



August 28, 2024

Ms. Brittany Hall  
New Mexico Energy, Minerals, and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**Re: Remediation Closure and Reclamation Report  
ConocoPhillips (Heritage COG Operating, LLC)  
West Brushy 8 Federal SWD #001 Release  
Unit Letter A, Section 08, Township 26 South, Range 29 East  
Eddy County, New Mexico  
Incident ID# nAB1619432451  
2RP-3774**

Ms. Hall,

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (ConocoPhillips) to evaluate a historical Heritage COG Operating, LLC (COG) release and subsequent remedial actions performed at the West Brushy 8 Federal SWD #001 release site (API No. 30-015-31675). The release footprint is located in Public Land Survey System (PLSS) Unit Letter A, Section 08, Township 26 South, Range 29 East, in Eddy County, New Mexico (Site). The approximate release point coordinates are 32.063500°, -103.997560°, as shown on Figures 1 and 2. The release extent provided in prior reporting is located approximately 450 feet northeast of the coordinates provided in the initial spill report. The site is located on federal lands managed by the Bureau of Land Management (BLM). The release occurred from a COG flowline on a facility operated by a third party.

## BACKGROUND

According to the State of New Mexico Oil Conservation Division (NMOCD) C-141 Initial Report, the release was discovered on July 3, 2016. The release was caused by a damaged poly flowline. This release occurred in the pasture alongside the road and consisted of approximately 25 bbls of produced water of which 0 bbls were recovered. The initial C-141 states that the dry weather and soil conditions made recovery of fluid difficult. The faulty portion of the line was cut out and replaced during the initial response actions. The approximate release extent is shown in Figure 3.

The NMOCD approved the initial C-141 on July 11, 2016, and subsequently assigned the release the Incident ID nAB1619432451 and the remediation permit (RP) number 2RP-3774. This incident is included in an Agreed Compliance Order-Releases (ACO-R) between COG and the NMOCD signed on November 20 and 26, 2018, respectively. The initial C-141 form is included in Appendix A.

## HISTORICAL FILE REVIEW

The NMOCD online imaging files associated with 2RP-3774 include a Sundry Notice of Intent (Form 3160-5) for remediation activities submitted by COG on July 8, 2016. NMOCD district II staff conducted a site inspection for the nAB1619432451 incident and documented their findings in a Site Inspection Photo Documentation Report dated July 12, 2016. Copies of the Sundry Notice and the NMOCD photo documentation report are included in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

Tetra Tech

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nAB1619432451 Remediation Closure and Reclamation Report  
August 28, 2024

ConocoPhillips

Email correspondence discovered in the NMOCD online imaging files for an adjacent and overlapping release at the West Brushy 8 Federal SWD #001 (nAB1715742101/2RP-4240) included additional information regarding the nAB1619432451/2RP-3774 release. An email chain from February-March, 2017, between the NMOCD and BBC International, Inc. (BBC) indicates that BBC, on behalf of COG, submitted a remediation proposal for the nAB1619432451/2RP-3774 release that would also address an earlier release at the Site (nAB1529948530/2RP-3353). In regard to this remediation proposal and nAB1619432451/2RP-3774, Mr. Mike Bratcher of the NMOCD states in an email dated February 9, 2017:

*"This release that BBC has submitted a remediation proposal on (2RP-3774) covered an earlier release at this site (2RP-3353), only this one covered a much larger area than the first one. The second attachment is what was submitted to OCD at the time, and it was COG's stance then, that the site could not be delineated or remediated due to the gas lines and flowlines that ran through the area. COG had requested a deferral. This may be a question for Cliff, but with the gas lines that have been identified on the plat, and the obvious dozen or so surface poly lines that run through the release area, is the proposed remediation going to be able to accomplish? If so, I suggest that once completed, the closure also include the first release, and possibly get them both closed."*

In an email dated March 1, 2017, Mr. Cliff Brunson of BBC responded:

*"We are still confirming that we will be able to accomplish the approved remediation by attempting to set a meeting with the line operators and verify that a two foot excavation mostly by hand will be acceptable to them and if so, then yes, we will incorporate the first release (2RP-3353) in the closure. I will keep you updated."*

In an email dated June 13, 2017 regarding a subsequent release (nAB1715742101/2RP4240), Ms. Crystal Weaver of the NMOCD requested an update on the status of the nAB1619432451/2RP-3774 release. Included in an email approval of the delineation work plan for the nAB1715742101/2RP4240 on February 16, 2018, Ms. Weaver states:

*"I measured on my map that this release has a proximity of 1400+/- to the bank of the Pecos River and is on a steep elevational raise that appears to have a seamless downgrade starting from the boundary area of the release going to the river, because this release has sat for some time and because it has a sister release that has some overlap (2RP-3774) and that release has sat for even longer OCD would like to request a prompt submission of work plan be remitted for the older 2RP-3774 release (since one was never received) and requests that if practicable the two releases be remediated at the same time."*

Follow-up email correspondence from Mike Bratcher of the NMOCD on February 22, 2018 included the following information:

*"After consulting with Ms. Weaver and going over the previous releases at this site, this proposal (2RP-4240) is approved as submitted. Some of the data and information from the previous releases was not available to Ms. Weaver when she reviewed this proposal and was my fault. Since there are several releases to be addressed relative to this site, OCD notes the open RP numbers, and status, as follows:*

- *2RP-3353 and 2RP-3774 releases cover basically the same area and have approved remediation proposals.*
- *2RP-4094 has an approved remediation proposal.*
- *2RP-4330 has an approved remediation proposal.*
- *2RP-4240 now has an approved remediation proposal.*

*It is OCD's understanding that all the releases associated with this site, as listed above, will be addressed upon mobilization to the site, and that mobilization will occur in the very near future. Please advise once that has been scheduled. Also, please advise if this information is not as reflected in COG records.*

*In addition, for future reference, when performing vertical delineation and transitioning from conventional delineation to utilizing boring equipment, please attempt where possible, to obtain samples in a manner that does not leave gaps in the analytical data. OCD would prefer to see uniform data throughout the delineation process.*

*Federal sites will require like approval from BLM, if not previously obtained.”*

Copies of the available regulatory correspondence are included in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

## 2017 BBC SITE ASSESSMENT AND WORK PLAN APPROVAL

The approved remediation proposal for nAB1619432451/2RP-3774 and nAB1529948530/2RP-3353 that Mr. Bratcher refers to in this email from February 22, 2018, is not included in the NMOCD online incident files for either release incident, and ConocoPhillips was not able to locate a copy in a review of historical COG files. The submission of this remediation proposal is documented in the February 7, 2017 email from Mr. Cliff Brunson to Mr. Bratcher, but the proposal document included as an attachment to this email was not available in the copy of the email chain that Tetra Tech located. Tetra Tech contacted Mr. Brunson of BBC to request a copy of the file, but he was not able to provide a copy of the remediation proposal either. However, Mr. Brunson was able to provide laboratory analytical data associated with initial assessment activities performed at the Site in January 2017.

The January 2017 laboratory analytical report indicates that BBC personnel conducted release assessment activities on January 19-20, 2017. Soil samples were collected from twelve (12) locations within the release extent (SP1 through SP12) and four (4) locations along the perimeter of the release (East, West, South, and North Samples). The BBC sampling locations were provided in subsequent closure reporting for the release and are presented in Figure 3 of this report.

A total of forty-three (43) soil samples were collected from the sixteen (16) sampling locations and submitted to Cardinal Laboratories in Hobbs, New Mexico (Cardinal) for analysis. A copy of the laboratory analytical report is included in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

Analytical results associated with samples collected during the 2017 BBC assessment activities are summarized in Table 1. Analytical results were above the reclamation limit for chloride (600 mg/kg) in surface (0-4 feet bgs) soils at eight (8) of the sampling locations (SP5 through SP12).

## REMEDIAL ACTION, 2019 CLOSURE REPORT, AND NMOCD REJECTION

The West Brushy 8 Federal SWD #001 facility was subject to numerous releases in the period between 2015 and 2017. Based on available correspondence, BBC bundled several incidents into one remedial action. Post-assessment, BBC began the excavation of impacted soils in pasture. A Closure Report prepared by BBC states that excavation activities were completed in accordance with the approved work plans for each release. Areas of the release extent were reportedly excavated to 2-3 feet bgs in accordance with the approved remediation proposal. Photographs of the excavated and backfilled areas were included in the Closure Report. A copy of the Closure Report is included in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

The figure provided in the Closure Report for Incident nAB1619432451 indicates that the majority of the release extent was excavated to 2 feet bgs. The area of SP9 was excavated to 3 feet bgs with a field titration sample to establish that a chloride concentration of 1,000 ppm was achieved. The areas characterized by sample locations SP1-SP2 and SP3-SP4 were below reclamation limits and did not require remedial action.

The Closure Report for four separate releases that occurred at the West Brushy 8 Federal SWD #001 Site, including Incident nAB1619432451, was submitted on January 22, 2019. The Closure Report was rejected by NMOCD for Incident nAB1619432451 on May 1, 2023 with the following comments:

- *"Email correspondence provided by operator stated that an email dated 2/22/2018 an email from OCD personnel stated "2RP-3353 and 2RP-3774 releases cover basically the same area and have approved remediation proposals". Based on the information found under 2RP-3353 (NAB1529948530) closed was not approved in 2016.*
- *The closure report is not clear as to what activities occurred for remediation of this site.*
- *Submit a complete report though the OCD Permitting website by 8/1/2023.*
- *2RP-3774 closed. Refer to incident #NAB1619432451 in all future communication."*

Copies of the NMOCD correspondence are included in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

## EVALUATION OF REMEDIAL ACTION

Following receipt of the Closure Report rejection, ConocoPhillips engaged Tetra Tech to review all available historical documentation for all release incidents associated with the West Brushy 8 Federal SWD #001 facility, and to perform visual site inspections of the numerous release incidents in order to ascertain the extent of the remedial actions taken by BBC. No associated laboratory analytical data or other evidence of confirmation sampling was discovered during the file review.

Tetra Tech personnel visited the release site in February and August 2023 in order to geolocate the photographs of excavated and backfilled areas included in the Closure Report and to determine current site conditions. Photographic documentation of the 2018 remedial activities and the 2023 site conditions is presented in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

The remediated area reported by BBC in the 2019 Closure Report map for the nAB1619432451 release incident was corroborated by the photographs included in the Closure Report as well as observations made during the 2023 visual site inspections. Vegetative growth was observed in portions of the remediated extent, and no staining or other visible evidence of the release were present at the time of the site inspections. Portions of the remediated extent are located in areas of active oil and gas operations that are not intended for vegetative growth until final reclamation takes place. The remediated areas observed in the photographic documentation included with the 2019 BBC Closure Report are presented in Figure 4.

## SITE CHARACTERIZATION

The Site Characterization performed by BBC at the time of the assessment activities (and ensuing proposed work plans) for the other three (3) release incidents included in the 2019 BBC Closure Report established a depth to groundwater at 75 feet bgs based on the New Mexico Office of the State Engineer (NMOSE) reporting system. This Site Characterization was accepted when the work plans were approved.

Given the age of the release and the associated actions, a contemporized site characterization was performed and no sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, playa lakes, streams, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). The Site is in an area of medium karst potential. The Pecos River is located approximately 1,800 feet northwest of the Site. Two NMOSE stream bodies are located approximately 600 and 1,000 feet from the release areas, respectively.

There are no water wells listed in the NMOSE database located within approximately ½ mile (800 meters) of the site. According to data from two (2) wells listed in the NMOSE database located approximately 1.5 miles (2,400 meters) from the Site, groundwater was encountered at a minimum depth of 75 feet below ground surface (bgs). The Site characterization data is presented in Appendix B.



**REGULATORY FRAMEWORK**

Based upon the lack of groundwater data within a ½ mile radius and the proximity to the Pecos River and stream bodies, in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil.

Based on the site characterization, depth to groundwater, and in accordance with Table I of 19.15.29.12 NMAC, the recommended remedial action levels (RRALs) for the Site are as follows:

Constituent	Site RRALs
Chloride	10,000 mg/kg
TPH	2,500 mg/kg
BTEX	50 mg/kg

Additionally, in accordance with the NMOCD guidance *Procedures for Implementation of the Spill Rule (19.15.29 NMAC)* (September 6, 2019), the following reclamation requirements for surface soils (0-4 ft bgs) outside of active oil and gas operations are as follows:

Constituent	Reclamation Requirements
Chloride	600 mg/kg
TPH	100 mg/kg

**2023-2024 ADDITIONAL ASSESSMENT ACTIVITIES**

Tetra Tech conducted additional assessment sampling at the Site on behalf of ConocoPhillips in order to evaluate current soil concentrations and confirm the reported remedial actions performed at the nAB1619432451 release Site, as well as the two adjacent and overlapping historical releases (incident IDs nAB1715742101 and nAB1529948530). The nAB1619432451 release extent largely encompasses both of the other two historical release footprints. On September 21, 2023 Tetra Tech installed fifteen (15) hand auger borings (AH-23-1 through AH-23-15) to depths ranging from 1 to 4 feet bgs in a cross section pattern across the release extent of the overlapping nAB1715742101 incident.

Tetra Tech personnel returned to the Site on November 30, 2023 to install two (2) soil trenches (T-1 and T-5) in the northern drainage area in an attempt to vertically delineate the release in this area, as well as two (2) hand auger borings (AH-23-16 and AH-23-17) to further delineate the release horizontally. Due to the proximity of a buried Energy Transfer pipeline, the soil trenches were placed 25 feet east of the buried line and were not centered within the release extent.

In coordination with all third-party utility operators in the area, Tetra Tech personnel returned to the Site on January 4-5, 2024 to install an additional sixteen (16) soil trenches (T-24-1 through T-24-16) and four (4) hand auger borings (H-24-1 through H-24-4).

Tetra Tech personnel returned to the Site on January 10, 2024 to oversee the installation of six (6) borings with an air rotary drill rig. Boring locations were chosen based on all previous sampling results in order to vertically delineate soil impacts from the various historical releases.

All 2023-2024 sampling locations are presented along with the nAB1715742101 and nAB1529948530 release incident extents in Figure 5.

A total of ninety-seven (97) soil samples were collected from forty-five (45) sampling locations during the four (4) mobilizations and submitted to Cardinal under five (5) separate chain-of-custody and analysis

requests to be analyzed for chloride via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8261B. A copy of the laboratory analytical reports and chain-of-custody documentation for the 2023-2024 sampling events are included in the Remediation Work Plan dated January 29, 2024, available on the NMOCD permitting website.

Analytical results from the 2023-2024 soil assessment efforts are summarized in Table 2. The analytical results associated with the 0-1 foot bgs soil interval at trench location T-24-6 exceeded the reclamation limit of 100 mg/kg for TPH. There were no other TPH or BTEX results which exceeded the applicable reclamation limits or RRALs in any of the analyzed samples.

Chloride concentrations were detected in surface soils (0-4 feet bgs) at levels above the reclamation limit of 600 mg/kg at seventeen (17) of the sample locations. There were no analytical results associated with subsurface (greater than 4 feet bgs) soils which exceeded the chloride RRAL of 10,000 mg/kg.

The sampling locations which exceeded the reclamation limits were those associated with trench locations T-24-1 through T-24-7, T-24-10 through T-24-11, and T-24-13 through T-24-15. Horizontal and vertical delineation of the release extent using Table I of 19.15.29.12 NMAC constituents was achieved in accordance with 19.15.29.11(5) NMAC as a result of the 2023-2024 sampling events.

## REMEDATION WORK PLAN AND REGULATORY APPROVAL

Tetra Tech, on behalf of ConocoPhillips, prepared a Remediation Work Plan dated January 29, 2024 and submitted it to the NMOCD and the BLM for approval. The Remediation Work Plan described the results of the assessment activities and proposed to remove soils that exceeded the Site reclamation limits and RRALs as determined by the results of the assessment activities. The proposed remedial action addressed the nAB1619432451 incident, which is the subject of this report, as well as the two adjacent and overlapping historical releases (incident IDs nAB1715742101 and nAB1529948530).

The Remediation Work Plan was approved via email by Brittany Hall of the NMOCD on January 31, 2024, with the following conditions:

- *“Remediation plan approved. Sidewall confirmation samples in the immediate vicinity of any pressurized lines and the “exclusion zone” on Figure 6 must be collected. Confirmation bottom and sidewall samples representative of no more than 400 square feet is approved. A complete and accurate remediation closure report will need to be submitted by April 30, 2024.”*

A series of extensions were requested for the remedial activities and associated reporting. The final extension was approved by Brittany Hall on July 30, 2024, and the new due date is August 30, 2024.. Copies of the regulatory correspondence are included in Appendix C.

## CULTURAL SURVEY

In associated correspondence, the BLM conditionally approved the proposed remedial action upon the condition that a full archeological survey be conducted to include any areas that will be disturbed in order to access the release area. An extension request for reporting was submitted to the NMOCD via email on April 30, 2024 to allow time for the cultural survey and to get concurrent approval from the BLM. The extension request was approved via email on May 1, 2024 for a new due date of July 30, 2024. Copies of the regulatory correspondence are included in Appendix C.

Tetra Tech subcontracted SWCA Environmental Consultants (SWCA) to conduct an intensive pedestrian cultural resources survey for the West Brushy 8 Federal SWD #1- Proposed Remediation Project in Eddy County, New Mexico. The survey included the pipe location encompassed by the release remediation area and a 30-meter (m) (100-foot) cultural resources buffer as well as a portion of LA 66112. Portions of the proposed project are covered by three previous qualifying surveys, surveyed within the past 10 years (New Mexico Cultural Resource Information System [NMCRI] Activity Numbers 132233, 137329, and 145263); these areas were not resurveyed at this time. The total survey area is 6.08 acres (2.46 hectare [ha]). No

new historic cultural properties, archaeological sites, or isolated occurrences were identified during the investigation. One previously recorded archaeological site, LA 66112, was visited due to its proximity to the inadvertent release. The western third of the site was updated based on communication with Aaron Whaley at the BLM Carlsbad Field Office (CFO) (2/26/2024).

In accordance with Section 106 of the National Historic Preservation Act (Public Law 89-665), as amended, a cultural resources inventory was completed to locate, identify, and record any cultural resources that may be affected within the area of potential effects (APE) of the proposed project, and provide recommendations regarding their eligibility for listing in the National Register of Historic Places (NRHP).

LA 66112 was determined eligible for the NRHP. The observed portion of the site does not contribute to the eligibility. The inadvertent release area does not extend into the site, and no remediation activities will take place within 100 feet of the site. No additional investigation or treatment is recommended regarding the current undertaking. If subsurface cultural materials are encountered during remediation, all work should cease, and the BLM CFO should be notified immediately.

The BLM approved ConocoPhillips to proceed with the remedial action following the completion of the cultural survey in an email dated June 26, 2024. Copies of the regulatory correspondence are included in Appendix C.

## REMEDIAL ACTIVITIES AND CONFIRMATION SAMPLING

From July 10 through August 7, 2024, Tetra Tech personnel were onsite to supervise the remedial activities proposed in the approved Remediation Work Plan, including excavation, disposal, and confirmation sampling. Prior to confirmation sampling, on July 11, 2024, the NMOCD district office was first notified via the OCD Portal in accordance with Subsection D of 19.15.29.12 NMAC. As mentioned, a second extension request was submitted to the NMOCD on July 30, 2024, and was approved for a new due date of August 30, 2024. Regulatory correspondence, including the approved extension requests and release notifications and variance requests are documented in Appendix C.

Impacted soils were excavated as indicated in Figure 6. The areas within the release footprint were excavated to a maximum depth of 4 feet below surrounding grade. Due to safety concerns associated with working around pressurized lines, impacted soils were excavated by hand or hydro-excavation within 4 feet of subsurface lines. Heavy machinery remained outside this buffer zone to avoid any associated risk or disturbance. The remediated surface area associated with incident nAB1619432451 was comprised of approximately 17,650 square feet. Photographs from the excavated areas prior to backfill are provided in Appendix D.

Following excavation, confirmation floor and sidewall samples were collected from the entire remediated area and submitted for laboratory analysis to verify efficacy of remediation activities. Per the NMOCD approved confirmation sampling plan, confirmation samples were collected such that each discrete sample (sidewall and floor) was representative of no more than 400 square feet of excavated area. The combined remediated extent had a surface area of approximately 19,890 square feet. A total of fifty-one (51) confirmation floor sample locations and twenty-two (22) confirmation sidewall sample locations were collected for laboratory analysis during remedial activities. Confirmation sidewall sample locations were categorized with the cardinal direction (N, E, S, W) followed by SW-#. Confirmation floor sample locations were labeled with FS-#. Internal sidewall samples were collected from the vertical faces of the excavation between the 1-ft and 4-ft areas and labeled with ISW-#.

At select sidewall locations where the initial confirmation soil sampling analytical results exceeded the reclamation limits, the sidewalls were expanded, and iterative confirmation samples were collected to encompass the original sample locations that triggered removal (nomenclature defined in Table 3) post-additional excavation. Final excavated areas, depths and confirmation sample locations are indicated in Figure 6.

Collected confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within appropriate holding times by Cardinal. The soil samples were analyzed for TPH (GRO+DRO+MRO) by EPA Method 8015M, BTEX by EPA Method 8021B, and chlorides by SM4500Cl-B. The analytical results were directly compared to the reclamation limits and established Site RRALs to demonstrate compliance.

The results of the July and August 2024 confirmation sampling events are summarized in Table 3. All final confirmation soil samples (floor and sidewall) were below applicable cleanup levels for chloride, TPH, and BTEX. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E.

All excavated material was transported offsite for proper disposal. Approximately 1,850 cubic yards of material were transported to the R360 Red Bluff Facility in Orla, TX.

## RECLAMATION ACTIVITIES

Based on 19.15.29.13 NMAC, all areas disturbed by the remediation have been reclaimed. Collected confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within appropriate holding times by Cardinal. The soil samples were analyzed for TPH (GRO+DRO+MRO) by EPA Method 8015M, BTEX by EPA Method 8021B, and chlorides by SM4500Cl-B. The analytical results were directly compared to the reclamation requirements and established Site RRALs to demonstrate compliance. All final confirmation soil samples (floor and sidewall) were below the reclamation limits for chloride, TPH, and BTEX. Excavated areas, depths and confirmation sample locations are indicated in Figure 6. The results of the July and August 2024 confirmation sampling events are summarized in Table 3.

Once acceptable confirmation sample results were received, the excavation was backfilled with clean material to pre-release grade. In accordance with 19.15.29.12 NMAC, the reclaimed area contained a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0. The soil cover included a top layer consisting of one foot of suitable material to establish vegetation at the site. The backfilled areas in the pasture were seeded following backfilling, to aid in revegetation. Based on the soils of the site, the BLM Seed Mix #2 was used for seeding and was planted in the amount specified in the pounds pure live seed (PLS) per acre.

The backfill material was sourced from the R360 Red Bluff Facility. Twenty-one (21) representative soil samples were collected by R360 from the backfill material used for the reclamation of the project site on July 22, 2024 and sent to Eurofins in Carlsbad, New Mexico to be analyzed for chlorides by EPA Method 300.0. Tetra Tech collected one additional backfill sample from the R360 Red Bluff facility on August 22, 2024 and submitted to Cardinal to be analyzed for TPH (GRO+DRO+MRO) by EPA Method 8015M, BTEX by EPA Method 8021B, and chlorides by SM4500Cl-B. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. The analytical results associated with the backfill sample collected by Tetra Tech are summarized in Table 4.

