



July 23, 2025

Ashley Maxwell  
Oil Conservation Division, District 1  
1625 North French Drive  
Hobbs, New Mexico 8824

**Re: REVISED Site Summary Report  
Work Plan  
ConocoPhillips (COG Operating LLC)  
Way South State Com #001H Tank Battery  
Unit Letter A, Section 30, Township 26 South, Range 28 East  
Eddy County, New Mexico  
Incident ID# NRM2008650013**

Ms. Maxwell:

Tetra Tech, Inc. (Tetra Tech) was contracted by ConocoPhillips to evaluate a release that ensued from a site glass failure at a free water knockout (FWKO) at the (former COG Operating LLC) tank battery associated with the Way South State Com #001H (API# 30-015-37234). The release footprint is located in Public Land Survey System (PLSS) Unit Letter A, Section 30, Township 26 South, Range 28 East, in Eddy County, New Mexico (Site). The approximate release point occurred at coordinates 32.018720°, -104.119516°, as shown on Figures 1 and 2.

## BACKGROUND

According to the State of New Mexico Oil Conservation Division (NMOCD) C-141 Initial Report (Appendix A), the release was discovered on December 25, 2019. The release was caused by a site glass failure on a free water knockout (FWKO). All of the fluids were reportedly contained inside the unlined facility firewall. Approximately four (4) barrels of crude oil and six (6) barrels of produced water were released. The reported concentration of dissolved chloride in the produced water was not greater than 10,000 mg/L. A vacuum truck was dispatched immediately to remove all freestanding fluids. COG recovered three (3) barrels of crude oil and 5 barrels of produced water. The New Mexico Oil Conservation Division (NMOCD) received the initial C-141 on January 9, 2020. The NMOCD Incident ID for this release is NRM2008650013.

## NMOCD REJECTION

The Site Summary Report and Closure Request was initially prepared and submitted to the NMOCD on November 15, 2024. The NMOCD rejected the submitted report in an email dated November 15, 2024 with the following comments:

- *"C141 denied. The submitted report is titled as a closure report but submitted as a site/characterization Remediation Plan. Please resubmit the report as a closure request."*
- *Submit a closure request report via the OCD permitting portal by December 13, 2024."*

## NMOCD CORRESPONDENCE

Tetra Tech and NMOCD discussed the rejection of the report in various email correspondence and conference calls. After additional review and associated extension approvals, NMOCD requested the following additional information to be collected and incorporated into a revised report:

Tetra Tech

901 West Wall St., Suite 100, Midland, TX 79701

Tel 432.682.4559 Fax 432.682.3946 [www.tetrattech.com](http://www.tetrattech.com)

- Analysis of a produced water sample collected from the facility (On Monday, January 27, 2025, OCD: ...Do you know if there was ever a sample collected of the produced water from the site? In the report it states that it was reported as having less than 10,000 mg/L TDS. I would also be curious what the actual chloride level is.)
- Following additional correspondence on February 5, 2025, Ashley Maxwell, NMOCD stated: I've spoken with my supervisor, Cory Smith, regarding a path forward. Please collect a produced water sample for the site and include the results with the report you previously submitted. Submit that report via the OCD permitting portal. The report will be submitted as a Remediation Work Plan.
- Further information regarding the number of wells and location of the wells installed for the release assessment.

This REVISED Site Summary Report and Work Plan has been prepared to satisfy the NMOCD's request for additional information and revised deliverables. The additional information and updated evaluation of assessment data have been incorporated into the appropriate sections. A copy of the regulatory correspondence is included in Appendix B.

## SITE CHARACTERIZATION

The initial site characterization data is included in the previous document submittals. As proposed in the REVISED Work Plan Addendum, additional background soil analytical data was collected in 2024 and used to evaluate the site characterization. The additional assessment and site characterization data are detailed in subsequent sections of this report.

No sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, wetlands, incorporated municipal boundaries, or subsurface mines are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). However, there are two OSE stream bodies within 300 feet of the lateral extents of the release and the Site is located in a FEMA Zone A floodplain. The Site is also in an area of high karst potential. The site characterization data is included in Appendix C.

Groundwater was encountered at shallow depths in this area, ranging from 18-20' below ground surface (bgs) in the three (3) monitoring wells installed in the release area in April 2024. However, the groundwater encountered in all three wells had analyzed total dissolved solids (TDS) concentrations above 10,000 mg/l. Details regarding the 2024 groundwater monitoring wells and analyzed groundwater quality are provided in subsequent sections of this report. Boring logs are included in Appendix D.

## DEFAULT REGULATORY FRAMEWORK

Based upon the release footprint and 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 (high karst and shallow groundwater) and in accordance with Table I of 19.15.29.12 NMAC, the default RRALs for the Site are as follows:

Constituent	RRAL
Chloride	600 mg/kg
TPH (GRO+DRO+ORO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

However, the 19.15.29.12 NMAC Table I Closure Criteria for Soils Impacted by a Release are based on the minimum depth below any point within the horizontal boundary of the release to ground water less than

10,000 mg/l TDS. The shallow groundwater encountered at the Site had analyzed TDS concentrations greater than 10,000 mg/l, as detailed in subsequent sections of this report.

## LAND OWNERSHIP AND PERMITTING

The Site is located on State Trust lands managed by the New Mexico State Land Office (SLO). An archaeological survey within the surrounding pasture area was conducted by a licensed firm on April 17, 2023, in accordance with the Cultural Properties Protection (CPP) Rule. The report was submitted to the NMSLO, and the SLO cleared the Site for right of entry and soil borings following a review of the survey.

The activities proposed in the REVISED Work Plan Addendum required considerable coordination with several regulatory entities, including the Environmental Compliance Office (ECO) Surface Resources Division of the New Mexico State Land Office (NMSLO); the Oil, Gas and Minerals Division of NMSLO (for MW Easement, Right of Entry Permit, and soil borings); and the New Mexico Office of the State Engineer. The applicable associated permitting documents are found in Appendix E:

- NMCRIS 152756 – Archaeological Survey
- WM-689 – SLO MW Easement
- WE-0818 – SLO Soil Boring Permit
- C-4784 – NMOSE Permit and Plugging Plan

## PREVIOUS ASSESSMENT ACTIVITIES AND DOCUMENT SUBMITTALS

### WORK PLAN (SEPTEMBER 23, 2020)

The release area footprint occurred in the vicinity of production equipment including the heater treater, horizontal FWKO's and multiple steel surface lines. The reported release footprint measured approximately 25 feet by 60 feet inside the earthen facility walls. COG initially assessed the impacts at the Site with a Geoprobe (direct push) drilling rig on April 7, 2020 (BH-1). Vertical delineation was not achieved during the sampling event due to refusal encountered at 7't bgs. Assessment activities and a description of the Site are documented in the initial COG Work Plan (dated September 23, 2020). The Work Plan also proposed additional evaluation within the facility firewalls to determine access, background trenches to evaluate chloride, and a follow-up Work Plan or Deferral Report.

Results from the April 2020 soil sampling event are summarized in Table 1. Analytical results were directly compared to the default 19.15.29 NMAC Table I Closure Criteria for Soils Impacted by a Release for areas where groundwater is encountered at depths less than 50 feet below surface. Analytical results from all soil sampling intervals collected from boring BH-1 exceeded 600 mg/kg for chloride in soils, with a bottom chloride of 1,840 mg/kg at 7.0' below surface. All other analytical results from the April 2020 sampling event were below 100 mg/kg for TPH and 50 mg/kg for BTEX. The boring location is indicated on Figure 3.

The original Work Plan associated with the incident was submitted to NMOCD by COG via email and marked received on September 26, 2020. The Work Plan was denied by NMOCD on March 8, 2021. The regulatory decision is documented in the OCD Permitting Incident Events details.

### ADDENDUM WORK PLAN (APRIL 15, 2021)

Based on the rejection, an Addendum Work Plan (dated April 15, 2021) was drafted by COG and submitted to the NMOCD. In the Addendum Work Plan, COG described how an additional access point inside the firewall was located east of the production equipment, and an air rotary drilling rig was used to further delineate impacts in the release footprint (Bore Hole-1) on December 14, 2020. The boring was terminated at 20' bgs, vertical delineation was not achieved, and the plan reported encountering shallow groundwater during drilling. The Work Plan Addendum also proposed background trenches to evaluate chloride, permitting, installation, and sampling of monitoring well(s), and a follow up Work Plan or Abatement Plan.

Results from the December 2020 soil sampling event are summarized in Table 1. Analytical results associated with Bore Hole-1 exceeded 600 mg/kg for chloride in soils, with a bottom chloride of 1,490 mg/kg at 19-20' below surface. However, soil samples were analyzed for chloride only. The boring location is indicated on Figure 3.

The Addendum Work Plan was then submitted to NMOCD by COG via email. The Addendum Work Plan was rejected by NMOCD on April 18, 2023, for the following reasons:

- *"The Remediation Plan Addendum is Denied. Please, make sure a C-141 page 5 "Remediation Plan" page is signed and filled out at time of submission.*
- *This release is within a 100-year floodplain and high karst area and will need to be remediated to the strictest closure criteria from Table 1 of the OCD Spill Rule. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. The temporary monitoring well installation will allow COG to verify that there is no groundwater impact. The boring should be drilled safely and purged. A groundwater sample should include general chemistry including major cations and anions.*
- *Please keep the OCD up to date on the groundwater sample results. An additional meeting may be necessary in the future to discuss the results. The work will need to occur in 90 days after the work plan has been reviewed."*

The regulatory decision is documented in the OCD Permitting Incident Events details.

#### REVISED WORK PLAN ADDENDUM (AUGUST 22, 2023)

A REVISED Work Plan Addendum dated August 22, 2023 was drafted in response to the NMOCD review of Addendum Work Plan (dated April 15, 2021), and, based on calls and the most recent rejection of said Addendum Work Plan to include a complete signed C-141 (including the page 5 Remediation Plan) as requested by NMOCD.

The REVISED Work Plan Addendum included a summary of background sampling (including legacy historical) and analytical results associated with the release vicinity. As a reference, historical incident nJMW1309539213 occurred at the Way South facility in March 2013, and that legacy footprint was just west of the facility firewall. The incident footprint was assessed and two trenches outside of the footprint were completed as a portion of the assessment work. Background soil results from (background trench) BGT-1 and BGT-2, installed on January 8, 2013, indicated chloride concentrations exceeding the current RRAL of 600 mg/kg in subsurface soils. Results from the 2013 background sampling event are summarized in Table 2. Analytical results in the subsurface range from 2,160 mg/kg to as high as 3,650 mg/kg at 4' bgs. The boring locations are indicated on Figure 3.

The REVISED Work Plan Addendum proposed additional soil and groundwater sampling to collect additional background soil chloride concentration data and to evaluate groundwater quality in the release area and surrounding vicinity of this current release. The REVISED Work Plan Addendum was approved by the SLO on August 23, 2023 and by the NMOCD on February 16, 2024. Copies of the regulatory correspondence are included in Appendix B. In accordance with the approved REVISED Work Plan Addendum, Tetra Tech conducted a series of field activities.

#### 2024 ADDITIONAL BACKGROUND SOIL BORINGS

Three (3) background soil borings (BG-2, BG-3, and BG-4) were installed in the release vicinity on April 16-18, 2024 to a total depth of 20' bgs each. Additionally, in the same mobilization, another background boring (BG-24-1) was drilled to 20' bgs for the nearby Way South Tin Horn Release (Incident ID nAB1821441824). Although this boring was installed approximately 230' west of the subject release, those results are also included for reference. These borings were completed using a truck-mounted air rotary drilling rig.



Soil samples were collected on approximate one-foot intervals. Samples were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of TPH (Method 8015 modified), BTEX (Method 8021B), and chloride (EPA Method 300 or SM4500Cl-B). The boring locations are indicated on Figure 4.

## 2024 BACKGROUND BOREHOLES

Environmental soil samples were collected during this drilling mobilization. Samples were collected from the four (4) background borings on continuous 1-foot intervals. A total of one hundred and one (101) soil samples were collected from the background borings. The collected samples were submitted to Cardinal Laboratories in Hobbs, New Mexico for analysis. For the background borings, collected samples were only analyzed for chlorides via EPA Method SM4500Cl-B. A copy of the laboratory analytical reports and chain of custody documentation are included in Appendix F.

## 2024 SAMPLING DURING DRILLING OF MONITORING WELLS

Samples were also collected from the borings associated with the monitoring well locations prior to the monitoring well installation, from seven (7) individual soil intervals (0-1', 3-4', 5-6', 7-8', 9-10', 14-15', and 19-20'). Thus, a total of twenty-one (21) soil samples were collected from the three (3) monitoring well borings and sent to Cardinal Laboratories in Hobbs, New Mexico to be analyzed for chlorides via EPA Method SM4500Cl-B, TPH via EPA Method 8015M and BTEX via EPA Method 8021B. A copy of the laboratory analytical reports and chain of custody documentation are included in Appendix F.

## SUMMARY OF ANALYTICAL RESULTS

Soil analytical results from the April 2024 background soil boring drilling activities are summarized in Table 2. The analytical results associated with the various background locations indicate that natural chloride concentrations range from 96 mg/kg to as high as 2,960 mg/kg at soil intervals from the surface down to 20' bgs.

Soil analytical results from the April 2024 monitoring well drilling activities are summarized in Table 3. At MW-1, located on pad adjacent to the release extent, chloride concentrations exceeded the RRAL of 600 mg/kg in the 14-15' of 992 mg/kg sample interval. The remainder of the analytical results are below the RRAL. At MW-2, located in pasture north of the lease pad, chloride concentrations exceeded the RRAL of 600 mg/kg in all analyzed samples ranging from 688 mg/kg at 19-20' to 2,680 mg/kg at 0-1'. At MW-3, located off pad, southeast of the lease pad, there were no chloride concentrations above 600 mg/kg in any of the analyzed samples. Additionally, there were no TPH or BTEX concentrations above the Table I limits of 100 mg/kg and 50 mg/kg, respectively, in any of the analyzed samples.

## 2024 MONITORING WELL INSTALLATION

As directed by NMOCD, and in accordance with the approved plan, on April 17-18, 2024, ConocoPhillips installed three (3) permanent monitoring wells (MW-1, MW-2 and MW-3) at the Site to determine groundwater quality in the release area.

The number and locations of the monitoring wells were agreed upon in a meeting between the NMOCD, ConocoPhillips, and Tetra Tech in December 2022 and then approved by the NMOCD in the REVISED Work Plan Addendum. The number of wells (3) was determined as the minimum number required to establish a gradient. MW-1 was installed near the initial release extent (on pad) to assess the groundwater immediately beneath the release area footprint. Monitoring wells MW-2 and MW-3 were installed approximately 350' north and 320' east of the release area (in pasture), respectively, at locations based on their direction and proximity to Owl Draw in accordance with guidance provided by the NMOCD. Monitoring well locations are indicated in Figure 4.

The monitoring wells were installed by a water well driller licensed in the State of New Mexico. During drilling, soils were logged continuously to the base of the boring. A Tetra Tech field geologist logged the

soil characteristics along with any other pertinent information. All three monitoring wells were installed to total depths of 30' bgs.

The monitoring wells were constructed of 2-inch diameter, flush-joint threaded PVC pipe with 20' of 0.010 inch slot well screen. The casing extended from the top of the screen to at least one-foot above ground surface. The top of the casing was fitted with a removable cap. The screened interval length and elevation was determined in the field. A filter pack was installed around the screen by filling the annular space from the bottom of the screen to 2 feet above the top of the screen with clean 20/40 silica sand. The well was surged or bailed to settle the filter pack and additional sand added, prior to emplacing the bentonite seal.

A bentonite seal was constructed immediately above the filter pack by emplacing bentonite chips (3/8-inch in size or smaller) in a manner that prevents bridging of the chips/pellets in the annular space. The bentonite seal was 3 feet in thickness and hydrated with clean water. Adequate time was allowed for expansion of the bentonite seal before installation of the annular space seal. The annular space above the bentonite seal was sealed with cement grout. The exposed casing was protected by a locking steel well shroud. The soil observations and well construction details were recorded. Boring logs, including well construction diagrams, are included in Appendix D. After completion, the wells were purged to remove approximately 5 gallons of water and developed.

On April 30, 2024, Surveying and Mapping, LLC (SAM) were onsite to survey the three (3) monitoring wells for location and elevation. The survey map is presented in Appendix E. On June 5, 2024, Tetra Tech personnel returned to the Site to regauge the wells. The June 2024 groundwater elevation data is summarized in Table 4.

Based on the groundwater gradient, the groundwater flow is from west to east towards Owl Draw, following the surface topography. The potentiometric surface map for groundwater at the Site, generated based on the survey data and June 5, 2024 groundwater surface elevation data, is presented in Figure 5.

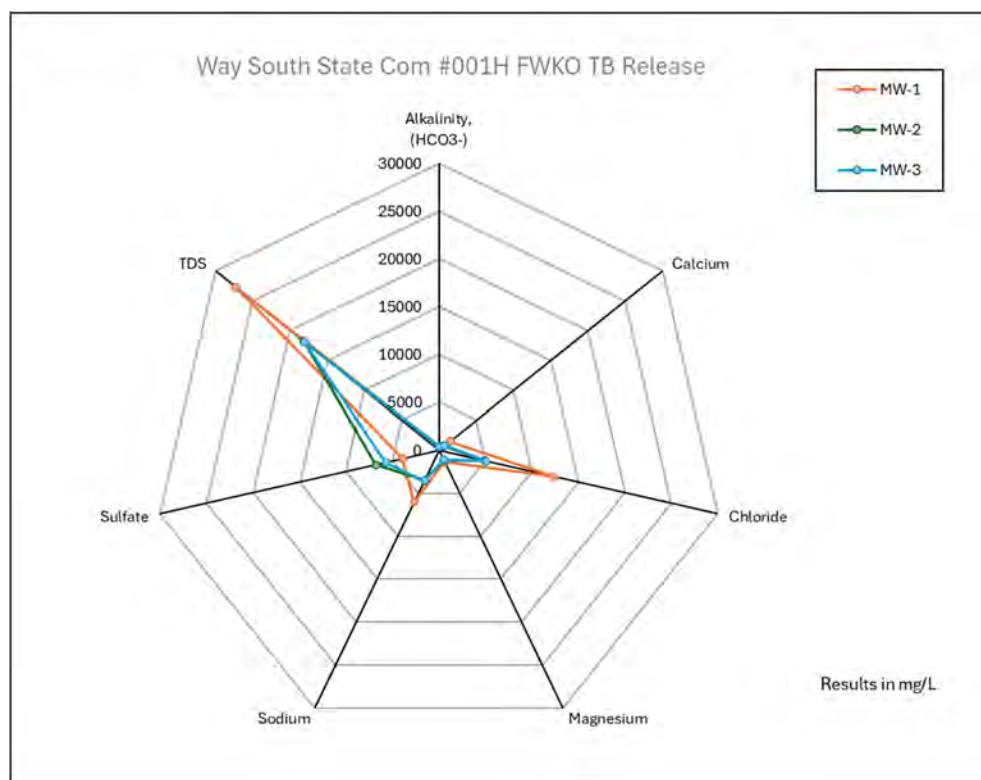
## 2024 MONITOR WELL GROUNDWATER SAMPLING AND RESULTS

After completion of the monitoring well installation, stabilization, and development, Tetra Tech personnel collected initial groundwater samples from the three wells on April 17 and 18, 2024. The monitoring wells were hand purged to remove 3 casing volumes (approximately 3 gallons) until water quality parameters measured with a multiparameter digital water quality meter (temperature, dissolved oxygen, conductivity, salinity, total dissolved solids (TDS), and pH) stabilized.

After purging, groundwater samples were then collected from the wells using a dedicated disposal bailer for to be analyzed for chlorides, BTEX, TPH, Cation/Anion (includes pH and TDS), Dissolved Iron, and Dissolved Manganese. Samples were submitted to Cardinal in Hobbs, New Mexico. Copies of the analytical report and chain-of-custody are included in Appendix F.

The laboratory analytical results from the April 2024 groundwater sampling event are summarized in Table 5. Analytical results associated with the collected samples from all three monitoring wells indicate TDS concentrations above 10,000 mg/L. TDS analytical results range from 18,000 mg/L in MW-3 to 27,300 mg/L in MW-1.

The analytical results associated with groundwater from MW-2 and MW-3 indicated little variation between the two locations. The analytical results associated with the groundwater sample collected from MW-1 (installed immediately adjacent to the release extent on the downgradient side), contained higher TDS, chloride, and sodium concentrations and a lower sulfate concentration than those analyzed from MW-2 and MW-3, as visually presented in the star plot below.



