANDARD OVERNIGHT



HOUSTON TX 77099  
(281) 500-5655 REF:



ORIGIN/DEST:	BRIN BARROW	SHIP DATE:	1300025
POSTAGE:	POSTAGE	ACT/INT:	10.016
ROUTING:	140 RANKIN HWY	CAC:	10/15/2006 14:35
AMERICAN, TX 75001		DARS:	13458 IN
UNITED STATES US		BILL RECIPIENT	

To: **SAMPLE RECEIVING**  
**ALS-HOUSTON**  
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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4F13017



**Current Certification**

Report Date: 06/19/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-11A	4F13017-01	Water	06/13/24 09:13	06-13-2024 15:33
MW-6A	4F13017-02	Water	06/13/24 10:21	06-13-2024 15:33

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-11A**  
**4F13017-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/15/24 00:52	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/15/24 00:52	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/15/24 00:52	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1404	06/14/24 15:16	06/15/24 00:52	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/15/24 00:52	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	80-120		P4F1404	06/14/24 15:16	06/15/24 00:52	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		97.5 %	80-120		P4F1404	06/14/24 15:16	06/15/24 00:52	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/15/24 00:52	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/15/24 00:52	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-6A**  
**4F13017-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/15/24 01:14	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/15/24 01:14	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/15/24 01:14	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4F1404	06/14/24 15:16	06/15/24 01:14	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4F1404	06/14/24 15:16	06/15/24 01:14	EPA 8021B
<i>Surrogate: 4-Bromo fluoro benzene</i>		102 %	80-120		P4F1404	06/14/24 15:16	06/15/24 01:14	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		98.6 %	80-120		P4F1404	06/14/24 15:16	06/15/24 01:14	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/15/24 01:14	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	06/14/24 15:16	06/15/24 01:14	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1404 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4F1404-BLK1)</b>		Prepared & Analyzed: 06/14/24					
Benzene	ND	0.00100	mg/L				
Toluene	ND	0.00100	"				
Ethylbenzene	ND	0.00100	"				
Xylene (p/m)	ND	0.00200	"				
Xylene (o)	ND	0.00100	"				
Surrogate: 4-Bromofluorobenzene	0.124		"	0.120		103	80-120
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.9	80-120

<b>LCS (P4F1404-BS1)</b>		Prepared & Analyzed: 06/14/24					
Benzene	0.120	0.00100	mg/L	0.100		120	80-120
Toluene	0.110	0.00100	"	0.100		110	80-120
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120
Xylene (o)	0.106	0.00100	"	0.100		106	80-120
Surrogate: 4-Bromofluorobenzene	0.126		"	0.120		105	80-120
Surrogate: 1,4-Difluorobenzene	0.128		"	0.120		106	80-120

<b>LCS Dup (P4F1404-BSD1)</b>		Prepared & Analyzed: 06/14/24					
Benzene	0.120	0.00100	mg/L	0.100		120	80-120
Toluene	0.112	0.00100	"	0.100		112	80-120
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120
Xylene (p/m)	0.239	0.00200	"	0.200		120	80-120
Xylene (o)	0.106	0.00100	"	0.100		106	80-120
Surrogate: 4-Bromofluorobenzene	0.122		"	0.120		102	80-120
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120

<b>Calibration Blank (P4F1404-CCB1)</b>		Prepared & Analyzed: 06/14/24					
Benzene	0.130		ug/l				
Toluene	0.160		"				
Ethylbenzene	0.180		"				
Xylene (p/m)	0.260		"				
Xylene (o)	0.00		"				
Surrogate: 4-Bromofluorobenzene	0.121		"	0.120		101	80-120
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.5	80-120

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1404 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4F1404-CCB2)</b>		Prepared & Analyzed: 06/14/24				
Benzene	0.00		ug/l			
Toluene	0.00		"			
Ethylbenzene	0.200		"			
Xylene (p/m)	0.220		"			
Xylene (o)	0.00		"			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.122		"	0.120	102	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.117		"	0.120	97.9	80-120

<b>Calibration Blank (P4F1404-CCB3)</b>		Prepared: 06/14/24 Analyzed: 06/15/24				
Benzene	0.250		ug/l			
Toluene	0.140		"			
Ethylbenzene	0.430		"			
Xylene (p/m)	0.480		"			
Xylene (o)	0.00		"			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.120		"	0.120	100	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.117		"	0.120	97.7	80-120

<b>Calibration Check (P4F1404-CCV1)</b>		Prepared & Analyzed: 06/14/24				
Benzene	0.119	0.00100	mg/L	0.100	119	80-120
Toluene	0.112	0.00100	"	0.100	112	80-120
Ethylbenzene	0.107	0.00100	"	0.100	107	80-120
Xylene (p/m)	0.234	0.00200	"	0.200	117	80-120
Xylene (o)	0.106	0.00100	"	0.100	106	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.119		"	0.120	99.6	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.124		"	0.120	104	80-120

<b>Calibration Check (P4F1404-CCV2)</b>		Prepared & Analyzed: 06/14/24				
Benzene	0.115	0.00100	mg/L	0.100	115	80-120
Toluene	0.113	0.00100	"	0.100	113	80-120
Ethylbenzene	0.108	0.00100	"	0.100	108	80-120
Xylene (p/m)	0.238	0.00200	"	0.200	119	80-120
Xylene (o)	0.108	0.00100	"	0.100	108	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.126		"	0.120	105	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.126		"	0.120	105	80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1404 - \*\*\* DEFAULT PREP \*\*\***

Calibration Check (P4F1404-CCV3)				Prepared: 06/14/24 Analyzed: 06/15/24					
Benzene	0.119	0.00100	mg/L	0.100	119	80-120			
Toluene	0.116	0.00100	"	0.100	116	80-120			
Ethylbenzene	0.112	0.00100	"	0.100	112	80-120			
Xylene (p/m)	0.236	0.00200	"	0.200	118	80-120			
Xylene (o)	0.109	0.00100	"	0.100	109	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.117		"	0.120	97.3	80-120			
<i>Surrogate: 1,4-Difluorobenzene</i>	0.123		"	0.120	102	80-120			

Matrix Spike (P4F1404-MS1)				Source: 4F12008-06 Prepared: 06/14/24 Analyzed: 06/15/24					
Benzene	0.125	0.00100	mg/L	0.100	ND	125	80-120		QM-05
Toluene	0.116	0.00100	"	0.100	ND	116	80-120		
Ethylbenzene	0.138	0.00100	"	0.100	ND	138	80-120		QM-05
Xylene (p/m)	0.252	0.00200	"	0.200	ND	126	80-120		QM-05
Xylene (o)	0.112	0.00100	"	0.100	ND	112	80-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	0.125		"	0.120		105	80-120		
<i>Surrogate: 1,4-Difluorobenzene</i>	0.130		"	0.120		108	80-120		

Matrix Spike Dup (P4F1404-MSD1)				Source: 4F12008-06 Prepared: 06/14/24 Analyzed: 06/15/24					
Benzene	0.113	0.00100	mg/L	0.100	ND	113	80-120	9.77	20
Toluene	0.102	0.00100	"	0.100	ND	102	80-120	13.5	20
Ethylbenzene	0.111	0.00100	"	0.100	ND	111	80-120	21.5	20
Xylene (p/m)	0.217	0.00200	"	0.200	ND	109	80-120	14.9	20
Xylene (o)	0.0945	0.00100	"	0.100	ND	94.5	80-120	16.9	20
<i>Surrogate: 4-Bromofluorobenzene</i>	0.120		"	0.120		100	80-120		
<i>Surrogate: 1,4-Difluorobenzene</i>	0.126		"	0.120		105	80-120		

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: \_\_\_\_\_ Date: 6/19/2024

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

BBELAB

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**Permian Basin Environmental Lab, LP**  
**1400 Rankin HWY**

tal Lab, LP

Phone: 432-686-7235

**Project Manager:** David Adkins

**Company Address:** \_\_\_\_\_

**City/State/Zip:** \_\_\_\_\_

**Telephone No:**

---

575-441-4835

Sampler Signature: Kayla Taylor  
(lab use only)

ORDER #: #E13017

**Fax No:** \_\_\_\_\_  
**e-mail:** [dadkins@talonlpe.com](mailto:dadkins@talonlpe.com), n\_\_\_\_\_

**Report Format:**  Standard  TRRP  NPDES

**Project Name:** CS Taylor  
**Project #:** Plains All American Pipeline  
**Project Loc:** Lea County, NM  
**PC #:** SRSS# 2002-10250

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4F13018



**Current Certification**

Report Date: 07/05/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-11A	4F13018-01	Water	06/13/24 09:13	06-13-2024 15:33
MW-6A	4F13018-02	Water	06/13/24 10:21	06-13-2024 15:33

Dissolved Iron and Manganese and RSK-175 analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:

[https://www.tceq.texas.gov/assets/public/compliance/compliance\\_support/qa/labs/als\\_svcs\\_houston.pdf](https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf)

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-11A**  
**4F13018-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4F2101	06/17/24 10:53	06/17/24 10:53	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4F2101	06/17/24 10:53	06/17/24 10:53	8015M	SUB-13
Methane	<b>0.00125</b>	0.000500	mg/L	1	P4F2101	06/17/24 10:53	06/17/24 10:53	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

Total Alkalinity	<b>70.0</b>	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Bicarbonate Alkalinity	<b>70.0</b>	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Nitrate as N	<b>1.38</b>	0.200	mg/L	1	P4F1403	06/14/24 14:27	06/14/24 17:54	EPA 300.0
Sulfate	<b>63.6</b>	1.00	mg/L	1	P4F1707	06/17/24 10:57	06/17/24 16:54	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

Iron	<b>0.488</b>	0.200	mg/L	1	P4F2101	06/18/24 12:30	06/19/24 22:30	EPA 6020A	SUB-13
Manganese	<b>0.0106</b>	0.00500	mg/L	1	P4F2101	06/18/24 12:30	06/19/24 22:30	EPA 6020A	SUB-13

Permian Basin Environmental Lab, L.P.

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Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-6A****4F13018-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4F2101	06/21/24 09:24	06/21/24 09:24	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4F2101	06/21/24 09:24	06/21/24 09:24	8015M	SUB-13
<b>Methane</b>	<b>0.00104</b>	<b>0.000500</b>	mg/L	1	P4F2101	06/21/24 09:24	06/21/24 09:24	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Total Alkalinity</b>	<b>79.0</b>	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
<b>Bicarbonate Alkalinity</b>	<b>79.0</b>	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4F2510	06/25/24 15:46	07/03/24 15:46	EPA 310.1M
Nitrate as N	<b>1.82</b>	0.200	mg/L	1	P4F1403	06/14/24 14:27	06/14/24 18:12	EPA 300.0
Sulfate	<b>59.1</b>	1.00	mg/L	1	P4F1707	06/17/24 10:57	06/17/24 17:12	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4F2101	06/18/24 12:30	06/19/24 22:32	EPA 6020A	SUB-13
<b>Manganese</b>	<b>0.00862</b>	<b>0.00500</b>	mg/L	1	P4F2101	06/18/24 12:30	06/19/24 22:32	EPA 6020A	SUB-13

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1403 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4F1403-BLK1)</b>	Prepared & Analyzed: 06/14/24									
Nitrate as N	ND	0.200	mg/L							
<b>LCS (P4F1403-BS1)</b>	Prepared & Analyzed: 06/14/24									
Nitrate as N	18.4		mg/L	20.0	91.8	90-110				
<b>LCS Dup (P4F1403-BSD1)</b>	Prepared & Analyzed: 06/14/24									
Nitrate as N	19.7		mg/L	20.0	98.5	90-110	7.14	10		
<b>Calibration Check (P4F1403-CCV1)</b>	Prepared & Analyzed: 06/14/24									
Nitrate as N	21.7		mg/L	20.0	108	90-110				
<b>Matrix Spike (P4F1403-MS1)</b>	<b>Source: 4F12009-01</b>			Prepared & Analyzed: 06/14/24						
Nitrate as N	18.1		mg/L	20.0	0.274	89.3	80-120			
<b>Matrix Spike Dup (P4F1403-MSD1)</b>	<b>Source: 4F12009-01</b>			Prepared & Analyzed: 06/14/24						
Nitrate as N	25.0		mg/L	20.0	0.274	124	80-120	31.9	20	QM-05

**Batch P4F1707 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4F1707-BLK1)</b>	Prepared & Analyzed: 06/17/24								
Sulfate	ND	1.00	mg/L						
<b>LCS (P4F1707-BS1)</b>	Prepared & Analyzed: 06/17/24								
Sulfate	20.4		mg/L	20.0	102	90-110			
<b>LCS Dup (P4F1707-BSD1)</b>	Prepared & Analyzed: 06/17/24								
Sulfate	20.4		mg/L	20.0	102	90-110	0.0688	10	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

### Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4F1707 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Check (P4F1707-CCV1)</b>		Prepared & Analyzed: 06/17/24								
Sulfate	20.4		mg/L	20.0		102	90-110			
<b>Matrix Spike (P4F1707-MS1)</b>		<b>Source: 4F12009-01</b>			Prepared & Analyzed: 06/17/24					
Sulfate	119		mg/L	100	12.6	107	80-120			
<b>Matrix Spike Dup (P4F1707-MSD1)</b>		<b>Source: 4F12009-01</b>			Prepared & Analyzed: 06/17/24					
Sulfate	120		mg/L	100	12.6	107	80-120	0.455	20	

**Batch P4F2510 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4F2510-BLK1)</b>		Prepared: 06/25/24 Analyzed: 07/03/24								
Total Alkalinity	ND	10.0	mg/L							
Carbonate Alkalinity	ND	10.0	"							
Bicarbonate Alkalinity	ND	10.0	"							
Hydroxide Alkalinity	ND	10.0	"							
<b>LCS (P4F2510-BS1)</b>		Prepared: 06/25/24 Analyzed: 07/03/24								
Total Alkalinity	122	10.0	mg/L	125		97.6	80-120			
Carbonate Alkalinity	ND	10.0	"				80-120			
Bicarbonate Alkalinity	122	10.0	"				80-120			
Hydroxide Alkalinity	ND	10.0	"				80-120			
<b>Duplicate (P4F2510-DUP1)</b>		<b>Source: 4F19018-01</b>			Prepared: 06/25/24 Analyzed: 07/03/24					
Total Alkalinity	71.0	10.0	mg/L		88.0			21.4	20	R2
Carbonate Alkalinity	ND	10.0	"		ND				20	
Bicarbonate Alkalinity	71.0	10.0	"		88.0			21.4	20	R2
Hydroxide Alkalinity	ND	10.0	"		ND				20	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

SUB-13	Subcontract of analyte/analysis to ALS Houston.
ROI	Received on Ice
R2	The RPD exceeded the acceptance limit.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 7/5/2024

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.



CHAIN OF CUSTODY RECORDS

BIMLAB CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST											
Project Manager: David Adkins											L: _____ CH: _____ W: _____
Company Name: Talon LPE											Phone: 432-886-7235
Company Address: 408 Texas St.											Project Name: CS Caylor
City/State/Zip: Artesia, NM 88210											Project #: Plains All American Pipeline
Telephone No.: 575-441-4835											Project Loc: Lea County, NM
Sampler Signature: <u>Kayla Taylor</u>											PO #: SRS# 2002-10250
ORDER #: 4F13018											Fax No: _____ e-mail: dadkins@talonlpe.com, mgomez@talonlpe.com
LAB # (lab use only)											Analyze For:
FIELD CODE			Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Preservation & # of Containers	Matrix	TCLP:	TOTAL:	
<u>MW-11A</u> <u>MW-6A</u>							Field Filtered				
							Total #. of Containers				
							Ice				
							HNO <sub>3</sub>				
							HCl				
							H <sub>2</sub> SO <sub>4</sub>				
							NaOH				
							Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>				
							None				
							Other ( Specify)				
							DW=Drinking Water SL=Sludge				
							GW = Groundwater S=Soil/Solid				
							NP=Non-Potable Specify Other				
							TPH: TX 1005 TX 1006				
							Anions (Cl, SO <sub>4</sub> , Alkalinity)				
							BTEX 8021B/5030 or BTEX 8260				
							MNA Parameters				
							X				
Special Instructions: Email Analyticals to: CJBryant@paalp.com, Maochoa@paalp.com, and KJudgens@paalp.com											
Relinquished by: <u>Kayla Taylor</u> Date <u>10/13/24</u> Time <u>15:33</u> Received by: _____ Date _____ Time _____											
Released by PBL: <u>Jenna Bledsoe</u> Date _____ Time _____											
Laboratory Comments: Sample Containers Intact? VOCs Free of Headspace? Labels on container(s) Custody seals on container(s) Sample Hand Delivered by Sampler/Client _____											

*Received by OCD: 8/20/2025 10:40:36 AM*



right solutions.  
right partner.

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10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

June 20, 2024

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS24060936**

Laboratory Results for: **4F13018**

Dear Brent Barron,

ALS Environmental received 2 sample(s) on Jun 14, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL  
Anna Kinchen  
Project Manager

---

alsglobal.com

**ALS Houston, US**

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F13018  
**Work Order:** HS24060936

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24060936-01	4F13018-01	Water		03-Jun-2024 09:13	14-Jun-2024 09:20	<input type="checkbox"/>
HS24060936-02	4F13018-02	Water		12-Jun-2024 14:00	14-Jun-2024 09:20	<input type="checkbox"/>

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F13018  
**Work Order:** HS24060936

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**CASE NARRATIVE**

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**GC Semivolatiles by Method RSK-175**

**Batch ID: R469585,R469715**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

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**Metals by Method SW6020A**

**Batch ID: 213727**

**Sample ID: HS24060934-01MS**

- MS and MSD are for an unrelated sample

ALS Houston, US

Date: 20-Jun-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4F13018  
 Sample ID: 4F13018-01  
 Collection Date: 03-Jun-2024 09:13

**ANALYTICAL REPORT**  
 WorkOrder:HS24060936  
 Lab ID:HS24060936-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>					
Ethane	ND		1.00	ug/L	1	17-Jun-2024 10:53	
Ethene	ND		1.00	ug/L	1	17-Jun-2024 10:53	
Methane	<b>1.25</b>		<b>0.500</b>	ug/L	1	17-Jun-2024 10:53	
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>					
Iron	0.488		0.200	mg/L	1	19-Jun-2024 22:30	
Manganese	<b>0.0106</b>		<b>0.00500</b>	mg/L	1	19-Jun-2024 22:30	

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Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 20-Jun-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4F13018  
 Sample ID: 4F13018-02  
 Collection Date: 12-Jun-2024 14:00

**ANALYTICAL REPORT**  
 WorkOrder:HS24060936  
 Lab ID:HS24060936-02  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>					
Ethane	ND		1.00	ug/L	1	18-Jun-2024 10:50	
Ethene	ND		1.00	ug/L	1	18-Jun-2024 10:50	
Methane	<b>1.04</b>		<b>0.500</b>	<b>ug/L</b>	<b>1</b>	18-Jun-2024 10:50	
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>					
Iron	ND		0.200	mg/L	1	19-Jun-2024 22:32	
Manganese	<b>0.00862</b>		<b>0.00500</b>	<b>mg/L</b>	<b>1</b>	19-Jun-2024 22:32	

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Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Weight / Prep Log****Client:** Permian Basin Environmental Lab, LP**Project:** 4F13018**WorkOrder:** HS24060936**Batch ID:** 213727**Start Date:** 18 Jun 2024 12:30**End Date:** 18 Jun 2024 12:30**Method:** DISS METALS PREP - WATER - SW3010A**Prep Code:** 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24060936-01		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2
HS24060936-02		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F13018  
**WorkOrder:** HS24060936

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 213727 ( 0 )		<b>Test Name :</b> DISSOLVED METALS BY SW6020A				
HS24060936-01	4F13018-01	03 Jun 2024 09:13		18 Jun 2024 12:30	19 Jun 2024 22:30	1
HS24060936-02	4F13018-02	12 Jun 2024 14:00		18 Jun 2024 12:30	19 Jun 2024 22:32	1
<b>Batch ID:</b> R469585 ( 0 )		<b>Test Name :</b> DISSOLVED GASES BY RSK-175				
HS24060936-01	4F13018-01	03 Jun 2024 09:13			17 Jun 2024 10:53	1
<b>Batch ID:</b> R469715 ( 0 )		<b>Test Name :</b> DISSOLVED GASES BY RSK-175				
HS24060936-02	4F13018-02	12 Jun 2024 14:00			18 Jun 2024 10:50	1

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F13018  
**WorkOrder:** HS24060936

**QC BATCH REPORT**

**Batch ID:** R469585 (0)      **Instrument:** FID-4      **Method:** DISSOLVED GASES BY RSK-175

<b>MLBK</b>	Sample ID: MBLK-240617	Units: ug/L		Analysis Date: 17-Jun-2024 10:04				
Client ID:	Run ID: FID-4_469585		SeqNo: 8073962	PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD	RPD Limit Qual

Ethane	ND	1.00
Ethene	ND	1.00
Methane	ND	0.500

<b>LCS</b>	Sample ID: LCS-240617	Units: ug/L		Analysis Date: 17-Jun-2024 10:28				
Client ID:	Run ID: FID-4_469585		SeqNo: 8073963	PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD	RPD Limit Qual

Ethane	14.56	1.00	18.04	0	80.7	75 - 125
Ethene	15.07	1.00	16.8	0	89.7	75 - 125
Methane	8.514	0.500	9.647	0	88.3	75 - 125

<b>LCSD</b>	Sample ID: LCSD-240617	Units: ug/L		Analysis Date: 17-Jun-2024 10:37				
Client ID:	Run ID: FID-4_469585		SeqNo: 8073964	PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD	RPD Limit Qual