Site inspections will be performed annually to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the NMSLO will be contacted to determine an effective method for eradication. If the site does not show revegetation after one growing season, the area will be reseeded as appropriate. Reclamation activities have been implemented in consultation with the BLM.

## CONCLUSION

ConocoPhillips respectfully requests closure of the incident based on the confirmation sampling results and remedial activities performed. The final C-141 forms are enclosed in Appendix A.

nAB1619432451 Remediation Closure and Reclamation Report  
August 28, 2024

ConocoPhillips

If you have any questions concerning the remediation activities for the Site, please call me at (512) 739-7874 or Christian at (512) 338-2861.

Sincerely,  
**Tetra Tech, Inc.**



Samantha K. Abbott, P.G.  
Project Manager



Christian M. Llull, P.G.  
Program Manager

cc:  
Mr. Ike Tavaréz – ConocoPhillips  
Ms. Shelly Taylor, BLM



## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Overview Map
- Figure 2 – Topographic Map
- Figure 3 – Approximate Release Extent and Site Assessment (BBC)
- Figure 4 – Remediation Extents (BBC)
- Figure 5 – Additional Delineation (TT 2023-2024)
- Figure 6 – Remediation Extents and Confirmation Sampling Locations

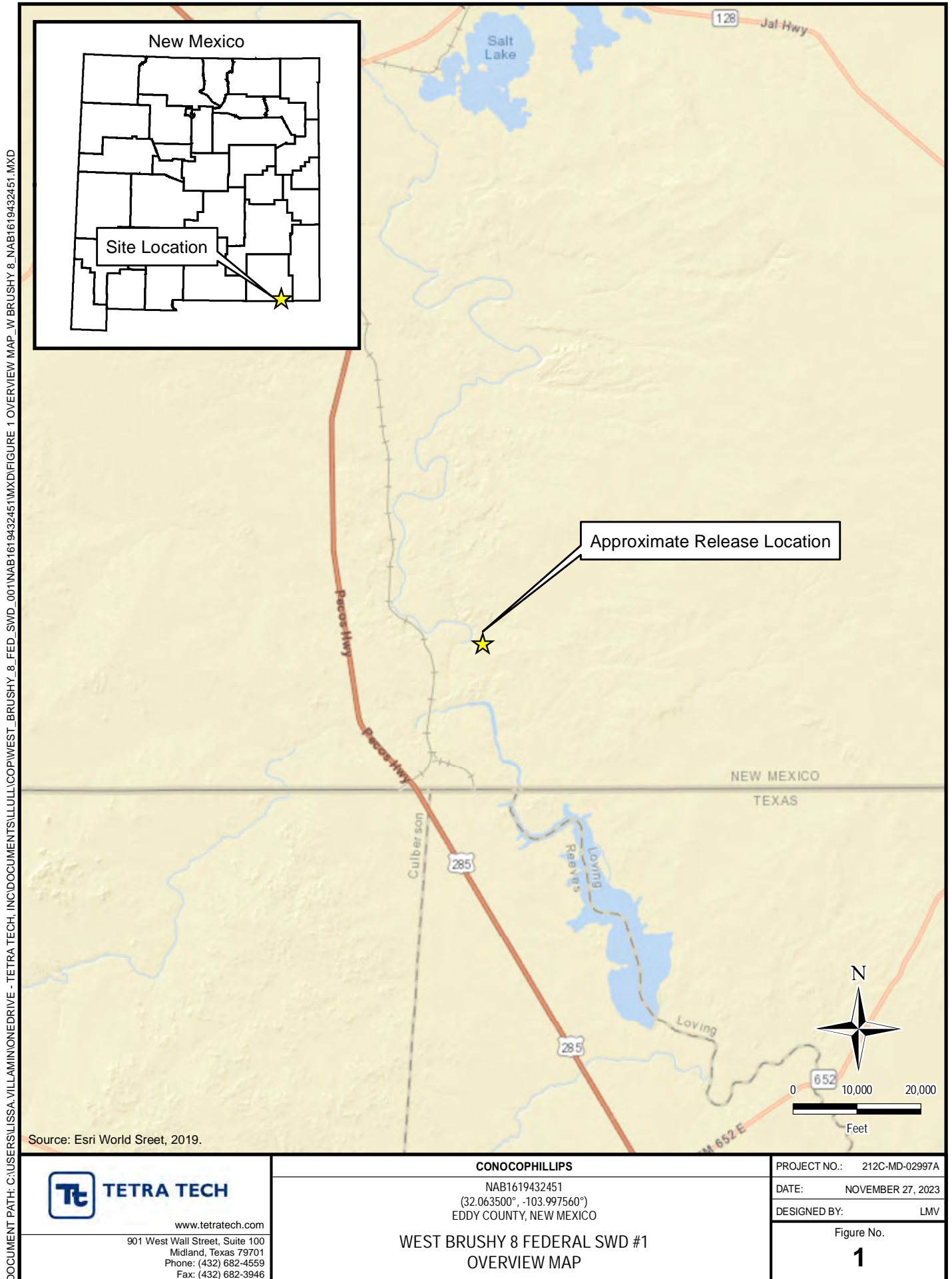
### Tables:

- Table 1 – Summary of Analytical Results – 2017 BBC Soil Assessment
- Table 2 – Summary of Analytical Results – 2023-2024 TT Soil Assessment
- Table 3 – Summary of Analytical Results – Soil Remediation
- Table 4 – Summary of Analytical Results – Soil Backfill

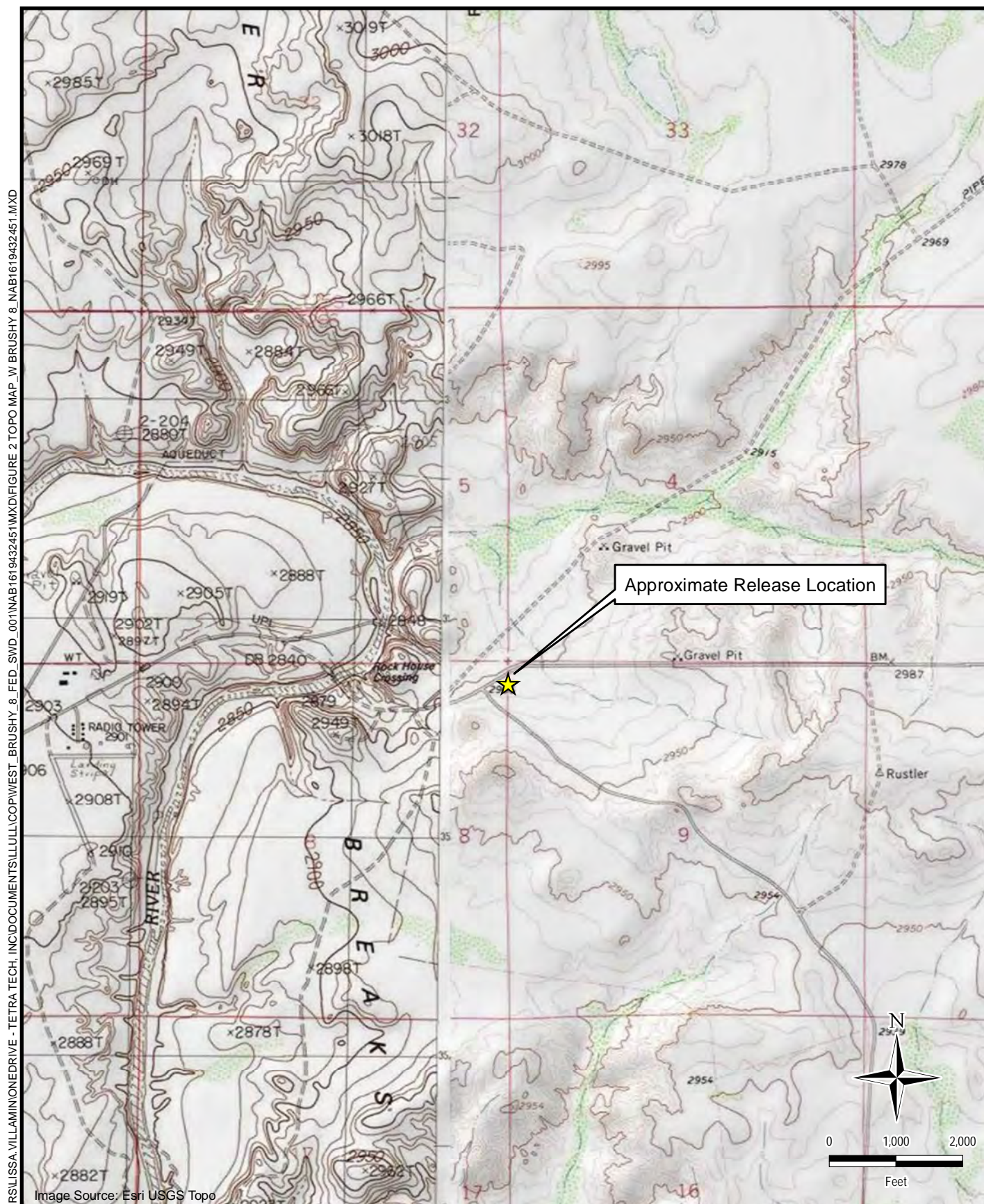
### Appendices:

- Appendix A – C-141 Forms
- Appendix B – Site Characterization Data
- Appendix C – Regulatory Correspondence
- Appendix D – Photographic Documentation
- Appendix E – Laboratory Analytical Data

## **FIGURES**







**TETRA TECH**

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CONOCOPHILLIPS

NAB1619432451  
(32.063500°, -103.997560°)  
EDDY COUNTY, NEW MEXICO

WEST BRUSHY 8 FEDERAL SWD #1  
TOPOGRAPHIC MAP

PROJECT NO.: 212C-MD-02997A

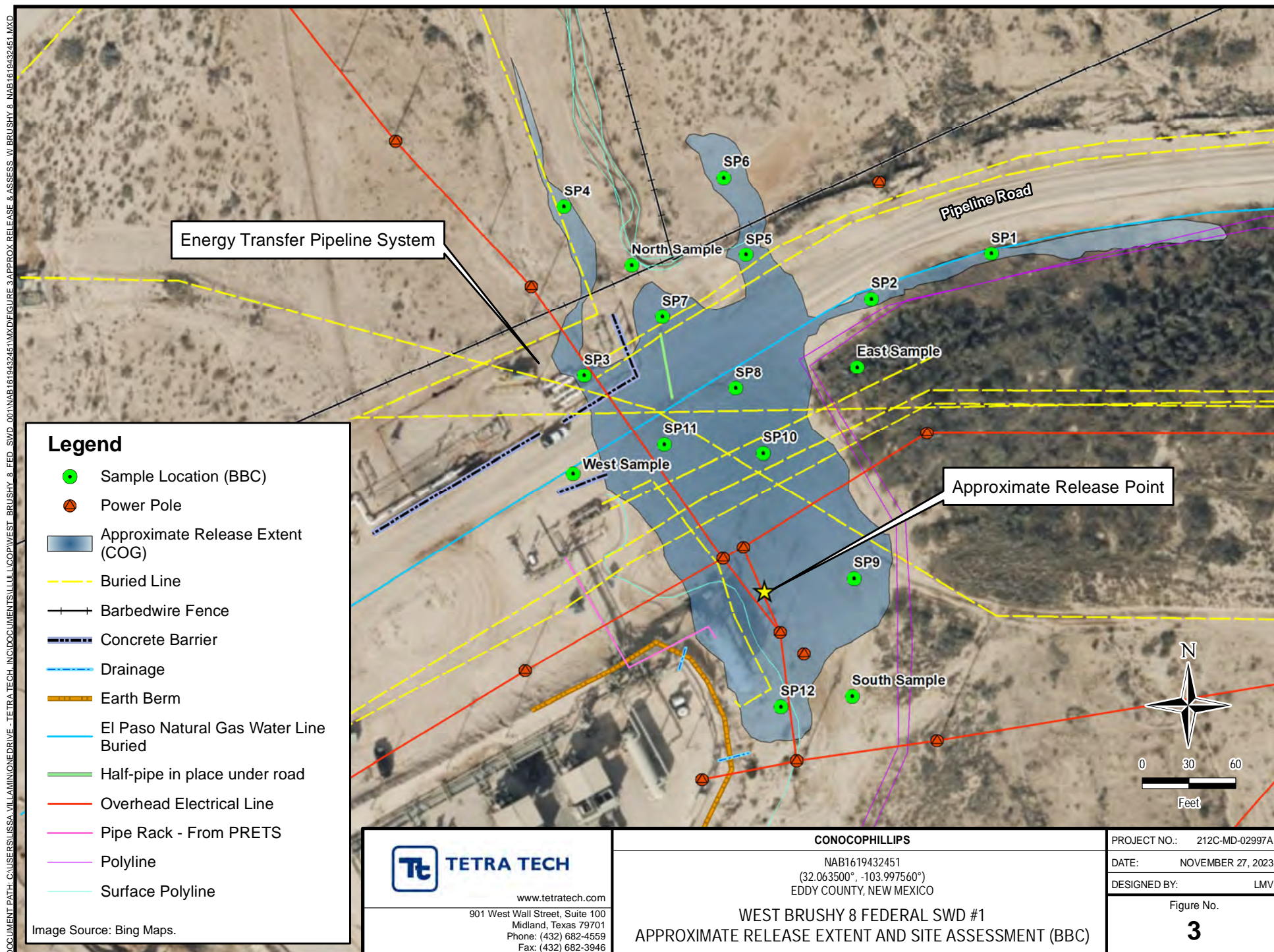
DATE: NOVEMBER 27, 2023

DESIGNED BY: LMV

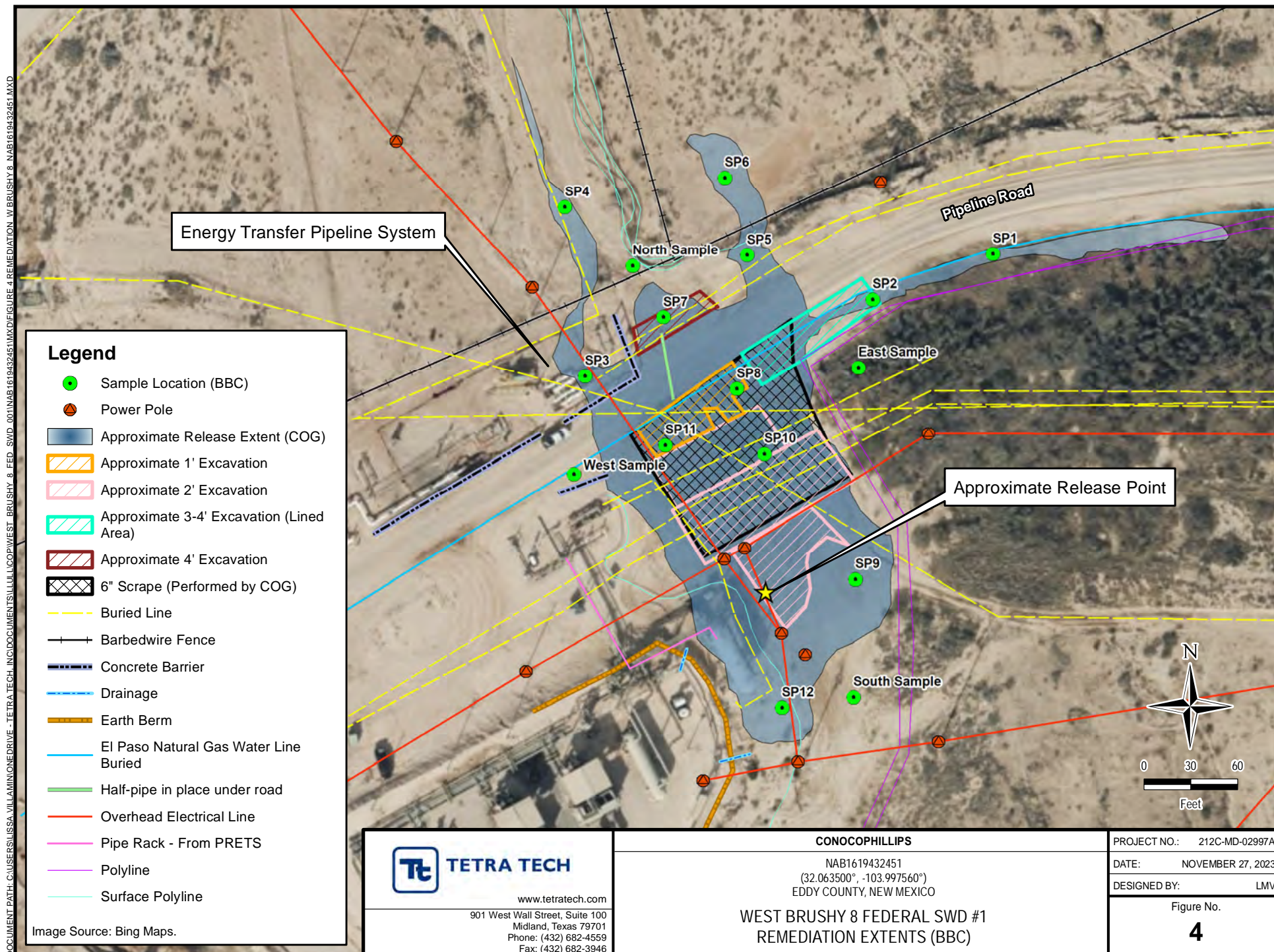
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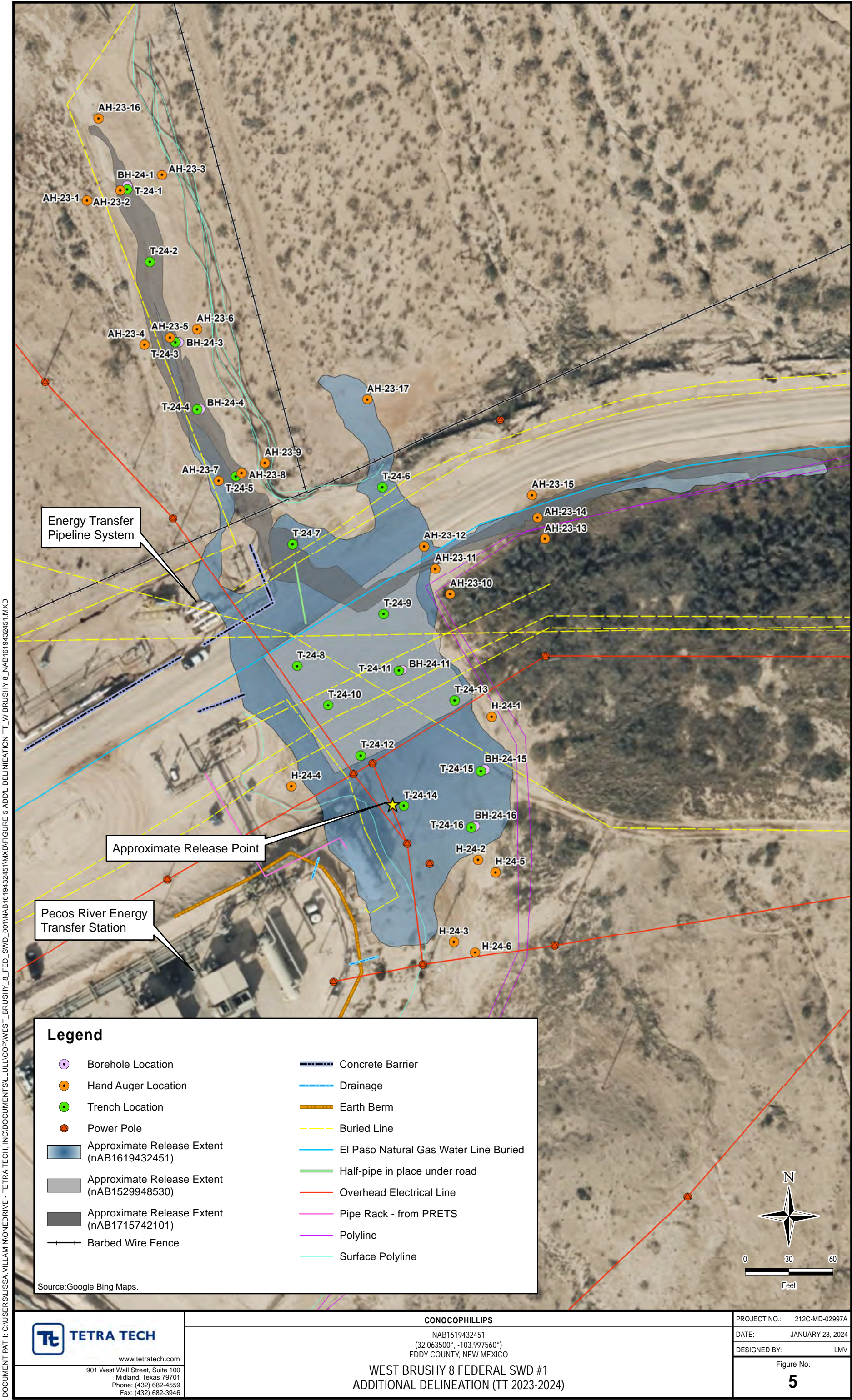




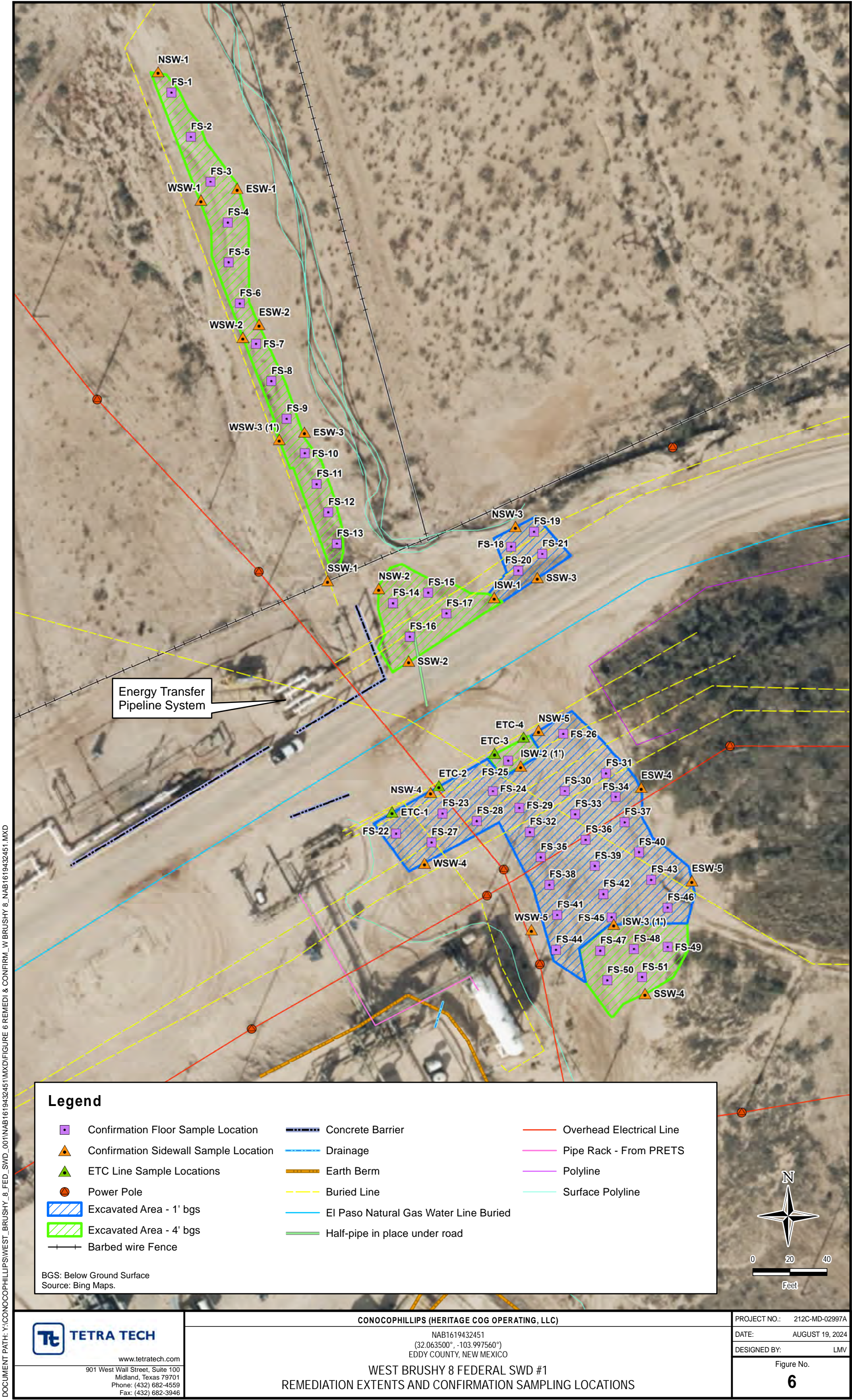














## **TABLES**

TABLE 1  
SUMMARY OF ANALYTICAL RESULTS  
2017 BBC SOIL ASSESSMENT- nAB1619432451  
CONOCOPHILLIPS  
West Brushy 8 SWD #001  
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Chloride		BTEX <sup>2</sup>										TPH <sup>3</sup>							
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH (GRO+DRO+EXT DRO)	
															C <sub>6</sub> - C <sub>10</sub>		> C <sub>10</sub> - C <sub>28</sub>		> C <sub>28</sub> - C <sub>36</sub>			
		ft. bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	
SP1	1/19/2017	Surface	272		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		1	48		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP2	1/19/2017	Surface	224		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		1	16		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP3	1/19/2017	Surface	16		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		1	48	QR-03	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP4	1/19/2017	Surface	80		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		1	16		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP5	1/19/2017	Surface	14,600		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		1	608		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		2	96		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP6	1/19/2017	Surface	10,400		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		1	2,360		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		2	704		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		3	<16.0		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP7	1/20/2017	Surface	9,800		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		1	2,920		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		14.9		N/A		14.9	
		2	592		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		3	<16.0		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP8	1/20/2017	Surface	6,480		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		1	368		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		2	2,560		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		3	32		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP9	1/20/2017	1	5,440		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		2	7,040		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		4	960		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		5	<16.0		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP10	1/20/2017	1	11,600		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		N/A		<10.0	
		2	4,000		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		3	352		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		4	288		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP11	1/20/2017	Surface	5,600		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		1	352		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		2	352		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
SP12	1/20/2017	1	6,660		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		2	6,930		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		3	480		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		4	80		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
		5	112		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
North Sample	1/20/2017	1	112		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
East Sample	1/20/2017	1	112		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
West Sample	1/20/2017	1	48		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
South Sample	1/20/2017	1	80		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

N/A Not Analyzed for Constituent

***Bold and italicized values indicate exceedance of proposed RRALs and Reclamation Requirements.***

Qualifiers

QR-03

The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.