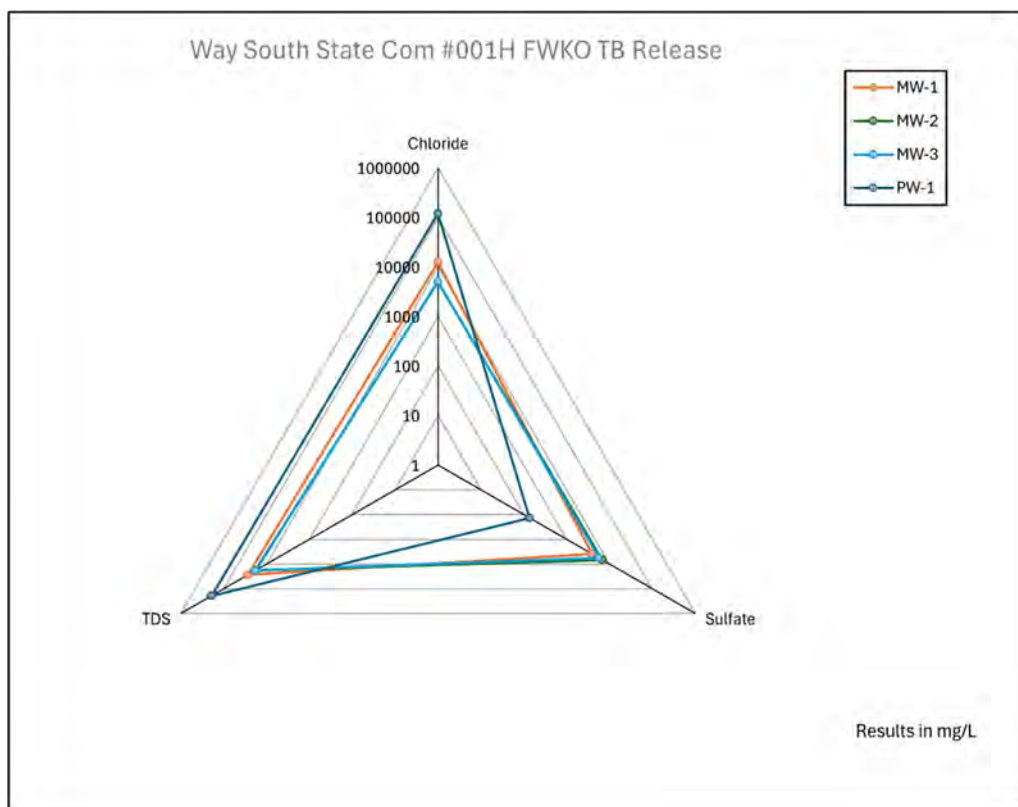
## 2025 PRODUCED WATER SAMPLING AND RESULTS

To comply with NMOCD directives following review (and rejection) of the original Site Summary Report and Closure Request, ConocoPhillips personnel collected a produced water sample from the Way South State Com #001 Tank Battery facility. Produced water sample PW-1 was collected on March 27, 2025 and submitted to Cardinal in Hobbs, New Mexico to be analyzed for chloride, TDS, and sulfate. Copies of the analytical reports and chains-of-custody are included in Appendix F.

The laboratory analytical results from the March 2025 produced water sampling event are summarized in Table 6. The produced water results were 191,000 mg/L TDS, 120,000 mg/L chloride, and 138 mg/L sulfate.

The produced water analytical results exhibit a fingerprint which is distinct and different from the April 2024 groundwater monitoring results. Lines of evidence follow:

1. The chloride and TDS concentrations in the produced water sample were each an order of magnitude greater than the concentrations in groundwater from the three monitoring wells.
2. The sulfate concentration in the produced water at the facility was approximately two orders of magnitude less than in the groundwater, as illustrated in the logarithmic scale star plot below.
3. If the produced water had affected the groundwater, the sulfate concentration in the groundwater would be less than the concentration found in the produced water, and the data indicates the opposite. This likely indicates that groundwater has not been impacted by the produced water release.



## LOCAL GEOLOGY AND HYDROLOGY

Soils at the Site consist of loamy sands, silts, and clays of the Cottonwood-Reeves loams and the Gypsum land-Cottonwood complex. Parent material is residuum weathered from gypsum. The underlying geologic regime at the Site includes floodplain alluvium and terrace deposits. The surface topography slopes toward Owl Draw to the northeast, which drains water to the southeast towards the Delaware River during heavy rain events. Shallow groundwater generally follows surface topography. Local soil and geology data is included in Appendix G.

Heavy rain fell over southeastern New Mexico during 2013 and 2014, especially in the Loving and Malaga areas. Extreme variability in the rainfall created flash flooding which affected significant portions of the drainage areas surrounding the Site. Several adjacent batteries and lease pads were damaged by the flooding events, as evidenced in historical imagery.

As described in previous sections, background soil borings associated with this Site indicate chloride concentrations, in both shallow and deeper soils, which exceed the default 19.15.29 NMAC Table 1 *Closure Criteria for Soils Impacted by a Release* for areas where groundwater is encountered at depths less than 50 feet below surface. Gypsum was observed at various soil intervals in all of the 2024 assessment borings, as documented in Appendix D.

## REVISED EVALUATION OF SITE CHARACTERIZATION AND ASSESSMENT DATA

As discovered through analysis and research, conflicting information regarding the concentration of dissolved chloride in the produced water at the facility was presented in the incident files. While the OCD Permitting details indicated that the concentration of dissolved chloride in the produced water release source was not greater than 10,000 mg/L, the initial C-141 form (Appendix A) did indeed document that chloride in the produced water was greater than 10,000 mg/L. A produced water sample collected from the facility in March 2025 was analyzed for chloride, TDS, and sulfate (Table 6). The chloride results of the produced water sample were 120,000 mg/L, well above 10,000 mg/L.

## CHLORIDE DATA IN SOILS VERSUS PRODUCED WATER

During the initial assessment work at BH-1 (circa April 2020), the initial analytical results collected from within the release footprint ranged from 6,960 mg/kg chloride at the surface to 1,840 mg/kg in the subsurface. In the subsequent assessment work at Bore Hole-1 (circa December 2020), concentrations ranged from 859 mg/kg to 3,880 mg/kg chloride in all samples collected. The scale of the chloride concentrations in soil within the release extent, while elevated above Site RRALs, do not indicate soil impacts from the release commensurate with these produced water chloride concentrations.

In a review of the recently collected groundwater data, TDS and chloride were detected at higher concentrations in groundwater collected from monitoring well MW-1 (installed immediately adjacent to the release extent within the facility) than in groundwater collected from the MW-2 and MW-3 monitoring wells (each located more than 300' from the release footprint in pasture areas). Analytical results indicate that groundwater collected from MW-1 is anomalous in comparison to MW-2 and MW-3, however, the analytical results indicated little significant variation between the groundwater collected from MW-2 and MW-3. The data do not indicate that the observed groundwater quality is due to the documented release impacts from the initial 2019 release volumes. The initial C-141 reported release volumes of 4 bbls crude oil with 3 bbls recovered, and 6 bbls produced water with 5 bbls recovered, for a total volume loss of 1 bbl crude oil and 1 bbl produced water.

## BACKGROUND CHLORIDE DATA IN SOILS

Background soil concentrations collected from multiple locations, including two borings installed and sampled in 2013 for a separate release incident (prior to the subject release event) and the two off-pad monitoring well locations (MW-2 and MW-3), indicate background chloride concentrations that are highly variable across boring locations and depth intervals. The highly variable background chloride analytical results observed in soils throughout the area could be due to soil moisture fluctuations related to rainfall variability and flooding events concentrating salts in surface soils, impacts from damaged upstream facilities, or a combination of factors. Conversely, the elevated background chloride concentrations could be attributed to local geologic variability of parent material and or gypsum content. However, there was no observed correlation between gypsum in the soil column and analyzed chloride content.

A comparison between the chloride concentrations in soil samples collected from the monitoring well locations and the analyzed groundwater quality results do not indicate a correlation between chloride concentrations in unsaturated soils and the groundwater quality immediately below. Groundwater analytical results for pasture area wells MW-2 and MW-3 were 5,000 mg/l and 5,100 mg/l for chloride and 18,100 mg/l and 18,000 mg/l for TDS, respectively. However, soil chloride concentrations in MW-2 ranged from 2,680 mg/kg from the surface down to 688 mg/kg at 19-20', and soil chloride concentrations in MW-3 ranged from 48 mg/kg to 368 mg/kg in all analyzed samples from the surface to 20' bgs.

The results of the site characterization and background soil sampling provide evidence that natural background chloride concentrations in soils elevated above the most stringent Table I RRALs occur with high three-dimensional spatial variability throughout the release area. The elevated chloride concentrations in the analyzed soil samples both in background soil borings and within the release extent do not cause an imminent risk to groundwater because the shallow groundwater in the area is naturally saline.

## WORK PLAN

Table I of 19.15.29.12 NMAC lists closure criteria for soils impacted by a release based on a minimum depth between any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l. As documented previously in this report, the shallow groundwater present at the Site (in areas both on pad and in pasture areas) contains TDS concentrations above 10,000 mg/l. The depth and groundwater quality of the underlying groundwater bearing unit is unknown at this time. The inherent objective of 19.15.30 NMAC is to protect subsurface water so that ground water of the state that has a background TDS concentration of 10,000 mg/l or less is protected for designated or attainable uses as defined in 20.6.4



REVISED Site Summary Report and Work Plan  
July 23, 2025

ConocoPhillips

NMAC. The 2024 groundwater assessment results indicate that shallow groundwater in the area is not subject to abatement in accordance with 19.15.30 NMAC.

Based on the results of the additional site characterization and release assessment activities, ConocoPhillips proposes to plug and abandon the permanent monitoring wells (MW-1, MW-2, and MW-3). Impacted soils in the release facility would be remediated at the time of facility abandonment. No groundwater abatement is proposed for the area as the shallow groundwater does not meet qualifying criteria in 19.15.30 NMAC and furthermore, any groundwater abatement would be ineffective.

## CONCLUSION

This REVISED Site Summary Report and Work Plan was prepared in accordance with the approved REVISED Work Plan Addendum report and subsequent correspondence with the NMOCD. Based on the 2024 groundwater and background soil analytical results, and in conjunction with the revised site characterization, TDS and chloride concentrations detected in the monitoring wells represent naturally poor groundwater quality and are not subject to abatement in accordance with 19.15.30 NMAC.

ConocoPhillips proposes this work plan to plug and abandon the permanent monitoring wells installed for the 2024 assessment activities. Once the wells are properly plugged and abandoned, a final remediation closure report for the release site will be submitted to the NMOCD. In accordance with 19.15.29.12 and 19.15.29.13 NMAC, final reclamation of any remaining impact within the lease pad area shall take place once the Site is no longer being used for oil and gas operations. Therefore, reclamation of the soils located within the confines of the Way South State Com #001H Tank Battery pad will be completed upon the abandonment of the facility.

If you have any questions concerning the assessment activities, site characterization, or proposed work, please call me at (512) 739-7874.

Sincerely,  
**Tetra Tech, Inc.**



Samantha K. Abbott, P.G.  
Project Manager



Christian M. Llull, P.G.  
Program Manager

cc:  
Mr. Ike Tavarez, RMR, ConocoPhillips  
Mr. Mike Bratcher, NMOCD  
ECO, NMSLO

## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Site Location and Overview Map
- Figure 2 – Topographic Map
- Figure 3 – Approximate Release Extent and Site Assessment (COG 2020)
- Figure 4 – Approximate Release Extent, Background Borings, and Monitoring Well Locations (Tetra Tech 2024)
- Figure 5 – Potentiometric Surface Map

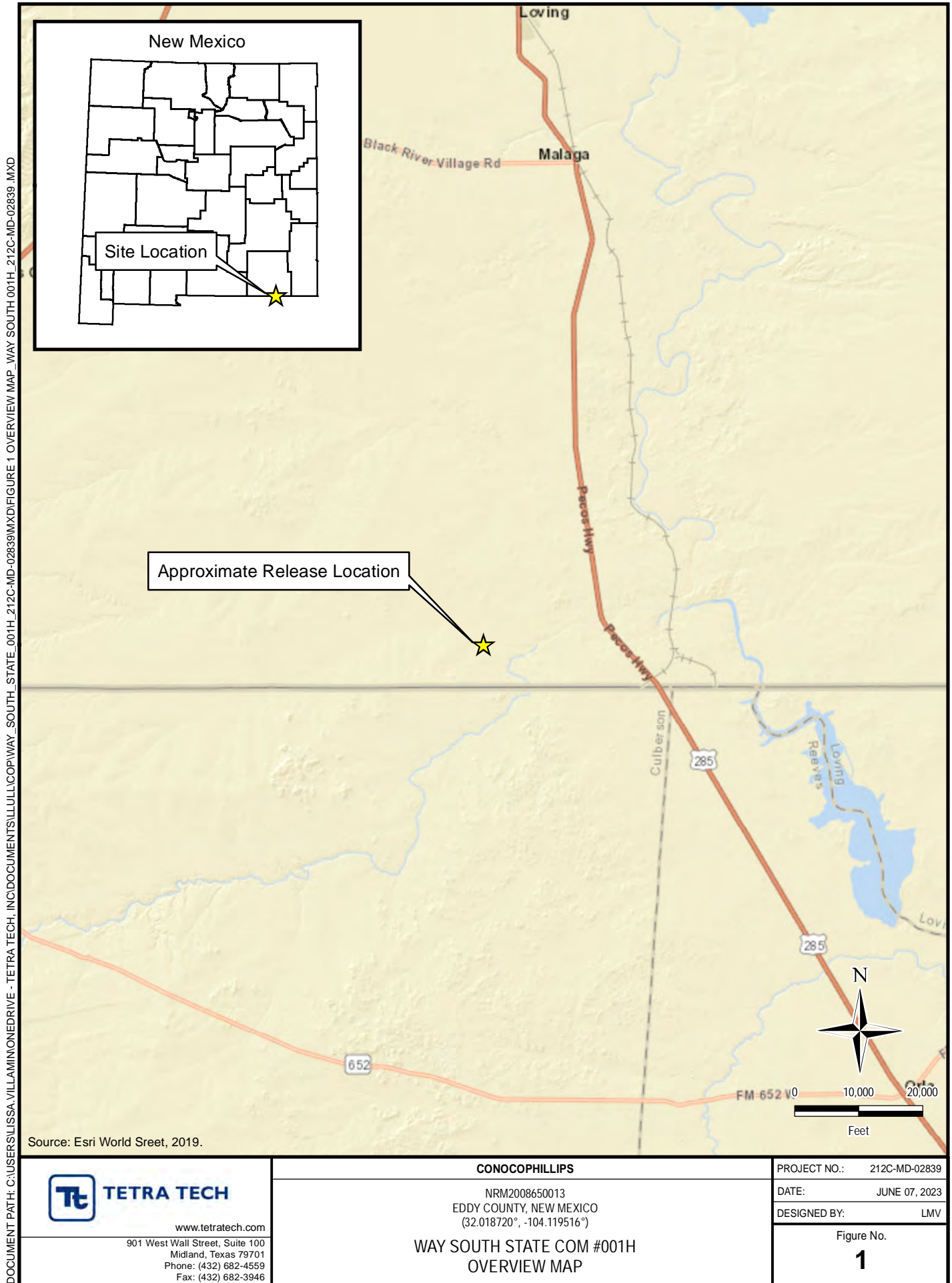
### Tables:

- Table 1 – Summary of Analytical Results – 2020 COG Soil Assessment
- Table 2 – Summary of Analytical Results – Background Soil Assessment
- Table 3 – Summary of Analytical Results – Monitoring Well Soil Boring Assessment
- Table 4 – Summary of Analytical Results – Groundwater Elevation Measurements (June 5, 2024)
- Table 5 – Summary of Analytical Results – April 2024 Groundwater Assessment
- Table 6 – Summary of Analytical Results – 2025 Produced Water Analysis

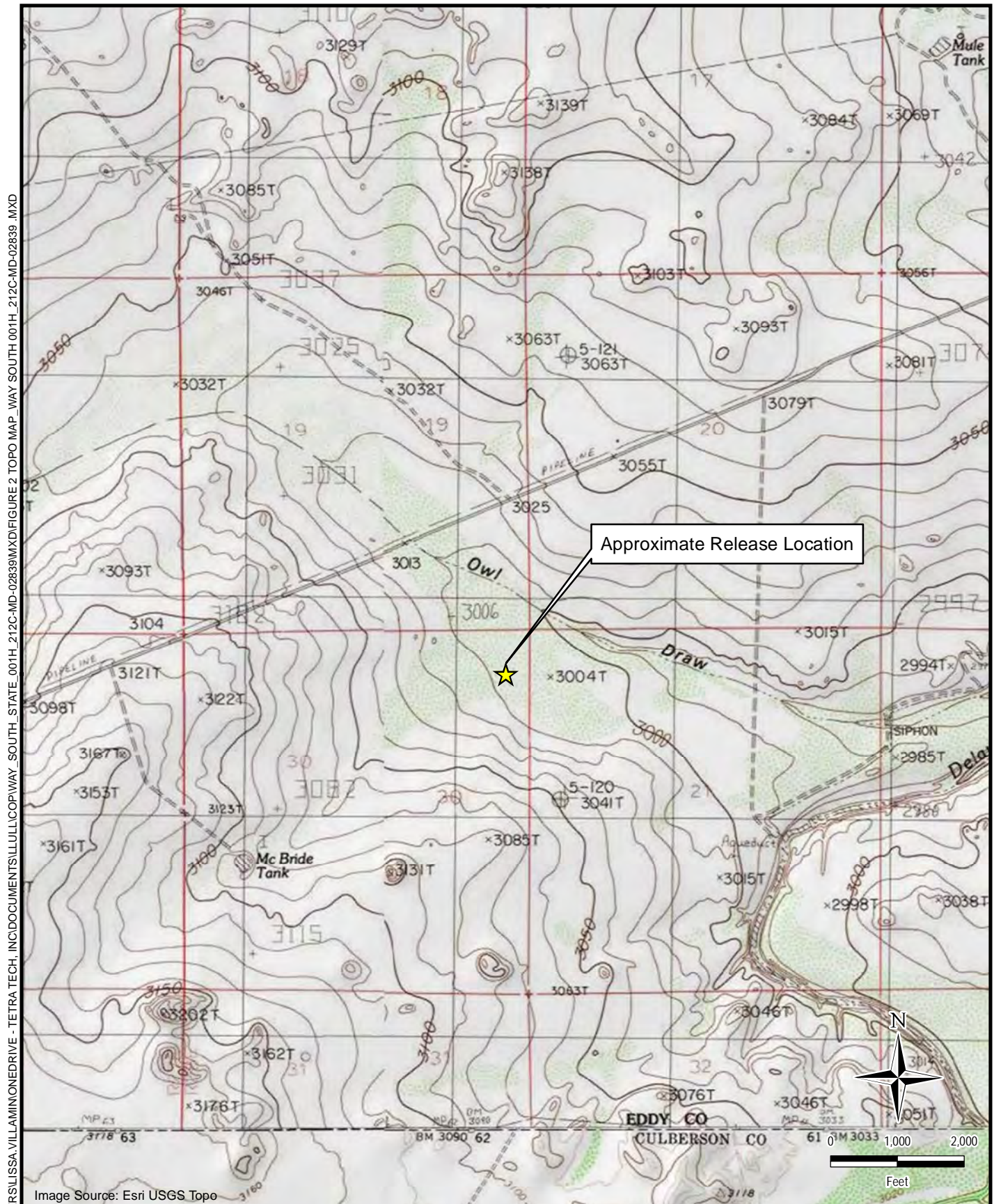
### Appendices:

- Appendix A – C-141 Forms
- Appendix B – Regulatory Correspondence
- Appendix C – Site Characterization Data
- Appendix D – Boring Logs and Well Construction Diagrams
- Appendix E – Cultural Survey and Permitting Documentation
- Appendix F – Laboratory Analytical Data
- Appendix G – Local Soils and Geology Setting

## **FIGURES**







**TETRA TECH**

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**CONOCOPHILLIPS**

NRM2008650013  
EDDY COUNTY, NEW MEXICO  
(32.018720°, -104.119516°)

WAY SOUTH STATE COM #001H  
TOPOGRAPHIC MAP

PROJECT NO.: 212C-MD-02839

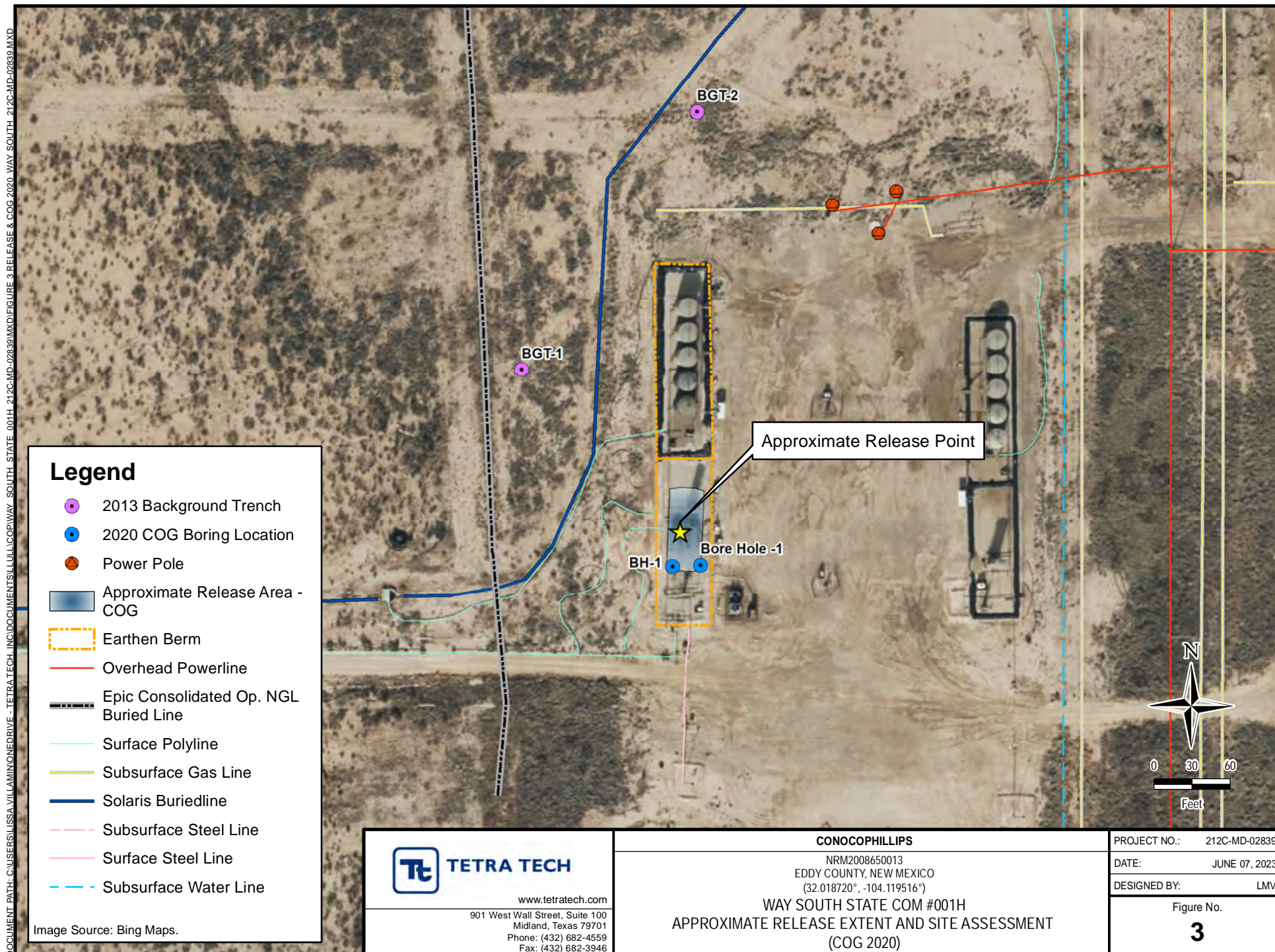
DATE: JUNE 07, 2023

DESIGNED BY: LMV

Figure No.