Ethane	14.95	1.00	18.04	0	82.9	75 - 125	14.56	2.63	30
Ethene	15.54	1.00	16.8	0	92.5	75 - 125	15.07	3.04	30
Methane	8.279	0.500	9.647	0	85.8	75 - 125	8.514	2.81	30

The following samples were analyzed in this batch: HS24060936-01

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F13018  
**WorkOrder:** HS24060936

**QC BATCH REPORT**

**Batch ID:** R469715 (0)      **Instrument:** FID-4      **Method:** DISSOLVED GASES BY RSK-175

<b>MBLK</b>	Sample ID:	MBLK-240618	Units:	ug/L	Analysis Date: 18-Jun-2024 08:27			
Client ID:		Run ID:	FID-4_469715	SeqNo:	8082538	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	ND	1.00
Ethene	ND	1.00
Methane	ND	0.500

<b>LCS</b>	Sample ID:	LCS-240618	Units:	ug/L	Analysis Date: 18-Jun-2024 08:35			
Client ID:		Run ID:	FID-4_469715	SeqNo:	8082539	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	14.47	1.00	18.04	0	80.2	75 - 125
Ethene	14.68	1.00	16.8	0	87.4	75 - 125
Methane	9.144	0.500	9.647	0	94.8	75 - 125

<b>LCSD</b>	Sample ID:	LCSD-240618	Units:	ug/L	Analysis Date: 18-Jun-2024 08:43			
Client ID:		Run ID:	FID-4_469715	SeqNo:	8082540	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	14.5	1.00	18.04	0	80.4	75 - 125	14.47	0.193 30
Ethene	14.79	1.00	16.8	0	88.0	75 - 125	14.68	0.769 30
Methane	8.334	0.500	9.647	0	86.4	75 - 125	9.144	9.28 30

<b>MS</b>	Sample ID:	HS24061049-01MS	Units:	ug/L	Analysis Date: 18-Jun-2024 15:03			
Client ID:		Run ID:	FID-4_469715	SeqNo:	8083666	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	19.4	1.00	18.04	0	108	75 - 125
Ethene	18.72	1.00	16.8	0.5434	108	75 - 125
Methane	10.37	0.500	9.647	0.5831	101	75 - 125

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F13018  
**WorkOrder:** HS24060936

**QC BATCH REPORT**

**Batch ID:** R469715 ( 0 )      **Instrument:** FID-4      **Method:** DISSOLVED GASES BY RSK-175

MSD	Sample ID:	HS24061049-01MSD		Units:	ug/L		Analysis Date: 18-Jun-2024 15:29		
Client ID:		Run ID: FID-4_469715		SeqNo:	8085383	PrepDate:	DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Ethane		19.25	1.00	18.04	0	107	75 - 125	19.4	0.768 30
Ethene		18.48	1.00	16.8	0.5434	107	75 - 125	18.72	1.29 30
Methane		10.73	0.500	9.647	0.5831	105	75 - 125	10.37	3.4 30

The following samples were analyzed in this batch: HS24060936-02

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F13018  
**WorkOrder:** HS24060936

**QC BATCH REPORT**

Batch ID: 213727 ( 0 )		Instrument: ICPMS05		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)			
MBLK	Sample ID: MBLK-213727			Units: mg/L Analysis Date: 19-Jun-2024 21:52			
Client ID:		Run ID: ICPMS05_469847		SeqNo: 8086945	PrepDate: 18-Jun-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual
Iron	ND	0.200					
Manganese	ND	0.00500					
LCS	Sample ID: LCS-213727			Units: mg/L Analysis Date: 19-Jun-2024 21:54			
Client ID:		Run ID: ICPMS05_469847		SeqNo: 8086946	PrepDate: 18-Jun-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual
Iron	4.871	0.200	5	0	97.4	80 - 120	
Manganese	0.04565	0.00500	0.05	0	91.3	80 - 120	
MS	Sample ID: HS24060934-01MS			Units: mg/L Analysis Date: 19-Jun-2024 22:00			
Client ID:		Run ID: ICPMS05_469847		SeqNo: 8086942	PrepDate: 18-Jun-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual
Iron	4.804	0.200	5	0.03725	95.3	75 - 125	
Manganese	0.3743	0.00500	0.05	0.3419	64.8	75 - 125	SO
MSD	Sample ID: HS24060934-01MSD			Units: mg/L Analysis Date: 19-Jun-2024 22:02			
Client ID:		Run ID: ICPMS05_469847		SeqNo: 8086943	PrepDate: 18-Jun-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual
Iron	4.989	0.200	5	0.03725	99.0	75 - 125	4.804 3.77 20
Manganese	0.3783	0.00500	0.05	0.3419	72.7	75 - 125	0.3743 1.05 20 SO
PDS	Sample ID: HS24060934-01PDS			Units: mg/L Analysis Date: 19-Jun-2024 22:04			
Client ID:		Run ID: ICPMS05_469847		SeqNo: 8086944	PrepDate: 18-Jun-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual
Iron	9.649	0.200	10	0.03725	96.1	75 - 125	
Manganese	0.4202	0.00500	0.1	0.3419	78.3	75 - 125	

ALS Houston, US

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F13018  
**WorkOrder:** HS24060936

**QC BATCH REPORT**

Batch ID: 213727 ( 0 )	Instrument: ICPMS05	Method: DISSOLVED METALS BY SW6020A (DISSOLVED)
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SD	Sample ID:	HS24060934-01SD	Units:	mg/L	Analysis Date: 19-Jun-2024 21:58			
Client ID:	Run ID:	ICPMS05_469847	SeqNo:	8086948	PrepDate:	18-Jun-2024	DF:	5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D

Iron	ND	1.00			0.03725	0	10
Manganese	0.3588	0.0250			0.3419	4.92	10

The following samples were analyzed in this batch: HS24060936-01 HS24060936-02

**ALS Houston, US**

Date: 20-Jun-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4F13018  
**WorkOrder:** HS24060936

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**ALS Houston, US**

Date: 20-Jun-24

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

Agency	Number	Expire Date
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
Oklahoma	2023-140	31-Aug-2024
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US

Date: 20-Jun-24

**Sample Receipt Checklist**

Work Order ID: HS24060936

Date/Time Received:

14-Jun-2024 09:20

Client Name: Permian Basin Lab

Received by:

Si MaCompleted By: /S/ Hoa Tran

eSignature

14-Jun-2024 18:45

Reviewed by: /S/ Anna Kinchen

18-Jun-2024 09:48

Date/Time

eSignature

Date/Time

Matrices:

w

Carrier name:

FedEx

Shipping container/cooler in good condition?

Yes No Not Present 

Custody seals intact on shipping container/cooler?

Yes No Not Present 

Custody seals intact on sample bottles?

Yes No Not Present 

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes No Not Present 

Chain of custody present?

Yes No 

1 Page(s)

Chain of custody signed when relinquished and received?

Yes No 

Samplers name present on COC?

Yes No 

Chain of custody agrees with sample labels?

Yes No 

Samples in proper container/bottle?

Yes No 

Sample containers intact?

Yes No 

Sufficient sample volume for indicated test?

Yes No 

All samples received within holding time?

Yes No 

Container/Temp Blank temperature in compliance?

Yes No 

Temperature(s)/Thermometer(s):

4.3uc/4.4c  ir31 

Cooler(s)/Kit(s):

red 

Date/Time sample(s) sent to storage:

06/14/2024 1857 

Water - VOA vials have zero headspace?

Yes No No VOA vials submitted 

Water - pH acceptable upon receipt?

Yes No N/A 

pH adjusted?

Yes No N/A 

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701

Phone: 432-686-7235  
PBELAB\_SUB\_COV\_V2

Project Manager: Brent Barron  
Company Name: PBEL  
Company Address: 1400 Rankin HWY  
City/State/Zip: Midland Texas 79701  
Telephone No: 432-661-4184  
Sampler Signature: N/A

Project Name: SUBCONTRACT

Project #: \_\_\_\_\_

Project Loc: \_\_\_\_\_

PO #: \_\_\_\_\_

Fax No: \_\_\_\_\_ Report Format: X Standard

TRRP

NPDES

e-mail: brentbarron@pbelab.com

ORDER #:		Beginning Depth		Ending Depth		Date Sampled		Time Sampled		Field Filtered		Total # of Containers	Preservation & # of Containers		Matrix
													ICE	HNO <sub>3</sub> 250 mL	
	4F13018-01					6/3/2024	9:13	3	X X X				HCl 3.40mL VOA	H <sub>2</sub> SO <sub>4</sub> 1 AMBER 500/250mL POLY	
	4F13018-02					6/12/2024	14:00	3	X X X				NaOH / Ascorbic Acid 250mL P	NaOH/Zn	

TB Column 2nd Temp 44°C 6/12/2024 5:00 PM Received by: _____ 6/13/2024								Laboratory Comments: _____ _____ VOCs Free of Headspace? Y N Sample in container(s) Y N Custody seals on container(s) Y N Custody seals on collection site Y N Sample Hand Delivered Y N by Sampler/Client Rep. ? Y N by Courier? UPS DHL FedEx Lone Star Temperature Upon Receipt: Received: °C Adjusted: °C Factor								
BRENT BARRON	6/12/2024	5:00 PM	Received by:	sm				Date	Time							
Relinquished by:	Date	Time	Received by:	sm				06/14/2024	09:20							
Relinquished by:	Date	Time	Received by:	sm				Date	Time							

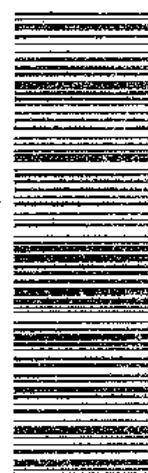
HS24060936

Permian Basin Environmental Lab, LP

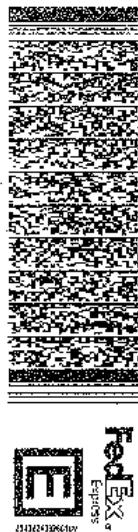
4F13018



24 HOUR RUSH	X
STANDARD	X



AB SGRA

TX-US  
IAH  
77099FRI - 14 JUN 5:00P  
17844 77099  
STANDARD OVERNIGHT

TO SAMPLE RECEIVING	SHIPPING DATE: 13 JUNE 26
ALS-HOUSTON	ACTUAL TO: 10450 STANCLIFF RD
10450 STANCLIFF RD	CITY: HOUSTON STATE: TX ZIP: 77099
	REF: 1784477099
	BILL RECIPIENT:
	EXJSR210SAE3

After printing this page  
**CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH**  
 1. Fold the printed page along the horizontal line.  
 2. Place label in shipping pouch and affix to your shipment.

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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4I16013



**Current Certification**

Report Date: 09/30/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-10A	4I16013-01	Water	09/16/24 10:20	09-16-2024 15:02
MW-21	4I16013-02	Water	09/16/24 11:25	09-16-2024 15:02

Dissolved Fe, Dissolved Mn, and RSK-175 analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:

[https://www.tceq.texas.gov/assets/public/compliance/compliance\\_support/qa/labs/als\\_svcs\\_houston.pdf](https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf)

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-10A****4I16013-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**Permian Basin Environmental Lab, L.P.****Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4I3017	09/20/24 08:00	09/20/24 09:36	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4I3017	09/20/24 08:00	09/20/24 09:36	8015M	SUB-13
<b>Methane</b>	<b>0.00106</b>	<b>0.000500</b>	mg/L	1	P4I3017	09/20/24 08:00	09/20/24 09:36	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Total Alkalinity</b>	<b>286</b>	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
<b>Bicarbonate Alkalinity</b>	<b>286</b>	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
<b>Nitrate as N</b>	<b>2.23</b>	0.200	mg/L	1	P4I1709	09/17/24 12:10	09/18/24 09:00	EPA 300.0
<b>Sulfate</b>	<b>41.2</b>	10.0	mg/L	10	P4I1709	09/17/24 12:10	09/18/24 11:31	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4I3017	09/20/24 08:00	09/25/24 18:41	EPA 6020A	SUB-13
<b>Manganese</b>	<b>0.00534</b>	<b>0.00500</b>	mg/L	1	P4I3017	09/20/24 08:00	09/25/24 18:41	EPA 6020A	SUB-13

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-21**  
**4I16013-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4I3017	09/20/24 08:00	09/20/24 09:45	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4I3017	09/20/24 08:00	09/20/24 09:45	8015M	SUB-13
<b>Methane</b>	<b>0.00134</b>	<b>0.000500</b>	mg/L	1	P4I3017	09/20/24 08:00	09/20/24 09:45	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Total Alkalinity</b>	<b>298</b>	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
<b>Bicarbonate Alkalinity</b>	<b>298</b>	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
Nitrate as N	<b>1.98</b>	0.200	mg/L	1	P4I1709	09/17/24 12:10	09/18/24 10:04	EPA 300.0
Sulfate	<b>42.4</b>	10.0	mg/L	10	P4I1709	09/17/24 12:10	09/18/24 12:35	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4I3017	09/20/24 08:00	09/25/24 18:43	EPA 6020A	SUB-13
<b>Manganese</b>	<b>0.267</b>	<b>0.00500</b>	mg/L	1	P4I3017	09/20/24 08:00	09/25/24 18:43	EPA 6020A	SUB-13

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	-------------	---------	-----------	-------

**Batch P4I1709 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4I1709-BLK1)</b>	Prepared: 09/17/24 Analyzed: 09/18/24					
Nitrate as N	ND	0.200	mg/L			
Sulfate	ND	1.00	"			

**LCS (P4I1709-BS1)**

					Prepared: 09/17/24	Analyzed: 09/18/24
Nitrate as N	10.4		mg/L	10.0	104	90-110
Sulfate	8.55		"	9.00	95.0	90-110

**Calibration Check (P4I1709-CCV1)**

					Prepared & Analyzed: 09/17/24	
Nitrate as N	10.3		mg/L	10.0	103	90-110
Sulfate	8.26		"	9.00	91.7	90-110

**Calibration Check (P4I1709-CCV2)**

					Prepared: 09/17/24	Analyzed: 09/18/24
Sulfate	8.25		mg/L	9.00	91.7	90-110
Nitrate as N	10.4		"	10.0	104	90-110

**Matrix Spike (P4I1709-MS1)**

	<b>Source: 4I16013-01</b>				Prepared: 09/17/24	Analyzed: 09/18/24
Sulfate	142		mg/L	100	41.2	100
Nitrate as N	11.5		"	10.0	2.23	92.9

**Matrix Spike Dup (P4I1709-MSD1)**

	<b>Source: 4I16013-01</b>				Prepared: 09/17/24	Analyzed: 09/18/24
Nitrate as N	11.5		mg/L	10.0	2.23	92.8
Sulfate	142		"	100	41.2	101

**Batch P4I2618 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4I2618-BLK1)</b>	Prepared & Analyzed: 09/26/24					
Total Alkalinity	ND	10.0	mg/L			
Carbonate Alkalinity	ND	10.0	"			
Bicarbonate Alkalinity	ND	10.0	"			
Hydroxide Alkalinity	ND	10.0	"			

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	-------------	---------	-----------	-------

**Batch P4I2618 - \*\*\* DEFAULT PREP \*\*\***

<b>LCS (P4I2618-BS1)</b>		Prepared & Analyzed: 09/26/24								
Total Alkalinity	200		mg/L	250	80.0	80-120				
Carbonate Alkalinity	ND	10.0	"			80-120				
Bicarbonate Alkalinity	200	10.0	"			80-120				
Hydroxide Alkalinity	ND	10.0	"			80-120				

<b>Duplicate (P4I2618-DUP1)</b>		Source: 4I16013-01 Prepared & Analyzed: 09/26/24					
Total Alkalinity	290	10.0	mg/L	286		1.39	20
Carbonate Alkalinity	ND	10.0	"	ND			20
Bicarbonate Alkalinity	290	10.0	"	286		1.39	20
Hydroxide Alkalinity	ND	10.0	"	ND			20

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

SUB-13	Subcontract of analyte/analysis to ALS Houston.
ROI	Received on Ice
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 9/30/2024

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

PBLAB

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

YSIS REQUEST

W:  
Phone: 432-686-7235



## **CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701**

Phone: 432-686-7235  
PBELAB SUB COC V2

Project Manager: Brent Barron

**Project Name:** SUBCONTRACT

Company Name PBEL

**Project #:**

Company Address: 1400 Rankin HWY

**Project Loc:**

City/State/Zip: Midland Texas 79701

**PO #:**

Telephone No: 432-661-4184 Fax No:

Fax No:

**Report Format:** X Standard  TRRP  NPDES

Sampler Signature: N/A e-mail: brentbarron@pbelab.com

e-mail: [brentbarron@pbelab.com](mailto:brentbarron@pbelab.com)

Please add tressa@pbelab.com to the WOA. Thank you.

**Laboratory Comments:**

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N
by Courier?      UPS      DHL      FedEx      Lone Star		
Temperature Upon Receipt:		
Received:	°C	
Adjusted:	°C	Factor

BRENT BARRON 9/16/2024 5:00 PM Received by: Date:

Dat

**Relinquished by:** \_\_\_\_\_ **Date** \_\_\_\_\_ **Time** \_\_\_\_\_ **Received by:** \_\_\_\_\_ **Date** \_\_\_\_\_

---

Day

For more information about the study, please contact Dr. John D. Cawley at (609) 258-4626 or via email at [jdcawley@princeton.edu](mailto:jdcawley@princeton.edu).

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Day



right solutions.  
right partner.

---

10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

September 26, 2024

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS24090948**

Laboratory Results for: **4I6013**

Dear Brent Barron,

ALS Environmental received 2 sample(s) on Sep 19, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL  
Anna Kinchen  
Project Manager

---

alsglobal.com

**ALS Houston, US**

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I6013  
**Work Order:** HS24090948

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24090948-01	4I6013-01	Water		16-Sep-2024 10:20	19-Sep-2024 09:15	<input type="checkbox"/>
HS24090948-02	4I6013-02	Water		16-Sep-2024 11:25	19-Sep-2024 09:15	<input type="checkbox"/>

ALS Houston, US

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I6013  
**Work Order:** HS24090948

---

**CASE NARRATIVE**

---

**GC Semivolatiles by Method RSK-175**

**Batch ID: R477688**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

---

**Metals by Method SW6020A**

**Batch ID: 217952**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 26-Sep-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4I6013  
 Sample ID: 4I16013-01  
 Collection Date: 16-Sep-2024 10:20

**ANALYTICAL REPORT**  
 WorkOrder:HS24090948  
 Lab ID:HS24090948-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>				
Ethane	ND		1.00	ug/L	1	20-Sep-2024 09:36
Ethene	ND		1.00	ug/L	1	20-Sep-2024 09:36
Methane	<b>1.06</b>		<b>0.500</b>	<b>ug/L</b>	<b>1</b>	<b>20-Sep-2024 09:36</b>
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>				
Iron	ND		0.200	mg/L	1	25-Sep-2024 18:41
Manganese	<b>0.00534</b>		<b>0.00500</b>	<b>mg/L</b>	<b>1</b>	<b>25-Sep-2024 18:41</b>

---

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 26-Sep-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4I6013  
 Sample ID: 4I16013-02  
 Collection Date: 16-Sep-2024 11:25

**ANALYTICAL REPORT**  
 WorkOrder:HS24090948  
 Lab ID:HS24090948-02  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>				
Ethane	ND		1.00	ug/L	1	20-Sep-2024 09:45
Ethene	ND		1.00	ug/L	1	20-Sep-2024 09:45
Methane	<b>1.34</b>		<b>0.500</b>	<b>ug/L</b>	<b>1</b>	<b>20-Sep-2024 09:45</b>
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>				
Iron	ND		0.200	mg/L	1	25-Sep-2024 18:43
Manganese	<b>0.267</b>		<b>0.00500</b>	<b>mg/L</b>	<b>1</b>	<b>25-Sep-2024 18:43</b>

---

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Weight / Prep Log****Client:** Permian Basin Environmental Lab, LP**Project:** 4I6013**WorkOrder:** HS24090948**Batch ID:** 217952**Start Date:** 24 Sep 2024 14:30**End Date:** 24 Sep 2024 14:30**Method:** DISS METALS PREP - WATER - SW3010A**Prep Code:** 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24090948-01		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2
HS24090948-02		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2

ALS Houston, US

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I6013  
**WorkOrder:** HS24090948

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 217952 ( 0 )		<b>Test Name :</b> DISSOLVED METALS BY SW6020A				
HS24090948-01	4I16013-01	16 Sep 2024 10:20		24 Sep 2024 14:30	25 Sep 2024 18:41	1
HS24090948-02	4I16013-02	16 Sep 2024 11:25		24 Sep 2024 14:30	25 Sep 2024 18:43	1
<b>Batch ID:</b> R477688 ( 0 )		<b>Test Name :</b> DISSOLVED GASES BY RSK-175				
HS24090948-01	4I16013-01	16 Sep 2024 10:20			20 Sep 2024 09:36	1
HS24090948-02	4I16013-02	16 Sep 2024 11:25			20 Sep 2024 09:45	1

ALS Houston, US

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I6013  
**WorkOrder:** HS24090948

**QC BATCH REPORT**

**Batch ID:** R477688 (0)      **Instrument:** FID-4      **Method:** DISSOLVED GASES BY RSK-175

<b>MLBK</b>	Sample ID:	MLBK-240920	Units:	ug/L	Analysis Date: 20-Sep-2024 09:05			
Client ID:		Run ID:	FID-4_477688	SeqNo:	8262680	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	ND	1.00
Ethene	ND	1.00
Methane	ND	0.500

<b>LCS</b>	Sample ID:	LCS-240920	Units:	ug/L	Analysis Date: 20-Sep-2024 09:19			
Client ID:		Run ID:	FID-4_477688	SeqNo:	8262681	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	16.51	1.00	18.04	0	91.5	75 - 125
Ethene	14.49	1.00	16.8	0	86.3	75 - 125
Methane	9.486	0.500	9.647	0	98.3	75 - 125