TABLE 2  
SUMMARY OF ANALYTICAL RESULTS  
2023-2024 ADDITIONAL SOIL ASSESSMENT  
nAB1715742101 AND nAB1619432451 AND nAB1529948530  
CONOCOPHILLIPS  
WEST BRUSHY 8 FEDERAL SWD #001  
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride		BTEX <sup>2</sup>										TPH <sup>3</sup>								
			ExStik	Titration			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH (GRO+DRO+EXT DRO)	
		mg/kg			Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q				
																						ft. bgs			ppm
		Reclamation Limit for Soils 0-4' bgs:	--		600 mg/kg		10 mg/kg		--		--		--		50 mg/kg		--		--		--		--		100 mg/kg
		RRAL for Soils >4' bgs (GW 50-100 ft):	--		10,000 mg/kg		10 mg/kg		--		--		--		50 mg/kg		--		--		--		1,000 mg/kg		2,500 mg/kg
AH-23-1	9/21/2023	0-1	392	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		19.1		-	19.1	
AH-23-2	9/21/2023	0-1	2230	-	2,400		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		2-3	2690	-	2,080		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		27.5		<10.0		27.5	27.5	
T-1	11/30/2023	0-1	627	-	304		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
T-24-1	1/4/2024	3-4	2,080	-	1,630		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		5-6	1,130	-	928		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		6-7	1,110		1,020		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
BH-24-1	1/10/2024	7-8	-	500	512		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		8-9	1,130	600	912		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		9-10	1,080	400	1,090		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
AH-23-3	9/21/2023	0-1	267	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
T-24-2	1/4/2024	0-1	4,670	-	4,120		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		2-3	1,840	-	1,700		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		3-4	2,950	-	2,440		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		5-5.5	1,660	-	768		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
AH-23-4	9/21/2023	0-1	369	-	32		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
AH-23-5	9/21/2023	0-1	1560	-	928		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		2-3	4950	-	3,760		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
T-24-3	1/4/2024	3-4	3,940	-	4,080		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		5-6	3,060	-	3,360		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		6-7	2,420	-	2,400		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		7-7.5	1,670	-	1,140		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
BH-24-3	1/10/2024	8-9	1,620	900	976		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		9-10	1,550	600	768		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		90.7		98.1		90.7	188.8	
		10-11	958	400	656		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
AH-23-6	9/21/2023	0-1	284	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
T-24-4	1/4/2024	0-1	1,950	-	1,090		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		2-3	1,990	-	1,550		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		3-4	2,730	-	3,200		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		5-6	2,420	-	2,240		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		6-7	2,210	-	1,150		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		8-8.5	2,060	-	1,380		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
BH-24-4	1/10/2024	9-10	1,280	800	1,120		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	
		10-11	1,170	400	608		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0	

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WEST BRUSHY 8 FEDERAL SWD #001  
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride		BTEX <sup>2</sup>										TPH <sup>3</sup>									
			ExStik	Titration			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH (GRO+DRO+EXT DRO)		
		mg/kg			Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q					
																						ft. bgs			ppm	mg/kg
		Reclamation Limit for Soils 0-4' bgs:	--	600 mg/kg	10 mg/kg	--	--	50 mg/kg	--	--	50 mg/kg	--	--	50 mg/kg	--	--	50 mg/kg	--	--	--	--	1,000 mg/kg	2,500 mg/kg			
RRAL for Soils >4' bgs (GW 50-100 ft):	--	10,000 mg/kg	10 mg/kg	--	--	50 mg/kg	--	--	50 mg/kg	--	--	50 mg/kg	--	--	50 mg/kg	--	--	--	--	1,000 mg/kg	2,500 mg/kg					
AH-23-7	9/21/2023	0-1	465	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
AH-23-8	9/21/2023	0-1	2530	-	2,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		43.1		<10.0		43.1	43.1		
		2-3	3420	-	2,400		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		3-4	4380	-	3,600		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
T-5	11/30/2023	0-1	-	-	176		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
AH-23-9	9/21/2023	0-1	468	-	144		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
T-24-6	1/5/2024	0-1	-	-	144		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		211		<10.0		211	211		
		1-2	404	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		11.2		<10.0		11.2	11.2		
T-24-7	1/5/2024	0-1	4,520	-	2,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		2-3	-	-	4,280		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		3-4	-	-	1,800		<0.050		<0.050		<0.050	GC-NC	0.271	GC-NC1	<0.300		21.2		45.9		<10.0		67.1	67.1		
		5-6	669	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		6-7	407	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
AH-23-10	9/21/2023	0-1	580	-	320		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
AH-23-11	9/21/2023	0-1	416	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		2-3	353	-	96		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
AH-23-12	9/21/2023	0-1	792	-	240		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
AH-23-13	9/21/2023	0-1	216	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
AH-23-14	9/21/2023	0-1	198	-	16		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		2-3	286	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
AH-23-15	9/21/2023	0-1	392	-	64		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
AH-23-16	11/30/2023	0-1	379	-	160		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
AH-23-17	11/30/2023	0-1	-	-	192		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
T-24-5	1/4/2024	3-4	1,750	-	1,140	QM-07	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		5-6	1,770	-	736		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		6-7	1,040	-	800		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
T-24-8	1/5/2024	0-1	1,510	-	496		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		2-3	1,110	-	464		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		3-4	469	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
T-24-9	1/5/2024	0-1	857	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		2-3	415	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
T-24-10	1/5/2024	0-1	1,140	-	640		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		
		2-3	310	-	112		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0		

TABLE 2  
SUMMARY OF ANALYTICAL RESULTS  
2023-2024 ADDITIONAL SOIL ASSESSMENT  
nAB1715742101 AND nAB1619432451 AND nAB1529948530  
CONOCOPHILLIPS  
WEST BRUSHY 8 FEDERAL SWD #001  
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride		BTEX <sup>2</sup>										TPH <sup>3</sup>							
			ExStik	Titration			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		(GRO+DRO)	Total TPH (GRO+DRO+EXT DRO)
		mg/kg			Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q			
																						ft. bgs		
		Reclamation Limit for Soils 0-4' bgs:	--	600 mg/kg	10 mg/kg	--	--	50 mg/kg	--	--	100 mg/kg													
RRAL for Soils >4' bgs (GW 50-100 ft):	--	10,000 mg/kg	10 mg/kg	--	--	50 mg/kg	--	--	2,500 mg/kg															
T-24-11	1/5/2024	0-1	1,260	-	784		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	2,410	-	1,200		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	1,310	-	608		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
BH-24-11	1/10/2024	4-5	1,820	600	1,710		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-6	2,160	800	1,460		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		8-9	1,300	575	1,070		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-12	1/5/2024	0-1	536	-	144		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-13	1/5/2024	0-1	3,690	-	4,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	248	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-14	1/5/2024	0-1	1,030	-	944		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0	QM-07	<10.0		<10.0		-	<10.0
		2-3	252	-	64		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-15	1/5/2024	0-1	1500	-	1,470		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		1-2	1,050	-	304		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
BH-24-15	1/10/2024	2-3	873	300	272		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	1,230	350	416		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-6	1,040	200	288		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		6-7	898	200	352		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
T-24-16	1/5/2024	0-1	2,470	-	2,160		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		2-3	3,730	-	3,240		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		3-4	3,390	-	3,040		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		5-6	1,940	-	1,010		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
B-24-16	1/10/2024	6-7	1,890	800	1,090		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		7-8	2,040	600	1,010		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		8-9	1,690	840	1,020		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		9-10	1,470	580	896		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
		14-15	1,580	400	1,100		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
H-24-1	1/5/2024	0-1	334	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
H-24-2	1/5/2024	0-1	1,760	-	416		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
H-24-3	1/5/2024	0-1	1,180	-	304		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0
H-24-4	1/5/2024	0-1	310	-	96		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	<10.0

NOTES:

ft. Feet  
bgs Below ground surface  
mg/kg Milligrams per kilogram  
TPH Total Petroleum Hydrocarbons  
GRO Gasoline range organics  
DRO Diesel range organics  
1 Method SM4500CI-B  
2 Method 8021B  
3 Method 8015M

**Bold and italicized values indicate exceedance of proposed RRALs and/or Reclamation Requirements.**

QUALIFIERS:

QM-07 The spike recovery was outside of lab established statistical control limits but still within method limits. Data is not adversely affected.  
GC-NC 8620 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND (not detected at or above the reporting limit).  
GC-NC1 8620 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.

TABLE 3  
SUMMARY OF ANALYTICAL RESULTS  
SOIL REMEDIATION  
nAB1529948530, nAB1619432451, and nAB1715742101  
CONOCOPHILLIPS  
WEST BRUSHY 8 SWD #001 RELEASE  
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride <sup>1</sup>	BTEX <sup>2</sup>					TPH <sup>3</sup>			
			Chloride	PID		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	Total TPH (GRO+DRO+EXT DRO)
		C <sub>6</sub> - C <sub>10</sub>			> C <sub>10</sub> - C <sub>28</sub>						> C <sub>28</sub> - C <sub>36</sub>	mg/kg		
ft bgs					ppm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Reclamation Closure Criteria for Soils 0-4 ft bgs:					600 mg/kq	10 mg/kq	--	--	--	50 mg/kq	--	--	--	100 mg/kq
Site RRALs for Soils >4 ft bgs (GW >50 ft):					10,000 mg/kq	10 mg/kq	--	--	--	50 mg/kq	--	--	--	2,500 mg/kq
FS-1	7/22/2024	4			320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-2	7/22/2024	4			1,010	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-3	7/22/2024	4			2720	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-4	7/22/2024	4			2,120	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-5	7/22/2024	4			1,800	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-6	7/22/2024	4			2,320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-7	7/22/2024	4			992	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-8	7/22/2024	4			2270	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-9	7/22/2024	4			2080	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-10	7/22/2024	4			1660	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-11	7/22/2024	4			720	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-12	7/22/2024	4			4120	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-13	7/22/2024	4			384	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-14	7/26/2024	4			1170	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-15	7/26/2024	4			832	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-16	7/26/2024	4			1040	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-17	7/26/2024	4			1020	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-18	7/31/2024	1			48.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-19	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-20	7/31/2024	1			<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-21	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-22	7/26/2024	1			192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-23	7/26/2024	1			192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-24	7/26/2024	1			176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-25	8/5/2024	4			832	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-26	8/5/2024	1			112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-27	7/26/2024	1			224	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-28	7/26/2024	1			192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-29	7/26/2024	1			176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-30	7/26/2024	1			208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-31	7/26/2024	1			160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.4	<10.0	10.4
FS-32	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-33	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-

TABLE 3  
SUMMARY OF ANALYTICAL RESULTS  
SOIL REMEDIATION  
nAB1529948530, nAB1619432451, and nAB1715742101  
CONOCOPHILLIPS  
WEST BRUSHY 8 SWD #001 RELEASE  
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride <sup>1</sup>	BTEX <sup>2</sup>					TPH <sup>3</sup>			
			Chloride	PID		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	Total TPH (GRO+DRO+EXT DRO)
		C <sub>6</sub> - C <sub>10</sub>			> C <sub>10</sub> - C <sub>28</sub>						> C <sub>28</sub> - C <sub>36</sub>			
ft bgs					ppm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Reclamation Closure Criteria for Soils 0-4 ft bgs:					600 mg/kq	10 mg/kq	--	--	--	50 mg/kq	--	--	--	100 mg/kq
Site RRALs for Soils >4 ft bgs (GW >50 ft):					10,000 mg/kq	10 mg/kq	--	--	--	50 mg/kq	--	--	--	2,500 mg/kq
FS-34	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-35	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-36	7/31/2024	1			64.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-37	7/31/2024	1			80.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-38	7/31/2024	1			48.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-39	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-40	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-41	7/31/2024	1			64.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-42	7/31/2024	1			48.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-43	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-44	7/31/2024	1			16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-45	7/31/2024	1			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-46	7/31/2024	1			16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-47	7/31/2024	4			1490	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-48	7/31/2024	4			1100	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-49	7/31/2024	4			1100	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-50	7/31/2024	4			1170	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
FS-51	7/31/2024	4			1230	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
NSW-1	7/22/2024	-			128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
NSW-2	7/26/2024	-			384	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
NSW-3	7/31/2024	-			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
NSW-4	7/31/2024	-			64.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
NSW-5	7/31/2024	-			64.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
SSW-1	7/22/2024	-			208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
SSW-2	7/26/2024	-			480	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
SSW-3	7/31/2024	-			16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
SSW-4	7/31/2024	-			16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
WSW-1	7/22/2024	-			144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
WSW-2	7/22/2024	-			160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
WSW-3	7/22/2024	-			640	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
WSW-3 (1')	7/26/2024	-			336	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
WSW-4	7/26/2024	-			176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-



TABLE 3  
SUMMARY OF ANALYTICAL RESULTS  
SOIL REMEDIATION  
nAB1529948530, nAB1619432451, and nAB1715742101  
CONOCOPHILLIPS  
WEST BRUSHY 8 SWD #001 RELEASE  
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride <sup>1</sup>	BTEX <sup>2</sup>					TPH <sup>3</sup>			
			Chloride	PID		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	Total TPH (GRO+DRO+EXT DRO)
		C <sub>6</sub> - C <sub>10</sub>			> C <sub>10</sub> - C <sub>28</sub>						> C <sub>28</sub> - C <sub>36</sub>			
ft bgs					ppm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Reclamation Closure Criteria for Soils 0-4 ft bgs:					600 mg/kq	10 mg/kq	--	--	--	50 mg/kq	--	--	--	100 mg/kq
Site RRALs for Soils >4 ft bgs (GW >50 ft):					10,000 mg/kq	10 mg/kq	--	--	--	50 mg/kq	--	--	--	2,500 mg/kq
WSW-5	7/31/2024	-			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ESW-1	7/22/2024	-			48.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ESW-2	7/22/2024	-			80.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ESW-3	7/22/2024	-			144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ESW-4	7/26/2024	-			176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ESW-5	7/31/2024	-			32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ISW-1	7/26/2024	-			368	<0.050	0.124	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ISW-2	8/1/2024	-			624	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	12.1	<10.0	12.1
ISW-2 (1')	8/5/2024	-			96.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
ISW-3	8/1/2024	-			720	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	17.2	<10.0	17.2
ISW-3 (1')	8/5/2024	-			112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-

NOTES:

- ft      Feet
- bgs      Below ground surface
- mg/kg   Milligrams per kilogram
- TPH      Total Petroleum Hydrocarbons
- GRO      Gasoline range organics
- DRO      Diesel range organics
- 1      Method SM4500Cl-B
- 2      Method 8021B
- 3      Method 8015M

- Bold and italicized values indicate exceedance of proposed Remediation RRALs and/or Reclamation Requirements.**
- Gold highlight represents soil horizons that were removed during deepening of excavation floors.
- Green highlight represents soil horizons that were removed during horizontal expansion of excavation sidewalls.
- \*    These iterative samples are located to encompass the original sample location that triggered removal, with further excavation in each area indicated in ().
- \*\* These sample results are below the Site RRALs, but are elevated above the Merchant SUCA requirements.
- \*\*\* These samples were collected outside of the excavation extents as additional delineation points.

TABLE 4  
SUMMARY OF ANALYTICAL RESULTS  
SOIL BACKFILL - R360 RED BLUFF FACILITY  
CONOCOPHILLIPS  
WEST BRUSHY 8 SWD #001  
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Chloride <sup>1</sup>		BTEX <sup>2</sup>										TPH <sup>3</sup>							
				Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH (GRO+DRO+EXT DRO)	
		C <sub>6</sub> - C <sub>10</sub>												> C <sub>10</sub> - C <sub>28</sub>		> C <sub>28</sub> - C <sub>36</sub>					
		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	
BACKFILL - COMPOSITE	8/22/2024	128		<0.025		<0.050		<0.050		<0.150		<0.2.75		<10.0		<10.0		<10.0		-	

- NOTES:
- bgs Below ground surface
  - mg/kg Milligrams per kilogram
  - TPH Total Petroleum Hydrocarbons
  - GRO Gasoline range organics
  - DRO Diesel range organics
  - 1 Method SM4500CI-B
  - 2 Method 8021B
  - 3 Method 8015M

## **APPENDIX A C-141 Forms**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

NM OIL CONSERVATION  
ARTESIA DISTRICT

JUL 08 2016

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
conformance with 19.15.29 NMAC.

RECEIVED

## Release Notification and Corrective Action

**OPERATOR** ☒ Initial Report ☐ Final Report

Name of Company: COG Operating LLC **229137** Contact: Robert McNeill  
Address: 600 West Illinois Avenue, Midland TX 79701 Telephone No. 432-230-0077  
Facility Name: West Brushy 8 Federal SWD #1 Facility Type: SWD

Surface Owner: Federal Mineral Owner: Federal API No. 30-015-31675

## LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	8	26S	29E	660	North	330	East	Eddy

Latitude 32.0625249053514 Longitude -103.99867482237

## NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 25 bbls	Volume Recovered: 0 bbls
Source of Release: Poly Flowline	Date and Hour of Occurrence: 7/3/2016 unknown	Date and Hour of Discovery: 7/3/2016 12:00pm
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher – OCD / Shelly Tucker – BLM	
By Whom? Amanda Trujillo Davis	Date and Hour: 7/5/2016 10:31 AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

This release was caused by a damaged poly flowline. Dry weather and soil conditions made recovery of fluid difficult.

Describe Area Affected and Cleanup Action Taken.\*

The impacted area is located in the pasture alongside the road. Concho will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Amanda T. Davis</i>	OIL CONSERVATION DIVISION	
Printed Name: Amanda Trujillo Davis	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Senior Environmental Coordinator	Approval Date: 7/11/16	Expiration Date: N/A
E-mail Address: atrujillo@concho.com	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines <input type="checkbox"/>	
Date: July 8, 2016 Phone: 575-748-6940	SUBMIT REMEDIATION PROPOSAL NO	

\* Attach Additional Sheets If Necessary

LATER THAN: 8/12/16

2RP-374

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

<p><b>Characterization Report Checklist:</b> <i>Each of the following items must be included in the report.</i></p> <div><input type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.<input type="checkbox"/> Field data<input type="checkbox"/> Data table of soil contaminant concentration data<input type="checkbox"/> Depth to water determination<input type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release<input type="checkbox"/> Boring or excavation logs<input type="checkbox"/> Photographs including date and GIS information<input type="checkbox"/> Topographic/Aerial maps<input type="checkbox"/> Laboratory data including chain of custody</div>
---

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.



Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature:  \_\_\_\_\_ Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan


**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
Signature:  \_\_\_\_\_ Date: \_\_\_\_\_  
email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature:  \_\_\_\_\_ Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

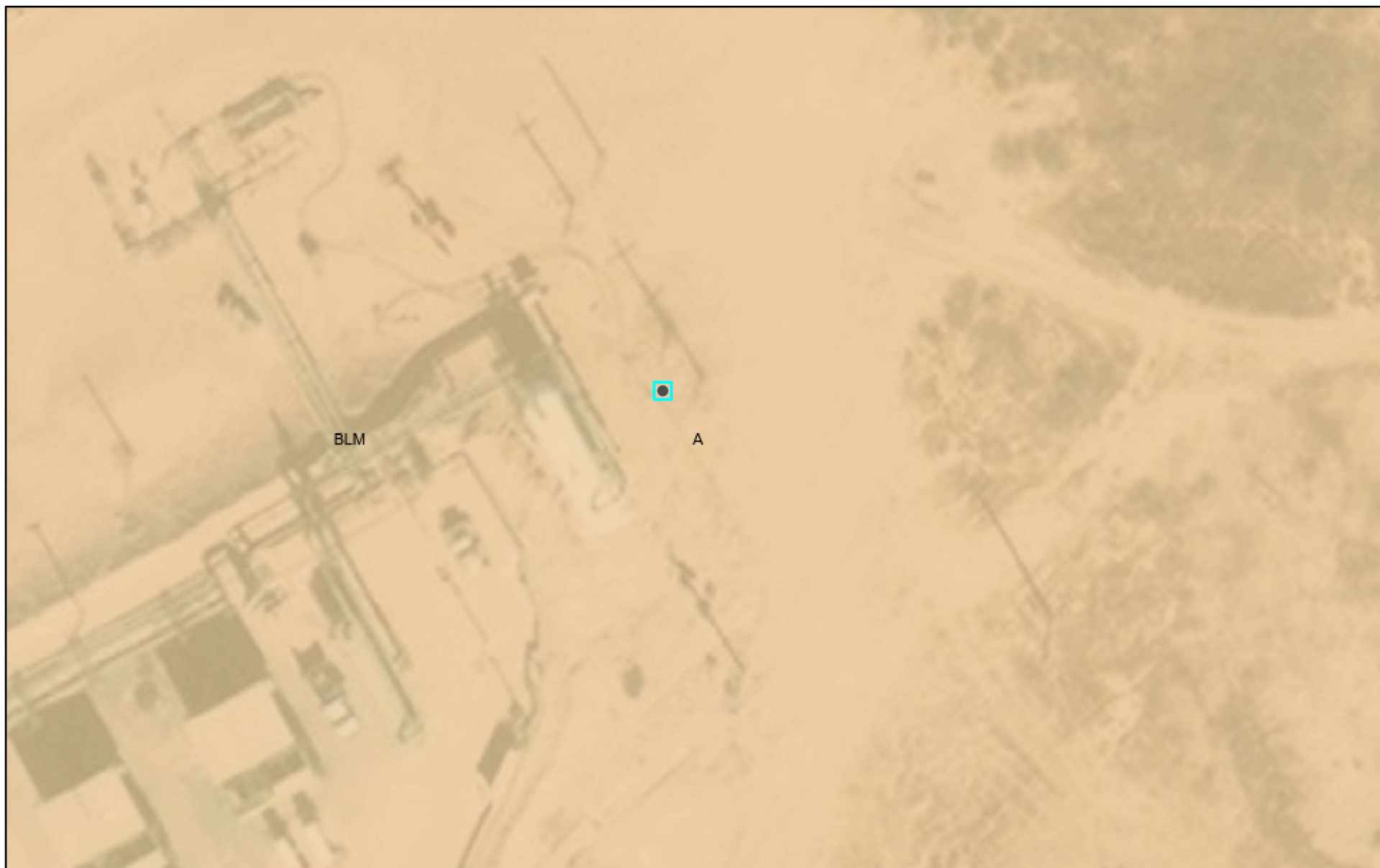
Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

## **APPENDIX B**

### **Site Characterization Data**



## OCD - Land Ownership



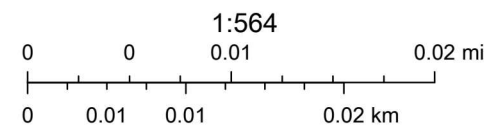
9/26/2023, 10:14:09 AM

Mineral Ownership

A-All minerals are owned by U.S.

Land Ownership

BLM

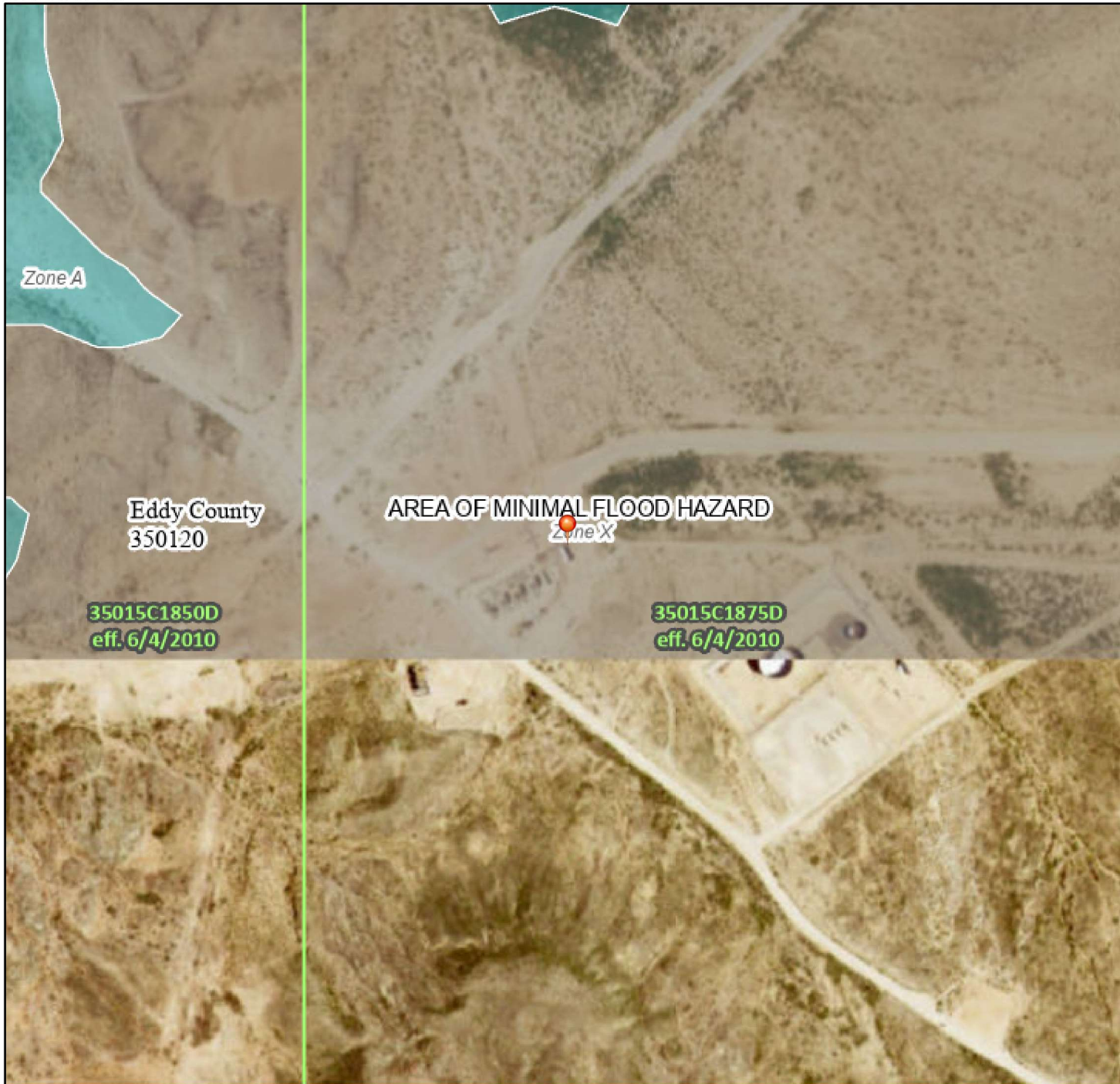


U.S. BLM, Maxar, Microsoft, Esri, HERE, Garmin, iPC

# National Flood Hazard Layer FIRMette



104°0'10"W 32°4'4"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

103°59'33"W 32°3'33"N

Released to Imaging: 9/6/2024 10:27:57 AM

Basemap Imagery Source: USGS National Map 2023

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		8 Coastal Transect
		513 Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/26/2023 at 10:39 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmapped areas cannot be used for regulatory purposes.



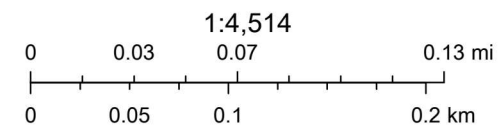
## OCD - Karst Areas



9/26/2023, 10:23:19 AM

Karst Occurrence Potential

Medium



BLM, OCD, New Mexico Tech, Esri, HERE, Garmin, iPC, Maxar, BLM



New Mexico Office of the State Engineer

Water Column/Average Depth to Water



(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is  
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD															
POD Number	Sub-Code	basin	County	Q			Sec	Tws	Rng	X	Y	Distance	Depth	Depth	Water
				64	16	4							Well	Water	Column
<a href="#">C 03507 POD1</a>	C	ED	1	3	3	05	26S	29E	593064	3548313		1611	140	78	62
<a href="#">C 03508 POD1</a>	C	ED	1	3	3	05	26S	29E	593063	3548361		1624	140	75	65

Average Depth to Water: 76 feet

Minimum Depth: 75 feet

Maximum Depth: 78 feet

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 594622.15

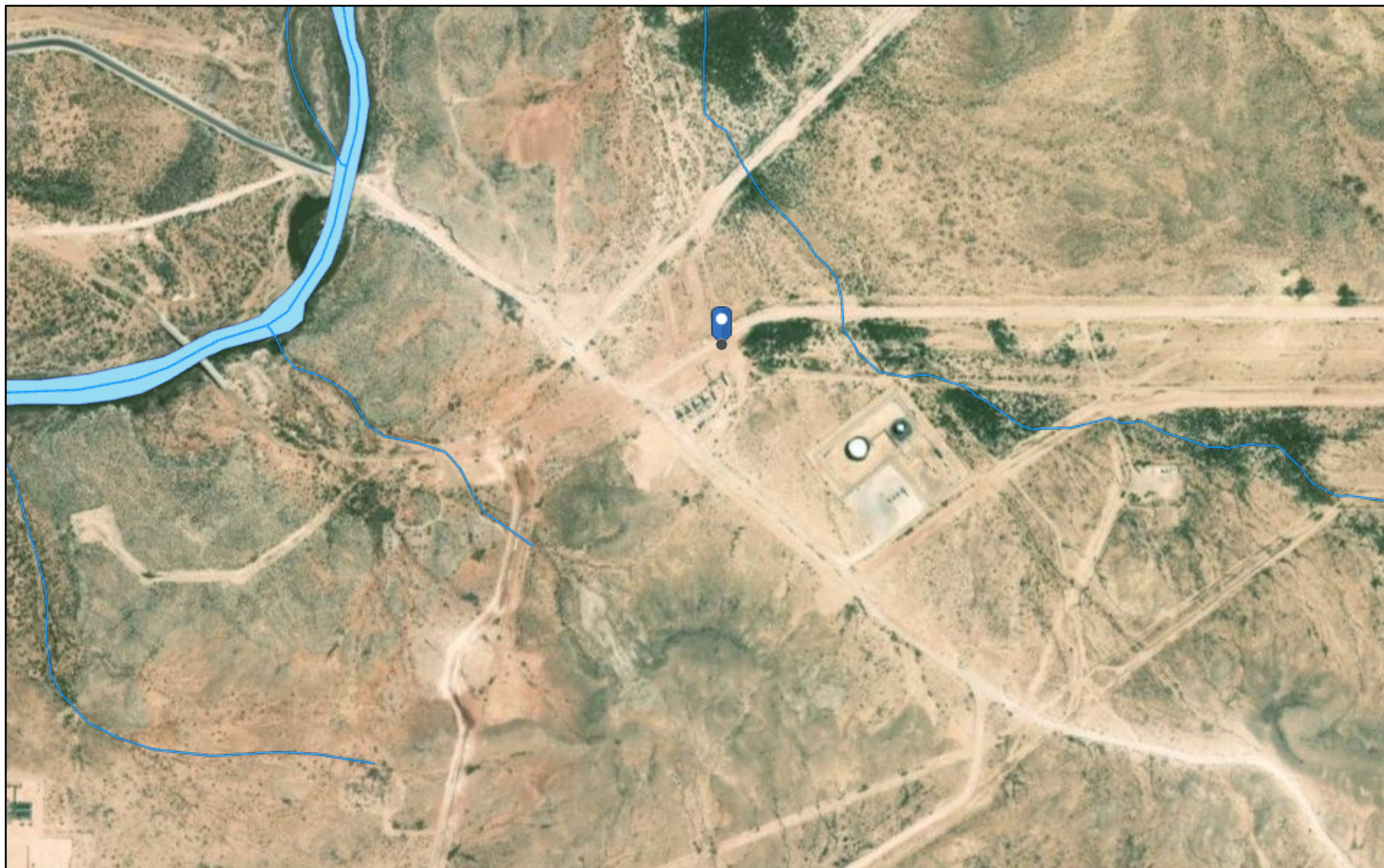
Northing (Y): 3547903.47

Radius: 1700

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



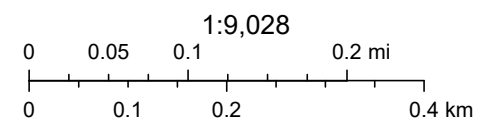
# OCD Waterbodies



1/25/2024, 9:30:55 AM

 OSW Water Bodys

 OSE Streams



Esri, HERE, Garmin, iPC, Maxar, NM OSE



## **APPENDIX C**

### **Regulatory Correspondence**

**Chama, Sam**

---

**From:** OCDOnline@state.nm.us  
**Sent:** Wednesday, January 31, 2024 9:38 AM  
**To:** Llull, Christian  
**Subject:** The Oil Conservation Division (OCD) has approved the application, Application ID: 309000

**⚠ CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. **⚠**

To whom it may concern (c/o Christian Llull for COG OPERATING LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAB1619432451, with the following conditions:

- **Remediation plan approved. Sidewall confirmation samples in the immediate vicinity of any pressurized lines and the "exclusion zone" on Figure 6 must be collected. Confirmation bottom and sidewall samples representative of no more than 400 square feet is approved. A complete and accurate remediation closure report will need to be submitted by April 30, 2024.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,  
Brittany Hall  
Projects Environmental Specialist - A  
505-517-5333  
Brittany.Hall@emnrd.nm.gov

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**From:** [Hall, Brittany, EMNRD](#)  
**To:** [Abbott, Sam](#); [Enviro, OCD, EMNRD](#)  
**Cc:** [Llull, Christian](#)  
**Subject:** RE: [EXTERNAL] Extension Request - West Brushy 8 Federal SWD #001 Remediation (Incident IDs nAB1715742101 and nAB1619432451)  
**Date:** Wednesday, May 1, 2024 8:37:44 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

Sam,

The extension request is approved. This will be the final extension approved for nAB1715742101 and nAB1619432451. The new due date is July 30, 2024.

Please include a copy of this email in the remediation closure reports for nAB1715742101 and nAB1619432451.

Thank you,

**Brittany Hall** ● Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.517.5333 | [Brittany.Hall@emnrd.nm.gov](mailto:Brittany.Hall@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/ocd/>

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMNRD Website prior to submitting any C-141s. The guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

**From:** Abbott, Sam <Sam.Abbott@tetrattech.com>  
**Sent:** Tuesday, April 30, 2024 3:30 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Cc:** Llull, Christian <Christian.Llull@tetrattech.com>; Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>  
**Subject:** [EXTERNAL] Extension Request - West Brushy 8 Federal SWD #001 Remediation (Incident IDs nAB1715742101 and nAB1619432451)

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To Whom it May Concern,

On behalf of ConocoPhillips, Tetra Tech is requesting a 90-day extension (until July 30, 2024) to complete remedial activities and associated reporting for the **West Brushy 8 Federal SWD #001 combined release (Incident IDs nAB1715742101 and nAB1619432451)**.

The remediation action plan was approved separately for each of the 2 release incidents on January 1, 2024. The plans were sent to the BLM for concurrence. In an email dated February 29, 2024, Shelly Taylor of the BLM wrote via email that a full archeological survey is required at the site.

The archeological field survey was completed by SWCA on behalf of Tetra Tech and ConocoPhillips on April 9, 2024. Due to the scope of the survey and associated reporting required by the BLM, the survey report is still in draft and is anticipated to be submitted to the BLM by May 9, 2024.

The remedial action will commence upon final approval by the BLM.

Thank you in advance.

Sam

**Samantha Abbott, PG** | Project Manager

Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | [Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)

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**From:** [Taylor, Shelly J](#)  
**To:** [Abbott, Sam](#)  
**Cc:** [Llull, Christian](#)  
**Subject:** Re: [EXTERNAL] RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan  
**Date:** Wednesday, June 26, 2024 10:32:13 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)  
[image011.png](#)  
[image012.png](#)  
[image013.png](#)  
[image014.png](#)  
[image015.png](#)  
[image016.png](#)  
[Outlook-v2hu0l1w.png](#)

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BLM approves for you to proceed with remedial actions.

Respectfully,

*Shelly J Taylor*

Assistant Field Manager  
Lands & Minerals - Acting

Bureau of Land Management  
Pecos District/Roswell Field Office  
2909 W 2<sup>nd</sup> St  
Roswell, NM 88201

Direct 575.627.0250  
Mobile 575.200.0614  
[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)



---

**From:** Abbott, Sam <Sam.Abbott@tetrattech.com>  
**Sent:** Tuesday, June 25, 2024 2:43 PM  
**To:** Taylor, Shelly J <sjtaylor@blm.gov>  
**Cc:** Llull, Christian <Christian.Llull@tetrattech.com>  
**Subject:** RE: [EXTERNAL] RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan

Good afternoon Shelly,

I am writing to follow up on this Remediation Work Plan conditional approval. We hope to begin this remediation project on Monday, July 1<sup>st</sup>, and continue through most of July.



Tetra Tech subcontracted SWCA to complete the archeological survey in April 2024. The attached report (redacted) was submitted to the BLM and NMCRIS by SWCA.

If subsurface cultural materials are encountered during remediation, all work should cease, and the BLM will be notified immediately. No work will be performed within 100 feet of the known site (LA 66112).

Can you confirm that Tetra Tech and ConocoPhillips are cleared to proceed with the proposed work without the presence of a cultural monitor?

Thank you,  
Sam

**Samantha Abbott, PG** | Project Manager  
Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | [Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)

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---

**From:** Taylor, Shelly J <[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)>  
**Sent:** Thursday, February 29, 2024 1:23 PM  
**To:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>  
**Cc:** Allen, Samantha <[SAMANTHA.ALLEN@tetrattech.com](mailto:SAMANTHA.ALLEN@tetrattech.com)>; Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Subject:** Re: [EXTERNAL] RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan

You don't often get email from [sjtaylor@blm.gov](mailto:sjtaylor@blm.gov). [Learn why this is important](#)

archeological survey, a full survey will be required including any areas that will be disturbed in order to access the release area. Based on survey results, an archeological monitor maybe required.

5. The release **did not** impact any known archaeological areas based on available data.
6. This area **is** located within a **Medium karst zone**; a karst survey **will not be required**.
7. This site is **located within hydrological feature**.
8. Site **is** located within a **Special Status Plant Species** area.
9. The site **is not** located within a wildlife T&E species habitat. No survey will be required.
10. Area **is not** located within Shinnery Oak PDO.
11. Soils are within the **Pajarito-Dune Land**
12. BLM Seed Mix: **#2**.
13. Area is noted to be within N/A.
14. Site **is not** located within a Special Area of concern:
15. Site **is not** located within **ACEC**.
16. Site **is not** located within a Potash buffer area.

**You will be cleared to proceed upon the completion of the archeological survey.**

Sincerely,

*Shelly J Taylor*

Environmental Protection Specialist  
Realty - Compliance

Bureau of Land Management/Carlsbad Field Office  
620 E. Greene St  
Carlsbad, NM 88220  
Direct 575.234.5706  
Mobile 575.200.0614  
[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)



Spill/Release email: **BLM\_NM\_CFO\_REALTY\_SPILL@BLM.GOV**

---

**From:** Taylor, Shelly J <[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)>

**Sent:** Thursday, February 29, 2024 10:11 AM

**To:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>

**Cc:** Allen, Samantha <[SAMANTHA.ALLEN@tetrattech.com](mailto:SAMANTHA.ALLEN@tetrattech.com)>; Abbott, Sam  
<[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>

**Subject:** Re: [EXTERNAL] RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 -

Remediation Work Plan

Apologies... thought I replied. You are cleared to proceed with remedial activities.

Respectfully,

*Shelly J Taylor*

Assistant Field Manager  
Lands & Minerals - Acting

Bureau of Land Management  
Pecos District/Roswell Field Office  
2909 W 2<sup>nd</sup> St  
Roswell, NM 88201

Direct 575.627.0250  
Mobile 575.200.0614  
[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)



---

**From:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>  
**Sent:** Tuesday, February 27, 2024 11:36 AM  
**To:** Taylor, Shelly J <[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)>  
**Cc:** Allen, Samantha <[SAMANTHA.ALLEN@tetrattech.com](mailto:SAMANTHA.ALLEN@tetrattech.com)>; Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Subject:** [EXTERNAL] RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan

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Hey Shelly, we are still looking for the BLM response re: these aggregate WPs.  
Please advise.

Christian

---

**From:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Sent:** Wednesday, February 21, 2024 1:54 PM  
**To:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>; Tucker, Shelly J <[stucker@blm.gov](mailto:stucker@blm.gov)>  
**Cc:** Allen, Samantha <[SAMANTHA.ALLEN@tetrattech.com](mailto:SAMANTHA.ALLEN@tetrattech.com)>  
**Subject:** RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work

Plan

Here is the KML.

**Samantha Abbott, PG** | Project Manager

Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | [Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)

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**From:** Abbott, Sam

**Sent:** Wednesday, February 21, 2024 1:49 PM

**To:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>; Tucker, Shelly J <[stucker@blm.gov](mailto:stucker@blm.gov)>

**Cc:** Allen, Samantha <[SAMANTHA.ALLEN@tetrattech.com](mailto:SAMANTHA.ALLEN@tetrattech.com)>

**Subject:** RE: WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan

Attached is a KMZ with the release extent, assessment sampling locations, and proposed remedial extents. Mapped utilities are also included.

This is the same remedial action proposed for the other West Brushy 8 Federal SWD #001 release (nAB1715742101).

**Samantha Abbott, PG** | Project Manager

Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | [Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)

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---

**From:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>

**Sent:** Wednesday, January 31, 2024 1:23 PM

**To:** Taylor, Shelly J <[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)>

**Cc:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>; Allen, Samantha <[SAMANTHA.ALLEN@tetrattech.com](mailto:SAMANTHA.ALLEN@tetrattech.com)>

**Subject:** WEST BRUSHY 8 FEDERAL SWD #001 Release - nAB1619432451 - Remediation Work Plan

Shelly:

Attached for your review is the Remediation Work Plan for the West Brushy 8 Federal SWD #001 Release - **nAB1619432451 (DOR 7/3/2016)**.

- This WP has been approved by NMOCD.
- Approval attached.
- There are three similar WPs that you will receive, the remedial action is the same for all 3 sites based on the combined assessment.

**WEST BRUSHY 8 FEDERAL SWD #001**

**Eddy County, NM**

**GPS Coordinates: 32.063500°, -103.997560°**

**Incident ID: nAB1619432451**

**BACKGROUND:**

- According to the Form C-141, the release was discovered on July 3, 2016.
  - The release consisted of 25 bbls of produced water, of which 0 bbls were recovered.
  - The cause of the release was noted as a damaged poly flowline.
- BBC conducted a site assessment from January 2017.
  - Soil samples were collected from twelve (12) locations within the extent of the release and four (4) locations along the perimeter of the extent.
  - A total of forty-three (43) soil samples were collected from the sixteen (16) sampling locations and submitted to Cardinal Laboratories in Hobbs, New Mexico (Cardinal) for analysis.
  - Analytical results were above the reclamation limit for chloride (600 mg/kg) in surface (0-4 feet bgs) soils at eight (8) of the sampling locations (SP5 through SP12).
- A Delineation Workplan was prepared by BBC based on the results of the 2017 BBC assessment activities.
  - A copy of the approved remediation proposal Mr. Bratcher refers to in an email from February 22, 2018, could not be located.
- A Closure Report for four separate releases that occurred at the West Brushy 8 Federal SWD #001 Site, including Incident nAB1619432451, was rejected by NMOCD on May 1, 2023, with the following comments:
  - *"Email correspondence provided by operator stated that an email dated 2/22/2018 an email from OCD personnel stated "2RP-3353 and 2RP-3774 releases cover basically the same area and have approved remediation proposals". Based on the information found under 2RP-3353 (NAB1529948530) closed was not approved in 2016.*
  - *The closure report is not clear as to what activities occurred for remediation of*



this site.