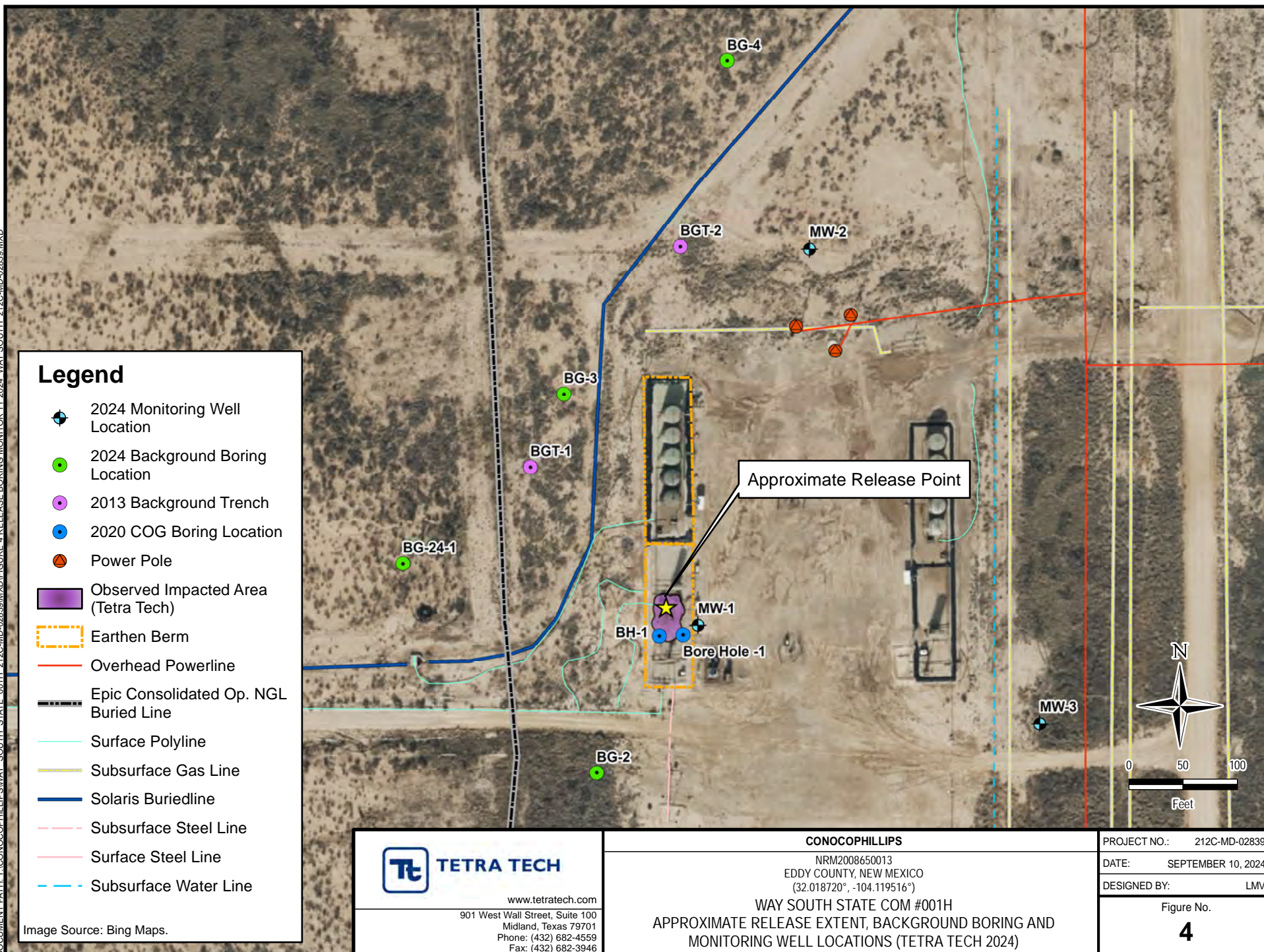
**2**



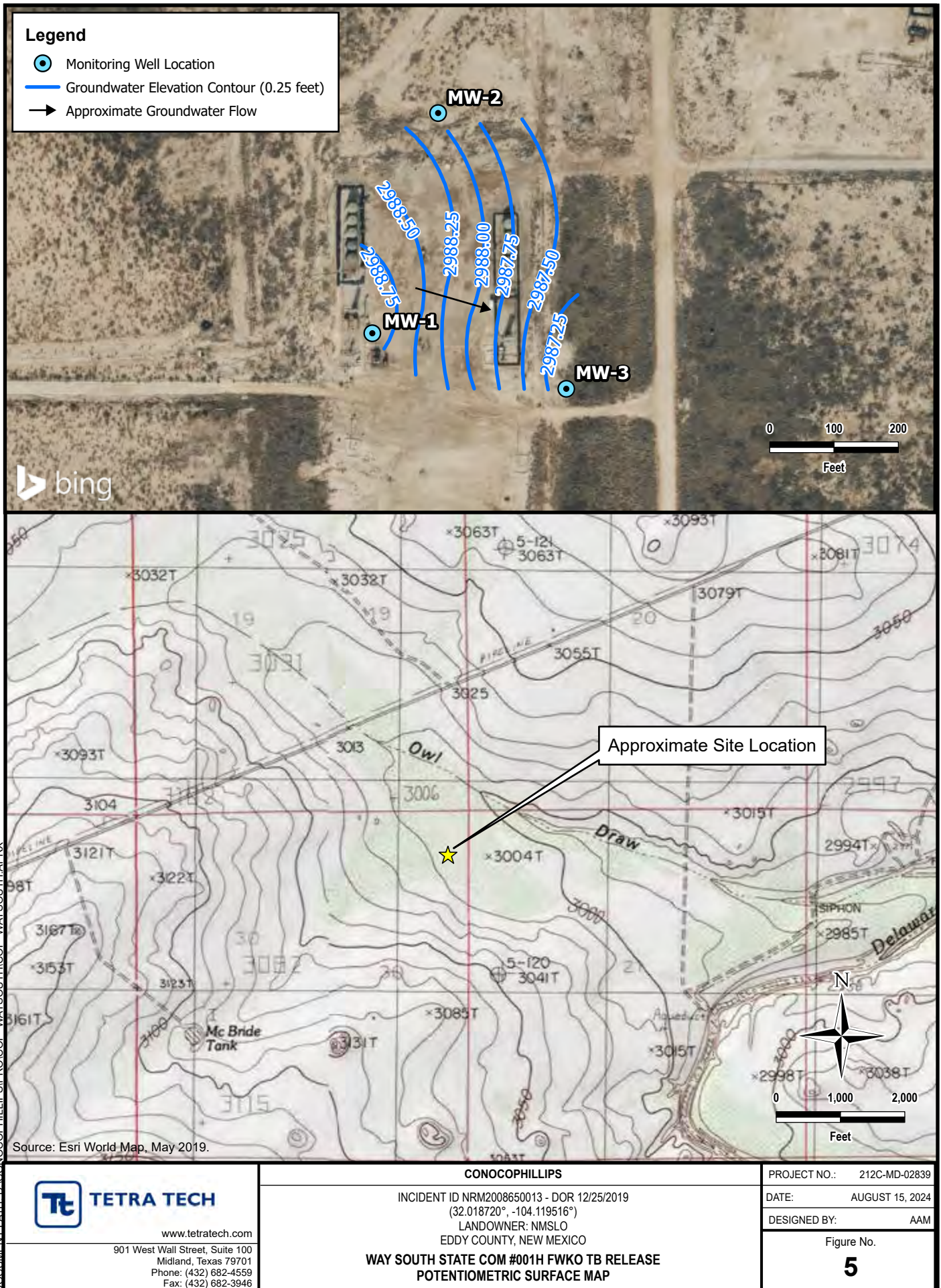




DOCUMENT PATH: X:\CONOCOPHILLIPS\WAY SOUTH STATE 001H 212C-MD-02839\MXD\FIGURE 4 RELEASE BORING MONITOR IT 2024 WAY SOUTH 212C-MD-02839.MXD







## **TABLES**

TABLE 1  
SUMMARY OF ANALYTICAL RESULTS  
2020 COG SOIL ASSESSMENT- nAB1821441824  
CONOCOPHILLIPS  
WAY SOUTH STATE COM #001 FWKO RELEASE  
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Chloride <sup>1</sup>	BTEX <sup>2</sup>							TPH <sup>3</sup>			
				Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	Total Xylenes	Total BTEX	GRO	DRO	MRO	Total TPH
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH-1*	4/7/2020	1	<b><i>6,960</i></b>	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00201	<0.00201	<50.0	80.6	<50.0	80.6
		2	<b><i>1,810</i></b>	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8
		3	<b><i>4,500</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		4	<b><i>1,130</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		5	<b><i>1,470</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		6	<b><i>2,890</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		7	<b><i>1,840</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bore Hole - 1	12/14/2020	0-1	<b><i>859</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		3-4	<b><i>887</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		5-6	<b><i>1,240</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		7-8	<b><i>1,450</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		9-10	<b><i>2,250</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		14-15	<b><i>3,880</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		19-20	<b><i>1,490</i></b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

- ft.      Feet
- bgs      Below ground surface
- mg/kg   Milligrams per kilogram
- TPH    Total Petroleum Hydrocarbons
- GRO    Gasoline range organics
- DRO    Diesel range organics
- MRO    Motor Oil range organics
- NS      Sample not analyzed for parameter
- 1        EPA Method 300.0
- 2        EPA Method 8021B
- 3        Method SW8015 Mod
- \* - Installed with a Geoprobe Unit
- Bold and italicized values indicate exceedance of proposed RRALs and Reclamation Requirements.**



TABLE 2  
SUMMARY OF ANALYTICAL RESULTS  
BACKGROUND SOIL ASSESSMENT- nJMW1309539213  
CONOCOPHILLIPS  
WAY SOUTH STATE COM #001H FWKO TANK BATTERY  
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	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
									C <sub>6</sub> - C <sub>10</sub>	> C <sub>10</sub> - C <sub>28</sub>	> C <sub>28</sub> - C <sub>36</sub>	(GRO+DRO+EXT DRO)
		ft. bgs	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Background Trench - 1	1/8/2013	0-1	194	NA	NA	NA	NA	NA	NA	NA	NA	-
		2	995	NA	NA	NA	NA	NA	NA	NA	NA	-
		4	2,160	NA	NA	NA	NA	NA	NA	NA	NA	-
		6	2,170	NA	NA	NA	NA	NA	NA	NA	NA	-
		8	1,080	NA	NA	NA	NA	NA	NA	NA	NA	-
		10	991	NA	NA	NA	NA	NA	NA	NA	NA	-
Background Trench - 2	1/8/2013	0-1	<20.0	NA	NA	NA	NA	NA	NA	NA	NA	-
		2	1,810	NA	NA	NA	NA	NA	NA	NA	NA	-
		4	3,650	NA	NA	NA	NA	NA	NA	NA	NA	-
		6	1,650	NA	NA	NA	NA	NA	NA	NA	NA	-
		8	1,340	NA	NA	NA	NA	NA	NA	NA	NA	-
		10	1,330	NA	NA	NA	NA	NA	NA	NA	NA	-
BG-24-1 (nAB1821441824)	4/17/2024	0-1	1340	NA	NA	NA	NA	NA	NA	NA	NA	NA
		1-2	5040	NA	NA	NA	NA	NA	NA	NA	NA	NA
		2-3	2160	NA	NA	NA	NA	NA	NA	NA	NA	NA
		3-4	752	NA	NA	NA	NA	NA	NA	NA	NA	NA
		4-5	544	NA	NA	NA	NA	NA	NA	NA	NA	NA
		5-6	1330	NA	NA	NA	NA	NA	NA	NA	NA	NA
		6-7	1810	NA	NA	NA	NA	NA	NA	NA	NA	NA
		7-8	1760	NA	NA	NA	NA	NA	NA	NA	NA	NA
		8-9	1570	NA	NA	NA	NA	NA	NA	NA	NA	NA
		9-10	1520	NA	NA	NA	NA	NA	NA	NA	NA	NA
		10-11	1390	NA	NA	NA	NA	NA	NA	NA	NA	NA
		11-12	1390	NA	NA	NA	NA	NA	NA	NA	NA	NA
		12-13	1470	NA	NA	NA	NA	NA	NA	NA	NA	NA
		13-14	1440	NA	NA	NA	NA	NA	NA	NA	NA	NA
		14-15	1650	NA	NA	NA	NA	NA	NA	NA	NA	NA
		15-16	1630	NA	NA	NA	NA	NA	NA	NA	NA	NA
		16-17	1520	NA	NA	NA	NA	NA	NA	NA	NA	NA
		17-18	1390	NA	NA	NA	NA	NA	NA	NA	NA	NA
		18-19	1230	NA	NA	NA	NA	NA	NA	NA	NA	NA
		19-20	688	NA	NA	NA	NA	NA	NA	NA	NA	NA
BG-2	4/16/2024	0-1	416	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		1-2	704	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		2-3	464	-	-	-	-	-	-	-	-	-
		3-4	304	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		4-5	416	-	-	-	-	-	-	-	-	-
		5-6	400	-	-	-	-	-	-	-	-	-
		6-7	224	-	-	-	-	-	-	-	-	-
		7-8	304	-	-	-	-	-	-	-	-	-
		8-9	288	-	-	-	-	-	-	-	-	-
		9-10	208	-	-	-	-	-	-	-	-	-
		10-11	224	-	-	-	-	-	-	-	-	-
		11-12	96	-	-	-	-	-	-	-	-	-
		12-13	112	-	-	-	-	-	-	-	-	-
		13-14	128	-	-	-	-	-	-	-	-	-
		14-15	224	-	-	-	-	-	-	-	-	-
		15-16	336	-	-	-	-	-	-	-	-	-
		16-17	480	-	-	-	-	-	-	-	-	-
		17-18	400	-	-	-	-	-	-	-	-	-
		18-19	416	-	-	-	-	-	-	-	-	-
		19-20	304	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-

TABLE 2  
SUMMARY OF ANALYTICAL RESULTS  
BACKGROUND SOIL ASSESSMENT- nJMW1309539213  
CONOCOPHILLIPS  
WAY SOUTH STATE COM #001H FWKO TANK BATTERY  
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	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
									C <sub>6</sub> - C <sub>10</sub>	> C <sub>10</sub> - C <sub>28</sub>	> C <sub>28</sub> - C <sub>36</sub>	(GRO+DRO+EXT DRO)
		ft. bgs	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BG-3	4/18/2024	0-1	<b><i>704</i></b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		1-2	<b><i>1,040</i></b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		2-3	<b><i>1,380</i></b>	-	-	-	-	-	-	-	-	-
		3-4	<b><i>1,100</i></b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		4-5	<b><i>896</i></b>	-	-	-	-	-	-	-	-	-
		5-6	<b><i>1,150</i></b>	-	-	-	-	-	-	-	-	-
		6-7	<b><i>1,150</i></b>	-	-	-	-	-	-	-	-	-
		7-8	<b><i>1,330</i></b>	-	-	-	-	-	-	-	-	-
		8-9	<b><i>1,150</i></b>	-	-	-	-	-	-	-	-	-
		9-10	<b><i>1,260</i></b>	-	-	-	-	-	-	-	-	-
		10-11	<b><i>1,230</i></b>	-	-	-	-	-	-	-	-	-
		11-12	<b><i>1,220</i></b>	-	-	-	-	-	-	-	-	-
		12-13	<b><i>1,100</i></b>	-	-	-	-	-	-	-	-	-
		13-14	<b><i>752</i></b>	-	-	-	-	-	-	-	-	-
		14-15	<b><i>704</i></b>	-	-	-	-	-	-	-	-	-
		15-16	<b><i>640</i></b>	-	-	-	-	-	-	-	-	-
		16-17	<b><i>608</i></b>	-	-	-	-	-	-	-	-	-
		17-18	592	-	-	-	-	-	-	-	-	-
		18-19	640	-	-	-	-	-	-	-	-	-
		19-20	192	-	-	-	-	-	-	-	-	-
BG-4	4/18/2024	0-1	<b><i>1,040</i></b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		1-2	<b><i>1,960</i></b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		2-3	<b><i>2,400</i></b>	-	-	-	-	-	-	-	-	-
		3-4	<b><i>2,600</i></b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		4-5	<b><i>2520</i></b>	-	-	-	-	-	-	-	-	-
		5-6	<b><i>2,760</i></b>	-	-	-	-	-	-	-	-	-
		6-7	<b><i>2,960</i></b>	-	-	-	-	-	-	-	-	-
		7-8	<b><i>1,090</i></b>	-	-	-	-	-	-	-	-	-
		8-9	<b><i>1,070</i></b>	-	-	-	-	-	-	-	-	-
		9-10	<b><i>1,040</i></b>	-	-	-	-	-	-	-	-	-
		10-11	<b><i>1,040</i></b>	-	-	-	-	-	-	-	-	-
		11-12	<b><i>832</i></b>	-	-	-	-	-	-	-	-	-
		12-13	<b><i>704</i></b>	-	-	-	-	-	-	-	-	-
		13-14	<b><i>832</i></b>	-	-	-	-	-	-	-	-	-
		14-15	544	-	-	-	-	-	-	-	-	-
		15-16	432	-	-	-	-	-	-	-	-	-
		16-17	512	-	-	-	-	-	-	-	-	-
		17-18	432	-	-	-	-	-	-	-	-	-
		18-19	576	-	-	-	-	-	-	-	-	-
		19-20	560	-	-	-	-	-	-	-	-	-

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
- NA Sample not analyzed for parameter

***Bold and italicized values indicate exceedance of Table I 19.15.29 NMAC RRALs and/or Reclamation Requirements.***

TABLE 3  
SUMMARY OF ANALYTICAL RESULTS  
MONITORING WELL SOIL BORING ASSESSMENT - nAB1821441824  
CONOCOPHILLIPS  
WAY SOUTH STATE COM #001H FWKO TANK BATTERY  
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Chloride <sup>1</sup>	BTEX <sup>1</sup>					TPH <sup>2</sup>			
				Benzene	Ethylbenzene	Toluene	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MW-1	4/16/2024	0-1	192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	24.9	<10.0	24.9
		3-4	272	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		5-6	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		7-8	176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		9-10	544	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		14-15	<b>992</b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		19-20	496	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
MW-2	4/17/2024	0-1	<b>2,680</b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		3-4	<b>2,320</b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		5-6	<b>2,280</b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		7-8	<b>2,200</b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		9-10	<b>1,870</b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		14-15	<b>1,600</b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		19-20	<b>688</b>	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
MW-3	4/17/2024	0-1	192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		3-4	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		5-6	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		7-8	112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		9-10	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		14-15	144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-
		19-20	368	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	-

NOTES:

- ft. Feet  
bgs Below ground surface  
ppm Parts per million  
mg/kg Milligrams per kilogram  
TPH Total Petroleum Hydrocarbons  
Wt. Weight  
1 Method SM4500Cl-B  
2 Method 8021B  
3 Method 8015M

**Bold and italicized values indicate exceedance of Table I 19.15.29 NMAC RRLs and/or Reclamation Requirements.**

TABLE 4  
GROUNDWATER ELEVATION MEASUREMENTS  
JUNE 5, 2024  
nAB1821441824  
CONOCOPHILLIPS  
WAY SOUTH STATE COM #001H FWKO TANK BATTERY  
EDDY COUNTY, NM

WELL NO.	TOP OF CASING ELEVATION (FT MSL)	DEPTH TO WATER (FT BMP)	GROUNDWATER ELEVATION (FT MSL)	COMMENTS
MW-1	3010.80	21.92	2988.88	
MW-2	3009.56	21.41	2988.15	
MW-3	3008.99	21.89	2987.10	

Notes:  
NM = Not Measured  
MSL = Mean Sea Level  
BMP = Below Measuring Point (Typically the top of PVC Casing)  
Elevation data are NAVD88 in U.S. Survey Feet