<b>LCSD</b>	Sample ID:	LCSD-240920	Units:	ug/L	Analysis Date: 20-Sep-2024 09:27			
Client ID:		Run ID:	FID-4_477688	SeqNo:	8262682	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	15.74	1.00	18.04	0	87.2	75 - 125	16.51	4.76 30
Ethene	14.87	1.00	16.8	0	88.5	75 - 125	14.49	2.55 30
Methane	9.053	0.500	9.647	0	93.8	75 - 125	9.486	4.67 30

The following samples were analyzed in this batch: HS24090948-01      HS24090948-02

ALS Houston, US

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I6013  
**WorkOrder:** HS24090948

**QC BATCH REPORT**

Batch ID: 217952 ( 0 )		Instrument: ICPMS06		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)			
MBLK	Sample ID: MBLK-217952			Units: mg/L Analysis Date: 25-Sep-2024 17:29			
Client ID:		Run ID: ICPMS06_478062		SeqNo: 8272088	PrepDate: 24-Sep-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual
Iron	ND	0.200					
Manganese	ND	0.00500					
LCS	Sample ID: LCS-217952			Units: mg/L Analysis Date: 25-Sep-2024 17:31			
Client ID:		Run ID: ICPMS06_478062		SeqNo: 8272089	PrepDate: 24-Sep-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual
Iron	4.741	0.200	5	0	94.8	80 - 120	
Manganese	0.04518	0.00500	0.05	0	90.4	80 - 120	
MS	Sample ID: HS24090937-06MS			Units: mg/L Analysis Date: 25-Sep-2024 17:46			
Client ID:		Run ID: ICPMS06_478062		SeqNo: 8272096	PrepDate: 24-Sep-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual
Iron	4.823	0.200	5	0.006178	96.3	75 - 125	
Manganese	0.04779	0.00500	0.05	0.000182	95.2	75 - 125	
MSD	Sample ID: HS24090937-06MSD			Units: mg/L Analysis Date: 25-Sep-2024 17:48			
Client ID:		Run ID: ICPMS06_478062		SeqNo: 8272097	PrepDate: 24-Sep-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual
Iron	4.827	0.200	5	0.006178	96.4	75 - 125	4.823 0.0805 20
Manganese	0.04696	0.00500	0.05	0.000182	93.6	75 - 125	0.04779 1.75 20
PDS	Sample ID: HS24090937-06PDS			Units: mg/L Analysis Date: 25-Sep-2024 17:50			
Client ID:		Run ID: ICPMS06_478062		SeqNo: 8272098	PrepDate: 24-Sep-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual
Iron	9.523	0.200	10	0.006178	95.2	75 - 125	
Manganese	0.09027	0.00500	0.1	0.000182	90.1	75 - 125	

ALS Houston, US

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I6013  
**WorkOrder:** HS24090948

**QC BATCH REPORT**

Batch ID: 217952 ( 0 )		Instrument: ICPMS06		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)	
SD	Sample ID: HS24090937-06SD	Units: mg/L		Analysis Date: 25-Sep-2024 17:38	
Client ID:		Run ID: ICPMS06_478062	SeqNo: 8272093	PrepDate: 24-Sep-2024	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC
Iron	ND	1.00		0.006178	0 10
Manganese	ND	0.0250		0.000182	0 10
The following samples were analyzed in this batch:		HS24090948-01	HS24090948-02		

**ALS Houston, US**

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I6013  
**WorkOrder:** HS24090948

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**ALS Houston, US**

Date: 26-Sep-24

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

Agency	Number	Expire Date
Arizona	AZ0793	27-May-2025
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Dept of Defense	L24-240	30-Apr-2026
Dept of Defense	L24-239	30-Apr-2026
Florida	E87611-38	30-Jun-2025
Illinois	2000322023-11	31-Jul-2025
Kansas	E-10352 2023-2024	31-Jul-2025
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2025
Maine	2024017	23-Jun-2026
Michigan	9971	30-Apr-2025
Nebraska	NE-OS-25-13	30-Apr-2025
New Jersey	TX008	30-Jun-2025
North Carolina	624 - 2024	31-Dec-2024
North Dakota	R-193 2023-2024	30-Sep-2024
Pennsylvania	018	30-Jun-2025
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2025

ALS Houston, US

Date: 26-Sep-24

**Sample Receipt Checklist**

Work Order ID: HS24090948

Date/Time Received:

19-Sep-2024 09:15

Client Name: Permian Basin Lab

Received by:

Jacob CoronadoCompleted By: /S/ Michael Lucio

eSignature

19-Sep-2024 12:49

Date/Time

Reviewed by: /S/ Anna Kinchen

eSignature

20-Sep-2024 13:18

Date/Time

Matrices:

w

Carrier name:

FedEx

Shipping container/cooler in good condition?

Yes No Not Present 

Custody seals intact on shipping container/cooler?

Yes No Not Present 

Custody seals intact on sample bottles?

Yes No Not Present 

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes No Not Present 

Chain of custody present?

Yes No 

1 Page(s)

Chain of custody signed when relinquished and received?

Yes No 

Samplers name present on COC?

Yes No 

Chain of custody agrees with sample labels?

Yes No 

Samples in proper container/bottle?

Yes No 

Sample containers intact?

Yes No 

Sufficient sample volume for indicated test?

Yes No 

All samples received within holding time?

Yes No 

Container/Temp Blank temperature in compliance?

Yes No 

Temperature(s)/Thermometer(s):

3.4uc/3.4c  IR34

Cooler(s)/Kit(s):

Blue 

Date/Time sample(s) sent to storage:

09/19/2024 1250 

Water - VOA vials have zero headspace?

Yes  No  No VOA vials submitted 

Water - pH acceptable upon receipt?

Yes  No  N/A 

pH adjusted?

Yes  No  N/A 

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

Permian Basin Environmental Lab  
1400 Rankin HWY  
Midland, Texas 79701

Project Manager: Brent Barron

Company Name PREL

Company Address: 1400 Rankin Hwy

City/State/Zip: Midland Texas 79701

Telephone No: 432-661-4184

Fax No.

Sampler Signature: N/A

e-mail: brentbarcon@phelab.com

Permian Basin Environmental Lab | PBL

416013

Project

### Project Log

Po

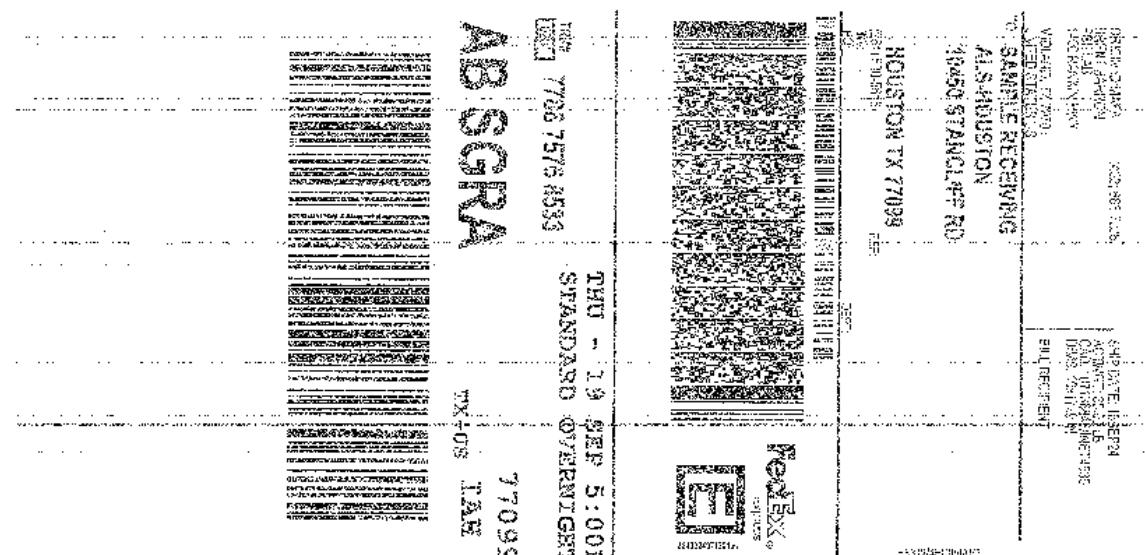
Report Format:  Standard

TRRF

NPDES

Analyze For

Blue Sky Page 14 of 15



At &amp; printing one label.

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 2. Place it in the shipping pod and attach to your shipment.

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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4I16014



**Current Certification**

Report Date: 09/26/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-10A	4I16014-01	Water	09/16/24 10:20	09-16-2024 15:02
MW-21	4I16014-02	Water	09/16/24 11:25	09-16-2024 15:02

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-10A****4I16014-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	<b>0.00501</b>	0.00100	mg/L	1	P4I1707	09/17/24 09:31	09/17/24 17:52	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4I1707	09/17/24 09:31	09/17/24 17:52	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4I1707	09/17/24 09:31	09/17/24 17:52	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4I1707	09/17/24 09:31	09/17/24 17:52	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4I1707	09/17/24 09:31	09/17/24 17:52	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>		104 %	80-120		P4I1707	09/17/24 09:31	09/17/24 17:52	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		88.8 %	80-120		P4I1707	09/17/24 09:31	09/17/24 17:52	EPA 8021B
<b>Total BTEX</b>	<b>0.00501</b>	0.00100	mg/L	1	[CALC]	09/17/24 09:31	09/17/24 17:52	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	09/17/24 09:31	09/17/24 17:52	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-21****4I16014-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4I1707	09/17/24 09:31	09/17/24 18:14	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4I1707	09/17/24 09:31	09/17/24 18:14	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4I1707	09/17/24 09:31	09/17/24 18:14	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4I1707	09/17/24 09:31	09/17/24 18:14	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4I1707	09/17/24 09:31	09/17/24 18:14	EPA 8021B
<i>Surrogate: 4-Bromo fluoro benzene</i>		105 %	80-120		P4I1707	09/17/24 09:31	09/17/24 18:14	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		88.6 %	80-120		P4I1707	09/17/24 09:31	09/17/24 18:14	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	09/17/24 09:31	09/17/24 18:14	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	09/17/24 09:31	09/17/24 18:14	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4I1707 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4I1707-BLK1)</b>		Prepared & Analyzed: 09/17/24					
Benzene	ND	0.00100	mg/L				
Toluene	ND	0.00100	"				
Ethylbenzene	ND	0.00100	"				
Xylene (p/m)	ND	0.00200	"				
Xylene (o)	ND	0.00100	"				
Surrogate: 4-Bromofluorobenzene	0.124		"	0.120	103	80-120	
Surrogate: 1,4-Difluorobenzene	0.105		"	0.120	87.7	80-120	

<b>LCS (P4I1707-BS1)</b>		Prepared & Analyzed: 09/17/24					
Benzene	0.0975	0.00100	mg/L	0.100	97.5	80-120	
Toluene	0.105	0.00100	"	0.100	105	80-120	
Ethylbenzene	0.115	0.00100	"	0.100	115	80-120	
Xylene (p/m)	0.237	0.00200	"	0.200	119	80-120	
Xylene (o)	0.107	0.00100	"	0.100	107	80-120	
Surrogate: 4-Bromofluorobenzene	0.125		"	0.120	105	80-120	
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120	93.2	80-120	

<b>LCS Dup (P4I1707-BSD1)</b>		Prepared & Analyzed: 09/17/24					
Benzene	0.0944	0.00100	mg/L	0.100	94.4	80-120	3.23
Toluene	0.102	0.00100	"	0.100	102	80-120	2.83
Ethylbenzene	0.115	0.00100	"	0.100	115	80-120	0.130
Xylene (p/m)	0.236	0.00200	"	0.200	118	80-120	0.557
Xylene (o)	0.103	0.00100	"	0.100	103	80-120	3.75
Surrogate: 4-Bromofluorobenzene	0.129		"	0.120	107	80-120	
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120	94.2	80-120	

<b>Calibration Blank (P4I1707-CCB1)</b>		Prepared & Analyzed: 09/17/24					
Benzene	0.00		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.00		"				
Xylene (p/m)	0.00		"				
Xylene (o)	0.00		"				
Surrogate: 4-Bromofluorobenzene	0.123		"	0.120	103	80-120	
Surrogate: 1,4-Difluorobenzene	0.104		"	0.120	86.5	80-120	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4I1707 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4I1707-CCB2)</b>		Prepared & Analyzed: 09/17/24					
Benzene	0.00		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.00		"				
Xylene (p/m)	0.00		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.125		"	0.120		104	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.104		"	0.120		86.8	80-120

<b>Calibration Check (P4I1707-CCV1)</b>		Prepared & Analyzed: 09/17/24					
Benzene	0.0996	0.00100	mg/L	0.100		99.6	80-120
Toluene	0.106	0.00100	"	0.100		106	80-120
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120
Xylene (p/m)	0.237	0.00200	"	0.200		119	80-120
Xylene (o)	0.108	0.00100	"	0.100		108	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.124		"	0.120		103	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.113		"	0.120		94.0	80-120

<b>Calibration Check (P4I1707-CCV2)</b>		Prepared & Analyzed: 09/17/24					
Benzene	0.102	0.00100	mg/L	0.100		102	80-120
Toluene	0.112	0.00100	"	0.100		112	80-120
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120
Xylene (p/m)	0.240	0.00200	"	0.200		120	80-120
Xylene (o)	0.115	0.00100	"	0.100		115	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.125		"	0.120		104	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.108		"	0.120		89.7	80-120

<b>Calibration Check (P4I1707-CCV3)</b>		Prepared & Analyzed: 09/17/24					
Benzene	0.107	0.00100	mg/L	0.100		107	80-120
Toluene	0.110	0.00100	"	0.100		110	80-120
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120
Xylene (p/m)	0.240	0.00200	"	0.200		120	80-120
Xylene (o)	0.112	0.00100	"	0.100		112	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.128		"	0.120		106	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.113		"	0.120		94.2	80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4I1707 - \*\*\* DEFAULT PREP \*\*\***

Matrix Spike (P4I1707-MS1)	Source: 4I12009-01			Prepared & Analyzed: 09/17/24					
Benzene	0.107	0.00100	mg/L	0.100	ND	107	80-120		
Toluene	0.113	0.00100	"	0.100	ND	113	80-120		
Ethylbenzene	0.126	0.00100	"	0.100	ND	126	80-120		QM-05
Xylene (p/m)	0.254	0.00200	"	0.200	ND	127	80-120		QM-05
Xylene (o)	0.113	0.00100	"	0.100	ND	113	80-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	0.129		"	0.120		107	80-120		
<i>Surrogate: 1,4-Difluorobenzene</i>	0.113		"	0.120		94.2	80-120		

Matrix Spike Dup (P4I1707-MSD1)	Source: 4I12009-01			Prepared & Analyzed: 09/17/24					
Benzene	0.119	0.00100	mg/L	0.100	ND	119	80-120	10.5	20
Toluene	0.127	0.00100	"	0.100	ND	127	80-120	11.6	20
Ethylbenzene	0.143	0.00100	"	0.100	ND	143	80-120	12.1	20
Xylene (p/m)	0.284	0.00200	"	0.200	ND	142	80-120	11.3	20
Xylene (o)	0.127	0.00100	"	0.100	ND	127	80-120	11.9	20
<i>Surrogate: 4-Bromofluorobenzene</i>	0.128		"	0.120		107	80-120		
<i>Surrogate: 1,4-Difluorobenzene</i>	0.112		"	0.120		93.6	80-120		

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 9/26/2024

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

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Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

Permian Basin Environmental Lab, L.P.

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PBLAB

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**YSIS REQUEST**

W: \_\_\_\_\_

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4I17014



**Current Certification**

Report Date: 09/30/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6A	4I17014-01	Water	09/17/24 09:50	09-17-2024 15:38
MW-11A	4I17014-02	Water	09/17/24 09:02	09-17-2024 15:38

Dissolved Fe, Dissolved Mn, RSK-175 analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:

[https://www.tceq.texas.gov/assets/public/compliance/compliance\\_support/qa/labs/als\\_svcs\\_houston.pdf](https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf)

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-6A****4I17014-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**Permian Basin Environmental Lab, L.P.****Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4I3014	09/20/24 09:00	09/20/24 11:24	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4I3014	09/20/24 09:00	09/20/24 11:24	8015M	SUB-13
<b>Methane</b>	<b>0.00296</b>	0.000500	mg/L	1	P4I3014	09/20/24 09:00	09/20/24 11:24	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Total Alkalinity</b>	<b>314</b>	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
<b>Bicarbonate Alkalinity</b>	<b>314</b>	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
<b>Nitrate as N</b>	<b>2.46</b>	0.200	mg/L	1	P4I1709	09/17/24 15:55	09/18/24 10:26	EPA 300.0
<b>Sulfate</b>	<b>51.5</b>	5.00	mg/L	5	P4I1709	09/17/24 15:55	09/18/24 12:56	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4I3014	09/20/24 09:00	09/25/24 18:37	EPA 6020A	SUB-13
<b>Manganese</b>	<b>0.0152</b>	0.00500	mg/L	1	P4I3014	09/20/24 09:00	09/25/24 18:37	EPA 6020A	SUB-13

Permian Basin Environmental Lab, L.P.

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Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-11A****4I17014-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4I3014	09/20/24 09:00	09/20/24 11:32	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4I3014	09/20/24 09:00	09/20/24 11:32	8015M	SUB-13
<b>Methane</b>	<b>0.00149</b>	<b>0.000500</b>	mg/L	1	P4I3014	09/20/24 09:00	09/20/24 11:32	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Total Alkalinity</b>	<b>370</b>	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
Carbonate Alkalinity	ND	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
<b>Bicarbonate Alkalinity</b>	<b>370</b>	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
Hydroxide Alkalinity	ND	10.0	mg/L	1	P4I2618	09/26/24 14:58	09/26/24 14:58	EPA 310.1M
Nitrate as N	<b>2.24</b>	0.200	mg/L	1	P4I1709	09/17/24 15:55	09/18/24 10:47	EPA 300.0
Sulfate	<b>45.0</b>	10.0	mg/L	10	P4I1709	09/17/24 15:55	09/18/24 13:18	EPA 300.0

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4I3014	09/20/24 09:00	09/25/24 18:39	EPA 6020A	SUB-13
Manganese	ND	0.00500	mg/L	1	P4I3014	09/20/24 09:00	09/25/24 18:39	EPA 6020A	SUB-13

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4I1709 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4I1709-BLK1)</b>		Prepared: 09/17/24 Analyzed: 09/18/24										
Sulfate	ND	1.00	mg/L									
Nitrate as N	ND	0.200	"									
<b>LCS (P4I1709-BS1)</b>		Prepared: 09/17/24 Analyzed: 09/18/24										
Nitrate as N	10.4		mg/L	10.0		104	90-110					
Sulfate	8.55		"	9.00		95.0	90-110					
<b>Calibration Check (P4I1709-CCV1)</b>		Prepared & Analyzed: 09/17/24										
Nitrate as N	10.3		mg/L	10.0		103	90-110					
Sulfate	8.26		"	9.00		91.7	90-110					
<b>Calibration Check (P4I1709-CCV2)</b>		Prepared: 09/17/24 Analyzed: 09/18/24										
Nitrate as N	10.4		mg/L	10.0		104	90-110					
Sulfate	8.25		"	9.00		91.7	90-110					
<b>Matrix Spike (P4I1709-MS1)</b>		<b>Source: 4I16013-01</b>		Prepared: 09/17/24 Analyzed: 09/18/24								
Sulfate	142		mg/L	100	41.2	100	80-120					
Nitrate as N	11.5		"	10.0	2.23	92.9	80-120					
<b>Matrix Spike Dup (P4I1709-MSD1)</b>		<b>Source: 4I16013-01</b>		Prepared: 09/17/24 Analyzed: 09/18/24								
Nitrate as N	11.5		mg/L	10.0	2.23	92.8	80-120	0.0608	20			
Sulfate	142		"	100	41.2	101	80-120	0.303	20			

**Batch P4I2618 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4I2618-BLK1)</b>		Prepared & Analyzed: 09/26/24								
Total Alkalinity	ND	10.0	mg/L							
Carbonate Alkalinity	ND	10.0	"							
Bicarbonate Alkalinity	ND	10.0	"							
Hydroxide Alkalinity	ND	10.0	"							

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4I2618 - \*\*\* DEFAULT PREP \*\*\***

<b>LCS (P4I2618-BS1)</b>		Prepared & Analyzed: 09/26/24								
Total Alkalinity	200		mg/L	250	80.0	80-120				
Carbonate Alkalinity	ND	10.0	"			80-120				
Bicarbonate Alkalinity	200	10.0	"			80-120				
Hydroxide Alkalinity	ND	10.0	"			80-120				
<b>Duplicate (P4I2618-DUP1)</b>		<b>Source: 4I16013-01</b>		Prepared & Analyzed: 09/26/24						
Total Alkalinity	290	10.0	mg/L		286		1.39	20		
Carbonate Alkalinity	ND	10.0	"		ND			20		
Bicarbonate Alkalinity	290	10.0	"		286		1.39	20		
Hydroxide Alkalinity	ND	10.0	"		ND			20		

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

SUB-13	Subcontract of analyte/analysis to ALS Houston.
ROI	Received on Ice
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 9/30/2024

Brent Barron, Laboratory Director/Technical Director

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Permian Basin Environmental Lab, L.P.

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**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701

Ch

W: \_\_\_\_\_





right solutions.  
right partner.