- Submit a complete report though the OCD Permitting website by 8/1/2023.
- 2RP-3774 closed. Refer to incident #NAB1619432451 in all future communication.”

#### **ADDITIONAL ASSESSMENT:**

- Tetra Tech personnel were onsite to conduct additional assessment sampling on September 21, 2023.
  - Fifteen (15) hand auger borings (AH-23-1 through AH-23-15) were installed to depths ranging from 1 to 4 feet bgs in a cross-section pattern across the release extent.
- Tetra Tech remobilized to the site on November 30, 2023, and January 4-5, 2024, and January 10, 2024, to achieve delineation.
  - Two (2) soil trenches (T-1 and T-5) and two (2) hand auger borings (AH-23-16 and AH-23-17) were installed in the northern drainage area.
  - Sixteen (16) soil trenches (T-24-1 through T-24-16) and four (4) hand auger borings (H-24-1 through H-24-4) were installed near the release area.
  - Six (6) borings with an air rotary drill rig were installed near the release area.
  - A total of ninety-seven (97) soil samples were collected analyzed for chloride via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8261B.
  - Analytical results associated with the 0–1-foot bgs soil interval at trench location T-24-6 exceeded the reclamation limit of 100 mg/kg for TPH.
  - Chloride concentrations were detected in surface soils (0-4 feet bgs) at levels above the reclamation limit of 600 mg/kg at seventeen (17) of the sample locations.

#### **WORK PLAN:**

Based on the analytical results from the assessment, impacted material within the release extent is proposed to be removed to a maximum depth of 4’.

- The total proposed volume to be removed and disposed of is 1,920 cubic yards.
- Confirmation floor samples and confirmation sidewall samples will be collected for verification of remedial activities.
  - Confirmation sidewall and floor samples will be representative of no more than approximately 400 square feet of excavated area.
- Once acceptable confirmation sample results are received the excavation will then be backfilled with clean material to surface grade.
- The seed mixture for LPC Sand/Shinnery Sites will be used for seeding.
- Remediation activities at the Site are proposed to begin within **120** days.

Let me know what you think,

Christian

**Christian Llull, P.G.** | Program Manager  
Mobile +1 (512) 565-0190 | [christian.llull@tetrattech.com](mailto:christian.llull@tetrattech.com)

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**From:** [Hall, Brittany, EMNRD](#)  
**To:** [Abbott, Sam](#)  
**Cc:** [Llull, Christian](#); [Enviro, OCD, EMNRD](#); [Bratcher, Michael, EMNRD](#)  
**Subject:** RE: [EXTERNAL] Extension Request - West Brushy 8 Federal SWD #001 Remediation (Incident IDs nAB1715742101 and nAB1619432451)  
**Date:** Tuesday, July 30, 2024 2:26:14 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)

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Sam,

A final 30-day extension nAB1715742101 and nAB1619432451 is approved. The new due date is August 30, 2024.

Please include a copy of this email in both incidents' next submittals.

Thank you,

**Brittany Hall** ● Environmental Specialist

Environmental Bureau Projects Group

EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87110

505.517.5333 | [Brittany.Hall@emnrd.nm.gov](mailto:Brittany.Hall@emnrd.nm.gov)

<http://www.emnrd.nm.gov/ocd/>

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMNRD Website prior to submitting any C-141s. The guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

**From:** Abbott, Sam <Sam.Abbott@tetrattech.com>

**Sent:** Tuesday, July 30, 2024 11:23 AM

**To:** Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>

**Cc:** Llull, Christian <Christian.Llull@tetrattech.com>

**Subject:** [EXTERNAL] Extension Request - West Brushy 8 Federal SWD #001 Remediation (Incident IDs nAB1715742101 and nAB1619432451)

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Good morning Brittany,

On behalf of ConocoPhillips, Tetra Tech is requesting a final 30-day extension (until August 30, 2024)

to complete remedial activities and associated reporting for the **West Brushy 8 Federal SWD #001 combined release (Incident IDs nAB1715742101 and nAB1619432451)**.

The remediation action plan was approved separately for each of the 2 release incidents on January 1, 2024. The plans were sent to the BLM for concurrence. In an email dated February 29, 2024, Shelly Taylor of the BLM wrote via email that a full archeological survey is required at the site. The archeological field survey was completed by SWCA on behalf of Tetra Tech and ConocoPhillips on April 9, 2024. A previous extension request was made on April 30, 2024, while BLM approval of the remedial action was pending.

The remedial action received approval from the BLM on June 26, 2024. Tetra Tech began remedial activities at the Site on behalf of COP on July 10, 2024, following additional coordination with the facility operator and multiple operators of pipelines coinciding with the remedial footprint. The first 5 days of the project were spent daylighting buried pipelines using hydrovac trucks.

The remedial action is ongoing, with confirmation sampling events occurring on July 22<sup>nd</sup>, July 26<sup>th</sup>, and continuing today, July 30<sup>th</sup>, and tomorrow, July 31<sup>st</sup>. More confirmation sampling may be required past July 31<sup>st</sup> depending on excavation progress and initial confirmation sampling results. The attached map and photographs indicate the progress of the remedial action up to present. Remedial extents and confirmation sampling frequency intervals are based on the approved work plans. The remedial action is expected to be completed by the end of next week, and the remediation closure reports will be submitted soon thereafter.

Thank you in advance,  
Sam

**Samantha Abbott, PG** | Project Manager

Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | [Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)

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**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Lull, Christian](#)  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 363475  
**Date:** Thursday, July 11, 2024 4:23:35 PM

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To whom it may concern (c/o Christian LLuLL for COG OPERATING LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAB1619432451.

The sampling event is expected to take place:

**When:** 07/16/2024 @ 10:00

**Where:** A-08-26S-29E 660 FNL 330 FEL (32.0625267,-103.9986572)

**Additional Information:** Please contact Samantha Abbott, PG  
Project Manager  
Mobile +1 (512) 739-7874

**Additional Instructions:** WEST BRUSHY 8 FEDERAL SWD #001  
Eddy County, NM  
GPS Coordinates: 32.063500°, -103.997560°

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**From:** [Hall, Brittany, EMNRD](#)  
**To:** [Abbott, Sam](#); [Lull, Christian](#)  
**Cc:** [Bratcher, Michael, EMNRD](#); [Wells, Shelly, EMNRD](#)  
**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has accepted the application, Application ID: 363475  
**Date:** Monday, July 29, 2024 12:40:39 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)

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Sam,

The variance request for confirmation samples collected between 7/22-7/26/2024 is approved. Additional confirmation samples must be collected on the dates/times included on the C-141N(s).

Please include a copy of this email in the closure report.

Thank you,

**Brittany Hall** ● Environmental Specialist

Environmental Bureau Projects Group

EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87110

505.517.5333 | [Brittany.Hall@emnrd.nm.gov](mailto:Brittany.Hall@emnrd.nm.gov)

<http://www.emnrd.nm.gov/ocd/>

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMNRD Website prior to submitting any C-141s. The guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Friday, July 26, 2024 4:36 PM  
**To:** Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>  
**Cc:** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>  
**Subject:** FW: [EXTERNAL] RE: The Oil Conservation Division (OCD) has accepted the application, Application ID: 363475

Same thing as the last one.

---

**From:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Sent:** Friday, July 26, 2024 4:23 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>; ocdonline, emnrd, EMNRD

<[emnrd.ocdonline@emnrd.nm.gov](mailto:emnrd.ocdonline@emnrd.nm.gov)>

**Cc:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>

**Subject:** [EXTERNAL] RE: The Oil Conservation Division (OCD) has accepted the application, Application ID: 363475

**CAUTION:** This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

I am requesting a variance to continue confirmation sampling outside of the initial notice period. We experienced delays at the beginning of our remedial action due to pipeline daylighting activities and coordination efforts with various pipeline operators.

We initially planned to begin sampling activities on 7/16/2024 at 10 am. Following the delays mentioned, we were not able to begin final confirmation sampling until 7/22/2024. We also collected confirmation samples today, 7/26/2024.

The remediation activities are ongoing, and we will be collecting additional confirmation samples next week, likely on 7/30 and/or 7/31. We will submit an additional C-141N today for the additional sampling planned for next week.

Thank you,  
Sam

**Samantha Abbott, PG** | Project Manager

Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | [Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)

**Tetra Tech, Inc.** | *Leading with Science*® | OGA

8911 N Capital of Texas Hwy #2310 | Austin, TX 78759 | [tetrattech.com](http://tetrattech.com)

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Please consider the environment before printing. [Read more](#)



---

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us) <[OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)>

**Sent:** Thursday, July 11, 2024 4:23 PM

**To:** Llull, Christian <[christian.llull@tetrattech.com](mailto:christian.llull@tetrattech.com)>

**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 363475

To whom it may concern (c/o Christian LLuLL for COG OPERATING LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAB1619432451.

The sampling event is expected to take place:

**When:** 07/16/2024 @ 10:00

**Where:** A-08-26S-29E 660 FNL 330 FEL (32.0625267,-103.9986572)

**Additional Information:** Please contact Samantha Abbott, PG  
Project Manager  
Mobile +1 (512) 739-7874

**Additional Instructions:** WEST BRUSHY 8 FEDERAL SWD #001  
Eddy County, NM  
GPS Coordinates: 32.063500°, -103.997560°

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505



**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Lull, Christian](#)  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 367770  
**Date:** Friday, July 26, 2024 6:20:43 PM

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

To whom it may concern (c/o Christian LLuLL for COG OPERATING LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAB1619432451.

The sampling event is expected to take place:

**When:** 07/31/2024 @ 10:00

**Where:** A-08-26S-29E 660 FNL 330 FEL (32.0625267,-103.9986572)

**Additional Information:** Additional information: sampling previously collected on 7/22 and 7/26. Sampling may continue through 8/1. Please contact Samantha Abbott, PG / Project Manager at 512-739-7874

**Additional Instructions:** Navigation Info: WEST BRUSHY 8 FEDERAL SWD #001 Eddy County, NM GPS Coordinates: 32.063500°, -103.997560°

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

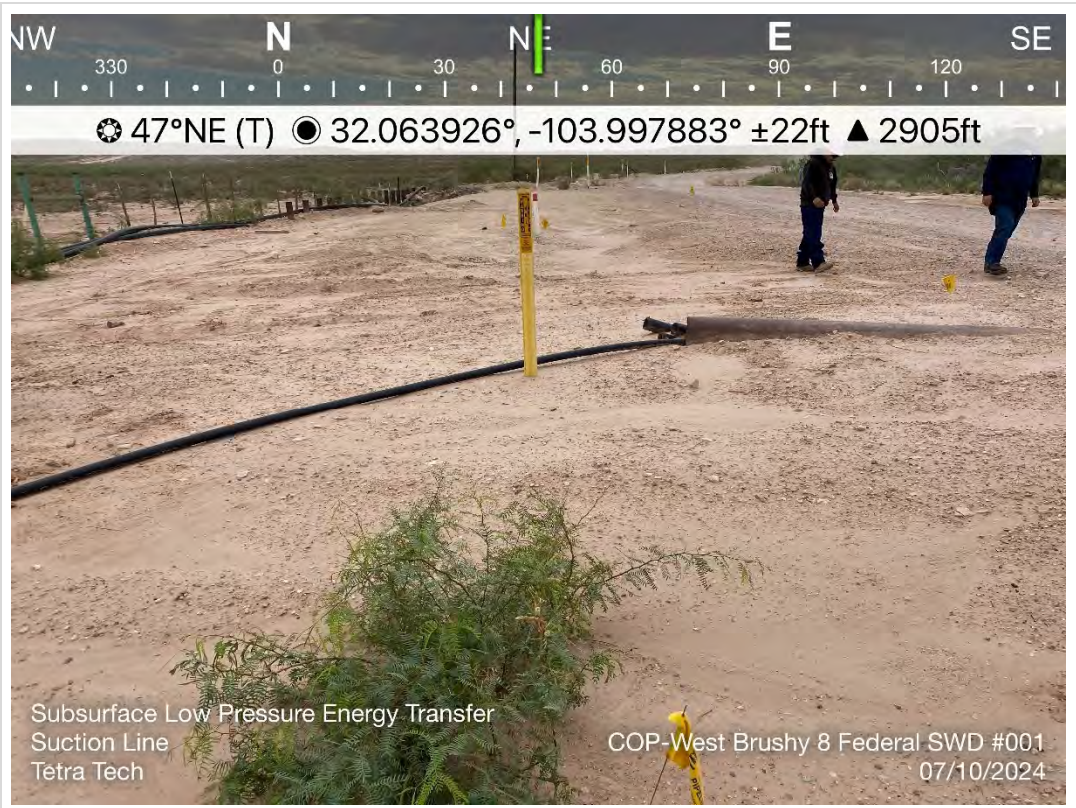
- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

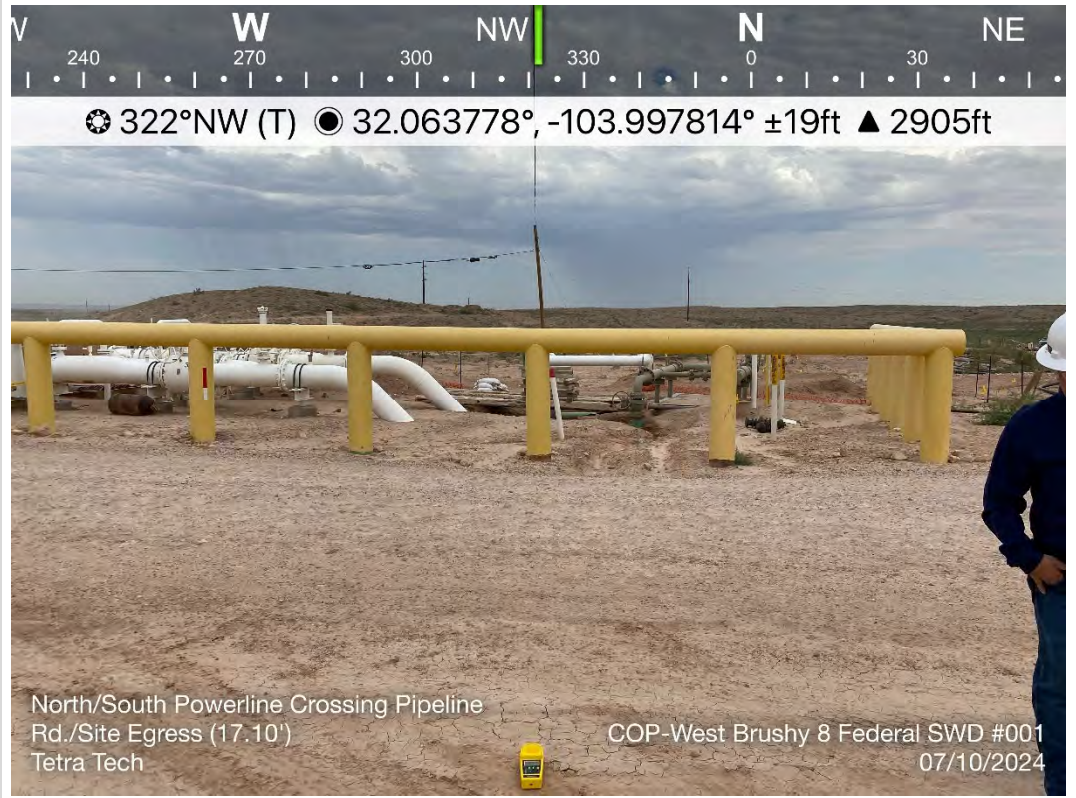
**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

## **APPENDIX D**

# **Photographic Documentation**

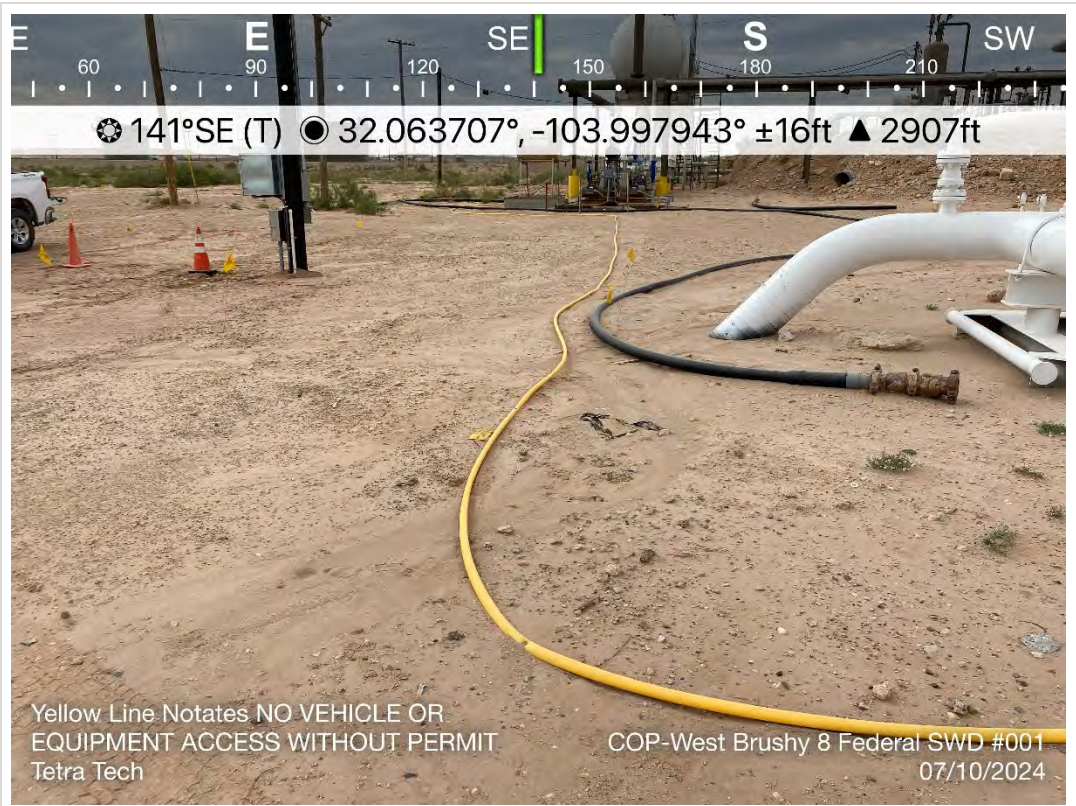


TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View northeast, site walk and review of utility lines and associated markings prior to excavation.	1
	SITE NAME	West Brushy 8 SWD #001	7/10/2024

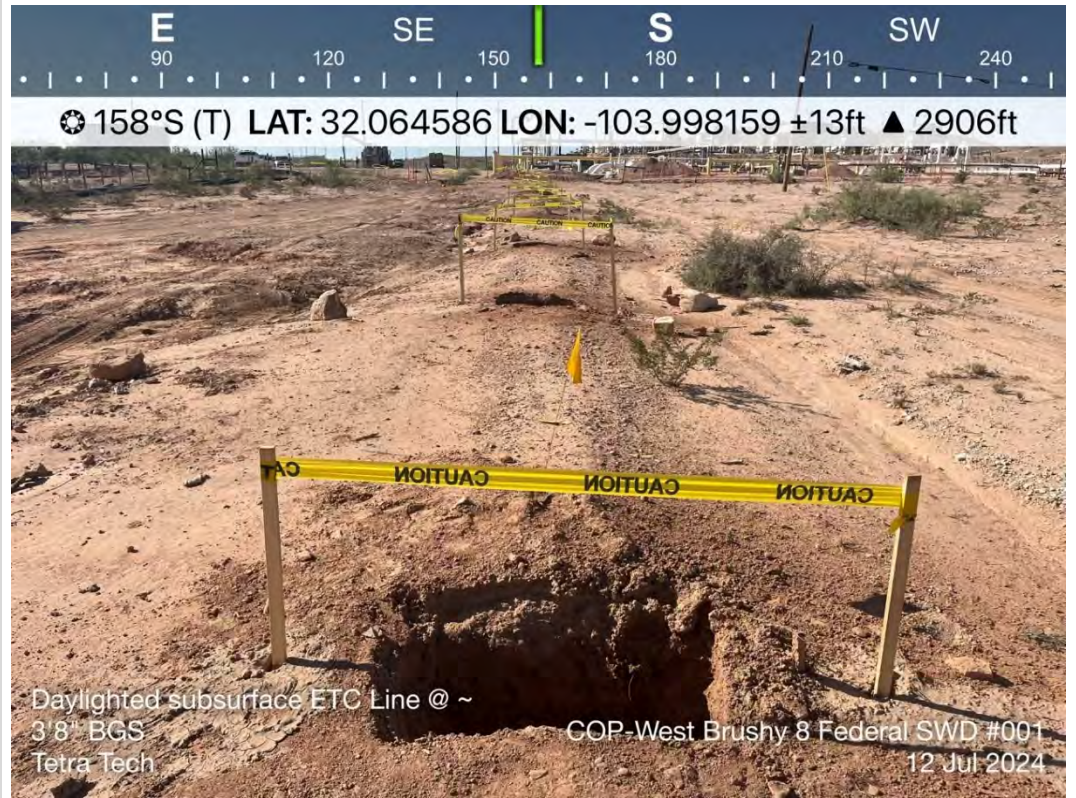


TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View northwest, confirming powerline height for safety walk ahead of excavation.	2
	SITE NAME	West Brushy 8 SWD #001	7/10/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View southeast, setting safety boundary for vehicle access around critical infrastructure.	3
	SITE NAME	West Brushy 8 SWD #001	7/10/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View south-southeast, hydrovac of subsurface to confirm location. Potholes indicate intervals of spotted location.	4
	SITE NAME	West Brushy 8 SWD #001	7/12/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View southwest, initial scrape of 1-foot excavation area.	5
	SITE NAME	West Brushy 8 SWD #001	7/24/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View southwest, excavation of northern section of release associated with nAB1529948530.	6
	SITE NAME	West Brushy 8 SWD #001	7/26/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View west, localized 4-foot excavation adjacent to subsurface line.	7
	SITE NAME	West Brushy 8 SWD #001	8/1/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View southwest, 4-foot excavation adjacent to subsurface line in northern section of release extent.	8
	SITE NAME	West Brushy 8 SWD #001	8/1/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View north-northwest, removal of 4 foot of materials as per approved work plan.	9
	SITE NAME	West Brushy 8 SWD #001	7/26/2024