TABLE 5  
SUMMARY OF ANALYTICAL RESULTS  
APRIL 2024 GROUNDWATER ASSESSMENT - nAB1821441824  
CONOCOPHILLIPS  
WAY SOUTH STATE COM #001H FWKO TANK BATTERY  
EDDY COUNTY, NM

Sample ID	Sample Date	Wet Chemistry & Inorganic														
		Temperature	pH	Alkalinity, Carbonate	Alkalinity, Bicarbonate	Alkalinity, Total	Conductivity @ 25°C	TDS	Calcium	Chloride	Iron	Manganese	Magnesium	Potassium	Sodium	Sulfate
		°C	Std Units	mg/L	mg/L	mg/L	µmhos/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-1	4/17/2024	18.1	6.82	<1.00	390	320	39,500	27,300	1,490	12,400	<1.25	<0.500	1,350	62.4	6,020	3,920
MW-2	4/18/2024	12.6	6.92	<1.00	405	332	22,200	18,100	695	5,000	<1.00	<0.400	1,180	66.5	3,530	6,790
MW-3	4/18/2024	13.3	7.11	<1.00	405	332	22,400	18,000	771	5,100	<1.00	<0.400	1,120	45.2	3,550	5,720

Sample ID	Sample Date	BTEX					TPH			
		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/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-1	4/17/2024	<0.0005	<0.0005	<0.0005	<0.001	<0.003	<1.00	<1.00	<1.00	-
MW-2	4/18/2024	<0.0005	<0.0005	<0.0005	<0.001	<0.003	<1.00	<1.00	<1.00	-
MW-3	4/18/2024	<0.0005	<0.0005	<0.0005	<0.001	<0.003	<1.00	<1.00	<1.00	-

NOTES:  
mg/L            Milligrams per liter  
µmhos/cm    micromhos per centimeter  
TPH            Total Petroleum Hydrocarbons  
GRO           Gasoline range organics  
DRO           Diesel range organics



TABLE 6  
SUMMARY OF ANALYTICAL RESULTS  
MARCH 2025 PRODUCED WATER SAMPLE - nAB1821441824  
CONOCOPHILLIPS  
WAY SOUTH STATE COM #001H FWKO  
EDDY COUNTY, NM

Sample ID	Sample Date	Wet Chemistry & Inorganic		
		TDS	Chloride	Sulfate
		mg/L	mg/L	mg/L
PW-1	3/27/2025	191,000	120,000	138

NOTES:

mg/L          Milligrams per liter  
TDS          Total Dissolved Solids

## **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 Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NRM2008650013
District RP	
Facility ID	
Application ID	

Release Notification

4WSW9-200109-C-1410

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)


Cause of Release

Incident ID	NRM2008650013
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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: <u></u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: <u>Ramona Marcus</u>	Date: <u>3/26/2020</u>

NRM2008650013

## \*\*\*\*\* LIQUID SPILLS - VOLUME CALCULATIONS \*\*\*\*\*

Location of spill: COG -Way South State Com 1H TB

Date of Spill: 25-Dec-2019

If the leak/spill is associated with production equipment, i.e. - wellhead, stuffing box, flowline, tank battery, production vessel, transfer pump, or storage tank place an "X" here: ☒

## Input Data:

If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: OIL: 0.0 BBL WATER: 0.0 BBL

If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes.

## Total Area Calculations

## Standing Liquid Calculations

Total Surface Area		width	length	wet soil		oil (%)	Standing Liquid Area		width	length	liquid depth	oil (%)	
				depth									
	Rectangle Area #1	55 ft	25 ft	X	0.70 in	50%		Rectangle Area #1	0 ft	X	0 ft	0.00 in	0%
	Rectangle Area #2	0 ft	X	0 ft	X	0.00 in	0%		Rectangle Area #2	0 ft	X	0 in	0%
	Rectangle Area #3	0 ft	X	0 ft	X	0.0 in	0%		Rectangle Area #3	0 ft	X	0 in	0%
	Rectangle Area #4	0 ft	X	0 ft	X	0.0 in	0%		Rectangle Area #4	0 ft	X	0 in	0%
	Rectangle Area #5	0 ft	X	0 ft	X	0.0 in	0%		Rectangle Area #5	0 ft	X	0 in	0%
	Rectangle Area #6	0 ft	X	0 ft	X	0 in	0%		Rectangle Area #6	0 ft	X	0 in	0%
	Rectangle Area #7	0 ft	X	0 ft	X	0 in	0%		Rectangle Area #7	0 ft	X	0 in	0%
	Rectangle Area #8	0 ft	X	0 ft	X	0 in	0%		Rectangle Area #8	0 ft	X	0 in	0%

0.1

## production system leak - DAILY PRODUCTION DATA REQUIRED

Average Daily Production: Oil 0 BBL Water 0 BBL 0 Gas (MCFD)

Total Hydrocarbon Content in gas: 0% (percentage)

Did leak occur before the separator?: ☒ YES ☒ N/A (place an "X")

H2S Content in Produced Gas: 0 PPM

H2S Content in Tank Vapors: 0 PPM

Amount of Free Liquid Recovered: 0 BBL okay

Percentage of Oil in Free Liquid Recovered: 0% (percentage)

Liquid holding factor \*: 0.14 gal per gal

Use the following when the spill wets the grains of the soil:

Use the following when the liquid completely fills the pore space of the soil:

\* Sand = 0.08 gallon (gal.) liquid per gal. volume of soil.

Occurs when the spill soaked soil is contained by barriers, natural (or not).

\* Gravelly (caliche) loam = 0.14 gal. liquid per gal. volume of soil.

\* Clay loam = 0.20 gal. liquid per gal. volume of soil.

\* Sandy clay loam soil = 0.14 gal liquid per gal. volume of soil.

\* Gravelly (caliche) loam = 0.25 gal. liquid per gal. volume of soil.

\* Clay loam = 0.16 gal. liquid per gal. volume of soil.

\* Sandy loam = 0.5 gal. liquid per gal. volume of soil.

Total Solid/Liquid Volume: 1,375 sq. ft. 40 cu. ft. 40 cu. ft. Total Free Liquid Volume: sq. ft. cu. ft. cu. ft.

## Estimated Volumes Spilled

	H2O	OIL
Liquid in Soil:	1.0 BBL	1.0 BBL
Free Liquid:	0.0 BBL	0.0 BBL
Totals:	1.0 BBL	1.0 BBL

## Estimated Production Volumes Lost

	H2O	OIL
Estimated Production Spilled:	0.0 BBL	0.0 BBL

## Estimated Surface Damage

Surface Area: 1,375 sq. ft.  
Surface Area: .0316 acre

## Recovered Volumes

## Estimated Weights, and Volumes

Estimated oil recovered: BBL check - okay  
Estimated water recovered: BBL check - okay

Saturated Soil = 8,983 lbs 80 cu. ft. 3 cu. yds.  
Total Liquid = 2 BBL 84 gallon 699 lbs

## Air Emission from flowline leaks:

Volume of oil spill: - BBL  
Separator gas calculated: - MCF  
Separator gas released: - MCF  
Gas released from oil: - lb  
H2S released: - lb  
Total HC gas released: - lb  
Total HC gas released: - MCF

## Air Emission of Reporting Requirements:

	New Mexico	Texas
HC gas release reportable?	NO	NO
H2S release reportable?	NO	NO



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.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

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.

State of New Mexico  
Oil Conservation Division

Page 4

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: Shelly Wells Date: 8/23/2023☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

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

## **APPENDIX B**

### **Regulatory Correspondence**



**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Lull, Christian](#)  
**Subject:** The Oil Conservation Division (OCD) has approved the application, Application ID: 255702  
**Date:** Friday, February 16, 2024 11:39:41 AM

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

To whom it may concern (c/o Christian Lull 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#) nRM2008650013, with the following conditions:

- **Remediation plan approved. Submit a report via the OCD permitting portal by 6/21/2024.**

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,  
Ashley Maxwell  
Projects Environmental Specialist - A  
505-635-5000  
[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)

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

**From:** [Jester, Steve](#)  
**To:** [Billings, Bradford, EMNRD](#); [Harmon, Jocelyn, EMNRD](#)  
**Cc:** [Ike.Tavarez@conocophillips.com](mailto:Ike.Tavarez@conocophillips.com); [Jester, Steve](#)  
**Subject:** [EXTERNAL] FW: Regarding application Id. 244344 Incident # NRM2008650013 WAY SOUTH STATE COM #001H  
**Date:** Wednesday, December 21, 2022 3:04:29 PM  
**Attachments:** [image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)  
[image006.png](#)  
[image007.png](#)  
[Background Chloride 2013-2020 Soil Assessment\\_WAY SOUTH STATE COM #001H.xlsx](#)  
**Importance:** High

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**Brad and Jocelyn,**

Per our Teams meeting earlier this afternoon, the figure below shows the planned location (red Circle) for an on-site temporary MW to take GW samples. We will install it as close as is safely practicable near BH-1(2).

Based on the results obtained from this temp MW, additional wells may be installed at the pink circle locations to obtain background GW data and GW potentiometric elevations.

Also attached are the soil data obtained from samples at BH-1 and BH-1(2), as well as background chloride soil concentrations from previous investigations in this immediate area. The background soil locations are also labeled on the figure below.

With your concurrence, we will move forward to obtain an NMOSE permit and then install this MW.

Let Ike and me know if you have any questions,  
Steve



#### Proposed MW Locations:

Red Circle – proposed temp MW near BH-1 (2)

Pink Circles – Future MW if needed

**Steve Jester** | Principal Consultant  
 Cell 713-806-8871  
[Steve.Jester@tetratech.com](mailto:Steve.Jester@tetratech.com)

**TETRA TECH** | Complex World, Clear Solutions™  
 1500 City West, #1000 | Houston, TX 77042  
<http://www.tetratech.com/en/oil-and-gas>

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**From:** Harimon, Jocelyn, EMNRD <[Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)>

**Sent:** Friday, December 16, 2022 12:10 PM

**To:** Esparza, Brittany <[Brittany.Esparza@conocophillips.com](mailto:Brittany.Esparza@conocophillips.com)>

**Cc:** Billings, Bradford, EMNRD <[Bradford.Billings@emnrd.nm.gov](mailto:Bradford.Billings@emnrd.nm.gov)>

**Subject:** [EXTERNAL]Regarding application Id. 244344 Incident # NRM2008650013 WAY SOUTH STATE COM #001H

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To whom it may concern,

Regarding application Id. 244344 Incident # NRM2008650013 WAY SOUTH STATE COM #001H.

After reviewing the Addendum to Work Plan for the COG Way South State 001H (NRM2008650013) the OCD respectfully requests a meeting to discuss the specific placement of the upgradient and downgradient monitor wells as well as any possible requests for variance or deferral for this release. Bradford Billings and I have availability next Wednesday 12/21/2022 to meet and discuss.

Jocelyn Harimon

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505  
(505)469-2821 | [Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



**From:** [Knight, Tami C.](#)  
**To:** [Jester, Steve](#); [Lull, Christian](#)  
**Cc:** [McMillan, Michael A.](#); [Crosby, Faith](#); [SLO Surface ECO](#)  
**Subject:** SLO APPROVAL-Way South State Com #001H APPROVED  
**Date:** Friday, October 27, 2023 8:28:58 AM  
**Attachments:** [image001.jpg](#)  
[image002.jpg](#)  
[image003.jpg](#)  
[image004.jpg](#)

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Steve

Documentation of the continued site delineation/assessment for the Way South State Com #001H, NMOCD Incident # NRM2008650013 was received from your office on August 23, 2023. The NMSLO Environmental Compliance Office (ECO) has reviewed the plan, and based on the information provided in the document received from your office, ECO has approved the continued site assessment/delineation. Please submit the revised remediation plan with the site assessment results to [eco@slo.state.nm.us](mailto:eco@slo.state.nm.us).

Thank you

**PLEASE SUBMIT WORKPLANS AND REPORTS TO ECO@SLO.STATE.NM.US**

**Tami Knight, CHMM**

*Environmental Specialist*

*SRD-Environmental*

*Compliance Office (ECO)*

505.670.1638

New Mexico State Land Office

1300 W. Broadway Avenue, Suite A

Bloomfield, NM 87413

[tknight@slo.state.nm.us](mailto:tknight@slo.state.nm.us)

[nmstatelands.org](http://nmstatelands.org)

.....

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**From:** [Jester, Steve](#)  
**To:** [Billings, Bradford, FMNRD](#); [Harmon, Jocelyn, FMNRD](#)  
**Cc:** [Ike.Tavarez@conocophillips.com](mailto:Ike.Tavarez@conocophillips.com); [Jester, Steve](#)  
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[Background Chloride 2013-2020 Soil Assessment\\_WAY SOUTH STATE COM #001H.xlsx](#)  
**Importance:** High

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Pink Circles – Future MW if needed

**Steve Jester** | Principal Consultant  
 Cell 713-806-8871  
[Steve.Jester@tetratech.com](mailto:Steve.Jester@tetratech.com)

**TETRA TECH** | Complex World, Clear Solutions™  
 1500 City West, #1000 | Houston, TX 77042  
<http://www.tetratech.com/en/oil-and-gas>

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**To:** Esparza, Brittany <[Brittany.Esparza@conocophillips.com](mailto:Brittany.Esparza@conocophillips.com)>

**Cc:** Billings, Bradford, EMNRD <[Bradford.Billings@emnrd.nm.gov](mailto:Bradford.Billings@emnrd.nm.gov)>

**Subject:** [EXTERNAL]Regarding application Id. 244344 Incident # NRM2008650013 WAY SOUTH STATE COM #001H

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Regarding application Id. 244344 Incident # NRM2008650013 WAY SOUTH STATE COM #001H.

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Jocelyn Harimon

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505  
(505)469-2821 | [Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 169446

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 169446
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	12/21/2022



Outlook

RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

From Maxwell, Ashley, EMNRD <Ashley.Maxwell@emnrd.nm.gov>

Date Thu 2/27/2025 11:54 AM

To Abbott, Sam <Sam.Abbott@tetrattech.com>

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



Thanks for the information. Please include that information in your report when you resubmit it.

**Ashley Maxwell** • Environmental Specialist

Environmental Bureau Projects Group

EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87110

505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)

<http://www.emnrd.state.nm.us/OCD/>

Effective 12/1/2024: OCD has updated guidance on karst potential occurrence zones. This notice can be found at: <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> under “2024 OCD ANNOUNCEMENTS AND NOTIFICATIONS”.

The Digital C-141 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:** Thursday, February 27, 2025 9:54 AM

**To:** Maxwell, Ashley, EMNRD <Ashley.Maxwell@emnrd.nm.gov>

**Subject:** Re: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

Thank you, Ashley!

I was not a part of the project at that point, but from review of the project files and speaking with my client, it appears that these locations were agreed upon in a meeting with the NMOCD in December 2022. The number of wells (3) was determined as it is the minimum number required to establish a gradient. One well was located immediately adjacent to the release to assess for impacts, and the other two were located based on their direction and proximity to the draw in accordance with guidance from Mr. Brad Billings in particular during this meeting. The follow-up email correspondence is attached here for reference.

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:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>

**Sent:** Thursday, February 27, 2025 10:04 AM

**To:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>

**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

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Yes, let me do a 60-day extension of April 28, 2025. I can't recall off the top of my head, if there are only three wells that where drilled, but can you provide in your report why you selected the number wells and location of the wells in your report? Our group has recently started reviewing groundwater projects and these are questions that have come up during the review of those projects.

**Ashley Maxwell** • Environmental Specialist

Environmental Bureau Projects Group

EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87110

505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)

<http://www.emnrd.state.nm.us/OCD/>

**Effective 12/1/2024:** OCD has updated guidance on karst potential occurrence zones. This notice can be found at: <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> under "2024 OCD ANNOUNCEMENTS AND NOTIFICATIONS".

The Digital C-141 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](mailto:Sam.Abbott@tetrattech.com)>

**Sent:** Thursday, February 27, 2025 8:59 AM

**To:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>



**Subject:** Re: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

Hi Ashley,

I am working on getting this produced water sample for you, but I realized that we have missed the deadline of February 15, 2025. Would it be possible to get an extension to get this sample collected and revised report submitted?

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:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>

**Sent:** Wednesday, February 5, 2025 10:23 AM

**To:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>

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

**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

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Sam,

I've spoken with my supervisor, Cory Smith, regarding a path forward. Please collect a produced water sample for the site and include the results with the report you previously submitted. Submit that report via the OCD permitting portal. The report will be submitted as a **Remediation Work Plan**.

Let me know if you have any additional questions.

**Ashley Maxwell** • Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

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The Digital C-141 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](mailto:Sam.Abbott@tetrattech.com)>  
**Sent:** Friday, January 31, 2025 11:28 AM  
**To:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>  
**Cc:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>  
**Subject:** Re: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

Hi Ashley,

I looked into this and, unfortunately, there is no analytical data available for the produced water at the time of the release. Furthermore, after taking another look, I found conflicting information between the online incident details and the initial C-141 that was submitted (both attached for reference). The initial C-141 document states that the produced water released had a concentration of dissolved chloride that was >10,000 mg/l. A pertinent detail that remains consistent, however, is that the produced water released totaled 6 barrels, of which 5 were recovered and only 1 bbl lost.

Apologies for the confusion. Please let me know if you have any further questions.

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:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>  
**Sent:** Monday, January 27, 2025 8:48 AM  
**To:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Cc:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>  
**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

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Good Morning Sam and Christian,

I have the report pulled up now. Do you know if there was ever a sample collected of the produced water from the site? In the report it states that it was reported as having less than 10,000 mg/L TDS. I would also be curious what the actual chloride level is.

**Ashley Maxwell** • Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

Effective 12/1/2024: OCD has updated guidance on karst potential occurrence zones. This notice can be found at: <https://www.emnrd.nm.gov/oed/oed-announcements-and-notifications/> under "2024 OCD ANNOUNCEMENTS AND NOTIFICATIONS".

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---

**From:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Sent:** Friday, January 24, 2025 10:41 AM  
**To:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>  
**Cc:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>  
**Subject:** Re: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

Hi Ashley,

Happy Friday! I wanted to check in with you again on the status of this review.

Thanks,  
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:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>

**Sent:** Tuesday, December 17, 2024 2:41 PM

**To:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>

**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

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Sam,

I am going to review the previously submitted report. Based on what I find, we will either pull the report back from the rejection status and approve it, or leave it rejected and I will email you with additional comments regarding a path forward.

**Ashley Maxwell** • Environmental Specialist

Environmental Bureau Projects Group

EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87110

505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)

<http://www.emnrd.state.nm.us/OCD/>

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The Digital C-141 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](mailto:Sam.Abbott@tetrattech.com)>  
**Sent:** Tuesday, December 17, 2024 9:13 AM  
**To:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>  
**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

I appreciate you!

**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:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>  
**Sent:** Tuesday, December 17, 2024 10:12 AM  
**To:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

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Let me grant you an extension, because this is on me. The new date will be February 15, 2025.

Please include this correspondence in all future reports.

**Ashley Maxwell** • Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

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The Digital C-141 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](mailto:Sam.Abbott@tetrattech.com)>  
**Sent:** Tuesday, December 17, 2024 9:09 AM  
**To:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>  
**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

Thank you, Ashley. Can I request an extension, as I see we have passed our December 13<sup>th</sup> deadline?

**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:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>  
**Sent:** Tuesday, December 17, 2024 8:21 AM  
**To:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

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Hi Sam,

I apologize again. I have been out of the office since I the last email. I promise, I will get you a response today. Thank you for your patience.

**Ashley Maxwell** • Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

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The Digital C-141 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](mailto:Sam.Abbott@tetrattech.com)>

**Sent:** Wednesday, December 11, 2024 10:03 AM

**To:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>

**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

Good morning Ashley,

I wanted to check in with you about this report. Are there any updates regarding our discussion before Thanksgiving?

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:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>

**Sent:** Tuesday, November 19, 2024 9:05 AM

**To:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>

**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

Yes, that works for me. I'll send you a Teams calendar meeting.

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:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>  
**Sent:** Monday, November 18, 2024 3:43 PM  
**To:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Subject:** RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

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Do you have 12:00 mountain time available for tomorrow?

**Ashley Maxwell** • Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

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The Digital C-141 guidance documents can be found at <https://www.emnrd.nm.gov/oed/oed-announcements-and-notifications/> or <https://www.emnrd.nm.gov/oed/oed-forms/>.

**From:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Sent:** Monday, November 18, 2024 2:41 PM  
**To:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>  
**Subject:** [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

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Ashley,

This one is a bit of a special case, and we weren't sure how to handle the OCD permitting submittal. Would you have some time tomorrow to discuss?

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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5/27/25, 1:52 PM RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669 - Abbott, Sam - Oil...  
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**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us) <[OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)>

**Sent:** Friday, November 15, 2024 3:53 PM

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

**Subject:** The Oil Conservation Division (OCD) has rejected the application, Application ID: 403669

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

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nRM2008650013, for the following reasons:

- **C141 denied. The submitted report is titled as a closure report but submitted as a site/characterization Remediation Plan. Please resubmit the report as a closure request.**
- **Submit a closure request report via the OCD permitting portal by December 13, 2024.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 403669.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,

Ashley Maxwell

Projects Environmental Specialist - A

505-635-5000

[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)

**New Mexico Energy, Minerals and Natural Resources Department**

1220 South St. Francis Drive

Santa Fe, NM 87505

## **APPENDIX B**

### **Site Characterization**





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 smallest to largest)

(meters)

(In feet)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Distance	Well Depth	Depth Water	Water Column
C 04466 POD1		CUB	ED	SW	SW	NE	29	26S	28E	584327.2	3542357.4		1279	96	33	63

Average Depth to Water: 33 feet

Minimum Depth: 33 feet

Maximum Depth: 33 feet

Record Count: 1

UTM Filters (in meters):

Easting: 583149.26

Northing: 3542855.74

Radius: 002400


\* UTM location was derived from PLSS - see Help

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.