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10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

September 26, 2024

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS24090944**

Laboratory Results for: **4I17014**

Dear Brent Barron,

ALS Environmental received 2 sample(s) on Sep 19, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL  
Anna Kinchen  
Project Manager

---

alsglobal.com

**ALS Houston, US**

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I17014  
**Work Order:** HS24090944

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24090944-01	4I17014-01	Water		17-Sep-2024 09:50	19-Sep-2024 09:15	<input type="checkbox"/>
HS24090944-02	4I17014-02	Water		17-Sep-2024 09:02	19-Sep-2024 09:15	<input type="checkbox"/>

ALS Houston, US

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I17014  
**Work Order:** HS24090944

---

**CASE NARRATIVE**

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**GC Semivolatiles by Method RSK-175**

**Batch ID: R477688**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

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**Metals by Method SW6020A**

**Batch ID: 217952**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 26-Sep-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4I17014  
 Sample ID: 4I17014-01  
 Collection Date: 17-Sep-2024 09:50

**ANALYTICAL REPORT**  
 WorkOrder:HS24090944  
 Lab ID:HS24090944-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>				
Ethane	ND		1.00	ug/L	1	20-Sep-2024 11:24
Ethene	ND		1.00	ug/L	1	20-Sep-2024 11:24
Methane	<b>2.96</b>		<b>0.500</b>	<b>ug/L</b>	<b>1</b>	<b>20-Sep-2024 11:24</b>
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>				
Iron	ND		0.200	mg/L	1	25-Sep-2024 18:37
Manganese	<b>0.0152</b>		<b>0.00500</b>	<b>mg/L</b>	<b>1</b>	<b>25-Sep-2024 18:37</b>

---

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 26-Sep-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4I17014  
 Sample ID: 4I17014-02  
 Collection Date: 17-Sep-2024 09:02

**ANALYTICAL REPORT**  
 WorkOrder:HS24090944  
 Lab ID:HS24090944-02  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>				
Ethane	ND		1.00	ug/L	1	20-Sep-2024 11:32
Ethene	ND		1.00	ug/L	1	20-Sep-2024 11:32
Methane	<b>1.49</b>		<b>0.500</b>	<b>ug/L</b>	<b>1</b>	20-Sep-2024 11:32
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>				
Iron	ND		0.200	mg/L	1	25-Sep-2024 18:39
Manganese	ND		0.00500	mg/L	1	25-Sep-2024 18:39

---

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Weight / Prep Log****Client:** Permian Basin Environmental Lab, LP**Project:** 4I17014**WorkOrder:** HS24090944**Batch ID:** 217952**Start Date:** 24 Sep 2024 14:30**End Date:** 24 Sep 2024 14:30**Method:** DISS METALS PREP - WATER - SW3010A**Prep Code:** 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24090944-01		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2
HS24090944-02		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2

ALS Houston, US

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I17014  
**WorkOrder:** HS24090944

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 217952 ( 0 )		<b>Test Name :</b> DISSOLVED METALS BY SW6020A				
HS24090944-01	4I17014-01	17 Sep 2024 09:50		24 Sep 2024 14:30	25 Sep 2024 18:37	1
HS24090944-02	4I17014-02	17 Sep 2024 09:02		24 Sep 2024 14:30	25 Sep 2024 18:39	1
<b>Batch ID:</b> R477688 ( 0 )		<b>Test Name :</b> DISSOLVED GASES BY RSK-175				
HS24090944-01	4I17014-01	17 Sep 2024 09:50			20 Sep 2024 11:24	1
HS24090944-02	4I17014-02	17 Sep 2024 09:02			20 Sep 2024 11:32	1

ALS Houston, US

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I17014  
**WorkOrder:** HS24090944

**QC BATCH REPORT**

**Batch ID:** R477688 (0)      **Instrument:** FID-4      **Method:** DISSOLVED GASES BY RSK-175

<b>MLBK</b>	Sample ID:	MLBK-240920	Units:	ug/L	Analysis Date: 20-Sep-2024 09:05			
Client ID:		Run ID:	FID-4_477688	SeqNo:	8262680	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	ND	1.00
Ethene	ND	1.00
Methane	ND	0.500

<b>LCS</b>	Sample ID:	LCS-240920	Units:	ug/L	Analysis Date: 20-Sep-2024 09:19			
Client ID:		Run ID:	FID-4_477688	SeqNo:	8262681	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	16.51	1.00	18.04	0	91.5	75 - 125
Ethene	14.49	1.00	16.8	0	86.3	75 - 125
Methane	9.486	0.500	9.647	0	98.3	75 - 125

<b>LCSD</b>	Sample ID:	LCSD-240920	Units:	ug/L	Analysis Date: 20-Sep-2024 09:27			
Client ID:		Run ID:	FID-4_477688	SeqNo:	8262682	PrepDate:	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Ethane	15.74	1.00	18.04	0	87.2	75 - 125	16.51	4.76 30
Ethene	14.87	1.00	16.8	0	88.5	75 - 125	14.49	2.55 30
Methane	9.053	0.500	9.647	0	93.8	75 - 125	9.486	4.67 30

The following samples were analyzed in this batch: HS24090944-01      HS24090944-02

ALS Houston, US

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I17014  
**WorkOrder:** HS24090944

**QC BATCH REPORT**

Batch ID: 217952 ( 0 )		Instrument: ICPMS06		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)	
MLBK	Sample ID: MBLK-217952	Units: mg/L		Analysis Date: 25-Sep-2024 17:29	
Client ID:		Run ID: ICPMS06_478062	SeqNo: 8272088	PrepDate: 24-Sep-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD Limit Qual
Iron	ND	0.200			
Manganese	ND	0.00500			
LCS	Sample ID: LCS-217952	Units: mg/L		Analysis Date: 25-Sep-2024 17:31	
Client ID:		Run ID: ICPMS06_478062	SeqNo: 8272089	PrepDate: 24-Sep-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD Limit Qual
Iron	4.741	0.200	5	0 94.8	80 - 120
Manganese	0.04518	0.00500	0.05	0 90.4	80 - 120
MS	Sample ID: HS24090937-06MS	Units: mg/L		Analysis Date: 25-Sep-2024 17:46	
Client ID:		Run ID: ICPMS06_478062	SeqNo: 8272096	PrepDate: 24-Sep-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD Limit Qual
Iron	4.823	0.200	5	0.006178 96.3	75 - 125
Manganese	0.04779	0.00500	0.05	0.000182 95.2	75 - 125
MSD	Sample ID: HS24090937-06MSD	Units: mg/L		Analysis Date: 25-Sep-2024 17:48	
Client ID:		Run ID: ICPMS06_478062	SeqNo: 8272097	PrepDate: 24-Sep-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD Limit Qual
Iron	4.827	0.200	5	0.006178 96.4	75 - 125 4.823 0.0805 20
Manganese	0.04696	0.00500	0.05	0.000182 93.6	75 - 125 0.04779 1.75 20
PDS	Sample ID: HS24090937-06PDS	Units: mg/L		Analysis Date: 25-Sep-2024 17:50	
Client ID:		Run ID: ICPMS06_478062	SeqNo: 8272098	PrepDate: 24-Sep-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD Limit Qual
Iron	9.523	0.200	10	0.006178 95.2	75 - 125
Manganese	0.09027	0.00500	0.1	0.000182 90.1	75 - 125

ALS Houston, US

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I17014  
**WorkOrder:** HS24090944

**QC BATCH REPORT**

Batch ID: 217952 ( 0 )		Instrument: ICPMS06		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)	
SD	Sample ID: HS24090937-06SD	Units: mg/L		Analysis Date: 25-Sep-2024 17:38	
Client ID:		Run ID: ICPMS06_478062	SeqNo: 8272093	PrepDate: 24-Sep-2024	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %D %D Limit Qual
Iron	ND	1.00			0.006178 0 10
Manganese	ND	0.0250			0.000182 0 10
The following samples were analyzed in this batch:		HS24090944-01	HS24090944-02		

**ALS Houston, US**

Date: 26-Sep-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4I17014  
**WorkOrder:** HS24090944

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**ALS Houston, US**

Date: 26-Sep-24

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Arizona	AZ0793	27-May-2025
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Dept of Defense	L24-240	30-Apr-2026
Dept of Defense	L24-239	30-Apr-2026
Florida	E87611-38	30-Jun-2025
Illinois	2000322023-11	31-Jul-2025
Kansas	E-10352 2023-2024	31-Jul-2025
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2025
Maine	2024017	23-Jun-2026
Michigan	9971	30-Apr-2025
Nebraska	NE-OS-25-13	30-Apr-2025
New Jersey	TX008	30-Jun-2025
North Carolina	624 - 2024	31-Dec-2024
North Dakota	R-193 2023-2024	30-Sep-2024
Pennsylvania	018	30-Jun-2025
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2025

ALS Houston, US

Date: 26-Sep-24

**Sample Receipt Checklist**

Work Order ID: HS24090944

Date/Time Received:

19-Sep-2024 09:15

Client Name: Permian Basin Lab

Received by:

Jacob CoronadoCompleted By: /S/ Michael Lucio

eSignature

19-Sep-2024 12:37

Reviewed by: /S/ Anna Kinchen

Date/Time

20-Sep-2024 13:16

eSignature

Matrices:

Carrier name:

FedEx

Shipping container/cooler in good condition?

Yes No Not Present 

Custody seals intact on shipping container/cooler?

Yes No Not Present 

Custody seals intact on sample bottles?

Yes No Not Present 

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes No Not Present 

Chain of custody present?

Yes No 

1 Page(s)

Chain of custody signed when relinquished and received?

Yes No 

Samplers name present on COC?

Yes No 

Chain of custody agrees with sample labels?

Yes No 

Samples in proper container/bottle?

Yes No 

Sample containers intact?

Yes No 

Sufficient sample volume for indicated test?

Yes No 

All samples received within holding time?

Yes No 

Container/Temp Blank temperature in compliance?

Yes No 

Temperature(s)/Thermometer(s):

3.4uc/3.4c  IR34

Cooler(s)/Kit(s):

Blue 

Date/Time sample(s) sent to storage:

09/19/2024 12:37 

Water - VOA vials have zero headspace?

Yes  No  No VOA vials submitted 

Water - pH acceptable upon receipt?

Yes  No  N/A 

pH adjusted?

Yes  No  N/A 

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

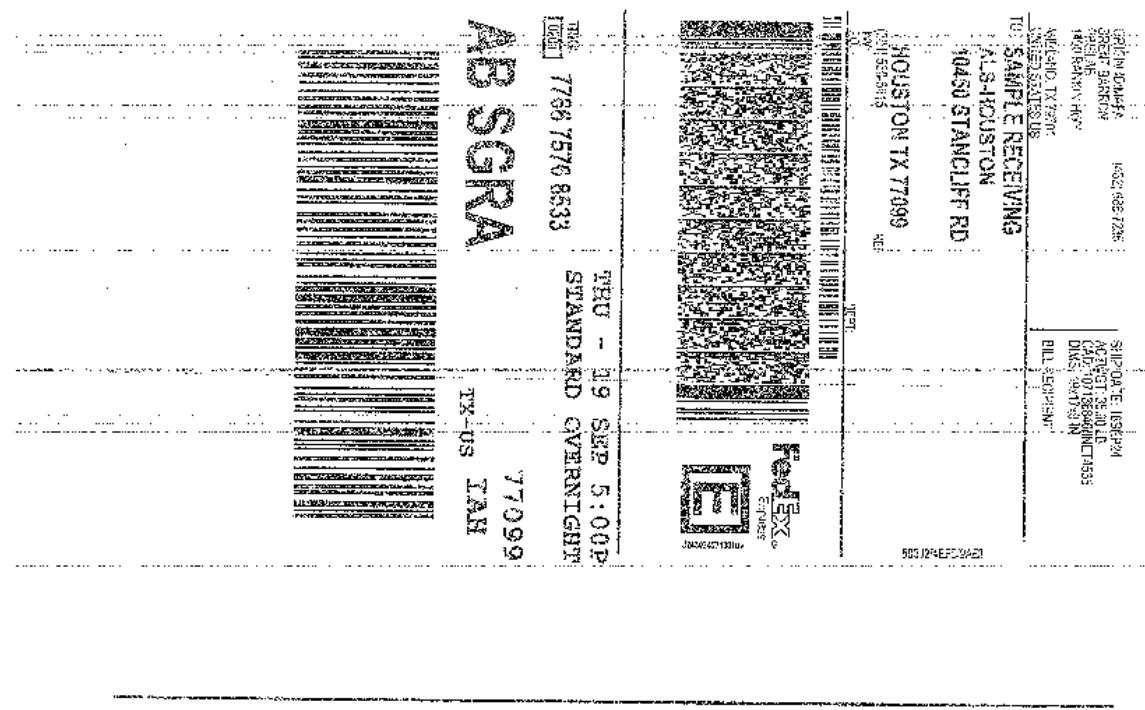
Contacted By:

Regarding:

Comments:

Corrective Action:





After printing this label:  
**CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH**  
 1. Fold the printed page along the horizontal line.  
 2. Place label in shipping pouch and affix it to your shipment.

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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4I17015



**Current Certification**

Report Date: 09/26/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6A	4I17015-01	Water	09/17/24 09:50	09-17-2024 15:38
MW-11A	4I17015-02	Water	09/17/24 09:02	09-17-2024 15:38

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-6A****4I17015-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	<b>0.0538</b>	0.00100	mg/L	1	P4I1804	09/18/24 11:27	09/18/24 18:41	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4I1804	09/18/24 11:27	09/18/24 18:41	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4I1804	09/18/24 11:27	09/18/24 18:41	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4I1804	09/18/24 11:27	09/18/24 18:41	EPA 8021B
<b>Xylene (o)</b>	<b>0.00131</b>	0.00100	mg/L	1	P4I1804	09/18/24 11:27	09/18/24 18:41	EPA 8021B
Surrogate: 4-Bromofluorobenzene	102 %	80-120			P4I1804	09/18/24 11:27	09/18/24 18:41	EPA 8021B
Surrogate: 1,4-Difluorobenzene	93.3 %	80-120			P4I1804	09/18/24 11:27	09/18/24 18:41	EPA 8021B
<b>Total BTEX</b>	<b>0.0551</b>	0.00100	mg/L	1	[CALC]	09/18/24 11:27	09/18/24 18:41	EPA 8021B
<b>Xylenes (total)</b>	<b>0.00131</b>	0.00100	mg/L	1	[CALC]	09/18/24 11:27	09/18/24 18:41	EPA 8021B

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-11A**  
**4I17015-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4I1804	09/18/24 11:27	09/18/24 19:03	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4I1804	09/18/24 11:27	09/18/24 19:03	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4I1804	09/18/24 11:27	09/18/24 19:03	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4I1804	09/18/24 11:27	09/18/24 19:03	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4I1804	09/18/24 11:27	09/18/24 19:03	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %	80-120		P4I1804	09/18/24 11:27	09/18/24 19:03	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		88.1 %	80-120		P4I1804	09/18/24 11:27	09/18/24 19:03	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	09/18/24 11:27	09/18/24 19:03	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	09/18/24 11:27	09/18/24 19:03	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4I1804 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4I1804-BLK1)</b>		Prepared & Analyzed: 09/18/24					
Benzene	ND	0.00100	mg/L				
Toluene	ND	0.00100	"				
Ethylbenzene	ND	0.00100	"				
Xylene (p/m)	ND	0.00200	"				
Xylene (o)	ND	0.00100	"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.126		"	0.120		105	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.106		"	0.120		88.7	80-120

<b>LCS (P4I1804-BS1)</b>		Prepared & Analyzed: 09/18/24					
Benzene	0.0953	0.00100	mg/L	0.100		95.3	80-120
Toluene	0.101	0.00100	"	0.100		101	80-120
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120
Xylene (p/m)	0.235	0.00200	"	0.200		117	80-120
Xylene (o)	0.103	0.00100	"	0.100		103	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.130		"	0.120		108	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.114		"	0.120		95.2	80-120

<b>LCS Dup (P4I1804-BSD1)</b>		Prepared & Analyzed: 09/18/24					
Benzene	0.101	0.00100	mg/L	0.100		101	80-120
Toluene	0.108	0.00100	"	0.100		108	80-120
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120
Xylene (p/m)	0.239	0.00200	"	0.200		120	80-120
Xylene (o)	0.110	0.00100	"	0.100		110	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.130		"	0.120		108	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.114		"	0.120		94.9	80-120

<b>Calibration Blank (P4I1804-CCB1)</b>		Prepared & Analyzed: 09/18/24					
Benzene	0.00		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.00		"				
Xylene (p/m)	0.00		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.124		"	0.120		103	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.105		"	0.120		87.6	80-120

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4I1804 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4I1804-CCB2)</b>		Prepared & Analyzed: 09/18/24					
Benzene	0.00		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.00		"				
Xylene (p/m)	0.170		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.127		"	0.120		106	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.107		"	0.120		88.9	80-120

<b>Calibration Check (P4I1804-CCV1)</b>		Prepared & Analyzed: 09/18/24					
Benzene	0.0978	0.00100	mg/L	0.100		97.8	80-120
Toluene	0.103	0.00100	"	0.100		103	80-120
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120
Xylene (p/m)	0.232	0.00200	"	0.200		116	80-120
Xylene (o)	0.104	0.00100	"	0.100		104	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.126		"	0.120		105	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.113		"	0.120		93.9	80-120

<b>Calibration Check (P4I1804-CCV2)</b>		Prepared & Analyzed: 09/18/24					
Benzene	0.101	0.00100	mg/L	0.100		101	80-120
Toluene	0.109	0.00100	"	0.100		109	80-120
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120
Xylene (o)	0.111	0.00100	"	0.100		111	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.130		"	0.120		108	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.113		"	0.120		94.3	80-120

<b>Calibration Check (P4I1804-CCV3)</b>		Prepared & Analyzed: 09/18/24					
Benzene	0.0955	0.00100	mg/L	0.100		95.5	80-120
Toluene	0.101	0.00100	"	0.100		101	80-120
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120
Xylene (p/m)	0.225	0.00200	"	0.200		112	80-120
Xylene (o)	0.104	0.00100	"	0.100		104	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.125		"	0.120		104	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.113		"	0.120		94.0	80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4I1804 - \*\*\* DEFAULT PREP \*\*\***

Matrix Spike (P4I1804-MS1)	Source: 4I17008-06			Prepared & Analyzed: 09/18/24					
Benzene	0.106	0.00100	mg/L	0.100	ND	106	80-120		
Toluene	0.114	0.00100	"	0.100	ND	114	80-120		
Ethylbenzene	0.119	0.00100	"	0.100	ND	119	80-120		
Xylene (p/m)	0.239	0.00200	"	0.200	ND	119	80-120		
Xylene (o)	0.113	0.00100	"	0.100	ND	113	80-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	0.127		"	0.120		106	80-120		
<i>Surrogate: 1,4-Difluorobenzene</i>	0.114		"	0.120		94.6	80-120		

Matrix Spike Dup (P4I1804-MSD1)	Source: 4I17008-06			Prepared & Analyzed: 09/18/24					
Benzene	0.107	0.00100	mg/L	0.100	ND	107	80-120	0.103	20
Toluene	0.113	0.00100	"	0.100	ND	113	80-120	0.787	20
Ethylbenzene	0.118	0.00100	"	0.100	ND	118	80-120	0.877	20
Xylene (p/m)	0.239	0.00200	"	0.200	ND	120	80-120	0.260	20
Xylene (o)	0.113	0.00100	"	0.100	ND	113	80-120	0.274	20
<i>Surrogate: 4-Bromofluorobenzene</i>	0.129		"	0.120		108	80-120		
<i>Surrogate: 1,4-Difluorobenzene</i>	0.115		"	0.120		95.5	80-120		

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

ROI	Received on Ice
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: \_\_\_\_\_ Date: 9/26/2024

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235



**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4I19004



**Current Certification**

Report Date: 09/26/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-17A	4I19004-01	Water	09/17/24 16:47	09-18-2024 16:34
MW-16A	4I19004-02	Water	09/17/24 16:20	09-18-2024 16:34
MW-15A	4I19004-03	Water	09/17/24 15:44	09-18-2024 16:34
MW-14A	4I19004-04	Water	09/17/24 14:56	09-18-2024 16:34
MW-13A	4I19004-05	Water	09/17/24 14:26	09-18-2024 16:34
MW-18A	4I19004-06	Water	09/17/24 10:31	09-18-2024 16:34

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-17A**  
**4I19004-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:08	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:08	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:08	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:08	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:08	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>		103 %	80-120		P4I2005	09/20/24 13:59	09/20/24 22:08	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		89.0 %	80-120		P4I2005	09/20/24 13:59	09/20/24 22:08	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 22:08	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 22:08	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-16A****4I19004-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:30	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:30	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:30	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:30	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:30	EPA 8021B
<i>Surrogate: 4-Bromo fluoro benzene</i>		103 %	80-120		P4I2005	09/20/24 13:59	09/20/24 22:30	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		88.8 %	80-120		P4I2005	09/20/24 13:59	09/20/24 22:30	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 22:30	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 22:30	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-15A****4I19004-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:52	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:52	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:52	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:52	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 22:52	EPA 8021B
<i>Surrogate: 4-Bromo fluoro benzene</i>		103 %	80-120		P4I2005	09/20/24 13:59	09/20/24 22:52	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		89.1 %	80-120		P4I2005	09/20/24 13:59	09/20/24 22:52	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 22:52	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 22:52	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-14A****4I19004-04 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:14	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:14	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:14	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:14	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:14	EPA 8021B
<i>Surrogate: 4-Bromo fluoro benzene</i>		103 %	80-120		P4I2005	09/20/24 13:59	09/20/24 23:14	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		88.6 %	80-120		P4I2005	09/20/24 13:59	09/20/24 23:14	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 23:14	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 23:14	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-13A**  
**4I19004-05 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:36	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:36	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:36	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:36	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:36	EPA 8021B
<i>Surrogate: 4-Bromo fluoro benzene</i>		104 %	80-120		P4I2005	09/20/24 13:59	09/20/24 23:36	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		88.9 %	80-120		P4I2005	09/20/24 13:59	09/20/24 23:36	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 23:36	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 23:36	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-18A****4I19004-06 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:57	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:57	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:57	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:57	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4I2005	09/20/24 13:59	09/20/24 23:57	EPA 8021B
<i>Surrogate: 4-Bromo</i> fluorobenzene		105 %	80-120		P4I2005	09/20/24 13:59	09/20/24 23:57	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		88.8 %	80-120		P4I2005	09/20/24 13:59	09/20/24 23:57	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 23:57	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	09/20/24 13:59	09/20/24 23:57	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4I2005 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4I2005-BLK1)</b>		Prepared & Analyzed: 09/20/24					
Benzene	ND	0.00100	mg/L				
Toluene	ND	0.00100	"				
Ethylbenzene	ND	0.00100	"				
Xylene (p/m)	ND	0.00200	"				
Xylene (o)	ND	0.00100	"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.128		"	0.120	106	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.106		"	0.120	88.1	80-120	