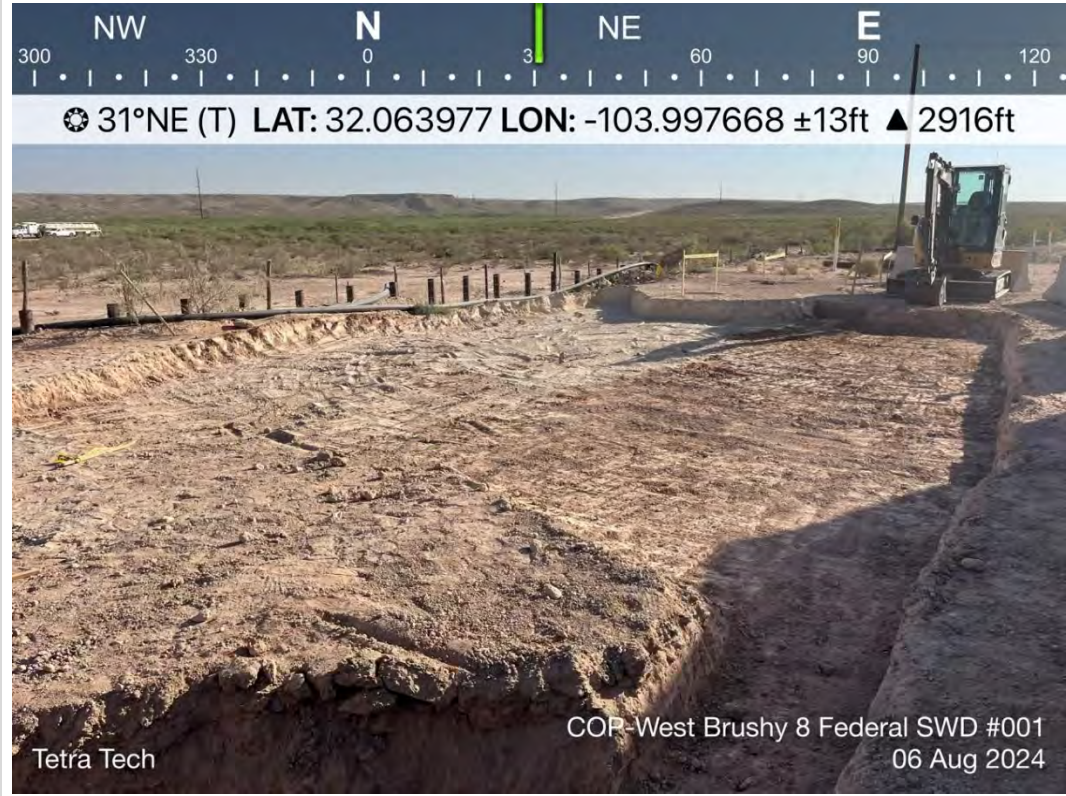


TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View north, excavation backfill.	10
	SITE NAME	West Brushy 8 SWD #001	7/29/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View west-southwest, area of 4-foot excavation as per approved work plan.	11
	SITE NAME	West Brushy 8 SWD #001	8/6/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View north-northeast, area of 1-foot excavation as per approved work plan.	12
	SITE NAME	West Brushy 8 SWD #001	7/29/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View northwest, removal of 1 foot of materials as per approved work plan.	13
	SITE NAME	West Brushy 8 SWD #001	8/6/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View north, area of excavation as per approved work plan.	14
	SITE NAME	West Brushy 8 SWD #001	8/6/2024



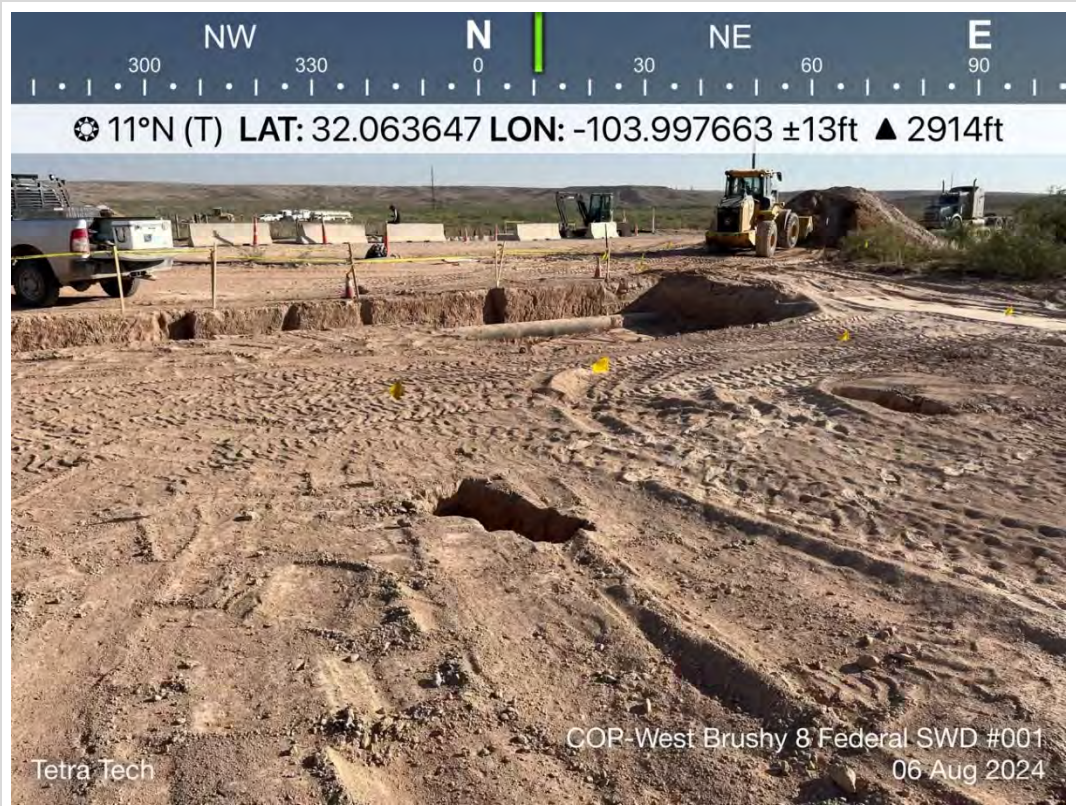


TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View north, area of 1-foot excavation as per approved work plan.	15
	SITE NAME	West Brushy 8 SWD #001	8/6/2024

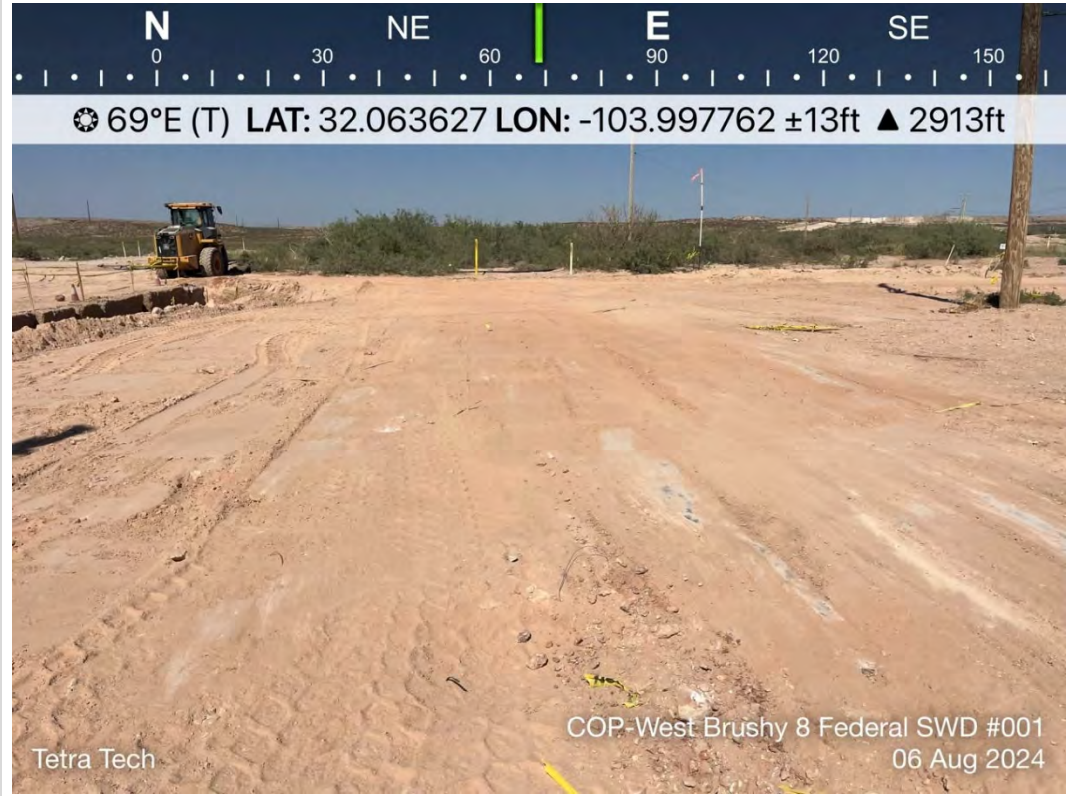


TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View east-northeast, 1-foot excavation as per approved work plan.	16
	SITE NAME	West Brushy 8 SWD #001	8/6/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View north, potholes over subsurface line visible within area of excavation.	17
	SITE NAME	West Brushy 8 SWD #001	8/6/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View east-northeast, backfill of excavation extent.	18
	SITE NAME	West Brushy 8 SWD #001	8/6/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View east, backfill of excavation extent.	19
	SITE NAME	West Brushy 8 SWD #001	8/6/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02997	DESCRIPTION	View east-southeast, backfill of excavated extent.	20
	SITE NAME	West Brushy 8 SWD #001	8/6/2024



## **APPENDIX E**

### **Laboratory Analytical Data**



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

July 24, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 07/23/24 8:56.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: NSW - 1 (H244359-01)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: ESW - 1 (H244359-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEx	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: ESW - 2 (H244359-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: ESW - 3 (H244359-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEx	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SSW - 1 (H244359-05)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	07/23/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WSW - 1 (H244359-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEx	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WSW - 2 (H244359-07)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 92.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WSW - 3 (H244359-08)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 1 (H244359-09)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 2 (H244359-10)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1010	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 3 (H244359-11)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2720	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 4 (H244359-12)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2120	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 5 (H244359-13)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1800	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 6 (H244359-14)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2320	16.0	07/23/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 7 (H244359-15)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	07/23/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 8 (H244359-16)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2270	16.0	07/23/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 9 (H244359-17)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404	
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44	
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58	
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12	
Total BTEX	<0.300	0.300	07/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2080	16.0	07/23/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 10 (H244359-18)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1660	16.0	07/23/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 11 (H244359-19)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTEX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	720	16.0	07/23/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 12 (H244359-20)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.30	115	2.00	0.404		
Toluene*	<0.050	0.050	07/23/2024	ND	2.42	121	2.00	2.44		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.56	128	2.00	4.58		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	7.68	128	6.00	5.12		
Total BTX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4120	16.0	07/23/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	190	95.2	200	3.32	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	199	99.5	200	11.2	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/23/2024  
 Reported: 07/24/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 13 (H244359-21)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2024	ND	2.00	99.9	2.00	1.74		
Toluene*	<0.050	0.050	07/23/2024	ND	1.98	99.1	2.00	2.47		
Ethylbenzene*	<0.050	0.050	07/23/2024	ND	2.00	99.9	2.00	2.44		
Total Xylenes*	<0.150	0.150	07/23/2024	ND	5.89	98.1	6.00	2.54		
Total BTX	<0.300	0.300	07/23/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	07/23/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/23/2024	ND	180	89.9	200	0.447	
DRO >C10-C28*	<10.0	10.0	07/23/2024	ND	171	85.6	200	0.339	
EXT DRO >C28-C36	<10.0	10.0	07/23/2024	ND					

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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Notes and Definitions

- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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Laboratories

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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

35-1-92

Company Name: Canoco Phillips				<b>BILL TO</b>				ANALYSIS REQUEST			
Project Manager: Sam Abbott				P.O. #:							
Address:				Company: Tetra Tech							
City:				Attn: Sam Abbott							
Phone #: _____ State: _____ Zip: _____				Address:							
Project #: 212C-MD-02997 Project Owner:				City:							
Project Name: West Brushy & Federal SWD Pool				State: _____ Zip: _____							
Project Location: Eddy Co, NM				Phone #:							
Sample Name: Andrew Garcia				Fax #:							
FOR LAB USE ONLY											
Lab I.D.		Sample I.D.									
H244359											
NSW-1		(G)RAB OR (C)OMP.									
ESW-1		# CONTAINERS									
ESW-2		GROUNDWATER									
ESW-3		WASTEWATER									
SSW-1		SOIL									
WSW-1		OIL									
WSW-2		SLUDGE									
WSW-3		OTHER :									
FS-1		ACID/BASE:									
FS-2		ICE / COOL									
		OTHER :									
		DATE		TIME							
		7/22		0800							
				X							
				X							
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				0905							
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				0945							
				1000							
				1015							
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Relinquished By: _____ Date: 7/23/24 Received By: _____											
Reinquinshed By: _____ Date: 0850 Speedriquet Received By: _____											
Delivered By: (Circle One)				Observed Temp. °C -8.1° Corrected Temp. °C				Sample Condition Cool Intact Yes No Checked BY: (initials) SK			
Sampler - UPS - Bus - Other: _____				Turnaround Time: Standard Rush Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Corrected Temp. °C				Thermometer ID #445 Correction Factor .000 24 hr			
† Cardinal cannot accept verbal changes. Please email changes to cphillips@tetratech.com				REMARKS: _____							
Verbal Result: Yes No Add'l Phone #:				All Results are emailed. Please provide Email address: _____							
Remarks: _____											





### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Page 2 of 3

Company Name: <b>Canoco Phillips</b> Project Manager: <b>Sam Abbott</b> Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____ Project #: <b>212C-MD-02997</b> Project Owner: _____ Project Name: <b>West Brushy &amp; Federal SWD #001</b> Project Location: <b>Eddy Co, NM</b> Sampler Name: <b>Andrew Garcia</b> FOR LAB USE ONLY				<b>BILL TO</b> P.O. #: _____ Company: <b>Tetra Tech</b> Attn: <b>Sam Abbott</b> Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____				<b>ANALYSIS REQUEST</b>																																																																																																																	
<b>Lab I.D.</b> <b>Sample I.D.</b>				<b>MATRIX</b> (G)RAB OR (C)OMP. _____ # CONTAINERS _____ GROUNDWATER _____ WASTEWATER _____ SOIL <input checked="" type="checkbox"/> _____ OIL _____ SLUDGE _____ OTHER: _____ <b>PRESERV</b> ACID/BASE: _____ ICE / COOL <input checked="" type="checkbox"/> _____ OTHER: _____				<b>SAMPLING</b> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>TIME</th> <th>TPH</th> <th>BTEX</th> <th>Chloride</th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>7/12/24</td> <td>10:30</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7/12/24</td> <td>10:45</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7/12/24</td> <td>11:05</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7/12/24</td> <td>11:15</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7/12/24</td> <td>11:30</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7/12/24</td> <td>11:45</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7/12/24</td> <td>12:00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7/12/24</td> <td>12:15</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7/12/24</td> <td>12:30</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7/12/24</td> <td>12:45</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				DATE	TIME	TPH	BTEX	Chloride						7/12/24	10:30	X	X	X						7/12/24	10:45									7/12/24	11:05									7/12/24	11:15									7/12/24	11:30									7/12/24	11:45									7/12/24	12:00									7/12/24	12:15									7/12/24	12:30									7/12/24	12:45								
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Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____ FORM 0007-3-3 07/10/22				Observed Temp. °C: <b>-8.1°C</b> Corrected Temp. °C: _____ Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact Checked By: (initials) <b>SG</b>				Turnaround Time: <b>#140</b> Standard <input checked="" type="checkbox"/> <input type="checkbox"/> Rush Bacteria (only) Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact Observed Temp. °C: _____ Corrected Temp. °C: _____																																																																																																																	
Relinquished By: <b>Andrew Garcia</b> Date: <b>7/23/24</b> Time: <b>0850</b> Received By: <b>Speediquest</b> Date: _____ Time: _____				Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: _____ All Results are emailed. Please provide Email address: <b>Sam.Abbott@TetraTech.com</b> REMARKS: <b>Andrew Garcia@TetraTech.com</b>				t Cardinal cannot accept verbal changes. Please email changes to celov.kenn@canoco.com																																																																																																																	





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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Page 3 of 3

<b>Company Name:</b> Canaco Phillips <b>Project Manager:</b> Sam Abbott <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> 212C WD-32997 <b>Project Owner:</b> <b>Project Name:</b> West Brushy & Federal SWD #001 <b>Project Location:</b> Eddy Co. NM <b>Sampler Name:</b> Andrew Garcia <b>FOR LAB USE ONLY</b>		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> Tetra Tech <b>Attn:</b> Sam Abbott <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>	
<b>Lab I.D.</b> HQ44359 81		<b>Sample I.D.</b> FS-13	
(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:		MATRIX ACID/BASE: ICE / COOL OTHER:	
2024 DATE 7/22 TIME 1300		SAMPLING	
TPH BTEX Chloride		ANALYSIS REQUEST	

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**Relinquished By:** Andrew Garcia  
**Date:** 7/23/24  
**Received By:** Scott Reynolds  
**Date:** 7/23/24  
**Received By:** Sam Abbott  
**Date:** 7/23/24

**Delivered By:** (Circle One)  
 Sampler - UPS - Bus - Other: \_\_\_\_\_  
 Corrected Temp. °C: -8.1 °C  
 Sample Condition: Cool Intact ☒ Yes ☐ No  
 Checked By: [Signature]  
 Turnaround Time: 24 HRS  
 Standard ☒ Bacteria (only) ☐ Sample Condition ☐ Cool Intact ☐ Yes ☐ No  
 Corrected Temp. °C: \_\_\_\_\_

**REMARKS:**  
 Andrew Garcia@tetratech.com  
 Sam. Abbott@tetratech.com

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---

July 26, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 07/24/24 16:57.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/24/2024	Sampling Date:	07/23/2024
Reported:	07/26/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: ETC-1 (H244412-01)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/26/2024	ND	1.95	97.4	2.00	6.30		
Toluene*	<0.050	0.050	07/26/2024	ND	1.90	94.9	2.00	6.09		
Ethylbenzene*	<0.050	0.050	07/26/2024	ND	1.90	95.2	2.00	5.46		
Total Xylenes*	<0.150	0.150	07/26/2024	ND	5.67	94.5	6.00	5.09		
Total BTX	<0.300	0.300	07/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	07/26/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/26/2024	ND	195	97.7	200	0.931	
DRO >C10-C28*	<10.0	10.0	07/26/2024	ND	184	91.8	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	07/26/2024	ND					

Surrogate: 1-Chlorooctane 75.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/24/2024  
 Reported: 07/26/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/23/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: ETC-2 (H244412-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/26/2024	ND	1.95	97.4	2.00	6.30		
Toluene*	<0.050	0.050	07/26/2024	ND	1.90	94.9	2.00	6.09		
Ethylbenzene*	<0.050	0.050	07/26/2024	ND	1.90	95.2	2.00	5.46		
Total Xylenes*	<0.150	0.150	07/26/2024	ND	5.67	94.5	6.00	5.09		
Total BTEX	<0.300	0.300	07/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	944	16.0	07/26/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/26/2024	ND	195	97.7	200	0.931	
DRO >C10-C28*	<10.0	10.0	07/26/2024	ND	184	91.8	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	07/26/2024	ND					

Surrogate: 1-Chlorooctane 83.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/24/2024  
 Reported: 07/26/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/23/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: ETC-3 (H244412-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/26/2024	ND	1.95	97.4	2.00	6.30		
Toluene*	<0.050	0.050	07/26/2024	ND	1.90	94.9	2.00	6.09		
Ethylbenzene*	<0.050	0.050	07/26/2024	ND	1.90	95.2	2.00	5.46		
Total Xylenes*	<0.150	0.150	07/26/2024	ND	5.67	94.5	6.00	5.09		
Total BTEX	<0.300	0.300	07/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4000	16.0	07/26/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/26/2024	ND	195	97.7	200	0.931	
DRO >C10-C28*	<10.0	10.0	07/26/2024	ND	184	91.8	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	07/26/2024	ND					

Surrogate: 1-Chlorooctane 85.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/24/2024	Sampling Date:	07/23/2024
Reported:	07/26/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: ETC-4 (H244412-04)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/26/2024	ND	1.95	97.4	2.00	6.30		
Toluene*	<0.050	0.050	07/26/2024	ND	1.90	94.9	2.00	6.09		
Ethylbenzene*	<0.050	0.050	07/26/2024	ND	1.90	95.2	2.00	5.46		
Total Xylenes*	<0.150	0.150	07/26/2024	ND	5.67	94.5	6.00	5.09		
Total BTX	<0.300	0.300	07/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	07/26/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/26/2024	ND	195	97.7	200	0.931	
DRO >C10-C28*	<10.0	10.0	07/26/2024	ND	184	91.8	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	07/26/2024	ND					

Surrogate: 1-Chlorooctane 92.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.7 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager





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July 30, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 07/29/24 9:51.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/29/2024	Sampling Date:	07/26/2024
Reported:	07/30/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Shalyn Rodriguez
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: ESW - 4 (H244486-01)**

BTX 8021B			mg/kg		Analyzed By: JH				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M			mg/kg		Analyzed By: ms				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 71.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WSW - 4 (H244486-02)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 83.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 14 (H244486-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74		
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1170	16.0	07/29/2024	ND	464	116	400	7.14		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 94.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 15 (H244486-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74		
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	832	16.0	07/29/2024	ND	464	116	400	7.14		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 92.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 16 (H244486-05)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74		
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1040	16.0	07/29/2024	ND	464	116	400	7.14		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 17 (H244486-06)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1020	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 86.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WSW - 3 (1') (H244486-07)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 95.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: NSW - 2 (H244486-08)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74		
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	07/29/2024	ND	464	116	400	7.14		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 99.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SSW - 2 (H244486-09)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	07/29/2024	ND	464	116	400	7.14	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: ISW - 1 (H244486-10)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	0.124	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 22 (H244486-11)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74		
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	07/30/2024	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 80.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 23 (H244486-12)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 74.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 24 (H244486-13)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74		
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	07/30/2024	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 27 (H244486-14)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 89.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 28 (H244486-15)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 91.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 29 (H244486-16)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74	
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	07/30/2024	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	205	102	200	0.695	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	186	93.2	200	3.09	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 30 (H244486-17)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74		
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	07/30/2024	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	220	110	200	2.35	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	190	94.9	200	4.02	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 97.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/29/2024  
 Reported: 07/30/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/26/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 31 (H244486-18)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	2.18	109	2.00	9.74		
Toluene*	<0.050	0.050	07/29/2024	ND	2.53	126	2.00	13.0		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.54	127	2.00	14.3		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.95	132	6.00	14.8		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/30/2024	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	220	110	200	2.35	
DRO >C10-C28*	10.4	10.0	07/29/2024	ND	190	94.9	200	4.02	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- S-04            The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- BS1            Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
- ND            Analyte NOT DETECTED at or above the reporting limit
- RPD           Relative Percent Difference
- \*\*            Samples not received at proper temperature of 6°C or below.
- \*\*\*           Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
- Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> <u>Logco Hilltop Technical</u> <b>Project Manager:</b> <u>Sam Abbott + Brittany Long</u> <b>Address:</b> <b>City:</b> <b>State:</b> <u>NM</u> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> <u>212-MD-0247</u> <b>Project Owner:</b> <b>Project Name:</b> <u>West Brushy S Federal Blvd HCU</u> <b>Project Location:</b> <u>Edley Canyon</u> <b>Sampler Name:</b> <u>Andrew Garcia</u>		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> <u>Corcoran Phillips</u> <b>Attn:</b> <u>Sam Abbott/Technical</u> <b>Address:</b> <b>City:</b> <b>State:</b> <u>NM</u> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>	
<b>FOR LAB USE ONLY</b> <b>Lab I.D.</b> <b>Sample I.D.</b>		<b>MATRIX</b> (G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL <input checked="" type="checkbox"/> OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:	
184480 1 2 3 4 5 6 7 8 9 10		ESU-4 USW-4 FS-14 FS-15 FS-14 FS-17 USW-3(1) USW-2 USW-2 ISW-1	
DATE TIME		DATE TIME	
7/26 10		7/26 10	
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<b>Relinquished By:</b> <u>Andrew Garcia</u> <u>7/26/24</u> <b>Relinquished Date:</b> <u>7/26/24</u> <b>Relinquished Time:</b> <u>0951</u> <b>Received By:</b> <u>Stocking</u> <b>Received Date:</b> <u>7/26/24</u> <b>Received Time:</b> <u>0951</u>		<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>All Results are emailed. Please provide Email address:</b> <b>REMARKS:</b>	
<b>Delivered By:</b> (Circle One) Sample - UPS - Bus - Other:		<b>Observed Temp. °C:</b> <u>30.0</u> <b>Corrected Temp. °C:</b> <b>Sample Condition:</b> Cool Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Checked By: <u>SP</u>	
<b>Turnaround Time:</b> <b>Thermometer ID #140</b> <b>Correction Factor 0°C</b>		<b>Standard</b> <u>21K</u> <input checked="" type="checkbox"/> <b>Bacteria (only) Sample Condition:</b> Cool Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Observed Temp. °C: Corrected Temp. °C:	