# Point of Diversion Summary

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

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tw	Rng	X	Y	Map
NA	C 04466 POD1	SW	SW	NE	29	26S	28E	584327.2	3542357.4	

\* UTM location was derived from PLSS - see Help

Driller License:	1456	Driller Company:	WHITE DRILLING COMPANY		
Driller Name:	JOHN W WHITE				
Drill Start Date:	2020-09-01	Drill Finish Date:	2020-09-02	Plug Date:	2020-10-16
Log File Date:	2020-11-12	PCW Rcv Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	0
Casing Size:		Depth Well:	96	Depth Water:	33

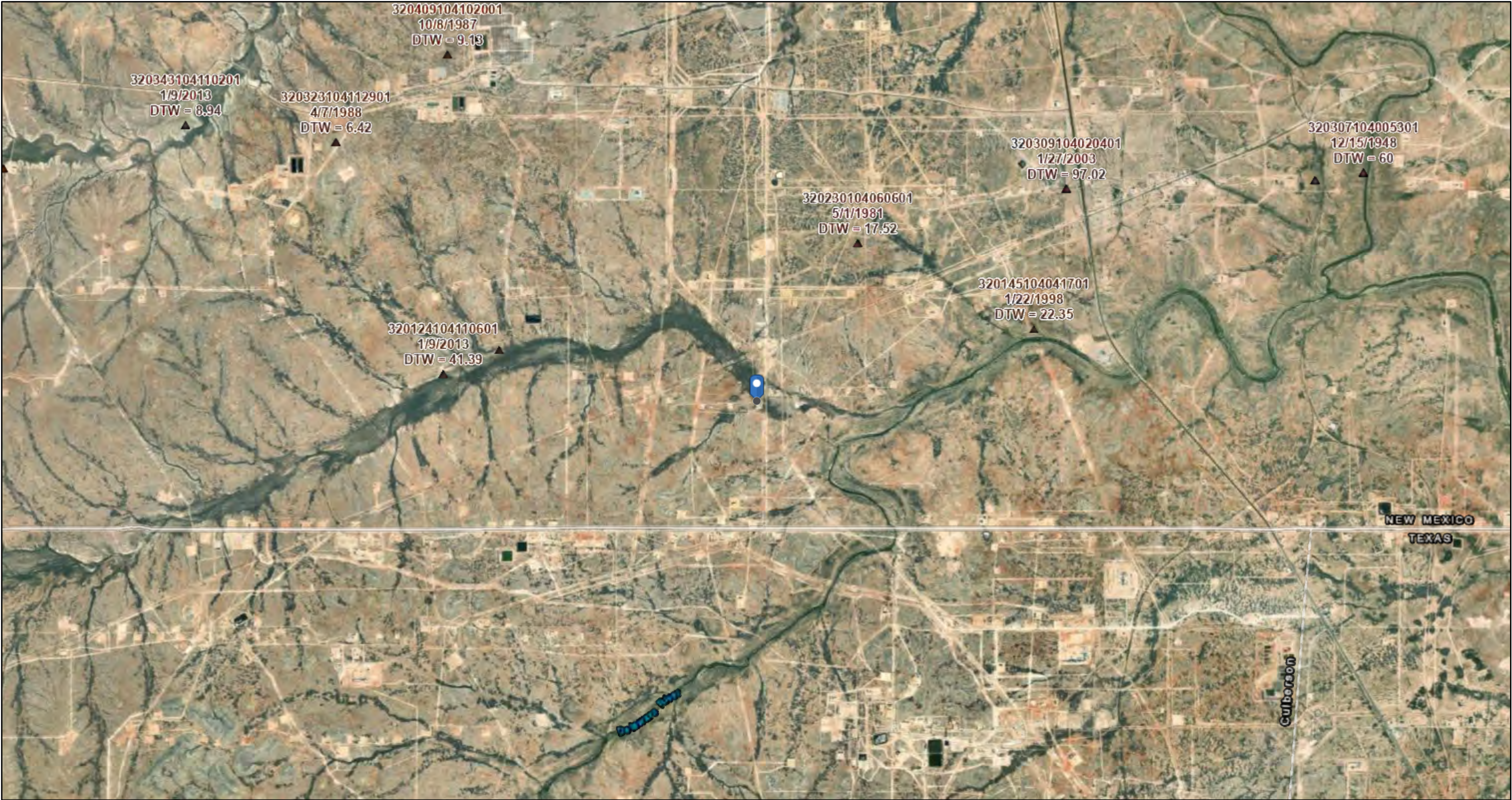
## Water Bearing Stratifications:

Top	Bottom	Description
33	35	Sandstone/Gravel/Conglomerate
35	37	Other/Unknown
37	42	Other/Unknown
42	54	Sandstone/Gravel/Conglomerate
54	65	Other/Unknown
65	67	Sandstone/Gravel/Conglomerate
67	74	Sandstone/Gravel/Conglomerate

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.



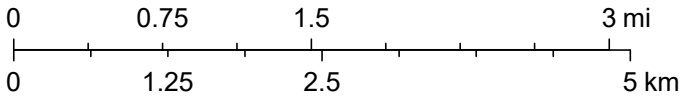
# NM OCD - USGS Groundwater Wells



7/25/2024, 10:16:13 AM

▲ USGS Historical GW Wells

1:72,224



Esri, HERE, Garmin, Earthstar Geographics, USGS



# NM OCD - Karst Map

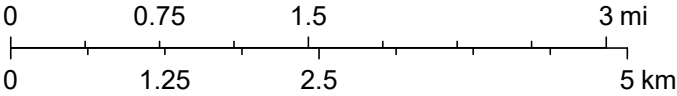


7/25/2024, 10:12:03 AM

Karst Occurrence Potential

- High
- Medium

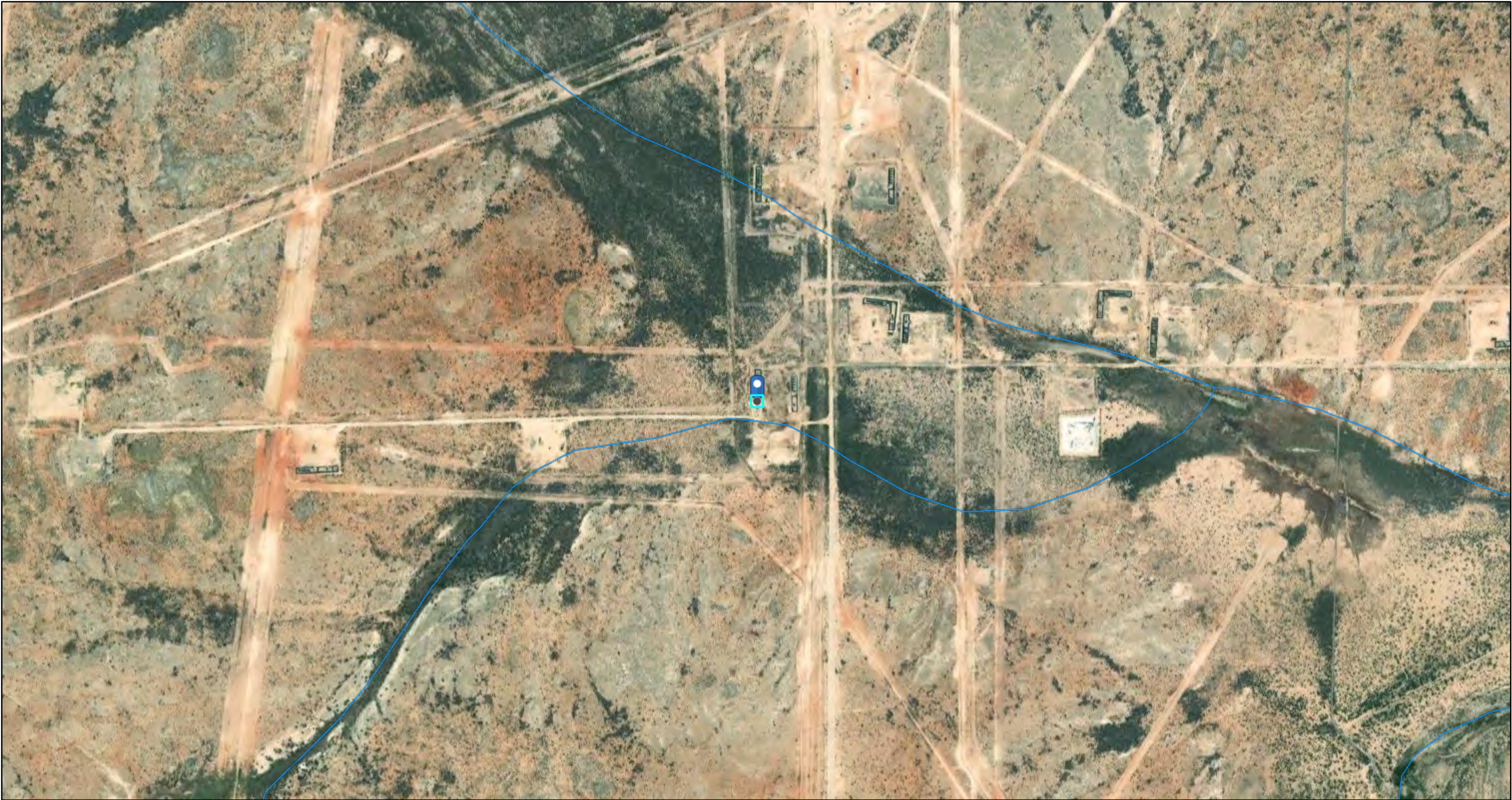
1:72,224



BLM, OCD, New Mexico Tech, Esri, HERE, Garmin, Earthstar Geographics

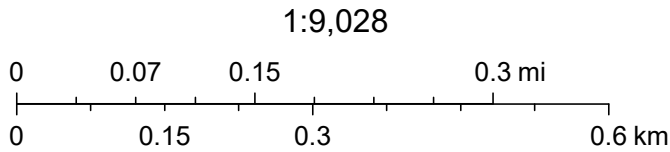


# NM OCD - Waterbodies Map



7/25/2024, 10:06:04 AM

— OSE Streams



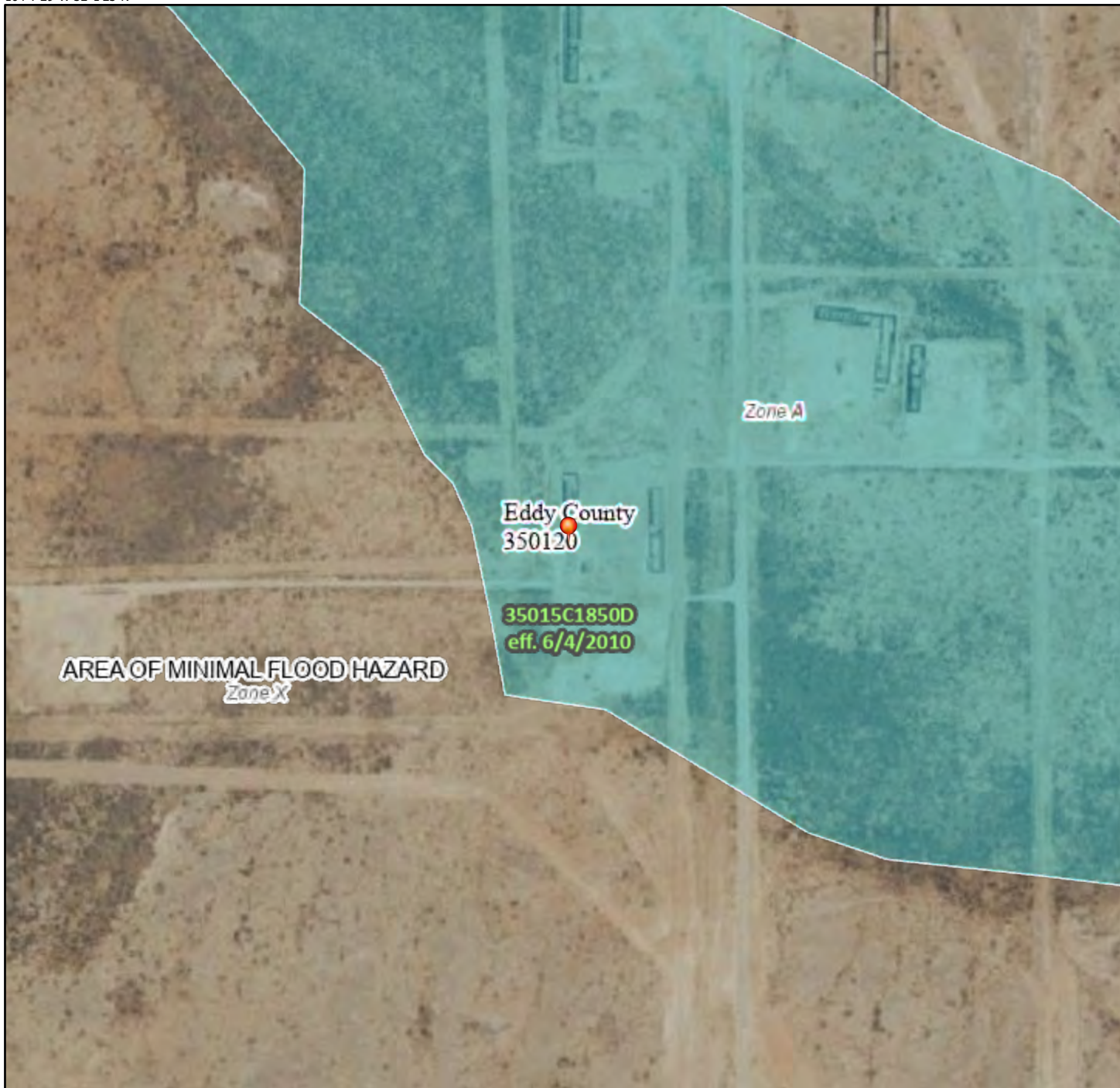
Esri, HERE, Garmin, IPC, Maxar, NM OSE



# National Flood Hazard Layer FIRMette



104°7'29"W 32°1'23"N



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

1:6,000

104°6'52"W 32°0'52"N

## 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		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



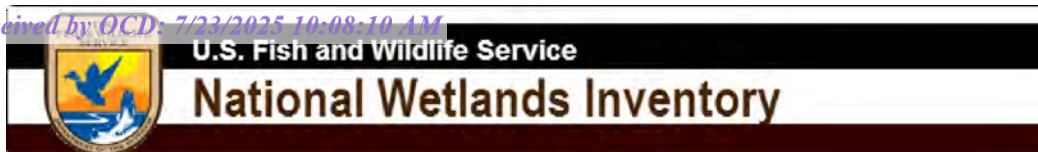
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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 7/25/2024 at 11:31 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 unmodernized areas cannot be used for regulatory purposes.





## National Wetlands Inventory Map



July 25, 2024

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

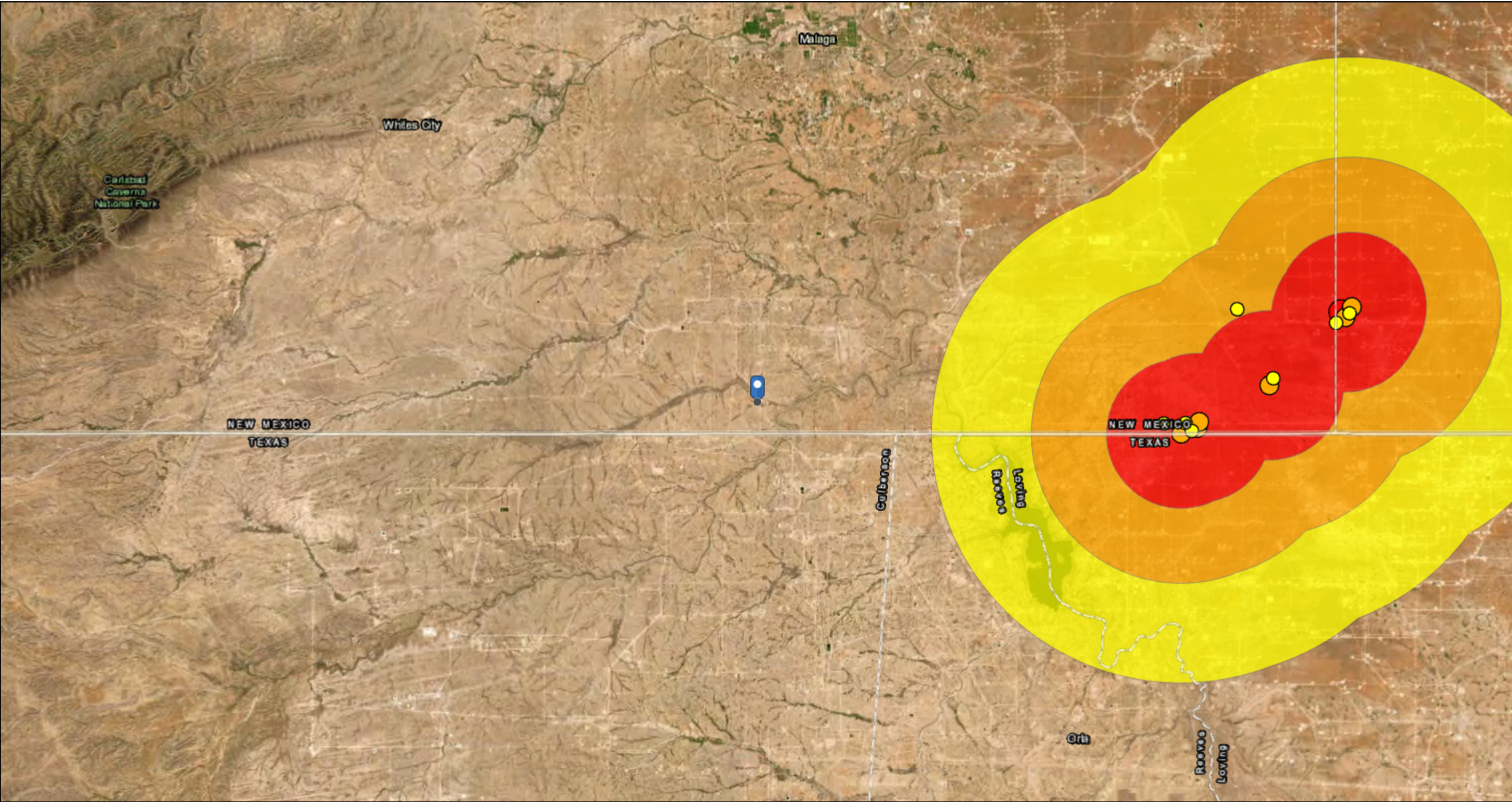
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



# NM OCD - Induced Seismicity Map



7/25/2024, 10:10:46 AM

Seismic Response 3.0 to 3.4

3 mi.

6 mi.

10 mi.

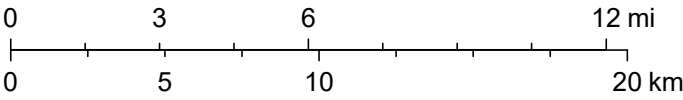
M2.5+ Earthquakes (2021+)

2.5 - 2.9

3.0 - 3.4

3.5 and above

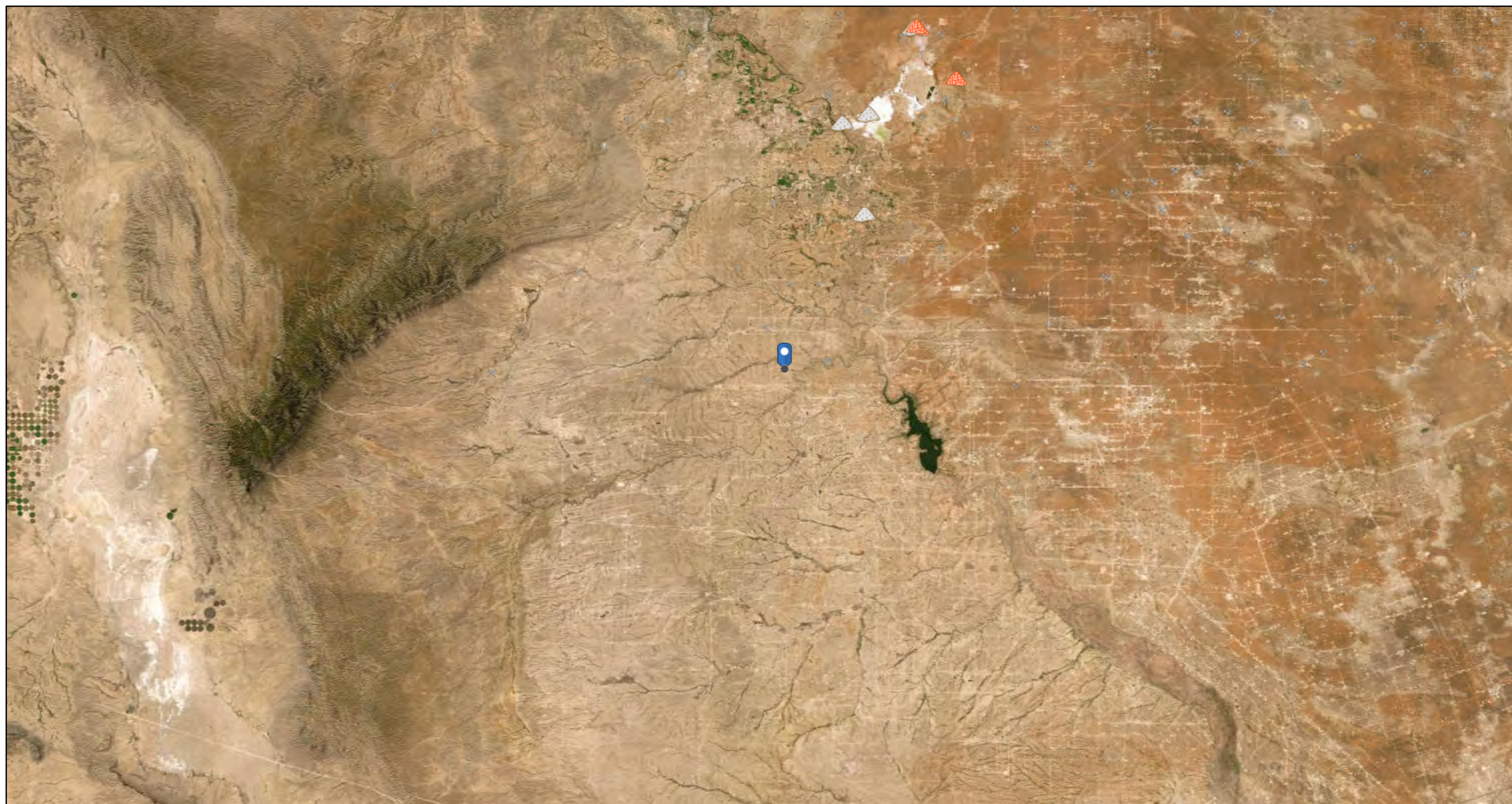
1:288,895



Oil Conservation Division (OCD), Energy, Minerals and Natural Resources Department (EMNRD), Esri, HERE, Garmin, Earthstar Geographics



## Active Mines in New Mexico



7/25/2024, 10:22:17 AM

## Registered Mines



Aggregate, Stone etc.