<b>LCS (P4I2005-BS1)</b>		Prepared & Analyzed: 09/20/24					
Benzene	0.0970	0.00100	mg/L	0.100	97.0	80-120	
Toluene	0.105	0.00100	"	0.100	105	80-120	
Ethylbenzene	0.119	0.00100	"	0.100	119	80-120	
Xylene (p/m)	0.238	0.00200	"	0.200	119	80-120	
Xylene (o)	0.108	0.00100	"	0.100	108	80-120	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.132		"	0.120	110	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.115		"	0.120	96.1	80-120	

<b>LCS Dup (P4I2005-BSD1)</b>		Prepared & Analyzed: 09/20/24					
Benzene	0.0962	0.00100	mg/L	0.100	96.2	80-120	0.735
Toluene	0.104	0.00100	"	0.100	104	80-120	0.383
Ethylbenzene	0.119	0.00100	"	0.100	119	80-120	0.0924
Xylene (p/m)	0.237	0.00200	"	0.200	118	80-120	0.484
Xylene (o)	0.107	0.00100	"	0.100	107	80-120	0.986
<i>Surrogate: 4-Bromofluorobenzene</i>	0.132		"	0.120	110	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.115		"	0.120	95.9	80-120	

<b>Calibration Blank (P4I2005-CCB1)</b>		Prepared & Analyzed: 09/20/24					
Benzene	0.00		ug/l				
Toluene	0.400		"				
Ethylbenzene	0.00		"				
Xylene (p/m)	0.00		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.126		"	0.120	105	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.105		"	0.120	87.2	80-120	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4I2005 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4I2005-CCB2)</b>		Prepared & Analyzed: 09/20/24					
Benzene	0.00		ug/l				
Toluene	0.300		"				
Ethylbenzene	0.230		"				
Xylene (p/m)	0.250		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.125		"	0.120		104	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.106		"	0.120		88.6	80-120

<b>Calibration Blank (P4I2005-CCB3)</b>		Prepared: 09/20/24 Analyzed: 09/21/24					
Benzene	0.00		ug/l				
Toluene	0.00		"				
Ethylbenzene	0.00		"				
Xylene (p/m)	0.00		"				
Xylene (o)	0.00		"				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.123		"	0.120		102	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.106		"	0.120		88.6	80-120

<b>Calibration Check (P4I2005-CCV1)</b>		Prepared & Analyzed: 09/20/24					
Benzene	0.102	0.00100	mg/L	0.100		102	80-120
Toluene	0.110	0.00100	"	0.100		110	80-120
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120
Xylene (p/m)	0.240	0.00200	"	0.200		120	80-120
Xylene (o)	0.112	0.00100	"	0.100		112	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.123		"	0.120		102	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.110		"	0.120		91.2	80-120

<b>Calibration Check (P4I2005-CCV2)</b>		Prepared & Analyzed: 09/20/24					
Benzene	0.104	0.00100	mg/L	0.100		104	80-120
Toluene	0.110	0.00100	"	0.100		110	80-120
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120
Xylene (p/m)	0.239	0.00200	"	0.200		119	80-120
Xylene (o)	0.112	0.00100	"	0.100		112	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.124		"	0.120		103	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.110		"	0.120		91.8	80-120

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4I2005 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Check (P4I2005-CCV3)</b>				Prepared: 09/20/24 Analyzed: 09/21/24			
Benzene	0.100	0.00100	mg/L	0.100	100	80-120	
Toluene	0.109	0.00100	"	0.100	109	80-120	
Ethylbenzene	0.111	0.00100	"	0.100	111	80-120	
Xylene (p/m)	0.239	0.00200	"	0.200	120	80-120	
Xylene (o)	0.110	0.00100	"	0.100	110	80-120	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.125		"	0.120	104	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.110		"	0.120	91.5	80-120	

<b>Matrix Spike (P4I2005-MS1)</b>				Source: 4I19003-14 Prepared: 09/20/24 Analyzed: 09/21/24			
Benzene	0.0825	0.00100	mg/L	0.100	ND	82.5	80-120
Toluene	0.0838	0.00100	"	0.100	ND	83.8	80-120
Ethylbenzene	0.0926	0.00100	"	0.100	ND	92.6	80-120
Xylene (p/m)	0.191	0.00200	"	0.200	ND	95.6	80-120
Xylene (o)	0.0821	0.00100	"	0.100	ND	82.1	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.126		"	0.120	105	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.112		"	0.120	93.4	80-120	

<b>Matrix Spike Dup (P4I2005-MSD1)</b>				Source: 4I19003-14 Prepared: 09/20/24 Analyzed: 09/21/24			
Benzene	0.115	0.00100	mg/L	0.100	ND	115	80-120 33.3 20 R3
Toluene	0.124	0.00100	"	0.100	ND	124	80-120 38.9 20 R3
Ethylbenzene	0.140	0.00100	"	0.100	ND	140	80-120 41.0 20 R3
Xylene (p/m)	0.276	0.00200	"	0.200	ND	138	80-120 36.2 20 R3
Xylene (o)	0.124	0.00100	"	0.100	ND	124	80-120 40.7 20 R3
<i>Surrogate: 4-Bromofluorobenzene</i>	0.126		"	0.120	105	80-120	
<i>Surrogate: 1,4-Difluorobenzene</i>	0.112		"	0.120	93.4	80-120	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

ROI	Received on Ice
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 9/26/2024

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

PBL LAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, TX 79701

tal Lab, LP

Phone: 432-686-7235

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4L12009



**Current Certification**

Report Date: 12/17/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-11A	4L12009-01	Water	12/12/24 10:58	12-12-2024 14:51
MW-21	4L12009-02	Water	12/12/24 09:52	12-12-2024 14:51
MW-10A	4L12009-03	Water	12/12/24 08:43	12-12-2024 14:51

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-11A**  
**4L12009-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 17:51	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 17:51	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 17:51	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 17:51	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 17:51	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		75.2 %	80-120		P4L1312	12/13/24 15:21	12/14/24 17:51	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		101 %	80-120		P4L1312	12/13/24 15:21	12/14/24 17:51	EPA 8021B	
Total BTEX	ND	0.00100	mg/L	1	[CALC]	12/13/24 15:21	12/14/24 17:51	EPA 8021B	
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	12/13/24 15:21	12/14/24 17:51	EPA 8021B	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-21**  
**4L12009-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 18:14	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 18:14	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 18:14	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 18:14	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 18:14	EPA 8021B	
<i>Surrogate: 4-Bromo</i> fluorobenzene		73.0 %	80-120		P4L1312	12/13/24 15:21	12/14/24 18:14	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		103 %	80-120		P4L1312	12/13/24 15:21	12/14/24 18:14	EPA 8021B	
Total BTEX	ND	0.00100	mg/L	1	[CALC]	12/13/24 15:21	12/14/24 18:14	EPA 8021B	
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	12/13/24 15:21	12/14/24 18:14	EPA 8021B	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-10A**  
**4L12009-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 18:36	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 18:36	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 18:36	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 18:36	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4L1312	12/13/24 15:21	12/14/24 18:36	EPA 8021B	
<i>Surrogate: 4-Bromo</i> fluorobenzene		74.8 %	80-120		P4L1312	12/13/24 15:21	12/14/24 18:36	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		103 %	80-120		P4L1312	12/13/24 15:21	12/14/24 18:36	EPA 8021B	
Total BTEX	ND	0.00100	mg/L	1	[CALC]	12/13/24 15:21	12/14/24 18:36	EPA 8021B	
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	12/13/24 15:21	12/14/24 18:36	EPA 8021B	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4L1312 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4L1312-BLK1)</b>		Prepared: 12/13/24 Analyzed: 12/14/24								
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.0896		"	0.120		74.6	80-120			S-GC
Surrogate: 1,4-Difluorobenzene	0.123		"	0.120		103	80-120			

<b>LCS (P4L1312-BS1)</b>		Prepared: 12/13/24 Analyzed: 12/14/24								
Benzene	0.0971	0.00100	mg/L	0.100		97.1	80-120			
Toluene	0.0916	0.00100	"	0.100		91.6	80-120			
Ethylbenzene	0.0994	0.00100	"	0.100		99.4	80-120			
Xylene (p/m)	0.192	0.00200	"	0.200		96.0	80-120			
Xylene (o)	0.0883	0.00100	"	0.100		88.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.0926		"	0.120		77.2	80-120			S-GC
Surrogate: 1,4-Difluorobenzene	0.131		"	0.120		109	80-120			

<b>LCS Dup (P4L1312-BSD1)</b>		Prepared: 12/13/24 Analyzed: 12/14/24								
Benzene	0.101	0.00100	mg/L	0.100		101	80-120	3.53	20	
Toluene	0.0960	0.00100	"	0.100		96.0	80-120	4.75	20	
Ethylbenzene	0.105	0.00100	"	0.100		105	80-120	5.88	20	
Xylene (p/m)	0.202	0.00200	"	0.200		101	80-120	5.02	20	
Xylene (o)	0.0926	0.00100	"	0.100		92.6	80-120	4.73	20	
Surrogate: 4-Bromofluorobenzene	0.0930		"	0.120		77.5	80-120			S-GC
Surrogate: 1,4-Difluorobenzene	0.130		"	0.120		108	80-120			

<b>Calibration Blank (P4L1312-CCB1)</b>		Prepared: 12/13/24 Analyzed: 12/14/24								
Benzene	0.250		ug/l							
Toluene	0.00		"							
Ethylbenzene	0.370		"							
Xylene (p/m)	0.390		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.0909		"	0.120		75.7	80-120			S-GC
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		102	80-120			

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Notes
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**Batch P4L1312 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4L1312-CCB2)</b>		Prepared: 12/13/24 Analyzed: 12/14/24						
Benzene	0.00		ug/l					
Toluene	0.00		"					
Ethylbenzene	0.160		"					
Xylene (p/m)	0.260		"					
Xylene (o)	0.00		"					
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0894		"	0.120	74.5	80-120		S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>	0.122		"	0.120	102	80-120		

<b>Calibration Check (P4L1312-CCV1)</b>		Prepared: 12/13/24 Analyzed: 12/14/24						
Benzene	0.107	0.00100	mg/L	0.100	107	80-120		
Toluene	0.103	0.00100	"	0.100	103	80-120		
Ethylbenzene	0.103	0.00100	"	0.100	103	80-120		
Xylene (p/m)	0.214	0.00200	"	0.200	107	80-120		
Xylene (o)	0.101	0.00100	"	0.100	101	80-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0928		"	0.120	77.3	80-120		S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>	0.130		"	0.120	108	80-120		

<b>Calibration Check (P4L1312-CCV2)</b>		Prepared: 12/13/24 Analyzed: 12/14/24						
Benzene	0.106	0.00100	mg/L	0.100	106	80-120		
Toluene	0.0986	0.00100	"	0.100	98.6	80-120		
Ethylbenzene	0.0962	0.00100	"	0.100	96.2	80-120		
Xylene (p/m)	0.203	0.00200	"	0.200	102	80-120		
Xylene (o)	0.0958	0.00100	"	0.100	95.8	80-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0929		"	0.120	77.4	80-120		S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>	0.130		"	0.120	108	80-120		

<b>Calibration Check (P4L1312-CCV3)</b>		Prepared: 12/13/24 Analyzed: 12/15/24						
Benzene	0.101	0.00100	mg/L	0.100	101	80-120		
Toluene	0.0948	0.00100	"	0.100	94.8	80-120		
Ethylbenzene	0.0938	0.00100	"	0.100	93.8	80-120		
Xylene (p/m)	0.201	0.00200	"	0.200	101	80-120		
Xylene (o)	0.0936	0.00100	"	0.100	93.6	80-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0920		"	0.120	76.7	80-120		S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>	0.130		"	0.120	108	80-120		

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4L1312 - \*\*\* DEFAULT PREP \*\*\***

Matrix Spike (P4L1312-MS1)	Source: 4L12007-02			Prepared: 12/13/24 Analyzed: 12/15/24					
Benzene	0.332	0.00100	mg/L	0.100	0.304	28.7	80-120		QM-05
Toluene	0.0783	0.00100	"	0.100	0.00159	76.7	80-120		QM-05
Ethylbenzene	0.121	0.00100	"	0.100	0.0244	96.4	80-120		
Xylene (p/m)	0.208	0.00200	"	0.200	0.0386	84.5	80-120		
Xylene (o)	0.0695	0.00100	"	0.100	ND	69.5	80-120		QM-05
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0915		"	0.120		76.2	80-120		S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>	0.124		"	0.120		103	80-120		

Matrix Spike Dup (P4L1312-MSD1)	Source: 4L12007-02			Prepared: 12/13/24 Analyzed: 12/15/24					
Benzene	0.309	0.00100	mg/L	0.100	0.304	4.99	80-120	141	20 QM-05
Toluene	0.0670	0.00100	"	0.100	0.00159	65.4	80-120	15.9	20 QM-05
Ethylbenzene	0.109	0.00100	"	0.100	0.0244	85.0	80-120	12.5	20
Xylene (p/m)	0.184	0.00200	"	0.200	0.0386	72.8	80-120	14.8	20 QM-05
Xylene (o)	0.0591	0.00100	"	0.100	ND	59.1	80-120	16.3	20 QM-05
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0910		"	0.120		75.8	80-120		S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>	0.125		"	0.120		104	80-120		

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 12/17/2024

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

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PROMPT

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**YSIS REQUEST** L: \_\_\_\_\_ CH: \_\_\_\_\_ W:  
Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701  
Phone: 432-686-7235

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4L12010



**Current Certification**

Report Date: 12/27/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-11A	4L12010-01	Water	12/12/24 10:58	12-12-2024 14:51
MW-21	4L12010-02	Water	12/12/24 09:52	12-12-2024 14:51
MW-10A	4L12010-03	Water	12/12/24 08:43	12-12-2024 14:51

RSK-175, Dissolved Fe and Mn, Alkalinity, Nitrate and Sulfate analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:

[https://www.tceq.texas.gov/assets/public/compliance/compliance\\_support/qa/labs/als\\_svcs\\_houston.pdf](https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf)

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-11A**  
**4L12010-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Permian Basin Environmental Lab, L.P.</b>									
<b>Organics by GC</b>									
Ethane ND 0.00100 mg/L 1 P4L2710 12/18/24 00:00 12/20/24 14:00 8015M SUB-13 Ethene ND 0.00100 mg/L 1 P4L2710 12/18/24 00:00 12/20/24 14:00 8015M SUB-13 <b>Methane</b> <b>0.00141</b> 0.000500 mg/L 1 P4L2710 12/18/24 00:00 12/20/24 14:00 8015M SUB-13									
<b>General Chemistry Parameters by EPA / Standard Methods</b>									
<b>Alkalinity as CaCO<sub>3</sub></b> <b>344</b> 5.00 mg/L 1 P4L2710 12/19/24 16:35 12/19/24 16:35 EPA 310.1M SUB-13 <b>Nitrate as N</b> <b>2.10</b> 0.100 mg/L 1 P4L2710 12/18/24 00:00 12/21/24 10:44 EPA 300.0 O-04, SUB-13 <b>Sulfate</b> <b>80.2</b> 0.500 mg/L 1 P4L2710 12/18/24 00:00 12/21/24 10:44 EPA 300.0 SUB-13									
<b>Dissolved Metals by EPA / Standard Methods</b>									
Iron ND 0.200 mg/L 1 P4L2710 12/18/24 00:00 12/21/24 17:32 EPA 6020A SUB-13 <b>Manganese</b> <b>0.00667</b> 0.00500 mg/L 1 P4L2710 12/18/24 00:00 12/21/24 17:32 EPA 6020A SUB-13									

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-21****4L12010-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4L2710	12/18/24 00:00	12/20/24 14:18	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4L2710	12/18/24 00:00	12/20/24 14:18	8015M	SUB-13
<b>Methane</b>	<b>0.00147</b>	<b>0.000500</b>	mg/L	1	P4L2710	12/18/24 00:00	12/20/24 14:18	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Alkalinity as CaCO<sub>3</sub></b>	<b>303</b>	5.00	mg/L	1	P4L2710	12/19/24 16:41	12/19/24 16:41	EPA 310.1M	SUB-13
<b>Nitrate as N</b>	<b>1.32</b>	0.100	mg/L	1	P4L2710	12/18/24 00:00	12/21/24 10:50	EPA 300.0	O-04, SUB-13
<b>Sulfate</b>	<b>63.4</b>	0.500	mg/L	1	P4L2710	12/18/24 00:00	12/21/24 10:50	EPA 300.0	SUB-13

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4L2710	12/18/24 00:00	12/21/24 17:34	EPA 6020A	SUB-13
<b>Manganese</b>	<b>0.261</b>	<b>0.00500</b>	mg/L	1	P4L2710	12/18/24 00:00	12/21/24 17:34	EPA 6020A	SUB-13

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-10A****4L12010-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4L2710	12/18/24 00:00	12/20/24 14:26	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4L2710	12/18/24 00:00	12/20/24 14:26	8015M	SUB-13
<b>Methane</b>	<b>0.000965</b>	<b>0.000500</b>	mg/L	1	P4L2710	12/18/24 00:00	12/20/24 14:26	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Alkalinity as CaCO<sub>3</sub></b>	<b>286</b>	5.00	mg/L	1	P4L2710	12/19/24 16:47	12/19/24 16:47	EPA 310.1M	SUB-13
<b>Nitrate as N</b>	<b>1.64</b>	0.100	mg/L	1	P4L2710	12/18/24 00:00	12/21/24 10:55	EPA 300.0	O-04, SUB-13
<b>Sulfate</b>	<b>66.8</b>	0.500	mg/L	1	P4L2710	12/18/24 00:00	12/21/24 10:55	EPA 300.0	SUB-13

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4L2710	12/18/24 00:00	12/21/24 17:37	EPA 6020A	SUB-13
<b>Manganese</b>	<b>0.0106</b>	<b>0.00500</b>	mg/L	1	P4L2710	12/18/24 00:00	12/21/24 17:37	EPA 6020A	SUB-13

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

SUB-13	Subcontract of analyte/analysis to ALS Houston.
ROI	Received on Ice
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
O-04	This sample was analyzed outside the EPA recommended holding time.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 12/27/2024

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

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**PBBELAB****CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

Permian Basin Environmental Lab, LP

L:

CH:

W:

1400 Rankin Hwy  
Midland, Texas 79701

Project Name: CS Caylor

Project #: Plains All American Pipeline

Project Manager: David Adkins

Talon LPE

Company Name: 408 Texas St.

Artesia, NM 88210

City/State/Zip: 575-441-4835

Telephone No:

Fax No:

e-mail: dackins@talonlpe.com, rgomez@talonlpe.com

Report Format:  Standard  TRAP  NPDES

PO #: SRS# 2002-10250

Sampler Signature: Bartek Gomez  
(lab use only)ORDER #: 4L12010  
(lab use only)**Analyze For:**

FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Preservation & # of Containers		Matrix	TCPL:	TOTAL:
					Total #, of Containers	Field Filtered			
MW-1A	12-12-24	10:59	5	5	1	3	1	GW	X
MW-81	12-12-24	9:53	5	5	1	3	1	GW	X
MW-10A	12-12-24	8:43	5	5	1	3	1	GW	X

RUSH TAT (Pre-Schedule) 24, 48, 72 h  
Standard TAT**Special Instructions:**

Email Analyticals to: CJBryant@paalp.com, Macchoa@paalp.com, and KHudgens@paalp.com

Received by:	Date	Time	Received by:	Date	Time	Laboratory Comments:
<u>Matthew Beasley</u>	12/12/24	2:51				VOCs Free of Headspace? Labels on container(s) Custody seals on container(s) Custody seals on cooler(s) Sample Hand Delivered by Sampler/Client Rep.? by Courier? Temperature Upon Receipt: Adjusted: <u>42.5 °C</u> Thermometer: <u>NIST</u>
Relinquished by:	Date	Time	Received by:	Date	Time	
Relinquished by:	Date	Time	Received by:	Date	Time	



## **CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701**

**Phone: 432-686-7235**  
**PBELAB SUB COC V2**

Project Manager: Brent Barron

**Project Name:** SUBCONTRACT

Company Name PBEL

**Project #:**

Company Address: 1400 Rankin HWY

**Project Loc:**

City/State/Zip: Midland Texas 79701

**PO #:**

Telephone No: 432-661-4184 Fax No:

Fax No:

**Report Format:**  Standard  TRRP  NPDES

Sampler Signature: N/A e-mail: brentbarron@pbelab.com

e-mail: [brentbarron@pbelab.com](mailto:brentbarron@pbelab.com)

Please add tressa@pbelab.com to woa's. This is all the sample that was available please analyze. 24 HR. RUSH PLEASE.