† Cardinal cannot accept verbal changes. Please email changes to cely.keen@cardinallabsnm.com





# Tetra Tech, Inc.

901 W. Wall Street, Ste 100  
Midland, Texas 79701  
Tel (432) 892-4559  
Fax (432) 892-3946

Client Name:

Conoco Phillips

Site Manager:

Sam Abbott

Project Name:

West Brushy & Federal SWD #001

Project Location:

Eddy County, NM

Project #:

212C-MD-02997

Invoice to:

Attn: Sam. Abbott @ Tetra Tech, com

Receiving Laboratory:

Cardinal Labs

Sampler Signature:

Andrew Garcia

Comments:

Include: Andrew. Garcia @ Tetratech.com

LAB # **HS4486**  
(LAB USE ONLY)

## SAMPLE IDENTIFICATION

		SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>			
11	FS-22	7/26	1145	X			X	1		X
12	FS-23		1200							X
13	FS-24		1230							X
14	FS-27		1245							X
15	FS-28		1300							X
16	FS-29		1330							X
17	FS-30		1345							X
18	FS-31		1400							X

Relinquished by: Andrew Garcia

Date: 7/26/24

Relinquished by:

Date: Time:

Relinquished by:

Date: Time:

Received by:

*Skodigney 7/27/24*

Date: Time:

Date: Time:

## ANALYSIS REQUEST (Circle or Specify Method No.)

- ☒ BTEX 8021B ☒ BTEX 8260B
- ☒ TPH TX1005 (Ext to C35)
- ☒ TPH 8015M (GRO - DRO - ORO - MRO)
- ☒ PAH 8270C
- ☒ Total Metals Ag As Ba Cd Cr Pb Se Hg
- ☒ TCLP Metals Ag As Ba Cd Cr Pb Se Hg
- ☒ TCLP Volatiles
- ☒ TCLP Semi Volatiles
- ☒ RCI
- ☒ GC/MS Vol. 8260B / 624
- ☒ GC/MS Semi. Vol. 8270C/625
- ☒ PCB's 8082 / 608
- ☒ NORM
- ☒ PLM (Asbestos)
- ☒ Chloride
- ☒ Chloride Sulfate TDS
- ☒ General Water Chemistry (see attached list)
- ☒ Anion/Cation Balance

Hold

LAB USE ONLY

REMARKS: Standard TAT

Sample Temperature

**#140**

- ☒ RUSH: Same Day **24 hr** 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

ORIGINAL COPY



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 01, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1R

Enclosed are the results of analyses for samples received by the laboratory on 07/31/24 16:58.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: NSW - 3 (H244569-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 87.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: NSW - 4 (H244569-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45		
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: NSW - 5 (H244569-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45		
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38		
Total BTEx	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: SSW - 3 (H244569-04)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99		
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65		
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND						

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: SSW - 4 (H244569-05)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45		
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 121 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/31/2024  
 Reported: 08/01/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1R  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/31/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: WSW - 5 (H244569-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: ESW - 5 (H244569-07)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 18 (H244569-08)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45		
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 19 (H244569-09)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45		
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 20 (H244569-10)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45		
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	227	113	200	2.99	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	214	107	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 121 % 48.2-134

Surrogate: 1-Chlorooctadecane 131 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 07/31/2024  
 Reported: 08/01/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1R  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 07/31/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FS - 21 (H244569-11)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.87	93.3	2.00	4.45	
Toluene*	<0.050	0.050	08/01/2024	ND	1.83	91.5	2.00	3.68	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	1.94	97.0	2.00	3.34	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	5.70	95.1	6.00	3.38	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 87.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 32 (H244569-12)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEx	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 92.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 33 (H244569-13)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEx	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 89.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.5 % 49.1-148

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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 34 (H244569-14)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 35 (H244569-15)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41	
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65	
Total BTX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 89.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 36 (H244569-16)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41		
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65		
Total BTEx	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 91.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 37 (H244569-17)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41		
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 90.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 38 (H244569-18)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41		
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 39 (H244569-19)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41		
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 40 (H244569-20)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41		
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 99.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 41 (H244569-21)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	6.41		
Toluene*	<0.050	0.050	08/01/2024	ND	2.27	114	2.00	4.35		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.43	122	2.00	4.24		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.28	121	6.00	3.65		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/01/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	220	110	200	3.02	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	202	101	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 42 (H244569-22)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44		
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/01/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 43 (H244569-23)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44		
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/01/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 44 (H244569-24)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44		
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/01/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 97.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 45 (H244569-25)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44		
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/01/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 46 (H244569-26)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44		
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/01/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 81.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.4 % 49.1-148

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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 47 (H244569-27)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44		
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20		
Total BTEx	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1490	16.0	08/01/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 48 (H244569-28)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44		
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20		
Total BTEX	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1100	16.0	08/01/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 49 (H244569-29)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44	
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1100	16.0	08/01/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 50 (H244569-30)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44		
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20		
Total BTEx	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1170	16.0	08/01/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 93.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	07/31/2024	Sampling Date:	07/31/2024
Reported:	08/01/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 51 (H244569-31)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2024	ND	2.11	105	2.00	5.44		
Toluene*	<0.050	0.050	08/01/2024	ND	2.42	121	2.00	5.19		
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.57	129	2.00	5.02		
Total Xylenes*	<0.150	0.150	08/01/2024	ND	7.83	130	6.00	5.20		
Total BTEx	<0.300	0.300	08/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1230	16.0	08/01/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2024	ND	209	104	200	0.225	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	215	108	200	0.984	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 94.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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Notes and Definitions

- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
- BS1 Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

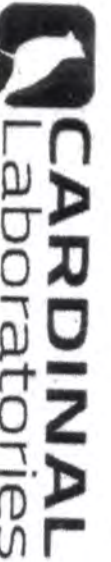


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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
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Page 2 of 4

Company Name: <b>Corona Philings</b>		P.O. #:	
Project Manager: <b>Sam Abbott</b>		Company: <b>Fata Tech</b>	
Address:		Attn: <b>Sam Abbott</b>	
City:	State:	Zip:	Address:
Phone #:	Fax #:	City:	State:
Project #: <b>2125-MD-02997</b> Project Owner:		Zip:	Phone #:
Project Name: <b>Vest Brushy &amp; Federal SWD #001 R</b>		Fax #:	
Project Location: <b>Eddy Co, NM</b>		BILL TO	
Sampler Name: <b>Andrew Garcia</b>		ANALYSIS REQUEST	

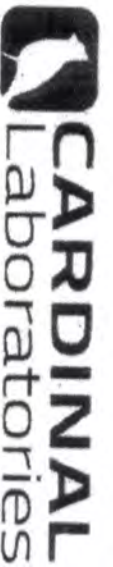
FOR LAB USE ONLY		MATRIX		PRESERV		SAMPLING			
Lab I.D.		Sample I.D.							
H244549									
11	FS-21	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:
12	FS-32								
13	FS-33								
14	FS-34								
15	FS-35								
16	FS-36								
17	FS-37								
18	FS-38								
19	FS-39								
20	FS-40								

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Relinquished By: <b>Andrew Garcia</b>	Date: <b>7/31/24</b>	Received By: <b>Sam Abbott</b>	Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	All Results are emailed. Please provide Email address:	
Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY: (Initials)	Turnaround Time:
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Standard Rush <input checked="" type="checkbox"/>
Phone: 000 000 000 000 000 000				Bacteria (only) Sample Condition
				Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
				Observed Temp. °C
				Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to cefay.kee@cardinalabnm.com





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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 3 of 4

<b>Company Name:</b> Corcoran Philings <b>Project Manager:</b> Sam Abbott <b>Address:</b> <b>City:</b> State: Zip: <b>Phone #:</b> Fax #: <b>Project #:</b> 2125-MD-02967 Project Owner: <b>Project Name:</b> West Brushy & Federal SWD #001 R <b>Project Location:</b> Eddy Co, NM <b>Sampler Name:</b> Andrew Garcia <b>FOR LAB USE ONLY</b>		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> F&T Tech <b>Attn:</b> Sam Abbott <b>Address:</b> <b>City:</b> State: Zip: <b>Phone #:</b> Fax #: <b>Project #:</b>		<b>ANALYSIS REQUEST</b>	
<b>Lab I.D.</b> H2445049 21 22 23 24 25 26 27 28 29 30	<b>Sample I.D.</b> FS-41 FS-42 FS-43 FS-44 FS-45 FS-46 FS-47 FS-48 FS-49 FS-50	(G) GRAB OR (C) COMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:	MATRIX PRESERV SAMPLING	DATE 7/31 2024 TIME 1300 1315 1320 1330 1340 1350 1400 1415 1430 1445	BTEX TPH Chlora de
<b>Relinquished By:</b> Andrew Garcia <b>Date:</b> 7/31/24 <b>Time:</b> 1656 <b>Received By:</b> [Signature] <b>Date:</b> <b>Time:</b>		<b>REMARKS:</b> Sam. Abbott & F&T Tech.com Andrew. Garcia & F&T Tech.com			
<b>Delivered By:</b> (Circle One) Sample - UPS - Bus - Other: <b>Observed Temp. °C:</b> 2.4 <b>Corrected Temp. °C:</b> <b>Sample Condition:</b> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <b>CHECKED BY:</b> [Signature] <b>Turnaround Time:</b> Standard Rush <input type="checkbox"/> <input type="checkbox"/> <b>Bacteria (only) Sample Condition:</b> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Observed Temp. °C:</b> <b>Corrected Temp. °C:</b>		<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>All Results are emailed. Please provide Email address:</b> Sam. Abbott & F&T Tech.com Andrew. Garcia & F&T Tech.com			

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August 05, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1R

Enclosed are the results of analyses for samples received by the laboratory on 08/02/24 9:27.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	08/02/2024	Sampling Date:	08/01/2024
Reported:	08/05/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: ISW - 2 (H244634-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/02/2024	ND	2.03	102	2.00	1.02	
Toluene*	<0.050	0.050	08/02/2024	ND	2.18	109	2.00	0.147	
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.29	115	2.00	0.347	
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.03	117	6.00	0.191	
Total BTX	<0.300	0.300	08/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	08/05/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/02/2024	ND	223	112	200	4.15	
DRO >C10-C28*	12.1	10.0	08/02/2024	ND	217	108	200	14.7	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 88.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 08/02/2024  
 Reported: 08/05/2024  
 Project Name: WEST BRUSHY 8 FED SWD #1R  
 Project Number: 212C - MD - 02997  
 Project Location: COP- EDDY COUNTY, NM

Sampling Date: 08/01/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: ISW - 3 (H244634-02)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/02/2024	ND	2.03	102	2.00	1.02	
Toluene*	<0.050	0.050	08/02/2024	ND	2.18	109	2.00	0.147	
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.29	115	2.00	0.347	
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.03	117	6.00	0.191	
Total BTEX	<0.300	0.300	08/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	08/05/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/02/2024	ND	223	112	200	4.15	
DRO >C10-C28*	17.2	10.0	08/02/2024	ND	217	108	200	14.7	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 91.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

Page 1 of 1

Midland, Texas 79701  
Tel (432) 682-4559  
Fax (432) 682-3948

**Site Manager:**

Sam Abbott

West Brushy & Federal SVD #001 R

Project #:

212C--MD-02997

Attn: Sam. Abbott @Ftstrtech.com

**Cardinal Labs**

Sampler Signature: Ar

Include: Andrew, Gasca @terra-teeh.com

### SAMPLE IDENTIFICATION

DATE	
TIME	

WATER
SOIL
HCL
HNO <sub>3</sub>
ICE

RS

D (Y/N)

BTEX 8021B	BTEX 8260B
------------	------------

TPH TX1005 (Ext to C35)

TPH 8015M ( GRO - DRO - ORO - MRO)

PAH 8270C

Total Metals	Ag	As	Ba	Cd	Cr	Pb	Se	Hg
--------------	----	----	----	----	----	----	----	----

TCLP Metals	Ag	As	Ba	Cd	Cr	Pb	Se	Hg
-------------	----	----	----	----	----	----	----	----

TCLP Volatiles

TCLP Semi Volatiles

RCI
GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride	Sulfate	TDS
----------	---------	-----

General Water Chemistry (see attached list)

### Anion/Cation Balance

**Hold**

Page 5 of 5

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #

Released to Imaging: 9/6/2024 10:27:57 AM





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

August 06, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WEST BRUSHY 8 FED SWD #1R

Enclosed are the results of analyses for samples received by the laboratory on 08/05/24 16:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	08/05/2024	Sampling Date:	08/05/2024
Reported:	08/06/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: ISW - 2 ( 1' ) (H244695-01)**

BTX 8021B			mg/kg		Analyzed By: JH				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/05/2024	ND	1.94	97.1	2.00	0.552	
Toluene*	<0.050	0.050	08/05/2024	ND	1.89	94.6	2.00	0.971	
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	1.99	99.4	2.00	1.38	
Total Xylenes*	<0.150	0.150	08/05/2024	ND	5.88	98.0	6.00	1.05	
Total BTX	<0.300	0.300	08/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	08/06/2024	ND	432	108	400	3.64	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	210	105	200	2.65	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	217	109	200	6.95	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 84.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	08/05/2024	Sampling Date:	08/05/2024
Reported:	08/06/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: ISW - 3 ( 1' ) (H244695-02)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/05/2024	ND	1.94	97.1	2.00	0.552	
Toluene*	<0.050	0.050	08/05/2024	ND	1.89	94.6	2.00	0.971	
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	1.99	99.4	2.00	1.38	
Total Xylenes*	<0.150	0.150	08/05/2024	ND	5.88	98.0	6.00	1.05	
Total BTEX	<0.300	0.300	08/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/06/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	210	105	200	2.65	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	217	109	200	6.95	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 87.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	08/05/2024	Sampling Date:	08/05/2024
Reported:	08/06/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 25 (H244695-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTEX	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	832	16.0	08/06/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	210	105	200	2.65	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	217	109	200	6.95	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 80.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
 SAM ABBOTT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	08/05/2024	Sampling Date:	08/05/2024
Reported:	08/06/2024	Sampling Type:	Soil
Project Name:	WEST BRUSHY 8 FED SWD #1R	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02997	Sample Received By:	Alyssa Parras
Project Location:	COP- EDDY COUNTY, NM		

**Sample ID: FS - 26 (H244695-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTEx	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	08/06/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	210	105	200	2.65	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	217	109	200	6.95	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 72.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
- BS1 Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> Conoco Phillips <b>Project Manager:</b> Sam Abbott <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> 212C-MD-02997 <b>Project Owner:</b> <b>Project Name:</b> West Brushy & Federal SUD & OIR <b>Project Location:</b> Eddy Co, NM <b>Sampler Name:</b> Andrew Garcia <b>FOR LAB USE ONLY</b>		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> Tetra Tech <b>Attn:</b> Sam Abbott <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>																	
<b>Lab I.D.</b> <b>Sample I.D.</b> H244695 1 ISV-2 (1) 2 ISV-3 (1) 3 FS-25 4 FS-26		(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:		ACID/BASE: ICE / COOL OTHER:		DATE 8/24/06 TIME 1000		TPH BTEX Chlorides													
<b>Relinquished By:</b> Andrew Garcia <b>Date:</b> 8/24 <b>Time:</b> 1055 <b>Received By:</b> [Signature] <b>Date:</b> <b>Time:</b> <b>Received By:</b>		<b>Delivered By:</b> (Circle One) Sampler - UPS - Bus - Other: Corrected Temp. °C: 30.0 Corrected Temp. °C: 24.0 Sample Condition: Cool Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Checked By: (Initials) AD		Turnaround Time: Standard Rush <input checked="" type="checkbox"/> Thermometer ID #140 Correction Factor -0.8°C Bacteria (only) Sample Condition: Cool Intact: Yes <input type="checkbox"/> No <input type="checkbox"/> Observed Temp. °C:		<b>REMARKS:</b> Andrew Garcia of Tetra Tech															

† Cardinal cannot accept verbal changes. Please print name to cely.keene@cardinallabsnm.com



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Luis Rivera  
R360 ES Holdings Inc  
507 N Marienfield  
Midland, Texas 79701

Generated 7/26/2024 8:29:26 AM

## JOB DESCRIPTION

R360 -backfill

## JOB NUMBER

890-6947-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

See page two for job notes and contact information.



# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
7/26/2024 8:29:26 AM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Laboratory Job ID: 890-6947-1

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Definitions/Glossary

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: R360 ES Holdings Inc  
Project: R360 -backfill

Job ID: 890-6947-1

**Job ID: 890-6947-1**

**Eurofins Carlsbad**

### Job Narrative 890-6947-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The samples were received on 7/22/2024 11:07 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C.

#### HPLC/IC

Method 300\_ORGFM\_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-86374 and analytical batch 880-86423 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Carlsbad



## Client Sample Results

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

## Client Sample ID: E#88

Lab Sample ID: 890-6947-1

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	155		5.04	0.398	mg/Kg			07/26/24 00:36	1

## Client Sample ID: E#89

Lab Sample ID: 890-6947-2

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.6		5.03	0.397	mg/Kg			07/26/24 00:52	1

## Client Sample ID: E#90

Lab Sample ID: 890-6947-3

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.7		4.99	0.394	mg/Kg			07/26/24 00:57	1

## Client Sample ID: E#91

Lab Sample ID: 890-6947-4

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.0		4.98	0.393	mg/Kg			07/26/24 01:13	1

## Client Sample ID: E#92

Lab Sample ID: 890-6947-5

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.6		5.00	0.395	mg/Kg			07/26/24 01:18	1

## Client Sample ID: E#93

Lab Sample ID: 890-6947-6

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.8		5.00	0.395	mg/Kg			07/26/24 01:23	1

## Client Sample ID: E#94

Lab Sample ID: 890-6947-7

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.4		4.99	0.394	mg/Kg			07/26/24 01:28	1

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## Client Sample Results

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

## Client Sample ID: E#95

Lab Sample ID: 890-6947-8

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.0		5.04	0.398	mg/Kg			07/26/24 01:34	1

## Client Sample ID: E#96

Lab Sample ID: 890-6947-9

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.6		5.02	0.397	mg/Kg			07/26/24 01:39	1

## Client Sample ID: E#97

Lab Sample ID: 890-6947-10

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.4		4.98	0.393	mg/Kg			07/26/24 01:44	1

## Client Sample ID: E#98

Lab Sample ID: 890-6947-11

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.5		4.96	0.392	mg/Kg			07/25/24 17:16	1

## Client Sample ID: E#99

Lab Sample ID: 890-6947-12

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	94.2		4.98	0.393	mg/Kg			07/25/24 17:32	1

## Client Sample ID: E#100

Lab Sample ID: 890-6947-13

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.7		4.99	0.394	mg/Kg			07/25/24 17:37	1

## Client Sample ID: E#101

Lab Sample ID: 890-6947-14

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.3		5.02	0.397	mg/Kg			07/25/24 17:42	1

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## Client Sample Results

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#102

Lab Sample ID: 890-6947-15

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		5.01	0.396	mg/Kg			07/25/24 17:47	1

Client Sample ID: E#103

Lab Sample ID: 890-6947-16

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	159		5.01	0.396	mg/Kg			07/25/24 18:03	1

Client Sample ID: E#104

Lab Sample ID: 890-6947-17

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	221		5.04	0.398	mg/Kg			07/25/24 18:08	1

Client Sample ID: E#105

Lab Sample ID: 890-6947-18

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	274		5.03	0.397	mg/Kg			07/25/24 18:14	1

Client Sample ID: E#106

Lab Sample ID: 890-6947-19

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	161		5.05	0.399	mg/Kg			07/25/24 18:19	1

Client Sample ID: E#107

Lab Sample ID: 890-6947-20

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	197		4.99	0.394	mg/Kg			07/25/24 18:24	1

Client Sample ID: E#108

Lab Sample ID: 890-6947-21

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	263	F1	4.96	0.392	mg/Kg			07/25/24 18:30	1

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Client Sample Results

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#109  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-22  
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	284		4.97	0.393	mg/Kg			07/25/24 18:45	1

Client Sample ID: E#110  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-23  
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		4.95	0.391	mg/Kg			07/25/24 18:50	1

Client Sample ID: E#111  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-24  
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	198		4.99	0.394	mg/Kg			07/25/24 19:06	1

## QC Sample Results

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-86373/1-A

Matrix: Solid

Analysis Batch: 86421

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	0.395	mg/Kg			07/25/24 23:07	1

Lab Sample ID: LCS 880-86373/2-A

Matrix: Solid

Analysis Batch: 86421

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254.2		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-86373/3-A

Matrix: Solid

Analysis Batch: 86421

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	255.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-6947-1 MS

Matrix: Solid

Analysis Batch: 86421

Client Sample ID: E#88

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	155		252	398.4		mg/Kg		97	90 - 110

Lab Sample ID: 890-6947-1 MSD

Matrix: Solid

Analysis Batch: 86421

Client Sample ID: E#88

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	155		252	398.9		mg/Kg		97	90 - 110	0	20

Lab Sample ID: MB 880-86374/1-A

Matrix: Solid

Analysis Batch: 86423

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	0.395	mg/Kg			07/25/24 17:00	1

Lab Sample ID: LCS 880-86374/2-A

Matrix: Solid

Analysis Batch: 86423

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	248.7		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-86374/3-A

Matrix: Solid

Analysis Batch: 86423

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	250.8		mg/Kg		100	90 - 110	1	20

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QC Sample Results

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-6947-11 MS											Client Sample ID: E#98		
Matrix: Solid											Prep Type: Soluble		
Analysis Batch: 86423													
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits				
Chloride	14.5		248	272.7		mg/Kg		104	90 - 110				

Lab Sample ID: 890-6947-11 MSD											Client Sample ID: E#98		
Matrix: Solid											Prep Type: Soluble		
Analysis Batch: 86423													
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit		
Chloride	14.5		248	273.0		mg/Kg		104	90 - 110	0	20		

Lab Sample ID: 890-6947-21 MS											Client Sample ID: E#108		
Matrix: Solid											Prep Type: Soluble		
Analysis Batch: 86423													
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits				
Chloride	263	F1	248	539.4	F1	mg/Kg		111	90 - 110				