Potash



Aggregate, Stone etc.

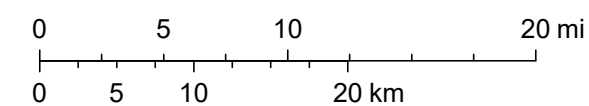


Aggregate, Stone etc.



Salt

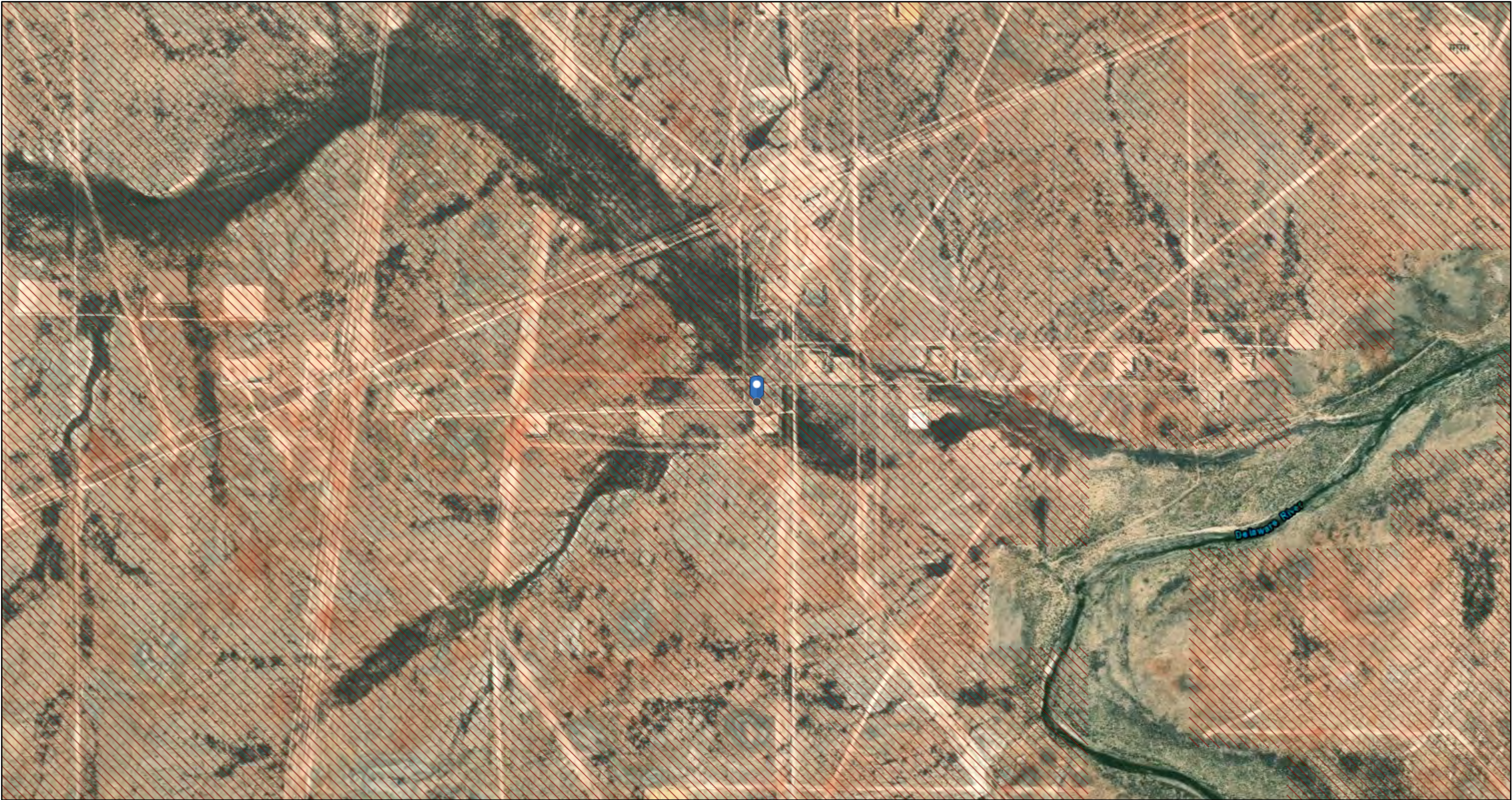
1:577,791



Earthstar Geographics

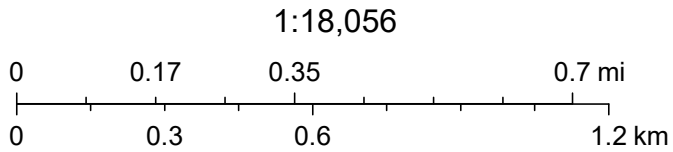


# NM OCD - Leasing Restrictions Map



7/25/2024, 10:14:36 AM

 Oil and Gas Leasing Restrictions



Esri, HERE, Garmin, IPC, Maxar



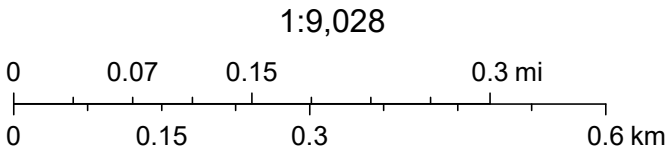
# NM OCD - Land Ownership Map



7/25/2024, 10:09:05 AM

Land Ownership

- BLM
- S



U.S. BLM, Esri, HERE, Garmin, IPC, Maxar



V074510004

WM06890000

WE08180000  
GT29750001

## NM SLO - Lease Map

0 0.01 0.01 0.02  
mi



**New Mexico State Land Office**

**Disclaimer:**

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Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.

Released to Imaging: 9/30/2025 11:31:16 AM  
map Created: 7/25/2024



Oil and Gas Leasing Restrictions



Energy Leases



Agricultural Leases



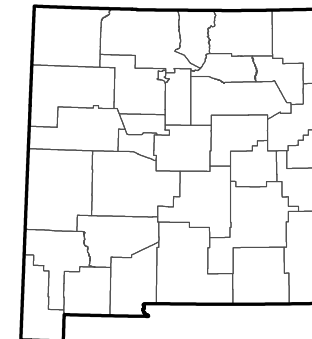
Oil and Gas Leases



Minerals Leases



Commercial Leases





## **APPENDIX C**

# **Boring Logs and Well Construction Diagrams**

212C-MD-02839	<b>TETRA TECH</b>	LOG OF BORING MW-1		Page 1 of 1
Project Name: Way South State Com #001H Tank Battery				
Borehole Location: GPS Coordinates: 32.01872131°, -104.11941508°		Surface Elevation: 3007.9'		
Borehole Number: <b>MW-1</b>		Borehole Diameter (in.): 8"	Date Started: 4/16/2024	Date Finished: 4/16/2024

DEPTH (ft)	OPERATION TYPES	SAMPLE	CHLORIDE CONCENTRATION (ppm)	VOC CONCENTRATION (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		DEPTH (ft)	WELL DIAGRAM
												While Drilling	24 Hours After Completion of Drilling		
												While Drilling <u>▽</u> 25      24 Hours After Completion of Drilling <u>▽</u> 20.7 Remarks:			
												MATERIAL DESCRIPTION			
5			1180									-- FILL: Light brown, dry, fine- to coarse-grained, with caliche fragments, pad material. -CL- SANDY CLAY: Medium brown, medium stiff, dry, with gypsum. -SC- CLAYEY SAND: Light brown to pale brown, partially weakly to partially moderately cemented, dry, fine-grained, with trace gypsum, grading to SM.	2	<p>TOC Elev: 3010.80'</p> <p>Bentonite Slurry Grout</p> <p>4" Schedule 40 PVC Casing</p> <p>Bentonite Chip Seal</p> <p>20/40 Silica Sand Filter Pack</p> <p>4" Schedule 40 PVC Slotted Screen (0.010")</p>	
			1460										4		
			1440												
10			1630												
15			2540										14		
													19		
20			1930									-SM- SAND: Pale brown, weakly cemented, slightly moist to moist, very fine-grained, with trace gypsum.		24	
25												-CL- SANDY CLAY: Light brown, stiff, moist to wet.		29	
30												-CL- CLAY: Light brown, stiff, moist to wet.		30	
Bottom of borehole at 30.0 feet.															

<b>Sampler Types:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  Split Spoon   Shelby   Bulk Sample   Grab Sample         </div> <div style="width: 50%;">  Acetate Liner   Vane Shear   California   Test Pit         </div> </div>	<b>Operation Types:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  Auger   Hollow Stem Auger   Continuous Flight Auger   Mud Rotary         </div> <div style="width: 50%;">  Air Rotary   Direct Push   Drive Casing         </div> </div>	<b>Notes:</b> Survey date: 4/30/2024
<b>Logger:</b> Colton Bickerstaff	<b>Drilling Equipment:</b> Air Rotary	<b>Driller:</b> Scarborough Drilling

WAY SOUTH STATE GOM 004H MWS GRI: 10-9-24 : 'TT\_AUSTIN\_GEOTECH\_WELL3' '2015 TT TEMPLATE DECEMBER WELL.GDT




212C-MD-02839		<b>TETRA TECH</b>		<b>LOG OF BORING MW-3</b>				Page 1 of 1	
Project Name: Way South State Com #001H Tank Battery									
Borehole Location: GPS Coordinates: 32.01846894°, -104.1183964°				Surface Elevation: 3006.37'					
Borehole Number: <b>MW-3</b>				Borehole Diameter (in.): 8"		Date Started: 4/17/2024		Date Finished: 4/17/2024	
















WATER LEVEL OBSERVATIONS														
While Drilling <u>▽ 19.55</u> 24 Hours After Completion of Drilling <u>▽ 19.4</u>														
Remarks:														
DEPTH (ft)	OPERATION TYPES	SAMPLE	CHLORIDE CONCENTRATION (ppm) ExStik	VOC CONCENTRATION (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	WELL DIAGRAM
5											-CL- CLAY: Brown to dark brown, stiff, dry, with very fine-grained sand.	2	<p style="font-size: small;">           — TOC Elev: 3008.99'            Bentonite Slurry Grout            4" Schedule 40 PVC Casing            Bentonite Chip Seal         </p>	
											-CL- SANDY CLAY: Dark brown, very stiff, dry.	3		
											-SC- CLAYEY SAND: Dark brown, loose, fine-grained, dry.	7		
											-SC- CLAYEY SAND: Light brown to brown, medium dense, dry, with trace gypsum.	9		
10											-SM- SAND: Light brown to pale brown, partially weakly cemented, dry, with some clayey sand.	14		
15											-SC- CLAYEY SAND: Brown, moderately cemented, slightly moist, fine-grained, with some gypsum.	19		
20											-SM- SAND: Light brown, moderately cemented, slightly moist, fine-grained, with some gypsum.	24	<p style="font-size: small;">           20/40 Silica Sand Filter Pack            4" Schedule 40 PVC Slotted Screen (0.010")         </p>	
25											-SC- CLAYEY SAND: Light brown to brown, moderately cemented, moist to wet, fine-grained, with some gypsum.	29		
30											-GC- GRAVEL: Light brown to pale brown, medium dense, moist to wet, fine-grained, with some clay.	30		
Bottom of borehole at 30.0 feet.														

<b>Sampler Types:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  Split Spoon   Shelby   Bulk Sample   Grab Sample         </div> <div style="width: 50%;">  Acetate Liner   Vane Shear   California   Test Pit         </div> </div>	<b>Operation Types:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  Hollow Stem Auger   Continuous Flight Auger   Mud Rotary         </div> <div style="width: 50%;">  Auger   Air Rotary   Direct Push   Drive Casing         </div> </div>	<b>Notes:</b> Survey date: 4/30/2024
<b>Logger:</b> Colton Bickerstaff	<b>Drilling Equipment:</b> Air Rotary	<b>Driller:</b> Scarborough Drilling

212C-MD-02839	 TETRA TECH	LOG OF BORING BG-2		Page 1 of 1										
Project Name: Way South State Com #001H Tank Battery														
Borehole Location 32.018357°, -104.119741°			Surface Elevation: 3015 ft											
Borehole Number: BG-2		Borehole Diameter (in.): 8	Date Started: 4/16/2024	Date Finished: 4/16/2024										
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		
												While Drilling <u>▽</u> DRY ft	Upon Completion of Drilling <u>▽</u> DRY ft	Remarks:
			ExStik	PID								MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
5												-SP- SAND: Light brown, loose, dry.	2	
												-CL- CLAY: Dark brown, medium stiff, dry.	3	
												-SC- CLAYEY SAND: Light brown, loose, dry.	6	
10												-SC- CLAYEY SAND: Medium brown, dense, dry.	12	
15												-SC- CLAYEY SAND: Brown, dense, dry, with some gypsum.	18	
20												-SM- SAND: Light brown, loose, fine grained, slightly moist.	20	

Bottom of borehole at 20.0 feet.

<b>Sampler Types:</b>  Split Spoon  Shelby  Bulk Sample  Grab Sample  Acetate Liner  Vane Shear  Discrete Sample  Test Pit	<b>Operation Types:</b>  Mud Rotary  Continuous Flight Auger  Wash Rotary  Hand Auger  Air Rotary  Direct Push  Core Barrel	<b>Notes:</b> Surface elevation is an approximate value obtained from Google Earth.
<b>Logger:</b> Colton Bickerstaff	<b>Drilling Equipment:</b> Air Rotary	<b>Driller:</b> Scarborough Drilling

212C-MD-02839		<b>TETRA TECH</b>		<b>LOG OF BORING BG-3</b>				Page 1 of 1	
Project Name: Way South State Com #001H Tank Battery									
Borehole Location 32.019316°, -104.119835°						Surface Elevation: 3014 ft			
Borehole Number: BG-3				Borehole Diameter (in.): 8		Date Started: 4/18/2024		Date Finished: 4/18/2024	

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		DEPTH (ft)	REMARKS
												While Drilling	Upon Completion of Drilling		
			ExStik	PID								While Drilling <u>▽</u> DRY ft    Upon Completion of Drilling <u>▽</u> DRY ft Remarks:			
												MATERIAL DESCRIPTION			
5												<b>-SP-</b> SAND: Light brown, loose, dry.	2		
												<b>-CL-</b> SANDY CLAY: Dark brown, medium stiff, dry.	4		
10												<b>-SC-</b> CLAYEY SAND: Light brown, loose to medium dense, fine grained, dry, with some gypsum.	12		
15												<b>-SC-</b> CLAYEY SAND: Brown, medium dense, fine grained, slightly moist, with some gypsum.	17		
20												<b>-SM-</b> SAND: Light brown to pale brown, loose, fine grained, moist.	20		

Bottom of borehole at 20.0 feet.

<b>Sampler Types:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  Split Spoon   Shelby   Bulk Sample   Grab Sample         </div> <div style="width: 50%;">  Acetate Liner   Vane Shear   Discrete Sample   Test Pit         </div> </div>	<b>Operation Types:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  Mud Rotary   Continuous Flight Auger   Wash Rotary         </div> <div style="width: 50%;">  Hand Auger   Air Rotary   Direct Push   Core Barrel         </div> </div>	<b>Notes:</b> Surface elevation is an approximate value obtained from Google Earth.
--	--	--

Logger: Colton Bickerstaff

Drilling Equipment: Air Rotary

Driller: Scarborough Drilling

212C-MD-02839		<b>TETRA TECH</b>		<b>LOG OF BORING BG-4</b>				Page 1 of 1						
Project Name: Way South State Com #001H Tank Battery														
Borehole Location 32.020159°, -104.119349°						Surface Elevation: 3016 ft								
Borehole Number: BG-4				Borehole Diameter (in.): 8		Date Started: 4/18/2024		Date Finished: 4/18/2024						
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		
												While Drilling <u>▽</u> DRY ft    Upon Completion of Drilling <u>▽</u> DRY ft Remarks:		
			ExStik	PID				LL	PI			MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
5												-CL- SILTY CLAY: Dark brown, stiff, dry.	3	
												-CL- SANDY CLAY: Dark brown, stiff, dry.	4	
												-SC- CLAYEY SAND: Light brown, occasionally dark brown, loose, very fine grained, dry.	7	
10												-SC- CLAYEY SAND: Light brown to brown, medium dense to dense, dry, with some gypsum.	10	
15												-SM- SILTY SAND: Light brown to pale brown, loose, occasionally grading to clayey sand.	18	
20												-SM- SILTY SAND: Light brown, loose, very fine grained, slightly moist, with trace gypsum.	20	

Bottom of borehole at 20.0 feet.

<b>Sampler Types:</b> Split Spoon Shelby Bulk Sample Grab Sample	Acetate Liner Vane Shear Discrete Sample Test Pit	<b>Operation Types:</b> Mud Rotary Continuous Flight Auger Wash Rotary	Hand Auger Air Rotary Direct Push Core Barrel	<b>Notes:</b> Surface elevation is an approximate value obtained from Google Earth.
<b>Logger:</b> Colton Bickerstaff		<b>Drilling Equipment:</b> Air Rotary		<b>Driller:</b> Scarborough Drilling

212C-MD-02839		<b>TETRA TECH</b>		<b>LOG OF BORING BG-24-1</b>				Page 1 of 1	
Project Name: Way South State Com #001H Tank Battery									
Borehole Location 32.018888°, -104.120315°						Surface Elevation: 3017 ft			
Borehole Number: BG-24-1				Borehole Diameter (in.): 8		Date Started: 4/17/2024		Date Finished: 4/17/2024	

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		DEPTH (ft)	REMARKS
												While Drilling	Upon Completion of Drilling		
			ExStik	PID								While Drilling <u>▽</u> DRY ft    Upon Completion of Drilling <u>▽</u> DRY ft  Remarks:			
												<b>MATERIAL DESCRIPTION</b>			
5												<b>-SP-</b> SAND: Light to medium brown, loose, dry, fine-grained, with some clay.	1		
												<b>-SC-</b> CLAYEY SAND: Light to medium brown, partially weakly cemented, dry, fine grained, with trace gypsum.	2		
												<b>-SP-</b> SAND: Light to very light brown, partially weakly cemented, dry, fine to very fine grained with trace clay, grading to clayey sand.	8		
10												<b>-SC-</b> CLAYEY SAND: Medium brown, medium dense, dry, with some gypsum.	13		
15												<b>-SC-</b> CLAYEY SAND: Brown, dense, dry, with some gypsum.	17		
20												<b>-SM-</b> SAND: Brown, dense, slightly moist, with moderate silt and clay content.	20		
												<b>--</b> Moderately moist @ 19'			

Bottom of borehole at 20.0 feet.

<b>Sampler Types:</b> Split Spoon Shelby Bulk Sample Grab Sample	Acetate Liner Vane Shear Discrete Sample Test Pit	<b>Operation Types:</b> Mud Rotary Continuous Flight Auger Wash Rotary	Hand Auger Air Rotary Direct Push Core Barrel	<b>Notes:</b> Surface elevation is an approximate value obtained from Google Earth.
<b>Logger:</b> Colton Bickerstaff		<b>Drilling Equipment:</b> Air Rotary		<b>Driller:</b> Scarborough Drilling



## **APPENDIX D**

# **Cultural Survey and Permitting Documentation**

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 2 7 5 6

Registration

Lead Agency: New Mexico State Land Office

Performing Agency: SWCA Environmental Consultants

Activity ID: 80223

Performing Agency Report No: 23-245

Report Recipient (Your Client): Tetra Tech

- Activity Types:
- ☐ Research Design
  - ☒ Archaeological Survey/Inventory
  - ☐ Architectural Survey/Inventory
  - ☐ Test Excavation
  - ☐ Monitoring
  - ☐ Collections/Non-Field Study
  - ☐ Compliance Decision
  - ☐ Literature Review Overview
  - ☐ Excavation
  - ☐ Ethnographic Study
  - ☐ Resource/Property Visit
  - ☐ Historic Structures Report
  - ☐ Other:

Total Survey Acreage: 18.15

Total Tribal Acreage: 0.00

Total Resources Visited: 0

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 2 7 5 6

Associate/Register Resources

Prefix	Number	Field Site/Other Number	In GIS	Resource Type	Collections Made?	Revisit
			✓		<input type="checkbox"/>	

## NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 2 7 5 6

## Report Details

Lead Agency

Lead Agency: New Mexico State Land Office

Lead Agency Report No.