Laboratory Comments:					
Sample Containers Intact?			Y	N	
VOCs Free of Headspace?			Y	N	
Labels on container(s)			Y	N	
Custody seals on container(s)			Y	N	
Custody seals on cooler(s)			Y	N	
Sample Hand Delivered			Y	N	
by Sampler/Client Rep. ?			Y	N	
by Courier?      UPS      DHL      FedEx      Lone Star					
Temperature Upon Receipt:					
Received:			°C		
Adjusted:			°C Factor		

Relinquished by: **Brent Barron** 12/12/2024 17:00 Received by: **Dan**

Relinquished by: **Brent Barron** 12/12/2024 17:00 Received by: **Dan**

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_



right solutions.  
right partner.

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10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
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December 24, 2024

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS24120839**

Laboratory Results for: **4L12010**

Dear Brent Barron,

ALS Environmental received 3 sample(s) on Dec 13, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL  
Jessica Monfore  
Project manager

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alsglobal.com

**ALS Houston, US**

Date: 24-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L12010  
**Work Order:** HS24120839

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24120839-01	4L12010-01	Water		12-Dec-2024 10:58	13-Dec-2024 09:30	<input type="checkbox"/>
HS24120839-02	4L12010-02	Water		12-Dec-2024 09:52	13-Dec-2024 09:30	<input type="checkbox"/>
HS24120839-03	4L12010-03	Water		12-Dec-2024 08:43	13-Dec-2024 09:30	<input type="checkbox"/>

**ALS Houston, US**

Date: 24-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L12010  
**Work Order:** HS24120839

**CASE NARRATIVE****Work Order Comments**

- Sulfate, Nitrate, and Nitrite added. Run outside of HT per PBE.

**GC Semivolatiles by Method RSK-175****Batch ID: R502881**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**Metals by Method SW6020A****Batch ID: 222025**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**WetChemistry by Method E300****Batch ID: R503004****Sample ID: 4L12010-01 (HS24120839-01)**

- Sample was analyzed outside of the holding time at the request of the client. Results should be considered estimated.

**Sample ID: 4L12010-02 (HS24120839-02)**

- Sample was analyzed outside of the holding time at the request of the client. Results should be considered estimated.

**Sample ID: 4L12010-03 (HS24120839-03)**

- Sample was analyzed outside of the holding time at the request of the client. Results should be considered estimated.

**Sample ID: HS24121272-01MS**

- MS and MSD are for an unrelated sample (Sulfate)

**WetChemistry by Method SM2320B****Batch ID: R502868**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 24-Dec-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4L12010  
 Sample ID: 4L12010-01  
 Collection Date: 12-Dec-2024 10:58

**ANALYTICAL REPORT**  
 WorkOrder:HS24120839  
 Lab ID:HS24120839-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>					
Ethane	ND		1.00	ug/L	1	20-Dec-2024 14:00	
Ethene	ND		1.00	ug/L	1	20-Dec-2024 14:00	
Methane	1.41		0.500	ug/L	1	20-Dec-2024 14:00	
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>					
Iron	ND		0.200	mg/L	1	21-Dec-2024 17:32	
Manganese	0.00667		0.00500	mg/L	1	21-Dec-2024 17:32	
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					
Nitrogen, Nitrate (As N)	2.10	H	0.100	mg/L	1	21-Dec-2024 10:44	
Nitrogen, Nitrite (As N)	ND	H	0.100	mg/L	1	21-Dec-2024 10:44	
Sulfate	80.2		0.500	mg/L	1	21-Dec-2024 10:44	
<b>ALKALINITY BY -2011</b>		<b>Method:SM2320B</b>					
Alkalinity, Total (As CaCO <sub>3</sub> )	344		5.00	mg/L	1	19-Dec-2024 16:35	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Dec-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4L12010  
 Sample ID: 4L12010-02  
 Collection Date: 12-Dec-2024 09:52

**ANALYTICAL REPORT**  
 WorkOrder:HS24120839  
 Lab ID:HS24120839-02  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>					
Ethane	ND		1.00	ug/L	1	20-Dec-2024 14:18	
Ethene	ND		1.00	ug/L	1	20-Dec-2024 14:18	
Methane	<b>1.47</b>		<b>0.500</b>	<b>ug/L</b>	1	20-Dec-2024 14:18	
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>					
Iron	ND		0.200	mg/L	1	21-Dec-2024 17:34	
Manganese	<b>0.261</b>		<b>0.00500</b>	<b>mg/L</b>	1	21-Dec-2024 17:34	
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					
Nitrogen, Nitrate (As N)	<b>1.32</b>	H	<b>0.100</b>	<b>mg/L</b>	1	21-Dec-2024 10:50	
Nitrogen, Nitrite (As N)	ND	H	0.100	mg/L	1	21-Dec-2024 10:50	
Sulfate	<b>63.4</b>		<b>0.500</b>	<b>mg/L</b>	1	21-Dec-2024 10:50	
<b>ALKALINITY BY -2011</b>		<b>Method:SM2320B</b>					
Alkalinity, Total (As CaCO <sub>3</sub> )	<b>303</b>		<b>5.00</b>	<b>mg/L</b>	1	19-Dec-2024 16:41	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 24-Dec-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4L12010  
 Sample ID: 4L12010-03  
 Collection Date: 12-Dec-2024 08:43

**ANALYTICAL REPORT**  
 WorkOrder:HS24120839  
 Lab ID:HS24120839-03  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>					
Ethane	ND		1.00	ug/L	1	20-Dec-2024 14:26	
Ethene	ND		1.00	ug/L	1	20-Dec-2024 14:26	
Methane	<b>0.965</b>		<b>0.500</b>	<b>ug/L</b>	<b>1</b>	20-Dec-2024 14:26	
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>					
Iron	ND		0.200	mg/L	1	21-Dec-2024 17:37	
Manganese	<b>0.0106</b>		<b>0.00500</b>	<b>mg/L</b>	<b>1</b>	21-Dec-2024 17:37	
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					
Nitrogen, Nitrate (As N)	<b>1.64</b>	H	<b>0.100</b>	<b>mg/L</b>	<b>1</b>	21-Dec-2024 10:55	
Nitrogen, Nitrite (As N)	ND	H	0.100	mg/L	1	21-Dec-2024 10:55	
Sulfate	<b>66.8</b>		<b>0.500</b>	<b>mg/L</b>	<b>1</b>	21-Dec-2024 10:55	
<b>ALKALINITY BY -2011</b>		<b>Method:SM2320B</b>					
Alkalinity, Total (As CaCO <sub>3</sub> )	<b>286</b>		<b>5.00</b>	<b>mg/L</b>	<b>1</b>	19-Dec-2024 16:47	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Weight / Prep Log****Client:** Permian Basin Environmental Lab, LP**Project:** 4L12010**WorkOrder:** HS24120839**Batch ID:** 221848**Start Date:** 14 Dec 2024 14:30**End Date:** 14 Dec 2024 14:30**Method:** SAMPLE FILTRATION - 0.45 MICRON FILTER**Prep Code:** FILTRATION

<b>Sample ID</b>	<b>Container</b>	<b>Sample Wt/Vol</b>	<b>Final Volume</b>	<b>Prep Factor</b>	
HS24120839-01		100 (mL)	100 (mL)	1	250 mL plastic, Neat
HS24120839-02		100 (mL)	100 (mL)	1	250 mL plastic, Neat
HS24120839-03		100 (mL)	100 (mL)	1	250 mL plastic, Neat

**Batch ID:** 222025**Start Date:** 18 Dec 2024 14:00**End Date:** 18 Dec 2024 14:00**Method:** DISS METALS PREP - WATER - SW3010A**Prep Code:** 3010A DISS

<b>Sample ID</b>	<b>Container</b>	<b>Sample Wt/Vol</b>	<b>Final Volume</b>	<b>Prep Factor</b>	
HS24120839-01		10 (mL)	10 (mL)	1	250 mL plastic, Neat
HS24120839-02		10 (mL)	10 (mL)	1	250 mL plastic, Neat
HS24120839-03		10 (mL)	10 (mL)	1	250 mL plastic, Neat

ALS Houston, US

Date: 24-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L12010  
**WorkOrder:** HS24120839

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 222025 ( 0 )		<b>Test Name :</b> DISSOLVED METALS BY SW6020A				
HS24120839-01	4L12010-01	12 Dec 2024 10:58		18 Dec 2024 14:00	21 Dec 2024 17:32	1
HS24120839-02	4L12010-02	12 Dec 2024 09:52		18 Dec 2024 14:00	21 Dec 2024 17:34	1
HS24120839-03	4L12010-03	12 Dec 2024 08:43		18 Dec 2024 14:00	21 Dec 2024 17:37	1
<b>Batch ID:</b> R502868 ( 0 )		<b>Test Name :</b> ALKALINITY BY -2011				
HS24120839-01	4L12010-01	12 Dec 2024 10:58			19 Dec 2024 16:35	1
HS24120839-02	4L12010-02	12 Dec 2024 09:52			19 Dec 2024 16:41	1
HS24120839-03	4L12010-03	12 Dec 2024 08:43			19 Dec 2024 16:47	1
<b>Batch ID:</b> R502881 ( 0 )		<b>Test Name :</b> DISSOLVED GASES BY RSK-175				
HS24120839-01	4L12010-01	12 Dec 2024 10:58			20 Dec 2024 14:00	1
HS24120839-02	4L12010-02	12 Dec 2024 09:52			20 Dec 2024 14:18	1
HS24120839-03	4L12010-03	12 Dec 2024 08:43			20 Dec 2024 14:26	1
<b>Batch ID:</b> R503004 ( 0 )		<b>Test Name :</b> ANIONS BY E300.0, REV 2.1, 1993				
HS24120839-01	4L12010-01	12 Dec 2024 10:58			21 Dec 2024 10:44	1
HS24120839-02	4L12010-02	12 Dec 2024 09:52			21 Dec 2024 10:50	1
HS24120839-03	4L12010-03	12 Dec 2024 08:43			21 Dec 2024 10:55	1

ALS Houston, US

Date: 24-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L12010  
**WorkOrder:** HS24120839

**QC BATCH REPORT**

**Batch ID:** R502881 ( 0 )      **Instrument:** FID-4      **Method:** DISSOLVED GASES BY RSK-175

<b>MLBK</b>	Sample ID: <b>MLBK-241220</b>	Units: ug/L		Analysis Date: <b>20-Dec-2024 09:30</b>			
Client ID:	Run ID: <b>FID-4_502881</b>		SeqNo: <b>8602300</b>		PrepDate:	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual

Ethane	ND	1.00
Ethene	ND	1.00
Methane	ND	0.500

**LCS**      Sample ID: **LCS-241220**      Units: ug/L      Analysis Date: **20-Dec-2024 09:41**

Client ID:	Run ID: <b>FID-4_502881</b>	SeqNo: <b>8602301</b>	PrepDate:	DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC Control Limit RPD Ref Value %RPD Limit Qual

Ethane	15.71	1.00	18.04	0	87.1	75 - 125
Ethene	15.68	1.00	16.8	0	93.3	75 - 125
Methane	8.736	0.500	9.647	0	90.6	75 - 125

**LCSD**      Sample ID: **LCSD-241220**      Units: ug/L      Analysis Date: **20-Dec-2024 09:51**

Client ID:	Run ID: <b>FID-4_502881</b>	SeqNo: <b>8602302</b>	PrepDate:	DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC Control Limit RPD Ref Value %RPD Limit Qual

Ethane	15.5	1.00	18.04	0	85.9	75 - 125	15.71	1.37	30
Ethene	15.75	1.00	16.8	0	93.8	75 - 125	15.68	0.502	30
Methane	8.296	0.500	9.647	0	86.0	75 - 125	8.736	5.18	30

The following samples were analyzed in this batch: HS24120839-01      HS24120839-02      HS24120839-03

ALS Houston, US

Date: 24-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L12010  
**WorkOrder:** HS24120839

**QC BATCH REPORT**

Batch ID: 222025 ( 0 )		Instrument: ICPMS05		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)	
MBLK	Sample ID: MBLKF1-222025	Units: mg/L		Analysis Date: 21-Dec-2024 16:30	
Client ID:		Run ID: ICPMS05_502978	SeqNo: 8605069	PrepDate: 18-Dec-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD Limit Qual
Iron	ND	0.200			
Manganese	ND	0.00500			
MBLK	Sample ID: MBLK-222025	Units: mg/L		Analysis Date: 21-Dec-2024 16:27	
Client ID:		Run ID: ICPMS05_502978	SeqNo: 8605068	PrepDate: 18-Dec-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD Limit Qual
Iron	ND	0.200			
Manganese	ND	0.00500			
LCS	Sample ID: LCS-222025	Units: mg/L		Analysis Date: 21-Dec-2024 16:32	
Client ID:		Run ID: ICPMS05_502978	SeqNo: 8605070	PrepDate: 18-Dec-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD Limit Qual
Iron	4.676	0.200	5	0 93.5	80 - 120
Manganese	0.04504	0.00500	0.05	0 90.1	80 - 120
MS	Sample ID: HS24120837-03MS	Units: mg/L		Analysis Date: 21-Dec-2024 17:02	
Client ID:		Run ID: ICPMS05_502978	SeqNo: 8605100	PrepDate: 18-Dec-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD Limit Qual
Iron	4.7	0.200	5	0.007293 93.8	75 - 125
Manganese	0.05955	0.00500	0.05	0.01454 90.0	75 - 125
MSD	Sample ID: HS24120837-03MSD	Units: mg/L		Analysis Date: 21-Dec-2024 17:05	
Client ID:		Run ID: ICPMS05_502978	SeqNo: 8605101	PrepDate: 18-Dec-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD Limit Qual
Iron	4.607	0.200	5	0.007293 92.0	75 - 125 4.7 1.99 20
Manganese	0.05983	0.00500	0.05	0.01454 90.6	75 - 125 0.05955 0.466 20

ALS Houston, US

Date: 24-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L12010  
**WorkOrder:** HS24120839

**QC BATCH REPORT**

Batch ID: 222025 ( 0 )		Instrument: ICPMS05		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)	
PDS	Sample ID: HS24120837-03PDS	Units: mg/L		Analysis Date: 21-Dec-2024 17:07	
Client ID:		Run ID: ICPMS05_502978	SeqNo: 8605102	PrepDate: 18-Dec-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD
Iron	9.212	0.200	10	0.007293 92.0	75 - 125 RPD Limit Qual
Manganese	0.1053	0.00500	0.1	0.01454 90.8	75 - 125
SD	Sample ID: HS24120837-03SD	Units: mg/L		Analysis Date: 21-Dec-2024 17:00	
Client ID:		Run ID: ICPMS05_502978	SeqNo: 8605099	PrepDate: 18-Dec-2024	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %D
Iron	ND	1.00			0.007293 0 10
Manganese	0.01469	0.0250			0.01454 0 10 J

The following samples were analyzed in this batch: HS24120839-01 HS24120839-02 HS24120839-03

ALS Houston, US

Date: 24-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L12010  
**WorkOrder:** HS24120839

**QC BATCH REPORT**

**Batch ID:** R502868 (0)      **Instrument:** Skalar 03      **Method:** ALKALINITY BY -2011

MBLK	Sample ID:	MBLK-12192024	Units:	mg/L	Analysis Date: 19-Dec-2024 15:16		
Client ID:		Run ID: Skalar 03_502868	SeqNo:	8602060	PrepDate:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual

Alkalinity, Total (As CaCO3)      ND      5.00

LCS	Sample ID:	LCS-12192024	Units:	mg/L	Analysis Date: 19-Dec-2024 15:22		
Client ID:		Run ID: Skalar 03_502868	SeqNo:	8602061	PrepDate:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual

Alkalinity, Total (As CaCO3)      945.5      5.00      1000      0      94.6      85 - 115

LCSD	Sample ID:	LCSD-12192024	Units:	mg/L	Analysis Date: 19-Dec-2024 15:28		
Client ID:		Run ID: Skalar 03_502868	SeqNo:	8602062	PrepDate:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual

Alkalinity, Total (As CaCO3)      948.9      5.00      1000      0      94.9      85 - 115      945.5      0.359 20

DUP	Sample ID:	HS24120841-01DUP	Units:	mg/L	Analysis Date: 19-Dec-2024 15:40		
Client ID:		Run ID: Skalar 03_502868	SeqNo:	8602064	PrepDate:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual

Alkalinity, Total (As CaCO3)      332.8      5.00      335.1      0.689 20

The following samples were analyzed in this batch: HS24120839-01      HS24120839-02      HS24120839-03

ALS Houston, US

Date: 24-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L12010  
**WorkOrder:** HS24120839

**QC BATCH REPORT**

**Batch ID:** R503004 (0)      **Instrument:** ICS-Integrion      **Method:** ANIONS BY E300.0, REV 2.1, 1993

<b>MBLK</b>	Sample ID:	MBLK	Units:	mg/L	Analysis Date: 21-Dec-2024 07:25				
Client ID:			Run ID:	ICS-Integrion_503004	SeqNo: 8605516	PrepDate:	DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD	RPD Limit Qual

Nitrogen, Nitrate (As N)	ND	0.100
Nitrogen, Nitrite (As N)	ND	0.100
Sulfate	ND	0.500

<b>LCS</b>	Sample ID:	LCS	Units:	mg/L	Analysis Date: 21-Dec-2024 07:31				
Client ID:			Run ID:	ICS-Integrion_503004	SeqNo: 8605517	PrepDate:	DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD	RPD Limit Qual

Nitrogen, Nitrate (As N)	3.82	0.100	4	0	95.5	90 - 110
Nitrogen, Nitrite (As N)	3.961	0.100	4	0	99.0	90 - 110
Sulfate	18.49	0.500	20	0	92.5	90 - 110

<b>MS</b>	Sample ID:	HS24121272-01MS	Units:	mg/L	Analysis Date: 21-Dec-2024 07:48				
Client ID:			Run ID:	ICS-Integrion_503004	SeqNo: 8605519	PrepDate:	DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD	RPD Limit Qual

Nitrogen, Nitrate (As N)	2.044	0.100	2	0.0576	99.3	80 - 120
Nitrogen, Nitrite (As N)	1.961	0.100	2	0.1272	91.7	80 - 120
Sulfate	15.7	0.500	10	3.449	123	80 - 120

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<b>MS</b>	Sample ID:	HS24121161-01MS	Units:	mg/L	Analysis Date: 21-Dec-2024 09:04				
Client ID:			Run ID:	ICS-Integrion_503004	SeqNo: 8605529	PrepDate:	DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD	RPD Limit Qual

Nitrogen, Nitrate (As N)	6.237	0.100	2	4.566	83.6	80 - 120
Nitrogen, Nitrite (As N)	1.956	0.100	2	0.1291	91.4	80 - 120
Sulfate	27.62	0.500	10	19.32	83.0	80 - 120

ALS Houston, US

Date: 24-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L12010  
**WorkOrder:** HS24120839

**QC BATCH REPORT**

**Batch ID:** R503004 (0)      **Instrument:** ICS-Integriion      **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD		Sample ID: HS24121272-01MSD		Units: mg/L		Analysis Date: 21-Dec-2024 07:54			
Client ID:		Run ID: ICS-Integriion_503004		SeqNo: 8605520	PrepDate:	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
Nitrogen, Nitrate (As N)	2.044	0.100	2	0.0576	99.3	80 - 120	2.044	0.00489	20
Nitrogen, Nitrite (As N)	1.962	0.100	2	0.1272	91.8	80 - 120	1.961	0.0663	20
Sulfate	15.53	0.500	10	3.449	121	80 - 120	15.7	1.14	20 S

MSD		Sample ID: HS24121161-01MSD		Units: mg/L		Analysis Date: 21-Dec-2024 09:10			
Client ID:		Run ID: ICS-Integriion_503004		SeqNo: 8605530	PrepDate:	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
Nitrogen, Nitrate (As N)	6.252	0.100	2	4.566	84.3	80 - 120	6.237	0.247	20
Nitrogen, Nitrite (As N)	1.955	0.100	2	0.1291	91.3	80 - 120	1.956	0.0614	20
Sulfate	27.65	0.500	10	19.32	83.3	80 - 120	27.62	0.108	20

The following samples were analyzed in this batch: HS24120839-01      HS24120839-02      HS24120839-03

**ALS Houston, US**

Date: 24-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L12010  
**WorkOrder:** HS24120839

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**ALS Houston, US**

Date: 24-Dec-24

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

Agency	Number	Expire Date
Arizona	AZ0793	27-May-2025
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Dept of Defense	L24-240	30-Apr-2026
Dept of Defense	L24-239	30-Apr-2026
Florida	E87611-38	30-Jun-2025
Illinois	2000322023-11	31-Jul-2025
Kansas	E-10352 2023-2024	31-Jul-2025
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2025
Maine	2024017	23-Jun-2026
Michigan	9971	30-Apr-2025
Nebraska	NE-OS-25-13	30-Apr-2025
New Jersey	TX008	30-Jun-2025
North Carolina	624 - 2024	31-Dec-2024
Pennsylvania	018	30-Jun-2025
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2025

ALS Houston, US

Date: 24-Dec-24

**Sample Receipt Checklist**

Work Order ID: HS24120839

Date/Time Received: 13-Dec-2024 09:30

Client Name: Permian Basin Lab

Received by: Jacob CoronadoCompleted By: /S/ Pares M. Giga

eSignature

13-Dec-2024 18:21

Reviewed by: /S/ Jessica Monfore

18-Dec-2024 13:25

eSignature

Date/Time

Matrices:

Water

Carrier name:

FedEx Priority Overnight

Shipping container/cooler in good condition?

Yes  No  Not Present 

Custody seals intact on shipping container/cooler?

Yes  No  Not Present 

Custody seals intact on sample bottles?