Lab Sample ID: 890-6947-21 MSD											Client Sample ID: E#108		
Matrix: Solid											Prep Type: Soluble		
Analysis Batch: 86423													
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit		
Chloride	263	F1	248	541.1	F1	mg/Kg		112	90 - 110	0	20		

QC Association Summary

Client: R360 ES Holdings Inc

Project/Site: R360 -backfill

Job ID: 890-6947-1

HPLC/IC

Leach Batch: 86373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6947-1	E#88	Soluble	Solid	DI Leach	
890-6947-2	E#89	Soluble	Solid	DI Leach	
890-6947-3	E#90	Soluble	Solid	DI Leach	
890-6947-4	E#91	Soluble	Solid	DI Leach	
890-6947-5	E#92	Soluble	Solid	DI Leach	
890-6947-6	E#93	Soluble	Solid	DI Leach	
890-6947-7	E#94	Soluble	Solid	DI Leach	
890-6947-8	E#95	Soluble	Solid	DI Leach	
890-6947-9	E#96	Soluble	Solid	DI Leach	
890-6947-10	E#97	Soluble	Solid	DI Leach	
MB 880-86373/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-86373/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-86373/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6947-1 MS	E#88	Soluble	Solid	DI Leach	
890-6947-1 MSD	E#88	Soluble	Solid	DI Leach	

Leach Batch: 86374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6947-11	E#98	Soluble	Solid	DI Leach	
890-6947-12	E#99	Soluble	Solid	DI Leach	
890-6947-13	E#100	Soluble	Solid	DI Leach	
890-6947-14	E#101	Soluble	Solid	DI Leach	
890-6947-15	E#102	Soluble	Solid	DI Leach	
890-6947-16	E#103	Soluble	Solid	DI Leach	
890-6947-17	E#104	Soluble	Solid	DI Leach	
890-6947-18	E#105	Soluble	Solid	DI Leach	
890-6947-19	E#106	Soluble	Solid	DI Leach	
890-6947-20	E#107	Soluble	Solid	DI Leach	
890-6947-21	E#108	Soluble	Solid	DI Leach	
890-6947-22	E#109	Soluble	Solid	DI Leach	
890-6947-23	E#110	Soluble	Solid	DI Leach	
890-6947-24	E#111	Soluble	Solid	DI Leach	
MB 880-86374/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-86374/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-86374/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6947-11 MS	E#98	Soluble	Solid	DI Leach	
890-6947-11 MSD	E#98	Soluble	Solid	DI Leach	
890-6947-21 MS	E#108	Soluble	Solid	DI Leach	
890-6947-21 MSD	E#108	Soluble	Solid	DI Leach	

Analysis Batch: 86421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6947-1	E#88	Soluble	Solid	300.0	86373
890-6947-2	E#89	Soluble	Solid	300.0	86373
890-6947-3	E#90	Soluble	Solid	300.0	86373
890-6947-4	E#91	Soluble	Solid	300.0	86373
890-6947-5	E#92	Soluble	Solid	300.0	86373
890-6947-6	E#93	Soluble	Solid	300.0	86373
890-6947-7	E#94	Soluble	Solid	300.0	86373
890-6947-8	E#95	Soluble	Solid	300.0	86373
890-6947-9	E#96	Soluble	Solid	300.0	86373

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QC Association Summary

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

HPLC/IC (Continued)

Analysis Batch: 86421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6947-10	E#97	Soluble	Solid	300.0	86373
MB 880-86373/1-A	Method Blank	Soluble	Solid	300.0	86373
LCS 880-86373/2-A	Lab Control Sample	Soluble	Solid	300.0	86373
LCSD 880-86373/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	86373
890-6947-1 MS	E#88	Soluble	Solid	300.0	86373
890-6947-1 MSD	E#88	Soluble	Solid	300.0	86373

Analysis Batch: 86423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6947-11	E#98	Soluble	Solid	300.0	86374
890-6947-12	E#99	Soluble	Solid	300.0	86374
890-6947-13	E#100	Soluble	Solid	300.0	86374
890-6947-14	E#101	Soluble	Solid	300.0	86374
890-6947-15	E#102	Soluble	Solid	300.0	86374
890-6947-16	E#103	Soluble	Solid	300.0	86374
890-6947-17	E#104	Soluble	Solid	300.0	86374
890-6947-18	E#105	Soluble	Solid	300.0	86374
890-6947-19	E#106	Soluble	Solid	300.0	86374
890-6947-20	E#107	Soluble	Solid	300.0	86374
890-6947-21	E#108	Soluble	Solid	300.0	86374
890-6947-22	E#109	Soluble	Solid	300.0	86374
890-6947-23	E#110	Soluble	Solid	300.0	86374
890-6947-24	E#111	Soluble	Solid	300.0	86374
MB 880-86374/1-A	Method Blank	Soluble	Solid	300.0	86374
LCS 880-86374/2-A	Lab Control Sample	Soluble	Solid	300.0	86374
LCSD 880-86374/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	86374
890-6947-11 MS	E#98	Soluble	Solid	300.0	86374
890-6947-11 MSD	E#98	Soluble	Solid	300.0	86374
890-6947-21 MS	E#108	Soluble	Solid	300.0	86374
890-6947-21 MSD	E#108	Soluble	Solid	300.0	86374

## Lab Chronicle

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#88

Lab Sample ID: 890-6947-1

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 00:36	CH	EET MID

Client Sample ID: E#89

Lab Sample ID: 890-6947-2

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 00:52	CH	EET MID

Client Sample ID: E#90

Lab Sample ID: 890-6947-3

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 00:57	CH	EET MID

Client Sample ID: E#91

Lab Sample ID: 890-6947-4

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:13	CH	EET MID

Client Sample ID: E#92

Lab Sample ID: 890-6947-5

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.00 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:18	CH	EET MID

Client Sample ID: E#93

Lab Sample ID: 890-6947-6

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.00 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:23	CH	EET MID

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Lab Chronicle

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#94  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-7  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:28	CH	EET MID

Client Sample ID: E#95  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-8  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:34	CH	EET MID

Client Sample ID: E#96  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-9  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:39	CH	EET MID

Client Sample ID: E#97  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-10  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	86373	07/23/24 10:53	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86421	07/26/24 01:44	CH	EET MID

Client Sample ID: E#98  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-11  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 17:16	CH	EET MID

Client Sample ID: E#99  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-12  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 17:32	CH	EET MID



Lab Chronicle

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#100  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-13  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 17:37	CH	EET MID

Client Sample ID: E#101  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-14  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 17:42	CH	EET MID

Client Sample ID: E#102  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-15  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 17:47	CH	EET MID

Client Sample ID: E#103  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-16  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:03	CH	EET MID

Client Sample ID: E#104  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-17  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:08	CH	EET MID

Client Sample ID: E#105  
Date Collected: 07/22/24 07:00  
Date Received: 07/22/24 11:07

Lab Sample ID: 890-6947-18  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:14	CH	EET MID

## Lab Chronicle

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Client Sample ID: E#106

Lab Sample ID: 890-6947-19

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:19	CH	EET MID

Client Sample ID: E#107

Lab Sample ID: 890-6947-20

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:24	CH	EET MID

Client Sample ID: E#108

Lab Sample ID: 890-6947-21

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:30	CH	EET MID

Client Sample ID: E#109

Lab Sample ID: 890-6947-22

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:45	CH	EET MID

Client Sample ID: E#110

Lab Sample ID: 890-6947-23

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 18:50	CH	EET MID

Client Sample ID: E#111

Lab Sample ID: 890-6947-24

Date Collected: 07/22/24 07:00

Matrix: Solid

Date Received: 07/22/24 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	86374	07/23/24 10:58	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	86423	07/25/24 19:06	CH	EET MID

## Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Carlsbad

Accreditation/Certification Summary

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Laboratory: Eurofins Midland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-25

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Method Summary

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

- Protocol References:**
- ASTM = ASTM International
  - EPA = US Environmental Protection Agency
- Laboratory References:**
- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: R360 ES Holdings Inc  
Project/Site: R360 -backfill

Job ID: 890-6947-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6947-1	E#88	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-2	E#89	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-3	E#90	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-4	E#91	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-5	E#92	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-6	E#93	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-7	E#94	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-8	E#95	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-9	E#96	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-10	E#97	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-11	E#98	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-12	E#99	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-13	E#100	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-14	E#101	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-15	E#102	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-16	E#103	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-17	E#104	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-18	E#105	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-19	E#106	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-20	E#107	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-21	E#108	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-22	E#109	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-23	E#110	Solid	07/22/24 07:00	07/22/24 11:07
890-6947-24	E#111	Solid	07/22/24 07:00	07/22/24 11:07

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## Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300  
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

**Environment Testing**  
**Xenco**

**Work Order No:**

Page            of             
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Work Order Comments					
Program:	UST/PST <input type="checkbox"/>	PRP <input type="checkbox"/>	Brownfields <input type="checkbox"/>	RRC <input type="checkbox"/>	Superfund <input type="checkbox"/>
State of Project:					
Reporting:	Level II <input type="checkbox"/>	Level III <input type="checkbox"/>	PST/UST <input type="checkbox"/>	TRRP <input type="checkbox"/>	Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/>	ADaPT <input type="checkbox"/>	Other: <input type="text"/>		

Project Manager:	Luis Rivera		Bill to: (if different)
Company Name:	R360 Environmental Solutions		Company Name:
Address:	5053 US Hwy 285		Address:
City, State ZIP:	Orla TX 79770		City, State ZIP:
Phone:	(405) 351-2694		Email: <a href="mailto:lvivera@r360es.com">lvivera@r360es.com</a>

Project Name: Backfill						Turn Around								ANALYSIS REQUEST										Preservative Codes	
P Project Number:						<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush														None: NO Cool: Cool HCL: HC H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub> Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SACP					
Project Location:						Due Date:		TAT starts the day received by the lab, if received by 4:30pm																	
Sampler's Name:																									
PO #:																									
<b>SAMPLE RECEIPT</b>						Temp Blank: Yes No		Wet Ice: Yes No		Parameters															
Samples Received Intact:						Yes No		Thermometer ID: FMM4X2																	
Cooler Custody Seals:						Yes No		Correction Factor: -0.2																	
Sample Custody Seals:						Yes No		Temperature Reading: 9.2																	
Total Containers:						Yes No		Corrected Temperature: 3.0																	
Sample Identification						Matrix		Date Sampled		Time Sampled		Depth		Grab/Comp		# of Cont				Sample Comments					
E#88								7/22/24		7:00AM						1									
E#89																1									
E#90																1									
E#91																1									
E#92																1									
E#93																1									
E#94																1									
E#95																1									
E#96																1									
E#97																1									

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Notice: Signature of this document constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$50.00 will be assessed for each sample analyzed, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			7/06/14			
2						
3						
4						
5						
6						

Revised Date: 08/25/2020 Rev. 2020 2

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199



Environment Testing

Xenco

Work Order No:

www.xenco.com Page of

Project Manager: Luis Rivera  
Company Name: R360 Environmental Solutions  
Address: 5050 US Hwy 285  
City, State ZIP: Orla TX 77720  
Phone: (405) 351-2694 Email: Luis.Rivera@R360es.com

Bill to: (if different)  
Company Name:  
Address:  
City, State ZIP:  
Email:

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

Project Name: Backfill  
Project Number:  
Project Location:  
Sampler's Name:  
PO #:

Turn Around  
☒ Routine ☐ Rush  
Due Date:  
TAT starts the day received by the lab, if received by 4:30pm

Temp Blank: Yes No  
Thermometer ID:  
Cooler Custody Seals: Yes No N/A  
Correction Factor:  
Sample Custody Seals: Yes No N/A  
Temperature Reading:  
Corrected Temperature:

ANALYSIS REQUEST				Preservative Codes	
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp
E#98		7/23/24	7:24 AM		
E#99					
E#100					
E#101					
E#102					
E#103					
E#104					
E#105					
E#106					
E#107					

Parameters: Chlorides

Preservative Codes:  
None: NO  
DI Water: H<sub>2</sub>O  
Cool: Cool  
MeOH: Me  
HCL: HC  
HNO: HN  
H<sub>2</sub>SO: H<sub>2</sub>  
H<sub>3</sub>PO: HP  
NaHSO: NABIS  
Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>: NaSO<sub>3</sub>  
Zn Acetate+NaOH: Zn  
NaOH+Ascorbic Acid: SAPC

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn  
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/23/24			

Revised Date: 08/25/2020 Rev. 2020.2





Work Order No: \_\_\_\_\_

Page \_\_\_\_ of \_\_\_\_  
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Work Order Comments											
Program:		UST/PST <input type="checkbox"/>		PRP <input type="checkbox"/>		Brownfields <input type="checkbox"/>		RRC <input type="checkbox"/>		Superfund <input type="checkbox"/>	
State of Project:											
Reporting:		Level II <input type="checkbox"/>		Level III <input type="checkbox"/>		PST/AUST <input type="checkbox"/>		TRRP <input type="checkbox"/>		Level IV <input type="checkbox"/>	
Deliverables:		EDO <input type="checkbox"/>		ADaPT <input type="checkbox"/>		Other:					

Project Manager:	Luis Rivera		Bill To: (if different)
Company Name:	R360 Environmental Solutions		Company Name:
Address:	5053 US Hwy 285		Address:
City, State ZIP:	Orlando TX 79770		City, State ZIP:
Phone:	(405) 351-2694	Email:	luis@R360es.com

[illegible]

Total	200.7 / 6010	200.8 / 6020:	
Circle Method(s) and Metal(s) to be analyzed	8RCRA Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn	Hg: 1631 / 245.1 / 7470 / 7471
	TCLP/SPLP 6010 : 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni: Se Ag Ti U	

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of service. A minimum charge of \$85.00 will be applied to each parcel and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated. A minimum charge of \$85.00 will be applied to each parcel and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			7/20/24			
3						

Revised Date: 08/25/2020 Rev 2020 2

Login Sample Receipt Checklist

Client: R360 ES Holdings Inc

Job Number: 890-6947-1

Login Number: 6947

List Source: Eurofins Carlsbad

List Number: 1

Creator: Lopez, Abraham

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: R360 ES Holdings Inc

Job Number: 890-6947-1

Login Number: 6947

List Source: Eurofins Midland

List Number: 2

List Creation: 07/23/24 08:17 AM

Creator: Vasquez, Julisa

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 26, 2024

NICHOLAS POOLE

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: R360 RED BLUFF

Enclosed are the results of analyses for samples received by the laboratory on 08/23/24 8:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 NICHOLAS POOLE  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received: 08/23/2024  
 Reported: 08/26/2024  
 Project Name: R360 RED BLUFF  
 Project Number: 212C - MD - 02878  
 Project Location: COP - ORLA, TX

Sampling Date: 08/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BACKFILL COMPOSITE (H245141-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/23/2024	ND	2.23	112	2.00	6.88	
Toluene*	<0.050	0.050	08/23/2024	ND	2.13	106	2.00	6.28	
Ethylbenzene*	<0.050	0.050	08/23/2024	ND	2.10	105	2.00	5.95	
Total Xylenes*	<0.150	0.150	08/23/2024	ND	6.23	104	6.00	6.09	
Total BTEX	<0.275	0.275	08/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/23/2024	ND	400	100	400	7.69	

TPH TX1005		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/23/2024	ND	227	113	200	3.24	
DRO >C12-C28	<25.0	25.0	08/23/2024	ND	205	103	200	6.54	
DRO >C28-C35	<25.0	25.0	08/23/2024	ND					
Total TPH C6-C35*	<25.0	25.0	08/23/2024	ND	438	110	400	6.27	

Surrogate: 1-Chlorooctane 68.1 % 48.6-153

Surrogate: 1-Chlorooctadecane 77.3 % 41.9-170

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\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Mike Snyder", is written over a horizontal line.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

<b>Company Name:</b> <u>Carson Phillips</u> <b>Project Manager:</b> <u>Nicholas Poole</u> <b>Address:</b> _____ <b>City:</b> _____ <b>State:</b> _____ <b>Zip:</b> _____ <b>Phone #:</b> _____ <b>Fax #:</b> _____ <b>Project #:</b> <u>212C-MD-02878</u> <b>Project Owner:</b> _____ <b>Project Name:</b> <u>R360 Red Bluff - Orla, TX</u> <b>Project Location:</b> <u>Edley Canyon, Orla, TX</u> <b>Sampler Name:</b> <u>Andrew Garcia</u>		<b>BILL TO</b> <b>P.O. #:</b> _____ <b>Company:</b> <u>Tetra Tech</u> <b>Attn:</b> <u>Nicholas Poole</u> <b>Address:</b> _____ <b>City:</b> _____ <b>State:</b> _____ <b>Zip:</b> _____ <b>Phone #:</b> _____ <b>Fax #:</b> _____		<b>ANALYSIS REQUEST</b>	
<b>FOR LAB USE ONLY</b> <b>Lab I.D.</b> <u>H245141</u> <b>Sample I.D.</b> _____ <b>Backfill Composite</b> <u>1</u>		<input checked="" type="checkbox"/> (G)RAB OR <input checked="" type="checkbox"/> (C)OMP. <b># CONTAINERS</b> _____ <b>GROUNDWATER</b> _____ <b>WASTEWATER</b> _____ <b>SOIL</b> <input checked="" type="checkbox"/> _____ <b>OIL</b> _____ <b>SLUDGE</b> _____ <b>OTHER :</b> _____ <b>ACID/BASE:</b> _____ <b>ICE / COOL</b> <input checked="" type="checkbox"/> _____ <b>OTHER :</b> _____	<b>MATRIX</b> <b>PRESERV.</b> _____ <b>SAMPLING</b> _____ <b>DATE</b> <u>2024</u> <b>TIME</b> <u>1500</u>	<u>BTEX</u> <u>TPH</u> <u>Chlorides</u>	
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<b>Relinquished By:</b> <u>Andrew Garcia</u> <b>Date:</b> <u>23 Aug 24</u> <b>Time:</b> <u>0837</u> <b>Relinquished By:</b> _____ <b>Date:</b> _____ <b>Time:</b> _____		<b>Received By:</b> <u>Spedigney</u> <b>Date:</b> _____ <b>Time:</b> _____ <b>Received By:</b> _____			
<b>Delivered By: (Circle One)</b> <b>Sampler - UPS - Bus - Other:</b> _____ <b>Observed Temp. °C:</b> <u>-2.71</u> <b>Corrected Temp. °C:</b> <u>-3.34</u> <b>Sample Condition</b> <b>Cool Intact</b> <input checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b> <b>Checked By:</b> <u>SP</u>		<b>Turnaround Time:</b> <u>#140</u> <b>Standard</b> <input type="checkbox"/> <b>Rush</b> <input checked="" type="checkbox"/> <b>Thermometer ID #:</b> <u>444</u> <b>Correction Factor:</b> <u>-0.5°C</u> <b>Bacteria (only)</b> <input type="checkbox"/> <b>Cool Intact</b> <input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b> <b>Sample Condition</b> <b>Observed Temp. °C:</b> _____ <b>Corrected Temp. °C:</b> _____			
<b>REMARKS:</b> <u>Andrew Garcia@tetra-tech.com</u> <u>Nicholas Poole@tetra-tech.com</u>		<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> _____ <b>All Results are emailed. Please provide Email address:</b> _____			

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

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**Oil Conservation Division**  
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**Santa Fe, NM 87505**

QUESTIONS  
  
Action 379245

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	379245
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nAB1619432451
Incident Name	NAB1619432451 WEST BRUSHY 8 FEDERAL SWD #001 @ 30-015-31675
Incident Type	Produced Water Release
Incident Status	Reclamation Report Received
Incident Well	[30-015-31675] WEST BRUSHY 8 FEDERAL SWD #001

Location of Release Source	
Please answer all the questions in this group.	
Site Name	WEST BRUSHY 8 FEDERAL SWD #001
Date Release Discovered	07/03/2016
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Corrosion   Flow Line - Production   Produced Water   Released: 25 BBL   Recovered: 0 BBL   Lost: 25 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.



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QUESTIONS, Page 2

Action 379245

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	379245
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

**QUESTIONS**

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Christian LLuLL Title: Project Manager Email: christian.llull@tetrattech.com Date: 08/29/2024
--	--

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QUESTIONS, Page 3

Action 379245

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	379245
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

**QUESTIONS****Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 500 and 1000 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between ½ and 1 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	14600
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	211
GRO+DRO	(EPA SW-846 Method 8015M)	211
BTEX	(EPA SW-846 Method 8021B or 8260B)	0.3
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	08/01/2024
On what date will (or did) the final sampling or liner inspection occur	08/01/2024
On what date will (or was) the remediation complete(d)	08/15/2024
What is the estimated surface area (in square feet) that will be reclaimed	20700
What is the estimated volume (in cubic yards) that will be reclaimed	2700
What is the estimated surface area (in square feet) that will be remediated	20700
What is the estimated volume (in cubic yards) that will be remediated	2700

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 379245

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:	229137
	Action Number:	379245
	Action Type:	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	No
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Christian LLuLL Title: Project Manager Email: christian.llull@tetrattech.com Date: 08/29/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5  
  
Action 379245

QUESTIONS (continued)

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:  229137
	Action Number:  379245
	Action Type:  [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 379245

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	379245
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	367770
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/31/2024
What was the (estimated) number of samples that were to be gathered	75
What was the sampling surface area in square feet	20865

**Remediation Closure Request**

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	19890
What was the total volume (cubic yards) remediated	1850
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	19890
What was the total volume (in cubic yards) reclaimed	1850
Summarize any additional remediation activities not included by answers (above)	Following excavation, confirmation floor and sidewall samples were collected from the entire remediated area and submitted for laboratory analysis to verify efficacy of remediation activities. Per the NMOCD approved confirmation sampling plan, confirmation samples were collected such that each discrete sample (sidewall and floor) was representative of no more than 400 square feet of excavated area. The combined remediated extent had a surface area of approximately 19,890 square feet. A total of fifty-one (51) confirmation floor sample locations and twenty-two (22) confirmation sidewall sample locations were collected for laboratory analysis during remedial activities.

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Christian LLuLL Title: Project Manager Email: christian.llull@tetrattech.com Date: 08/29/2024
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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

QUESTIONS, Page 7

Action 379245

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 379245
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS****Reclamation Report**

Only answer the questions in this group if all reclamation steps have been completed.

Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	19890
What was the total volume of replacement material (in cubic yards) for this site	1850

Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.

Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseedling commence(d)	08/07/2024

Summarize any additional reclamation activities not included by answers (above)	Once acceptable confirmation sample results were received, the excavation was backfilled with clean material to pre-release grade. In accordance with 19.15.29.12 NMAC, the reclaimed area contained a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0. The soil cover included a top layer consisting of one foot of suitable material to establish vegetation at the site. The backfilled areas in the pasture were seeded following backfilling, to aid in revegetation. Based on the soils of the site, the BLM Seed Mix #2 was used for seeding and was planted in the amount specified in the pounds pure live seed (PLS) per acre.
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The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseedling plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Christian LLuLL Title: Project Manager Email: christian.llull@tetrattech.com Date: 08/29/2024
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QUESTIONS, Page 8  
  
Action 379245

QUESTIONS (continued)

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	379245
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	

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CONDITIONS  
  
Action 379245

CONDITIONS

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	379245
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation closure and reclamation report approved.	9/6/2024
bhall	A revegetation report will not be accepted until revegetation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	9/6/2024
bhall	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeded activities, inspections, and final pictures when revegetation is achieved.	9/6/2024
bhall	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	9/6/2024