Report Number: \_\_\_\_\_

Title of Report

Title of Report: A Cultural Resources Survey of the Way South State Com Monitor Well Project in Eddy County, New Mexico

Authors: Paisley DeFreese

Type of Report

Publication Type: Report, Monograph, or Book Negative

Description of Undertaking (what does the project entail?)

**Description:** Tetra Tech contracted SWCA Environmental Consultants (SWCA) to conduct an intensive cultural resources pedestrian survey in support of the Way South State Com Monitor Well project in Eddy County, New Mexico. The proposed project consists of constructing and maintaining a new well and pad and is approximately 23.26 kilometers (14.45 miles) south of Malaga, New Mexico on lands managed by the New Mexico State Land Office (SLO). The SLO will serve as the lead agency.

Tetra Tech is proposing to build a monitor well. The proposed area of potential effects (APE) is a 10-acre (4.04 hectare) block. The project is completely on SLO land. Tetra Tech sent a site monitor to survey with SWCA as part of their standard safety protocol.

Dates of Investigation

From: 04/17/2023 To: 04/17/2023

Report Date

Report Date: 04/26/2023

Performing Agency/Consultant

Name: SWCA Environmental Consultants

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 2 7 5 6

Principal Investigator:	Christine Kendrick
Field Supervisor:	Thea Stehlik-Barry
Field Personnel Names:	N/A
Historian/Other:	N/A

Report Details

Performing Agency Report Number

Report Number: 23-245

Client/Customer (project proponent)

Name:	Tetra Tech
Contact:	Steve Jester
Address:	1500 City West, #1000 Houston, TX 77042
Phone:	(713) 806-8871

Client/Customer Project Number

Project Number: 80223



## NMCRIS Investigation Abstract Form (NIAF)

**NMCRIS Activity No. 1 5 2 7 5 6**

### Ownership & Location

Land Ownership Status (Must be indicated on Project Map)

**Land Ownership:**

Land Owner/Manager	Protocol	Acres Surveyed	Acres in APE
NM SLO		18.15	10

**Total Survey Acreage:** 18.15

**Total Tribal Acreage:** 0.00

### Record Search(es)

**Date of HPD/ARMS File Review:** 30-March-2023

**Date of Other Agency File Review:** 30-March-2023

### Survey Data

**Source Graphics:** NAD 83

☒ USGS 7.5' (1:24,000) topo map

☐ Other Topo Map Scale:

☒ GPS Unit

☐ Aerial Photos

☐ Other Source Graphic(s):

**The following tables (b,c,& e) are calculated by the NMCRIS Map Service**

#### USGS 7.5' Topographic Map(s)

Map Name	USGS Quad Code
Red Bluff	32104-A1

#### County(ies)

County	FIPS
Eddy	

#### Legal Description

Unplatted	Township (N/S)	Range (E/W)	Section
	T26S	R29E	29
	T26S	R29E	30

#### Projected Legal Description

**Nearest City or Town:** Malaga

## NMCRIS Investigation Abstract Form (NIAF)

**NMCRIS Activity No. 1 5 2 7 5 6**

**GIS**

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## NMCRIS Investigation Abstract Form (NIAF)

**NMCRIS Activity No. 1 5 2 7 5 6**

### Methodology

#### Survey Field Methods

**Intensity:** 100% coverage

**Configuration:** ☒ Block Survey Units ☐ Linear Survey Units (l x y)

#### Other Survey Units

**Scope:** Non-Selective

**Coverage Method:** ☒ Systematic Pedestrian Coverage **Other Method:** \_\_\_\_\_

**Survey Interval (m):** 15 **Crew Size:** 1

**Fieldwork Dates: From:** 04/17/2023 **To:** 04/17/2023

**Survey Person Hours:** 1.25 **Recording Person Hours:** 0

**Additional Narrative:** Colton Bickerstaff, a Tetra Tech monitor, surveyed with SWCA.

#### Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.)

#### Environmental Setting:

The project area falls within the Chihuahuan Basins and Playas (24a) ecoregion. This ecoregion includes alluvial fans, internally drained basins, and river valleys mostly below 4,500 feet in elevation (Griffith et al. 2006). The elevation of the project area is 1,061.6 m (3,483 feet) above mean sea level. This ecoregion is composed of desert grasses and shrub land in erosional settings. This project is within the shrub land setting. Typical vegetation includes creosote bush, tarbush, yuccas, sandsage, viscid acacia, tasajillo, lechuguilla, mesquite, and ceniza. (Griffith et al. 2006). Wildlife in the area includes mule deer, prairie dog, gopher, fox, coyote, skunk, black-tailed jackrabbit, desert cottontail, scaled quail, burrowing owl, mourning dove, wrens, various hawks, bull snake, prairie rattlesnake, plain hognose snake, western hooknose snake and numerous lizards (Biota Information System of New Mexico 2023; Brown 1994). Important animal species prehistorically include deer, jackrabbit, and cottontail.

Geology underlying the project area comprises Holocene to middle Pleistocene eolian deposits ([Qe] [U.S. Geological Survey 2023]). Two soils are present within the project area: Gypsum land-Cottonwood complex, 0 to 3 percent slopes (0.28 percent survey area) are well drained, with a low runoff class; Cottonwood-Reeves loams, overflow, 0 to 3 percent slopes (99.72 percent of survey area) and are well drained, with a moderate runoff class (Natural Resources Conservation Service 2023).

Weather data for the survey area was compiled using the Carlsbad Caverns, New Mexico (291480), climate station data (period of record February 1, 1930, to June 6, 2016). Rainfall in the survey area can occur year-round but is most abundant from May through October. During that time period, rainfall totals 30.1 cm (11.9 inches), with an average of 5.0 cm (1.98 inches) per month for those months; September has the heaviest average precipitation. Snowfall is heaviest during December at 5.6 cm (2.2 inches) and can fall between October and March. Temperatures are coldest in December and January at 0.8

## NMCRIS Investigation Abstract Form (NIAF)

### NMCRIS Activity No. 1 5 2 7 5 6

degree Celsius (33.6 degrees Fahrenheit) and warmest in June at 32.8 degrees Celsius (91.1 degrees Fahrenheit) (Western Regional Climate Center 2023).

Biota Information System of New Mexico

2023 Database Query for Eddy County. Available at: <http://www.bison-m.org/>. Accessed April 2023.

Griffith, G. E., J. M. Omernik, M. M. McGraw, G. Z. Jacobi, C. M. Canavan, T. S. Schrader, D. Mercer, R. Hill, and B. C. Moran

2006 Ecoregions of New Mexico. Color poster with map, descriptive text, summary tables, and photographs. Map scale 1:1,100,000. U.S. Geological Survey, Reston, Virginia.

Natural Resources Conservation Service

2023 Web Soil Survey of Eddy County, New Mexico. Available at: <http://websoilsurvey.nrcs.usda.gov/app/>. Accessed April 2023.

Western Regional Climate Center

2023 Climate Summary for Carlsbad Caverns Climate Station (291480). Available at: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm1480>. Accessed April 2023

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## NMCRIS Investigation Abstract Form (NIAF)

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### Methodology

#### Percent Ground Visibility

**Ground Visibility:** 76-99 %**Condition of Survey Area:** Area was heavily disturbed with a well pad, access roads, flowlines, cleared pad areas, fence lines, and cattle traffic.

#### Attachments (check all appropriate boxes)

- ☒ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)
- ☒ Copy of NMCRIS Map Check (required)
- ☐ LA Site Forms – new sites (with sketch map & topographic map) if applicable
- ☐ LA Site Forms (update) – previously recorded & unrelocated sites (first 2 pages minimum)
- ☐ List and Description of Isolates, if applicable
- ☐ List and Description of Collections, if applicable

#### Other Attachments

- ☒ Photographs and Log
- ☐ Other attachments **Describe:** \_\_\_\_\_

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 2 7 5 6

Cultural Resource Findings

Investigation Results

Archaeological Sites Discovered and Registered: 0

Archaeological Sites Discovered and NOT Registered: 0

Previously Recorded Archaeological Sites Revisited (site update form required): 0

Previously Recorded Archaeological Sites Not Relocated (site update form required): 0

Total Archaeological Sites (visited & recorded): 0

Total Isolates Recorded: 0

✓ Non-Selective Isolate Recording

HCPI Properties Discovered and Registered: 0

HCPI Properties Discovered And NOT Registered: 0

Previously Recorded HCPI Properties Revisited: 0

Previously Recorded HCPI Properties NOT Relocated: 0

Total HCPI Properties (visited & recorded, including acequias): 0

If No Cultural Resources Found, Discuss Why: 0

Management Summary

SWCA surveyed a 30.48-m (100-feet) buffer on all sides of the proposed project polygons for a total survey area of 18.15 acres (7.33 hectares). No archaeological sites or historic cultural properties (buildings, structures, or objects) or isolated occurrences were observed. This is likely due to the small survey area in addition to the previous surveys around the project also finding no cultural materials.

**Summary:** SLO cultural resources preservation efforts requires that an archaeological survey be conducted to current standards for the APE pursuant to and in compliance with New Mexico Administrative Code (NMAC) 4.10.15 to ensure that cultural properties are not inadvertently excavated, harmed, or destroyed by any person. SWCA recommends that the proposed project will have no effect on any cultural resources listed or eligible for listing in the New Mexico State Register of Cultural Properties or the National Register of Historic Places. However, if buried cultural deposits are discovered during project construction, work should cease immediately, and the New Mexico SLO and State Historic Preservation Officer should be contacted



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Attachments

Documents:

Attachment Type	Description	Name	File Type	Size	Upload Date	Upload By
Report/Manuscript	NMCRIS_152756 NIAF	NMCRIS_152756	PDF Document	6,879 KB	21-April-2023	Paisley DeFreese

# NMCRIS Investigation Abstract Form (NIAF)

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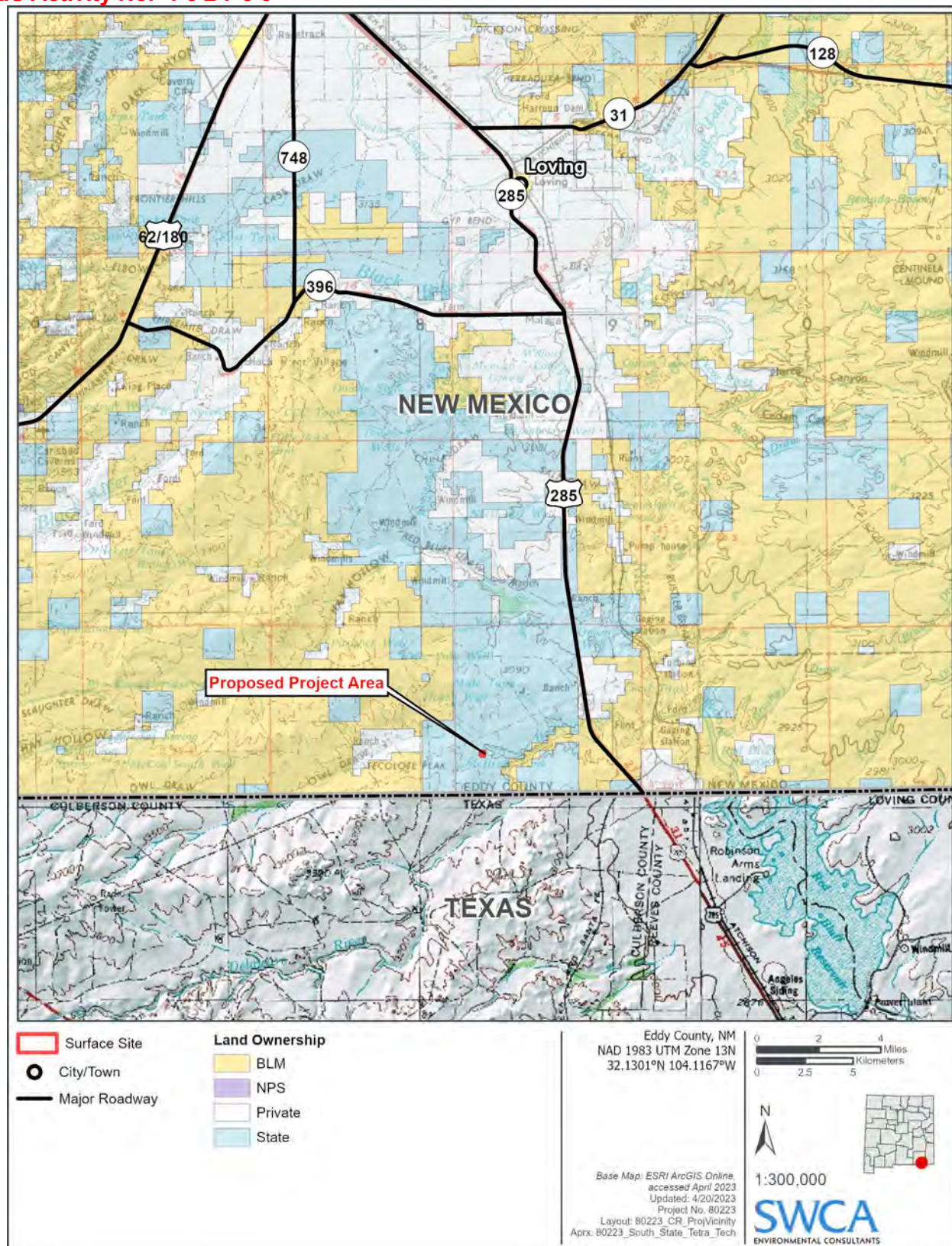
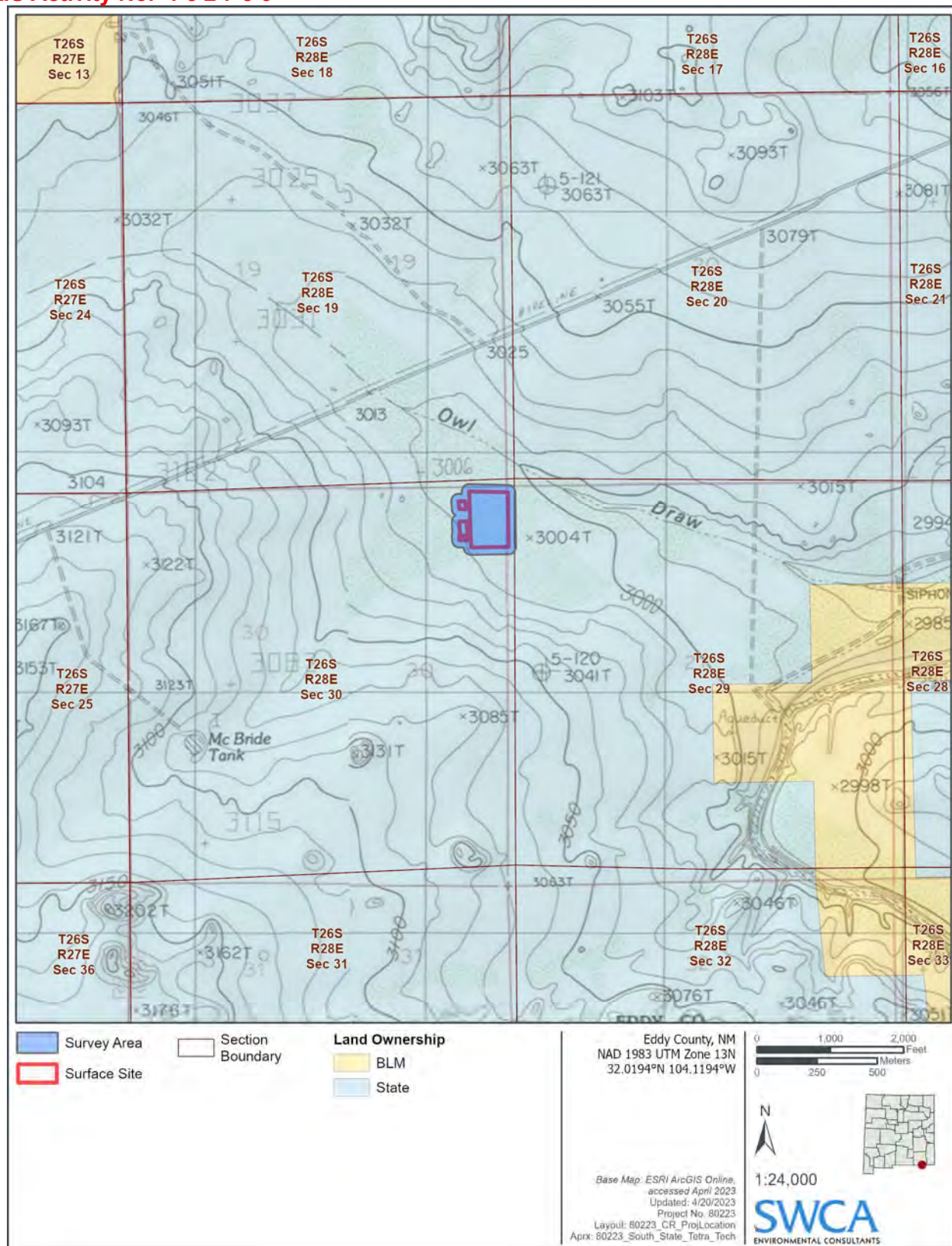


Figure 1. Project vicinity map.



## NMCRIS Investigation Abstract Form (NIAF)

**NMCRIS Activity No. 1 5 2 7 5 6**





## NMCRIS Investigation Abstract Form (NIAF)

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**Figure 3. Project overview, facing northeast (Frame -9754).**



**Figure 4. Project overview, facing southwest (Frame -9456).**



## NMCRIS Investigation Abstract Form (NIAF)

**NMCRIS Activity No. 1 5 2 7 5 6**



**Figure 5. Project overview, facing southeast (Frame -5308).**



**Figure 6. Project overview, facing north (Frame -2509).**



NMCRIS Investigation Abstract Form (NIAF)

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Table 1. Previously Known Cultural Resources within 500 m (0.31 mile) of the Project Area

\*Redacted

Table 2. Previously Completed Cultural Resource Surveys within 500 m (0.31 mile) of the Project Area

\*Redacted

Figure 7. ARMS screenshot with the survey area in blue and sites in yellow.

\*Redacted



Stephanie Garcia Richard  
COMMISSIONER

*State of New Mexico*  
*Commissioner of Public Lands*

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

[www.nmstatelands.org](http://www.nmstatelands.org)

310 OLD SANTA FE TRAIL  
P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

September 27, 2023

COG Operating LLC  
Attn: Ike Tavarez  
600 W. Illinois Ave.  
Midland, TX 79701

*Re: N.M. Water Monitoring Easement WM-689*

Dear Mr. Tavarez,

Enclosed please find the approved contract for WM-689. Thank you for doing business with the New Mexico State Land Office.

If you require further assistance, please contact me at (505) 476-0378 or [dgallegos@slo.state.nm.us](mailto:dgallegos@slo.state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read "David A. Gallegos".

David A. Gallegos  
Water Bureau Environmental Specialist

encl.

xc: Lease File



## NEW MEXICO STATE LAND OFFICE

### WATER MONITORING EASEMENT

NO. WM-689  
New-Issue

**THIS AGREEMENT**, effective on August 21, 2023 and dated this 28 day of September, 2023, made and entered into between the State of New Mexico Commissioner of Public Lands, acting trustee pursuant to the Act of June 21, 1910, 36 Stat. 557, ch. 310, § 10, (Commissioner), and **COG Operating LLC**, whose address is 600 W. Illinois Ave., Midland, TX 79701, (Grantee). This Water Monitoring Easement ("Easement") is not effective until signed by the Commissioner.

#### 1. Grant of Easement

For good and valuable consideration, including the covenants herein, the Commissioner grants to Grantee a Water Easement for three (3) well-sites as herein defined, to be located within the following described area in Eddy County ("Easement Land"):

<i>Quarter-Quarter</i>	<i>Section</i>	<i>Township</i>	<i>Range</i>	<i>Number of Easement Acres</i>
<u>NE4NE4</u>	<u>30</u>	<u>26S</u>	<u>28E</u>	<u>40</u>

The monitoring wells permitted under this Easement are as follows:

<i>SLO Well-Site Name</i>	<i>Lat Long in decimal degrees</i>	<i>OSE Well POD Number</i>	<i>Volume of Use</i>
<b>MW-1</b>	<b>32.018726, -104.119419</b>	<b>TBD</b>	<b>&lt;600 GPY</b>
<b>MW-2</b>	<b>32.019704, -104.119080</b>	<b>TBD</b>	
<b>MW-3</b>	<b>32.018475, -104.118415</b>	<b>TBD</b>	

A well-site is one half (0.5) acre with the denominated well in the center. Depending on their proximity, well-sites may overlap. The area of this granted easement is calculated based on 0.5 acres multiplied by the total number of well sites shown above.