Yes  No  Not Present 

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes  No  Not Present 

Chain of custody present?

Yes  No  1 Page(s)

Chain of custody signed when relinquished and received?

Yes  No  COC IDs: none

Samplers name present on COC?

Yes  No 

Chain of custody agrees with sample labels?

Yes  No 

Samples in proper container/bottle?

Yes  No 

Sample containers intact?

Yes  No 

Sufficient sample volume for indicated test?

Yes  No 

All samples received within holding time?

Yes  No 

Container/Temp Blank temperature in compliance?

Yes  No 

Temperature(s)/Thermometer(s):

3.4C U/C  IR34 

Cooler(s)/Kit(s):

Blue 

Date/Time sample(s) sent to storage:

12/13/24 18:50 

Water - VOA vials have zero headspace?

Yes  No  No VOA vials submitted 

Water - pH acceptable upon receipt?

Yes  No  N/A 

pH adjusted?

Yes  No  N/A 

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:





DRON GRAGA TRESSA SLEESIDE PERMANENT ENVIRONMENTAL LAB, LP 1400 RUMKIN WAY MIDLAND, TX 79701 UNITED STATES, US	(402) 966-7255 ACTIVIST ADVICE CAB: 19718888888888884535 DUNS: 2612421318	SHIP DATE: 2025-12-14 REF: 20251214001313 DEPT: BILL RECIPIENT
---	--	---

**TO:** SAMPLE RECEIVING  
**ALS-HOUSTON**  
**10450 STANCLIFF RD**  
**HOUSTON TX 77099** REF: **20251214001313**  
**PO:**

**FRT - 13 DEC 5:00P**  
**STANDARD OVERNIGHT**

**AB SGRA** 77099  
TX-US IAH

**FedEx**  
Ground Shipping

88GJ4WE87806CA

After printing this label,  
**CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH**  
 1. Fold the printed page along the horizontal line.  
 2. Place label in shipping pouch and affix it to your shipment.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4L13006



**Current Certification**

Report Date: 01/14/25

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6A	4L13006-01	Water	12/13/24 08:01	12-13-2024 12:33

RSK-175, and Dissolved Fe and Mn analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:

[https://www.tceq.texas.gov/assets/public/compliance/compliance\\_support/qa/labs/als\\_svcs\\_houston.pdf](https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf)

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-6A****4L13006-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Ethane	ND	0.00100	mg/L	1	P4L3104	12/19/24 00:00	12/23/24 09:13	8015M	SUB-13
Ethene	ND	0.00100	mg/L	1	P4L3104	12/19/24 00:00	12/23/24 09:13	8015M	SUB-13
<b>Methane</b>	<b>0.00172</b>	<b>0.000500</b>	mg/L	1	P4L3104	12/19/24 00:00	12/23/24 09:13	8015M	SUB-13

**General Chemistry Parameters by EPA / Standard Methods**

<b>Total Alkalinity</b>	<b>290</b>	10.0	mg/L	1	P5A1307	01/13/25 14:49	01/13/25 14:49	EPA 310.1M	O-04
Carbonate Alkalinity	ND	10.0	mg/L	1	P5A1307	01/13/25 14:49	01/13/25 14:49	EPA 310.1M	O-04
<b>Bicarbonate Alkalinity</b>	<b>290</b>	10.0	mg/L	1	P5A1307	01/13/25 14:49	01/13/25 14:49	EPA 310.1M	O-04
Hydroxide Alkalinity	ND	10.0	mg/L	1	P5A1307	01/13/25 14:49	01/13/25 14:49	EPA 310.1M	O-04
<b>Nitrate as N</b>	<b>1.62</b>	0.200	mg/L	1	P4L1706	12/14/24 09:55	12/17/24 12:04	EPA 300.0	
<b>Sulfate</b>	<b>68.7</b>	1.00	mg/L	1	P4L1706	12/17/24 09:55	12/17/24 12:04	EPA 300.0	

**Dissolved Metals by EPA / Standard Methods**

Iron	ND	0.200	mg/L	1	P4L3104	12/19/24 00:00	12/20/24 01:46	EPA 6020A	SUB-13
<b>Manganese</b>	<b>0.00758</b>	<b>0.00500</b>	mg/L	1	P4L3104	12/19/24 00:00	12/20/24 01:46	EPA 6020A	SUB-13

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4L1706 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4L1706-BLK1)</b>		Prepared & Analyzed: 12/17/24						
Nitrate as N	ND	0.200	mg/L					
Sulfate	ND	1.00	"					
<b>LCS (P4L1706-BS1)</b>		Prepared & Analyzed: 12/17/24						
Nitrate as N	19.1		mg/L	20.0	95.3	90-110		
Sulfate	18.4		"	20.0	92.1	90-110		
<b>LCS Dup (P4L1706-BSD1)</b>		Prepared & Analyzed: 12/17/24						
Nitrate as N	19.1		mg/L	20.0	95.4	90-110	0.105	10
Sulfate	18.4		"	20.0	92.2	90-110	0.108	10
<b>Calibration Check (P4L1706-CCV1)</b>		Prepared & Analyzed: 12/17/24						
Nitrate as N	19.1		mg/L	20.0	95.3	90-110		
Sulfate	18.4		"	20.0	92.1	90-110		
<b>Calibration Check (P4L1706-CCV2)</b>		Prepared & Analyzed: 12/17/24						
Nitrate as N	19.1		mg/L	20.0	95.5	90-110		
Sulfate	18.5		"	20.0	92.5	90-110		
<b>Duplicate (P4L1706-DUP1)</b>		<b>Source: 4L13006-01</b>			Prepared & Analyzed: 12/17/24			
Sulfate	60.7	1.00	mg/L		68.7		12.4	20
Nitrate as N	1.59	0.200	"		1.62		1.87	20

**Batch P5A1307 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P5A1307-BLK1)</b>		Prepared & Analyzed: 01/13/25						
Total Alkalinity	ND	10.0	mg/L					
Carbonate Alkalinity	ND	10.0	"					
Bicarbonate Alkalinity	ND	10.0	"					
Hydroxide Alkalinity	ND	10.0	"					

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

### Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	-------------	---------	-----------	-------

**Batch P5A1307 - \*\*\* DEFAULT PREP \*\*\***

<b>LCS (P5A1307-BS1)</b>		Prepared & Analyzed: 01/13/25							
Total Alkalinity	250		mg/L	250	100	80-120			
Carbonate Alkalinity	ND	10.0	"			80-120			
Bicarbonate Alkalinity	250	10.0	"			80-120			
Hydroxide Alkalinity	ND	10.0	"			80-120			
<b>LCS Dup (P5A1307-BSD1)</b>		Prepared & Analyzed: 01/13/25							
Total Alkalinity	260		mg/L	250	104	80-120	3.92	20	
Carbonate Alkalinity	ND	10.0	"			80-120		20	
Bicarbonate Alkalinity	260	10.0	"			80-120	3.92	20	
Hydroxide Alkalinity	ND	10.0	"			80-120		20	
<b>Duplicate (P5A1307-DUP1)</b>		<b>Source: 4L13006-01</b>		Prepared & Analyzed: 01/13/25					
Total Alkalinity	280	10.0	mg/L		290		3.51	20	
Carbonate Alkalinity	ND	10.0	"		ND			20	
Bicarbonate Alkalinity	280	10.0	"		290		3.51	20	
Hydroxide Alkalinity	ND	10.0	"		ND			20	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

SUB-13	Subcontract of analyte/analysis to ALS Houston.
ROI	Received on Ice
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
O-04	This sample was analyzed outside the EPA recommended holding time.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 1/14/2025

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

PBMAB

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**YSIS REQUEST**

Lab 1

W: \_\_\_\_\_

**Special Instructions:**

Email Analyticals to: CJBryant@paalp.com, Maochoa@paalp.com, and KFludgends@paalp.com

Relinquished by:  
*Mather Beasler*

13 (cm) 1

Date

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PBEL\_CO\_C\_2021\_1

Revision #: 2021\_

Effective Date: 9-21-21





right solutions.  
right partner.

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10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

December 23, 2024

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS24120955**

Laboratory Results for: **4L13006**

Dear Brent Barron,

ALS Environmental received 1 sample(s) on Dec 17, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL  
Jessica Monfore  
Project manager

---

alsglobal.com

**ALS Houston, US**

Date: 23-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L13006  
**Work Order:** HS24120955

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24120955-01	4L13006-01	Water		13-Dec-2024 12:33	17-Dec-2024 09:20	<input type="checkbox"/>

ALS Houston, US

Date: 23-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L13006  
**Work Order:** HS24120955

---

**CASE NARRATIVE**

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**GC Semivolatiles by Method RSK-175**

**Batch ID: R503032**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

---

**Metals by Method SW6020A**

**Batch ID: 222051**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 23-Dec-24

Client: Permian Basin Environmental Lab, LP  
 Project: 4L13006  
 Sample ID: 4L13006-01  
 Collection Date: 13-Dec-2024 12:33

**ANALYTICAL REPORT**  
 WorkOrder:HS24120955  
 Lab ID:HS24120955-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
<b>DISSOLVED GASES BY RSK-175</b>		<b>Method:RSK-175</b>					
Ethane	ND		1.00	ug/L	1	23-Dec-2024 09:13	
Ethene	ND		1.00	ug/L	1	23-Dec-2024 09:13	
Methane	<b>1.72</b>		<b>0.500</b>	<b>ug/L</b>	<b>1</b>	23-Dec-2024 09:13	
<b>DISSOLVED METALS BY SW6020A</b>		<b>Method:SW6020A (dissolved)</b>					
Iron	ND		0.200	mg/L	1	20-Dec-2024 01:46	
Manganese	<b>0.00758</b>		<b>0.00500</b>	<b>mg/L</b>	<b>1</b>	20-Dec-2024 01:46	

---

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Weight / Prep Log****Client:** Permian Basin Environmental Lab, LP**Project:** 4L13006**WorkOrder:** HS24120955**Batch ID:** 222051**Start Date:** 19 Dec 2024 11:00**End Date:** 19 Dec 2024 11:00**Method:** DISS METALS PREP - WATER - SW3010A**Prep Code:** 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24120955-01		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2

ALS Houston, US

Date: 23-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L13006  
**WorkOrder:** HS24120955

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 222051 ( 0 )	<b>Test Name :</b> DISSOLVED METALS BY SW6020A					<b>Matrix:</b> Water
HS24120955-01	4L13006-01	13 Dec 2024 12:33		19 Dec 2024 11:00	20 Dec 2024 01:46	1
<b>Batch ID:</b> R503032 ( 0 )	<b>Test Name :</b> DISSOLVED GASES BY RSK-175					<b>Matrix:</b> Water
HS24120955-01	4L13006-01	13 Dec 2024 12:33			23 Dec 2024 09:13	1

ALS Houston, US

Date: 23-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L13006  
**WorkOrder:** HS24120955

**QC BATCH REPORT**

**Batch ID:** R503032 (0)      **Instrument:** FID-4      **Method:** DISSOLVED GASES BY RSK-175

<b>MLBK</b>	Sample ID: MBLK-241223	Units: ug/L		Analysis Date: 23-Dec-2024 07:40			
Client ID:	Run ID: FID-4_503032		SeqNo: 8606062	PrepDate:	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual

Ethane	ND	1.00
Ethene	ND	1.00
Methane	ND	0.500

<b>LCS</b>	Sample ID: LCS-241223	Units: ug/L		Analysis Date: 23-Dec-2024 07:51			
Client ID:	Run ID: FID-4_503032		SeqNo: 8606063	PrepDate:	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual

Ethane	15.33	1.00	18.04	0	85.0	75 - 125
Ethene	14.21	1.00	16.8	0	84.6	75 - 125
Methane	8.612	0.500	9.647	0	89.3	75 - 125

<b>LCSD</b>	Sample ID: LCSD-241223	Units: ug/L		Analysis Date: 23-Dec-2024 08:20			
Client ID:	Run ID: FID-4_503032		SeqNo: 8606064	PrepDate:	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value %RPD Limit Qual

Ethane	14.9	1.00	18.04	0	82.6	75 - 125	15.33	2.88	30
Ethene	14.07	1.00	16.8	0	83.8	75 - 125	14.21	0.997	30
Methane	8.078	0.500	9.647	0	83.7	75 - 125	8.612	6.4	30

The following samples were analyzed in this batch: HS24120955-01

ALS Houston, US

Date: 23-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L13006  
**WorkOrder:** HS24120955

**QC BATCH REPORT**

**Batch ID:** 222051 ( 0 )      **Instrument:** ICPMS06      **Method:** DISSOLVED METALS BY SW6020A (DISSOLVED)

<b>MBLK</b>	Sample ID:	MBLK-222051	Units:	mg/L	Analysis Date: 20-Dec-2024 01:01			
Client ID:		Run ID:	ICPMS06_502787	SeqNo:	8601363	PrepDate:	19-Dec-2024	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Iron	ND	0.200
Manganese	ND	0.00500

**LCS**      Sample ID: LCS-222051      Units: mg/L      Analysis Date: 20-Dec-2024 01:03

Client ID:	Run ID:	ICPMS06_502787	SeqNo:	8601364	PrepDate:	19-Dec-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Iron	4.73	0.200	5	0	94.6	80 - 120
Manganese	0.046	0.00500	0.05	0	92.0	80 - 120

**MS**      Sample ID: HS24120848-01MS      Units: mg/L      Analysis Date: 20-Dec-2024 01:09

Client ID:	Run ID:	ICPMS06_502787	SeqNo:	8601367	PrepDate:	19-Dec-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Iron	5.268	0.200	5	0.01822	105	75 - 125
Manganese	0.06959	0.00500	0.05	0.01664	106	75 - 125

**MSD**      Sample ID: HS24120848-01MSD      Units: mg/L      Analysis Date: 20-Dec-2024 01:11

Client ID:	Run ID:	ICPMS06_502787	SeqNo:	8601368	PrepDate:	19-Dec-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Iron	5.387	0.200	5	0.01822	107	75 - 125	5.268	2.23 20
Manganese	0.0722	0.00500	0.05	0.01664	111	75 - 125	0.06959	3.68 20

**PDS**      Sample ID: HS24120848-01PDS      Units: mg/L      Analysis Date: 20-Dec-2024 01:13

Client ID:	Run ID:	ICPMS06_502787	SeqNo:	8601369	PrepDate:	19-Dec-2024	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Iron	10.07	0.200	10	0.01822	101	75 - 125
Manganese	0.1165	0.00500	0.1	0.01664	99.8	75 - 125

ALS Houston, US

Date: 23-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L13006  
**WorkOrder:** HS24120955

**QC BATCH REPORT**

Batch ID: 222051 ( 0 )	Instrument: ICPMS06	Method: DISSOLVED METALS BY SW6020A (DISSOLVED)
------------------------	---------------------	---

SD	Sample ID: HS24120848-01SD	Units: mg/L		Analysis Date: 20-Dec-2024 01:07					
Client ID:	Run ID: ICPMS06_502787	SeqNo: 8601366	PrepDate: 19-Dec-2024	DF: 5					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual

Iron	ND	1.00		0.01822	0	10	
Manganese	0.01558	0.0250		0.01664	0	10	J

The following samples were analyzed in this batch: HS24120955-01

**ALS Houston, US**

Date: 23-Dec-24

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 4L13006  
**WorkOrder:** HS24120955

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**ALS Houston, US**

Date: 23-Dec-24

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Arizona	AZ0793	27-May-2025
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Dept of Defense	L24-240	30-Apr-2026
Dept of Defense	L24-239	30-Apr-2026
Florida	E87611-38	30-Jun-2025
Illinois	2000322023-11	31-Jul-2025
Kansas	E-10352 2023-2024	31-Jul-2025
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2025
Maine	2024017	23-Jun-2026
Michigan	9971	30-Apr-2025
Nebraska	NE-OS-25-13	30-Apr-2025
New Jersey	TX008	30-Jun-2025
North Carolina	624 - 2024	31-Dec-2024
Pennsylvania	018	30-Jun-2025
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2025

ALS Houston, US

Date: 23-Dec-24

**Sample Receipt Checklist**

Work Order ID: HS24120955

Date/Time Received:

17-Dec-2024 09:20

Client Name: Permian Basin Lab

Received by:

Jacob CoronadoCompleted By: /S/ Pares M. Giga

eSignature

17-Dec-2024 11:48

Reviewed by: /S/ salina zaid

17-Dec-2024 17:22

Date/Time

eSignature

Date/Time

Matrices:

Water

Carrier name:

FedEx Priority Overnight

Shipping container/cooler in good condition?

Yes  No  Not Present 

Custody seals intact on shipping container/cooler?

Yes  No  Not Present 

Custody seals intact on sample bottles?

Yes  No  Not Present 

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes  No  Not Present 

Chain of custody present?

Yes  No  1 Page(s)

Chain of custody signed when relinquished and received?

Yes  No  COC IDs:none

Samplers name present on COC?

Yes  No 

Chain of custody agrees with sample labels?

Yes  No 

Samples in proper container/bottle?

Yes  No 

Sample containers intact?

Yes  No 

Sufficient sample volume for indicated test?

Yes  No 

All samples received within holding time?

Yes  No 

Container/Temp Blank temperature in compliance?

Yes  No 

Temperature(s)/Thermometer(s):

1.7C U/C | IR34

Cooler(s)/Kit(s):

Red

Date/Time sample(s) sent to storage:

12/17/24 12:05

Water - VOA vials have zero headspace?

Yes  No  No VOA vials submitted 

Water - pH acceptable upon receipt?

Yes  No  N/A 

pH adjusted?

Yes  No  N/A 

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



## **CHAIN OF CUSTODY**

HS24120955

Permian Basin Environmental Lab, LP  
41-13006

Phone: 432-686-7235  
PBELAB SUB COC V2

Project Manager: Brent Barron



**Project Name:** SUBCONTRACT

Company Name PBEL

**Project #:** \_\_\_\_\_

Company Address: 1400 Rankin HWY

**Project Loc:** [REDACTED] - [REDACTED]

City/State/Zip: Midland Texas 79701

PO #:

Telephone No: 432-661-4184

Fax No: \_\_\_\_\_ Rep: \_\_\_\_\_

**Report Format:** X Standard TRRP NPDES

Sampler Signature: N/A

e-mail: brentbarron@pbelab.com

Digitized by srujanika@gmail.com

Please add tressa@pbelab.com to woa's.

Relinquished by: Brent Barron	12/16/2024	17:00	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date 12/17/24	Time 09:20
Relinquished by:	Date	Time	Received by:	Date	Time

Page 13 of 14

ORIGIN ID:1454  
PRESA ALLEN, TEXAS ENVIRONMENTAL LABS, LP  
1400 FRANKLIN, AUSTIN, TX 78701  
UNITED STATES, US

(432) 866-7239

SHIP DATE: 10DEC24  
ACTUAL SHIP DATE: 10DEC24  
CITY: HOUSTON  
STATE: TX  
ZIP: 77099  
CARRIER: FEDEX  
SELLER: SELLER

58C349B91064

TO SAMPLE RECEIVING

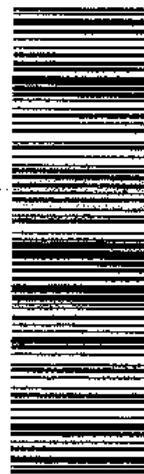
ALS-HOUSTON  
10450 STANCLIFF RD  
HOUSTON TX 77099  
(813)905-5815  
CO.

DEPT:



TUE - 17 DEC 5:00P  
STANDARD OVERNIGHT

77099  
TX-US  
IAH



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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**

**PBELAB**

# Analytical Report

**Prepared for:**

David Adkins

Talon LPE

2901 S. State Hwy 349

Midland, TX 79706

Project: CS CAYLOR

Project Number: SRS#2002-10250

Location: Lea County, NM

Lab Order Number: 4L13007



**Current Certification**

Report Date: 12/20/24

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-17A	4L13007-01	Water	12/12/24 13:46	12-13-2024 12:33
MW-16A	4L13007-02	Water	12/12/24 13:24	12-13-2024 12:33
MW-15A	4L13007-03	Water	12/12/24 13:03	12-13-2024 12:33
MW-14A	4L13007-04	Water	12/12/24 12:42	12-13-2024 12:33
MW-13A	4L13007-05	Water	12/12/24 12:23	12-13-2024 12:33
MW-18A	4L13007-06	Water	12/12/24 11:47	12-13-2024 12:33
MW-6A	4L13007-07	Water	12/13/24 08:01	12-13-2024 12:33

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-17A****4L13007-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 21:17	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 21:17	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 21:17	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 21:17	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 21:17	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		77.9 %	80-120		P4L1609	12/16/24 10:48	12/16/24 21:17	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		103 %	80-120		P4L1609	12/16/24 10:48	12/16/24 21:17	EPA 8021B	
Total BTEX	ND	0.00100	mg/L	1	[CALC]	12/16/24 10:48	12/16/24 21:17	EPA 8021B	
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	12/16/24 10:48	12/16/24 21:17	EPA 8021B	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-16A**  
**4L13007-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 21:40	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 21:40	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 21:40	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 21:40	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 21:40	EPA 8021B	
<i>Surrogate: 4-Bromo</i> fluorobenzene		79.5 %	80-120		P4L1609	12/16/24 10:48	12/16/24 21:40	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		101 %	80-120		P4L1609	12/16/24 10:48	12/16/24 21:40	EPA 8021B	
Total BTEX	ND	0.00100	mg/L	1	[CALC]	12/16/24 10:48	12/16/24 21:40	EPA 8021B	
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	12/16/24 10:48	12/16/24 21:40	EPA 8021B	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-15A****4L13007-03 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 22:02	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 22:02	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 22:02	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 22:02	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 22:02	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		76.7 %	80-120		P4L1609	12/16/24 10:48	12/16/24 22:02	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		102 %	80-120		P4L1609	12/16/24 10:48	12/16/24 22:02	EPA 8021B	
Total BTEX	ND	0.00100	mg/L	1	[CALC]	12/16/24 10:48	12/16/24 22:02	EPA 8021B	
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	12/16/24 10:48	12/16/24 22:02	EPA 8021B	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-14A**  
**4L13007-04 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 22:25	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 22:25	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 22:25	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 22:25	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4L1609	12/16/24 10:48	12/16/24 22:25	EPA 8021B	
<i>Surrogate: 4-Bromo</i> fluorobenzene		77.5 %	80-120		P4L1609	12/16/24 10:48	12/16/24 22:25	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		101 %	80-120		P4L1609	12/16/24 10:48	12/16/24 22:25	EPA 8021B	
Total BTEX	ND	0.00100	mg/L	1	[CALC]	12/16/24 10:48	12/16/24 22:25	EPA 8021B	
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	12/16/24 10:48	12/16/24 22:25	EPA 8021B	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-13A**  
**4L13007-05 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:11	EPA 8021B
Toluene	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:11	EPA 8021B
Ethylbenzene	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:11	EPA 8021B
Xylene (p/m)	ND	0.00200	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:11	EPA 8021B
Xylene (o)	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:11	EPA 8021B
<i>Surrogate: 4-Bromo</i> fluorobenzene		80.1 %	80-120		P4L1712	12/17/24 13:49	12/17/24 17:11	EPA 8021B
<i>Surrogate: 1,4-Difluorobenzene</i>		101 %	80-120		P4L1712	12/17/24 13:49	12/17/24 17:11	EPA 8021B
Total BTEX	ND	0.00100	mg/L	1	[CALC]	12/17/24 13:49	12/17/24 17:11	EPA 8021B
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	12/17/24 13:49	12/17/24 17:11	EPA 8021B

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-18A**  
**4L13007-06 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:33	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:33	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:33	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:33	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:33	EPA 8021B	
<i>Surrogate: 4-Bromo</i> fluorobenzene		79.1 %	80-120		P4L1712	12/17/24 13:49	12/17/24 17:33	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		97.2 %	80-120		P4L1712	12/17/24 13:49	12/17/24 17:33	EPA 8021B	
Total BTEX	ND	0.00100	mg/L	1	[CALC]	12/17/24 13:49	12/17/24 17:33	EPA 8021B	
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	12/17/24 13:49	12/17/24 17:33	EPA 8021B	

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**MW-6A**  
**4L13007-07 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	<b>0.0131</b>	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:55	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:55	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:55	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:55	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4L1712	12/17/24 13:49	12/17/24 17:55	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		76.0 %	80-120		P4L1712	12/17/24 13:49	12/17/24 17:55	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		103 %	80-120		P4L1712	12/17/24 13:49	12/17/24 17:55	EPA 8021B	
<b>Total BTEX</b>	<b>0.0131</b>	0.00100	mg/L	1	[CALC]	12/17/24 13:49	12/17/24 17:55	EPA 8021B	
Xylenes (total)	ND	0.00100	mg/L	1	[CALC]	12/17/24 13:49	12/17/24 17:55	EPA 8021B	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Talon LPE  
2901 S. State Hwy 349  
Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4L1609 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P4L1609-BLK1)</b>		Prepared & Analyzed: 12/16/24						
Benzene	ND	0.00100	mg/L					
Toluene	ND	0.00100	"					
Ethylbenzene	ND	0.00100	"					
Xylene (p/m)	ND	0.00200	"					
Xylene (o)	ND	0.00100	"					
Surrogate: 4-Bromofluorobenzene	0.0921		"	0.120		76.7	80-120	
Surrogate: 1,4-Difluorobenzene	0.123		"	0.120		102	80-120	

<b>LCS (P4L1609-BS1)</b>		Prepared & Analyzed: 12/16/24						
Benzene	0.0974	0.00100	mg/L	0.100		97.4	80-120	
Toluene	0.0927	0.00100	"	0.100		92.7	80-120	
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120	
Xylene (p/m)	0.207	0.00200	"	0.200		104	80-120	
Xylene (o)	0.0929	0.00100	"	0.100		92.9	80-120	
Surrogate: 4-Bromofluorobenzene	0.0990		"	0.120		82.5	80-120	
Surrogate: 1,4-Difluorobenzene	0.134		"	0.120		111	80-120	

<b>LCS Dup (P4L1609-BSD1)</b>		Prepared & Analyzed: 12/16/24						
Benzene	0.0955	0.00100	mg/L	0.100		95.5	80-120	1.96
Toluene	0.0933	0.00100	"	0.100		93.3	80-120	0.699
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120	1.78
Xylene (p/m)	0.211	0.00200	"	0.200		105	80-120	1.63
Xylene (o)	0.0933	0.00100	"	0.100		93.3	80-120	0.462
Surrogate: 4-Bromofluorobenzene	0.100		"	0.120		83.3	80-120	
Surrogate: 1,4-Difluorobenzene	0.132		"	0.120		110	80-120	

<b>Calibration Blank (P4L1609-CCB1)</b>		Prepared & Analyzed: 12/16/24						
Benzene	0.00		ug/l					
Toluene	0.00		"					
Ethylbenzene	0.200		"					
Xylene (p/m)	0.280		"					
Xylene (o)	0.00		"					
Surrogate: 4-Bromofluorobenzene	0.0960		"	0.120		80.0	80-120	
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		101	80-120	

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Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	RPD Limit	Notes
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**Batch P4L1609 - \*\*\* DEFAULT PREP \*\*\***

<b>Calibration Blank (P4L1609-CCB2)</b>		Prepared & Analyzed: 12/16/24							
Benzene	0.460		ug/l						
Toluene	0.340		"						
Ethylbenzene	0.260		"						
Xylene (p/m)	0.490		"						
Xylene (o)	0.00		"						
Surrogate: 4-Bromofluorobenzene	0.0957		"	0.120	79.8	80-120			S-GC
Surrogate: 1,4-Difluorobenzene	0.121		"	0.120	101	80-120			

<b>Calibration Check (P4L1609-CCV1)</b>		Prepared & Analyzed: 12/16/24					
Benzene	0.0944	0.00100	mg/L	0.100	94.4	80-120	
Toluene	0.0914	0.00100	"	0.100	91.4	80-120	
Ethylbenzene	0.0912	0.00100	"	0.100	91.2	80-120	
Xylene (p/m)	0.200	0.00200	"	0.200	100	80-120	
Xylene (o)	0.0918	0.00100	"	0.100	91.8	80-120	
Surrogate: 4-Bromofluorobenzene	0.0975		"	0.120	81.2	80-120	
Surrogate: 1,4-Difluorobenzene	0.132		"	0.120	110	80-120	

<b>Calibration Check (P4L1609-CCV2)</b>		Prepared & Analyzed: 12/16/24					
Benzene	0.0968	0.00100	mg/L	0.100	96.8	80-120	
Toluene	0.0912	0.00100	"	0.100	91.2	80-120	
Ethylbenzene	0.0893	0.00100	"	0.100	89.3	80-120	
Xylene (p/m)	0.196	0.00200	"	0.200	97.9	80-120	
Xylene (o)	0.0902	0.00100	"	0.100	90.2	80-120	
Surrogate: 4-Bromofluorobenzene	0.0959		"	0.120	79.9	80-120	
Surrogate: 1,4-Difluorobenzene	0.132		"	0.120	110	80-120	

<b>Calibration Check (P4L1609-CCV3)</b>		Prepared & Analyzed: 12/16/24					
Benzene	0.104	0.00100	mg/L	0.100	104	80-120	
Toluene	0.0995	0.00100	"	0.100	99.5	80-120	
Ethylbenzene	0.0994	0.00100	"	0.100	99.4	80-120	
Xylene (p/m)	0.218	0.00200	"	0.200	109	80-120	
Xylene (o)	0.101	0.00100	"	0.100	101	80-120	
Surrogate: 4-Bromofluorobenzene	0.0984		"	0.120	82.0	80-120	
Surrogate: 1,4-Difluorobenzene	0.133		"	0.120	111	80-120	

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**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4L1609 - \*\*\* DEFAULT PREP \*\*\***

Matrix Spike (P4L1609-MS1)	Source: 4L16004-01			Prepared & Analyzed: 12/16/24					
Benzene	0.0949	0.00100	mg/L	0.100	0.00448	90.4	80-120		
Toluene	0.0888	0.00100	"	0.100	0.00604	82.7	80-120		
Ethylbenzene	0.0832	0.00100	"	0.100	ND	83.2	80-120		
Xylene (p/m)	0.170	0.00200	"	0.200	0.00235	84.0	80-120		
Xylene (o)	0.0770	0.00100	"	0.100	0.000690	76.3	80-120		QM-05
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0980		"	0.120		81.6	80-120		
<i>Surrogate: 1,4-Difluorobenzene</i>	0.133		"	0.120		111	80-120		

Matrix Spike Dup (P4L1609-MSD1)	Source: 4L16004-01			Prepared & Analyzed: 12/16/24					
Benzene	0.0991	0.00100	mg/L	0.100	0.00448	94.6	80-120	4.55	20
Toluene	0.0942	0.00100	"	0.100	0.00604	88.2	80-120	6.44	20
Ethylbenzene	0.0898	0.00100	"	0.100	ND	89.8	80-120	7.67	20
Xylene (p/m)	0.182	0.00200	"	0.200	0.00235	89.9	80-120	6.78	20
Xylene (o)	0.0822	0.00100	"	0.100	0.000690	81.5	80-120	6.53	20
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0964		"	0.120		80.4	80-120		
<i>Surrogate: 1,4-Difluorobenzene</i>	0.131		"	0.120		109	80-120		

**Batch P4L1712 - \*\*\* DEFAULT PREP \*\*\***

Blank (P4L1712-BLK1)	Prepared & Analyzed: 12/17/24				
Benzene	ND	0.00100	mg/L		
Toluene	ND	0.00100	"		
Ethylbenzene	ND	0.00100	"		
Xylene (p/m)	ND	0.00200	"		
Xylene (o)	ND	0.00100	"		
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0963		"	0.120	80.2
<i>Surrogate: 1,4-Difluorobenzene</i>	0.121		"	0.120	101
					80-120

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Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4L1712 - \*\*\* DEFAULT PREP \*\*\***

<b>LCS (P4L1712-BS1)</b>						
Prepared & Analyzed: 12/17/24						
Benzene	0.103	0.00100	mg/L	0.100	103	80-120
Toluene	0.0992	0.00100	"	0.100	99.2	80-120
Ethylbenzene	0.111	0.00100	"	0.100	111	80-120
Xylene (p/m)	0.220	0.00200	"	0.200	110	80-120
Xylene (o)	0.0990	0.00100	"	0.100	99.0	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0980		"	0.120	81.6	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.131		"	0.120	109	80-120

<b>LCS Dup (P4L1712-BSD1)</b>						
Prepared & Analyzed: 12/17/24						
Benzene	0.106	0.00100	mg/L	0.100	106	80-120
Toluene	0.103	0.00100	"	0.100	103	80-120
Ethylbenzene	0.116	0.00100	"	0.100	116	80-120
Xylene (p/m)	0.227	0.00200	"	0.200	113	80-120
Xylene (o)	0.102	0.00100	"	0.100	102	80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0978		"	0.120	81.5	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.132		"	0.120	110	80-120

<b>Calibration Blank (P4L1712-CCB1)</b>						
Prepared & Analyzed: 12/17/24						
Benzene	0.180		ug/l			
Toluene	0.00		"			
Ethylbenzene	0.250		"			
Xylene (p/m)	0.320		"			
Xylene (o)	0.00		"			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0967		"	0.120	80.6	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.119		"	0.120	98.8	80-120

<b>Calibration Blank (P4L1712-CCB2)</b>						
Prepared & Analyzed: 12/17/24						
Benzene	0.00		ug/l			
Toluene	0.00		"			
Ethylbenzene	0.200		"			
Xylene (p/m)	0.350		"			
Xylene (o)	0.00		"			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0978		"	0.120	81.5	80-120
<i>Surrogate: 1,4-Difluorobenzene</i>	0.122		"	0.120	101	80-120

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Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4L1712 - \*\*\* DEFAULT PREP \*\*\***

Calibration Check (P4L1712-CCV1)							Prepared & Analyzed: 12/17/24			
Benzene	0.101	0.00100	mg/L	0.100		101	80-120			
Toluene	0.0990	0.00100	"	0.100		99.0	80-120			
Ethylbenzene	0.0989	0.00100	"	0.100		98.9	80-120			
Xylene (p/m)	0.216	0.00200	"	0.200		108	80-120			
Xylene (o)	0.101	0.00100	"	0.100		101	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0950		"	0.120		79.2	80-120			S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>	0.130		"	0.120		108	80-120			

Calibration Check (P4L1712-CCV2)							Prepared & Analyzed: 12/17/24			
Benzene	0.106	0.00100	mg/L	0.100		106	80-120			
Toluene	0.103	0.00100	"	0.100		103	80-120			
Ethylbenzene	0.0992	0.00100	"	0.100		99.2	80-120			
Xylene (p/m)	0.218	0.00200	"	0.200		109	80-120			
Xylene (o)	0.101	0.00100	"	0.100		101	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0968		"	0.120		80.6	80-120			
<i>Surrogate: 1,4-Difluorobenzene</i>	0.131		"	0.120		109	80-120			

Calibration Check (P4L1712-CCV3)							Prepared: 12/17/24 Analyzed: 12/18/24			
Benzene	0.0983	0.00100	mg/L	0.100		98.3	80-120			
Toluene	0.0925	0.00100	"	0.100		92.5	80-120			
Ethylbenzene	0.0891	0.00100	"	0.100		89.1	80-120			
Xylene (p/m)	0.196	0.00200	"	0.200		98.2	80-120			
Xylene (o)	0.0906	0.00100	"	0.100		90.6	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0983		"	0.120		81.9	80-120			
<i>Surrogate: 1,4-Difluorobenzene</i>	0.132		"	0.120		110	80-120			

Matrix Spike (P4L1712-MS1)							Source: 4L13007-05 Prepared: 12/17/24 Analyzed: 12/18/24			
Benzene	0.0835	0.00100	mg/L	0.100	ND	83.5	80-120			
Toluene	0.0819	0.00100	"	0.100	ND	81.9	80-120			
Ethylbenzene	0.0911	0.00100	"	0.100	ND	91.1	80-120			
Xylene (p/m)	0.180	0.00200	"	0.200	ND	90.2	80-120			
Xylene (o)	0.0793	0.00100	"	0.100	ND	79.3	80-120			QM-05
<i>Surrogate: 4-Bromofluorobenzene</i>	0.101		"	0.120		84.5	80-120			
<i>Surrogate: 1,4-Difluorobenzene</i>	0.133		"	0.120		110	80-120			

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

Permian Basin Environmental Lab, L.P.

1400 Rankin HWY Midland, TX 79701 432-686-7235

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Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch P4L1712 - \*\*\* DEFAULT PREP \*\*\***

Matrix Spike Dup (P4L1712-MSD1)	Source: 4L13007-05			Prepared: 12/17/24 Analyzed: 12/18/24						
Benzene	0.0840	0.00100	mg/L	0.100	ND	84.0	80-120	0.549	20	
Toluene	0.0761	0.00100	"	0.100	ND	76.1	80-120	7.28	20	QM-05
Ethylbenzene	0.0820	0.00100	"	0.100	ND	82.0	80-120	10.5	20	
Xylene (p/m)	0.165	0.00200	"	0.200	ND	82.4	80-120	9.06	20	
Xylene (o)	0.0718	0.00100	"	0.100	ND	71.8	80-120	9.92	20	QM-05
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0967		"	0.120		80.6	80-120			
<i>Surrogate: 1,4-Difluorobenzene</i>	0.131		"	0.120		109	80-120			

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Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

### Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
pH1	The Regulatory Holding time for pH is 15 minutes, Analysis should be done in the field.
NPBEL C	Chain of Custody was not generated at PBELAB
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:



Date: 12/20/2024

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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Midland TX, 79706

Project: CS CAYLOR  
Project Number: SRS#2002-10250  
Project Manager: David Adkins

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If you have received this material in error, please notify us immediately at 432-686-7235.

PRIMA

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**YSIS REQUEST** L: \_\_\_\_\_  
Permian Basin Environmental Lab, LFB

**1400 Rankin HWY  
Midland, Texas 79701**

W.  
Phone: 432-686-7235

#### **Special Instructions:**

Email Analytics to: CJBryant@paalp.com, Maochoa@paalp.com, and KHuddgens@paalp.com

Relinquished by:

Bartlett Melby 12-13-24 8:10 Matthew Beasley

Kempton Park.

Published by  
Walter Besler

PBEI\_COC\_2021\_1

Revision #2021\_1

Effective Date: 9-21-21

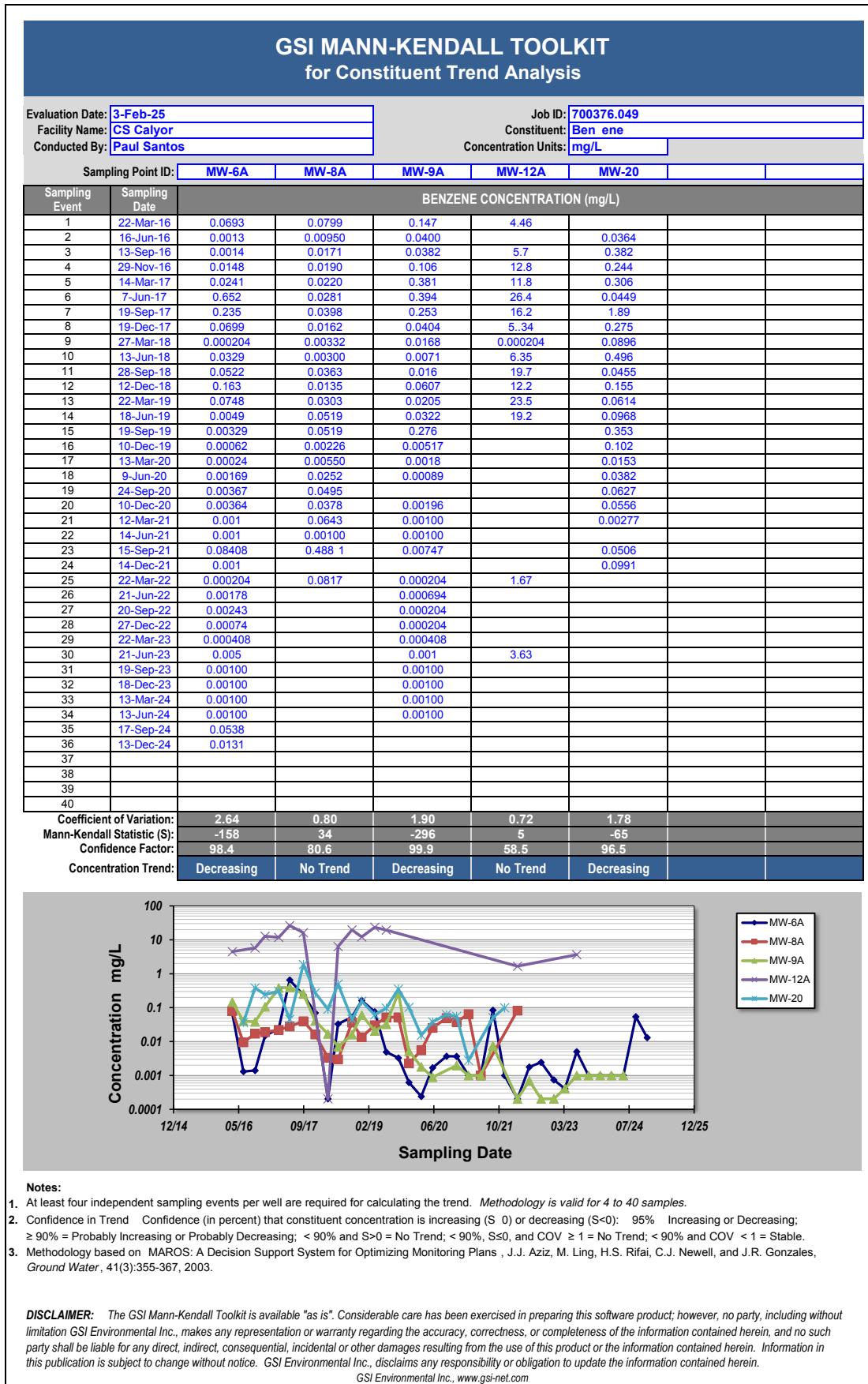
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of



## **APPENDIX D**

### Mann-Kendall Analysis



Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 497652

**CONDITIONS**

Operator:  PLAIN MARKETING L.P. 333 Clay Street Suite 1900 Houston, TX 77002	OGRID:	
	34053	
	Action Number:	
	497652	

Action Type:  
[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)**CONDITIONS**

Created By	Condition	Condition Date
shanna.smith	Pursuant to 19.15.30 NMAC, An updated Stage 2 Abatement Plan and activities will be conducted and submitted as a report by December 19, 2025. The report must include drilling activities and laboratory analysis of soil and groundwater samples. Soil samples will be sampled at a minimum pursuant to 19.15.29.11 NMAC.	9/18/2025
shanna.smith	Updated Stage 2 Abatement Plan should contain installation of additional monitoring wells as replacements for declining groundwater levels.	9/18/2025
shanna.smith	All groundwater samples will be analyzed according to all constituents in 20.6.2.3103 NMAC Pursuant to 19.15.30.9.B(2) NMAC. Operators may request to reduce sampling constituents based upon future results.	9/18/2025
shanna.smith	Plugging MW-20 was approved in 2021 for the 2020 AGWMR. Now in 2025, MW-20 is still not plugged.	9/18/2025