#### 2. Purpose and Approved Use

This Easement is for the purpose of allowing Grantee's placement of monitoring well(s) for the benefit of the trust and for the following specific purpose: **monitoring ground water pursuant to remediation case number 2RP-4888/NRM2008650013 issued by the NMOCD**. This grant of Easement entitles Grantee to the exclusive use of the easement for the permitted purposes, and to install such improvements as are necessary to those purposes for the term of this easement. This Easement does not entitle Grantee to divert water, or to develop or put to beneficial

2023 SEP 18 AM 11:27



use any water rights. The Commissioner may permit other uses on or within this Easement to the extent that they do not impair Grantee's permitted purposes.

### **3. Term of Easement**

#### **A. Term**

This Water Easement is for a term of five (5) years, commencing on **August 21, 2023** ("Anniversary Date"), and expiring **August 20, 2028**, unless terminated earlier as provided herein.

#### **B. Renewal**

Upon Grantee's written request submitted to the Commissioner at least sixty (60) days prior to the expiration of this Easement, the parties may renew this Easement if the Commissioner, in the Commissioner's sole discretion, determines such renewal to be in the best interests of the trust.

#### **C. Reversion to Commissioner**

At such time that this Water Easement expires, is not renewed, or is otherwise terminated, or if Grantee has failed to use the Easement Land for the permitted purposes for a period of one (1) year, the Easement Land shall *ipso facto* revert to the Commissioner who may, in the Commissioner's sole discretion, thereafter make this Water Easement, with improvements, if any, available for further use. The Commissioner shall give Grantee notice of this said non-renewal by registered mail and no further notice or action on the Commissioner's part shall be required. Any loss of any kind, arising from the non-renewal of this Easement is acknowledged and accepted by Grantee as a business risk and Grantee's acknowledgement and acceptance shall be considered an inducement by Grantee to the Commissioner to enter into this Water Easement, shall not be considered a "taking" of any rights or property of Grantee, and shall not be the basis of any action at law or in equity to recover damages of any kind.

### **4. Grantee Standard of Care**

Grantee shall act prudently in drilling wells and performing water monitoring. "Prudent" within the context of this provision means that standard of care, operating and action of a reasonable water user acting pursuant to provisions of New Mexico water law and any other applicable laws, rules, and regulations. When Grantee has completed monitoring use of the well, Grantee will plug the well and provide Commissioner written evidence of having done so.

### **5. Permits and Reporting**

#### **A. Permit to Drill and Copies**

Prior to drilling, Grantee shall obtain a permit to drill a well with no water right (Permit) for each well included in this Easement from the New Mexico Office of the State Engineer (OSE). The Permit application must name the Commissioner of Public Lands as co-applicant and indicate that the well is to be located on land owned by the New Mexico State Land Office. Grantee shall send the Commissioner a copy of all applications for a Permit or correspondence related to the applications contemporaneously with any OSE filing, and shall send to the Commissioner a copy of any and all OSE response(s), Permits, or other communication(s) regarding Permit within ten (10) days of receipt. Grantee shall comply with all applicable laws pertaining to, and with all rules and regulations and procedures of, any other state agency having proper jurisdiction over the water.

#### **B. Monitoring Reports**

Grantee shall provide to the Commissioner copies of all interim and final reports created using data collected from the wells permitted under this Easement.

#### **C. Commissioner Participation in Filing**

The Commissioner, in the Commissioner's discretion, may assist Grantee in any filings or proceedings before the OSE. However, the Commissioner may withhold approval of any

filings with the OSE, may withdraw participation or approval of any joint filing with the OSE, and may contest or challenge any filing (even if the Commissioner was previously a joint applicant or party to the filing), if the Commissioner determines that a filing is not or is no longer in the best interest of the trust. At the written request of the Commissioner, Grantee shall withdraw any filing with the OSE.

#### **6. Documentation**

As soon as practicable, Grantee shall furnish to the Commissioner copies of records, reports and plats of its operation, produced during the term of this Easement, including but not limited to water quality tests, well logs, drill cores, meter readings, and any data relating to hydrology and geological formations.

#### **7. Amendment**

This Easement shall not be altered, changed, or amended except by a written instrument executed by both the Commissioner and Grantee. An amendment is required to add wells to or remove wells from this Easement, or to establish rights-of-way or install improvements outside of the Easement Land. Each such amendment application shall be accompanied by the filing fee set forth in the Commissioner's current schedule of fees, and an annual rental payment per well, to be calculated and due as described in Paragraph 11.

#### **8. Rights-of-way**

Grantee shall have the right, without further consideration, to establish such rights-of-way upon the Easement Land as are reasonably necessary to the Purpose and Approved Use of the Easement, to install or maintain any necessary equipment or facilities on the Easement Land. Grantee shall not establish any rights-of-way or install any improvements outside of the Easement Land without an amendment to this Easement. It is Grantee's sole responsibility to notify and obtain in advance the approval of any surface lessee for any right-of-way. The Commissioner reserves the right to require such rights-of-way to be moved when the development or other use of the surrounding trust lands require this. Rights of way outside the Easement Land will be granted by the Commissioner, in the Commissioner's discretion. No right-of-way, or other access across, or use of any lands other than those expressly granted in this Easement is implied or expressed.

#### **9. Surveys**

Grantee shall survey each well site as soon as practicable after drilling, and submit a copy of the survey plat when completed to the Commissioner.

#### **10. Improvements**

##### **A. Authorized Improvements**

Grantee may make or place such improvements and equipment upon or under the Easement Lands as are reasonably necessary to the purpose of the Easement, subject to the requirements for removal of improvements and equipment set forth in Paragraph C below. No pipelines shall be installed, and no water right shall be developed or used under this Easement. All Grantee improvements such as well housing, piping, casing, and related equipment installed or obtained by Grantee on the granted Easement shall remain Grantee's sole property and liability. All such improvements shall be subject to the lien described in NMSA 1978 § 19-7-34. Grantee shall submit a written request for approval from the Commissioner prior to making any changes or additions to Authorized Improvements on the Easement Land. At the request of the Commissioner, Grantee shall submit updated survey plats showing such changes or additions.

##### **B. Unauthorized Improvements**

In the event that improvements not authorized by the Commissioner are placed on or under the Easement Land, at the Commissioner's discretion, such improvements may thereafter

be deemed forfeited to the Commissioner and for purposes of Sections 19-7-14 and 19-10-28 NMSA 1978, no payments shall be due pursuant to those sections for such remaining improvements, or the Commissioner may order the removal, at Grantee's expense, of such improvements and the restoration of the Easement Land to its condition existing prior to the placement of said improvements.

**C. Removal of Improvements or Equipment**

Upon the termination, expiration or assignment of Grantee's interest in this Easement, Grantee may remove all such improvements, but only to the extent that such removal will not cause material injury to the Easement Land, and provided that all sums due to the Commissioner have been paid and that such removal is accomplished within sixty (60) days of the date of termination, expiration or assignment; or, Grantee may sell its interest in such physical improvements to a subsequent grantee or assignee. Any such sale or removal shall be subject to the Commissioner's paramount statutory lien. The Commissioner may, in writing, consent to Grantee leaving designated improvements upon the Easement Land, and such improvements shall thereafter be deemed forfeited to the Commissioner, and no payments for such remaining improvements shall be due under Sections 19-7-14 and 19-10-28 NMSA 1978. Any other improvements not removed or sold by Grantee shall continue to be Grantee's sole property and liability, shall be deemed in trespass, and shall give rise to such remedies for trespass and waste as may be available to the Commissioner at law or in equity. The Commissioner may extend the 60-day period upon good cause shown.

**11. Payment of Rental**

**A. Annual Rental**

Grantee shall pay annual rental in the amount of **\$1,500.00 (\$500.00 per well)** to be due on or before the Anniversary Date **August 21<sup>st</sup>** of each year. If this Easement is relinquished, cancelled or otherwise terminated prior to the end of the term set forth above, the annual rental shall not be prorated, reduce or refunded for any part of any year during which the Easement is in effect.

**B. Payment Submittal**

Payment of all sums due hereunder shall be made payable to "Commissioner of Public Lands" and shall include the State Land Office Water Easement number **WM-689**, and shall be submitted to the Director of Oil Gas Minerals Division, New Mexico State Land Office, 310 Old Santa Fe Trail, P.O. Box 1148, Santa Fe, New Mexico 87504-1148.

**12. Receipt of Monies:**

**A. Receipt of Monies**

No receipt of monies, including rental, by the Commissioner from Grantee, or any other person acting for or on Grantee's behalf, after termination or expiration of this Easement shall reinstate, continue, or extend the Term; affect any notice previously given to Grantee; operate as a waiver of the Commissioner's right to enforce payment of any rent or other monies due or thereafter falling due; or, operate as waiver of the right of the Commissioner to recover possession of the Easement Land by legal action.

**B. Acceptance of Payment**

Grantee understands that the Commissioner's receipt of any monies is governed by the New Mexico State Land Office Rules. Grantee agrees that the Commissioner's negotiation of Grantee's check or other means of payment, and crediting the proceeds of such instrument to a suspense account, does not constitute acceptance of Grantee's payment.



**C. Application of Payments**

The Commissioner shall have the right to apply any payments made by Grantee to satisfy Grantee's obligations to the Commissioner in any order at the Commissioner's sole discretion, and without regard to Grantee's instructions as to the application of any such payment or part thereof, whether such instructions are endorsed on Grantee's check or otherwise, unless the Commissioner and Grantee otherwise agree, in writing, before the Commissioner accepts such payment. The Commissioner's acceptance of a check or payment by Grantee or others on Grantee's behalf shall not, in any way, affect Grantee's obligations hereunder nor shall it be deemed an approval of any assignment or subletting of this Water Easement.

**13. Signage**

Grantee shall post on each well a sign with Grantee's name, Easement number, State Land Office well number, OSE permit number and location by legal description.

**14. Site Security and Fencing**

Any and all site security of any kind for Grantee, Grantee's agents, employees or invitees, the Easement Land, or any personal property thereon shall be the sole responsibility and obligation of Grantee, and shall be provided by Grantee at Grantee's sole cost and expense. Grantee agrees to provide reasonable security for the Easement Land and all construction areas within the Easement Land consistent with standard industry practices and in conformity with Grantee's duty to prevent waste and trespass. If the Commissioner requires or approves in advance in writing, Grantee will furnish proof to the Commissioner that required or approved fencing is completed and in good repair.

**15. Reclamation**

Grantee agrees to reclaim by grading, levelling or terracing all areas disturbed by its activities on the Easement Land, and to landscape such areas at its own cost and expense. A Reclamation Plan must be submitted to and approved by Grantor prior to implementation. Grantor will not release Grantee from its responsibility for reclamation and revegetation until all work described in the Reclamation Plan has been completed and Grantor has performed an inspection on the Easement Land. The goal of the Reclamation Plan shall be to achieve native plant cover and diversity levels equal to or exceeding the natural potential levels in undisturbed soils adjacent to the project area. The Reclamation Plan shall include the following:

**A. Narrative**

The Reclamation Plan shall include a narrative describing all reclamation activities including removal of debris and equipment.

**B. Re-Vegetation Requirements**

A detailed description of the seed mix (native seed only), seeding rate/acre, method of dispersal, timing of dispersal, follow up monitoring plan, a re-seeding plan if initial efforts are unsuccessful, and a plan for addressing noxious weeds shall all be included in the Reclamation Plan. All seed mixtures submitted for approval shall specify pounds of pure live seed per acre. The seed shall contain no primary or secondary noxious weeds. Commercially sold seed shall be either certified or registered seed. The Noxious Weed component of the Reclamation Plan should include identification of the species of concern and the methods used to eradicate those species from the site. Eradication techniques may include mechanical treatment, chemical treatment, follow-up and monitoring. A Final Report is required on implementation and completion of the Reclamation that includes a brief narrative of the seeding and monitoring efforts and photos of the reclaimed area. Once Grantee has submitted the Final Report and the Grantor has approved the work, Grantor will provide acknowledgment that reclamation requirements have been met.

**16. Compliance with State Land Office Rules and Other Laws**

Grantee shall comply with all applicable laws pertaining to, and with all rules and regulations and procedures of, the OSE where the State Engineer has jurisdiction over the monitoring wells. Grantee shall fully comply with all federal, state and local laws, rules, regulations, ordinances and requirements applicable to the Easement Land or to Grantee's operations thereon, including but not limited to all applicable laws governing water; endangered or threatened species; hazardous materials; environmental protection; land use; health and safety; cultural, historic or archeological / paleontological properties; waste; trespass, and the New Mexico Cultural Properties Act, NMSA 1978, 18-6-1 et seq. Such agencies are not to be deemed third party beneficiaries hereunder; however, this clause is enforceable by the Commissioner as herein provided or as otherwise permitted by law. Grantee shall comply with all New Mexico State Land Office Rules and Regulations, 19.2 NMAC, including those that may be hereafter promulgated. Grantee's obligations under this paragraph include but are not limited to compliance with NMSA 1978 Section 19-6-5, requiring a lessee of State Trust Land to protect the Easement Land from waste or trespass. Grantee's compliance with all laws, regulations and policy shall be at its own expense.

**17. Closeout and Relinquishment****A. Closeout**

Upon closeout of the Easement, Grantee shall submit to the State Land Office a Notification of Plugging to include plans for:

- Well plugging including well diagrams, GPS of Well Locations, Drilling Company to do the plugging, plugging materials, volume of material to be placed, placement method, and date of plugging.
- Improvement removal according to Paragraph 10-C.
- Reclamation and re-seeding as outlined in Paragraph 15.

Relinquishment of the Easement will be contingent upon proper closeout of the Easement site.

**B. Relinquishment**

Grantee may, with the Commissioner's approval, relinquish this Easement provided that Grantee is in compliance with all terms of this Easement, including the payment of all rentals due, and if all improvements made pursuant to the Easement on, for, or appurtenant to the Easement Land have been approved by the Commissioner and arrangements satisfactory to the Commissioner have been made for either their removal or retention. Grantee may request relinquishment of all or any part of the Easement Land by filing relinquishment forms prescribed by the Commissioner and paying the relinquishment fee in the Commissioner's schedule of fees. Granting the request is at the discretion of the Commissioner.

**C. No Release of Liability or Obligations**

Grantee shall not, by relinquishment, avoid or be released from any liability for known or unknown waste or damage to the Easement Land, including environmental damage arising from, or in connection with, Grantee's use or occupancy thereof. Likewise, by relinquishment Grantee shall not be relieved of or discharged of obligations accrued by Grantee as of the date of relinquishment, including the obligation to reclaim the surface, revegetate the surface, pay the rentals required under Paragraph 11 and indemnify the Commissioner in accordance with the terms of this Easement.

**D. No Refunds for Relinquishment**

Upon any relinquishment, Grantee shall not be entitled to the refund of any rental previously paid.

**18. Assignment or Sublease**

Grantee shall not assign or sublease any rights granted hereunder, any part thereof, any portion of the Easement Land or any improvements located on the Easement Land without the prior amendment of this Water Easement pursuant to Paragraph 7 to permit such sublease or assignment, payment of the fee provided in the Commissioner's schedule of fees, and completion of required forms indicating the Commissioner's consent. Grantee may assign this Water Easement in whole only. The assignee shall succeed to all of the rights and privileges of Grantee hereunder and shall be held to have assumed all of the duties and obligations of Grantee to the Commissioner (including payments of rentals up to and after the date of the assignment), except that the Commissioner reserves the right to increase the annual rental and percent rental to be payable by the assigned under Paragraph 11. No such assignment or sublease shall attempt to convey any permanent interest in Water Rights. Any sublease or assignment without Water Easement amendment shall be null and void.

**19. Collateral Assignment**

Grantee shall obtain approval of the Commissioner before making any collateral assignment or mortgage of its interest in this Easement or its improvements, and any such collateral assignment or mortgage shall be subject to the conditions, limitations and requirements set forth in the State Land Office rules. The Commissioner's approval of a collateral assignment or mortgage shall not release Grantee from any of its obligations under this Easement, except as agreed to in writing by the Commissioner. If the Commissioner gives Grantee a notice of default, the Commissioner shall simultaneously provide a copy of the notice to an approved collateral assignee or mortgagee, which shall have the right to cure the default within the time provided, subject to the requirements of State Land Office rules. An approved collateral assignee or mortgagee may succeed to the rights and duties of Grantee, and it may assign the Water Easement in accordance with Paragraph 18, and State Land Office Rules governing assignments.

**20. Grantee Breach and Cancellation**

The Commissioner may terminate this Water Easement for breach of any term or covenant of this Easement. Any substantial deviation in water quantity or water quality, if reasonably attributable to Grantee, or any change in the purpose of the Easement from that stated herein, shall constitute grounds for the Commissioner, in the Commissioner's sole discretion, to terminate, amend, modify, renegotiate, cancel or otherwise change this Easement; provided, however, that the Commissioner shall mail to Grantee, by certified mail, addressed to the mailing address of Grantee shown in the Commissioner's current records, a thirty (30) day notice of intention to alter or terminate, specifying the reasons for which the notice is given. Proof of mailing, but no proof of receipt of notice, shall be necessary, and thirty (30) days after such mailing this Easement shall terminate *ipso facto* without further notice or proceeding required of the Commissioner; provided, however, there shall be no termination and reversion if Grantee has previously made arrangements satisfactory to the Commissioner to discharge or resolve the breach.

**21. Holding Over**

Upon termination or expiration of this Easement, any act or conduct of Grantee, including, but not limited to, the unapproved entry upon, occupancy, or use, whether continuous or not, of all or any part of the Easement Land by Grantee, Grantee's agents, or by any unauthorized improvements or other improvements required or ordered to be removed upon termination or expiration shall constitute Holding Over. At the termination or expiration of this Easement, Grantee immediately shall deliver possession to the Commissioner. In the event of Grantee's Holding Over, Grantee shall pay the Commissioner from time to time, upon demand, as rental for



the period of any hold over, to be due for each month of such hold over, an amount equal to two hundred percent (200%) of the annual rent. Nothing contained herein shall be construed as a grant to Grantee of the right to hold over or otherwise enter the Easement Land for any purpose after the expiration or termination of this Easement without the prior written approval of the Commissioner. At any time that Grantee is holding over, the Commissioner shall, without requirement of further notice or grace period, have any and all rights to evict or otherwise remove Grantee by force or otherwise, with all costs and fees incurred in such action to be due and payable by Grantee. This Section shall survive the termination or expiration of this Easement.

## 22. Bond

Prior to commencement of operations under this Easement. Grantee shall obtain the Commissioner's approval of and file a bond with the Commissioner in the amount of one thousand dollars (\$1,000.00) to secure payment to the Commissioner of such damage as may occur to livestock, range, water, crops or tangible improvements on the subject lands as may result from Grantee's use and occupation under this Easement. Such bond shall be payable for the term of this Easement, and may be utilized for reclamation of disturbed lands following the operations of Grantee under this Easement. Payment under this paragraph is to be made to the Commissioner and not to any other party. Grantee's bond shall not be liquidated damages, and the Commissioner reserves the right to pursue any other remedy for damages available at law or in equity.

## 23. Indemnification

Grantee shall hold harmless, indemnify and defend the State of New Mexico, the Commissioner and the Commissioner's employees, agents, and contractors, and beneficiaries, in both their official and individual capacities, from any and all liabilities, claims, losses, damages, or expenses, including but not limited to reasonable attorneys' fees, loss of land value, third party claims, penalties or removal, remedial or restoration costs arising out of, alleged to arise out of or indirectly connected with a) the operations hereunder of Grantee or Grantee's employees, agents, contractors, or invitees, b) any hazardous materials located in, under, or upon or otherwise affecting the Easement Land or adjacent property, or c) the activities of third parties on the Easement Land, whether with or without Grantee's knowledge or consent. In the event that any action, suit or proceeding is brought against Grantee, Grantee shall, as soon as practicable but no later than two (2) days after it receives notice thereof, notify the legal counsel of the Commissioner and the Risk Management Division of the New Mexico General Services Department by certified mail. This paragraph shall survive the termination, cancellation or relinquishment of this Water Easement, and any cause of action of the Commissioner to enforce this provision shall not be deemed to accrue until the Commissioner's actual discovery of said liability, claim, loss, damage, or expense.

## 24. Insurance

During the Term of this Water Easement, Grantee shall, at Grantee's cost and expense and at no cost to the Commissioner, insure all improvements against liability to third parties and for construction risks, in accordance with industry standards for the estimate probable loss. Grantee's insurance carriers shall be in good standing, adequately underwritten, and duly licensed to issue insurance policies in New Mexico. Grantee shall provide the Commissioner proof of insurance. In addition, Grantee shall obtain at its own expense, insurance coverage adequate to protect its operations, property, employees and agents in amounts Grantee finds sufficient. Grantee shall be solely responsible for obtaining insurance policies that provide coverage for losses of Grantee's owned property, including improvements. The Commissioner shall not be required to provide such insurance coverage or be responsible for payment of Grantee's costs for such insurance.

**25. No Waiver by Commissioner**

No employee or agent of the Commissioner has the power, right, or authority to orally waive any of the conditions, covenants, or agreements of this Easement; and no waiver by the Commissioner of any of the conditions, covenants, or agreements of this Easement shall be effective unless in writing and executed by the Commissioner. The Commissioner's waiver of Grantee's breach or default of any of the conditions, covenants, or agreements hereof shall not constitute or be construed as a waiver of any other or subsequent breach or default by Grantee. The failure of the Commissioner to enforce at any time any of the conditions, covenants, or agreements of this Easement, or to exercise any option herein provided, or to require at any time performance by Grantee of any of the conditions, covenants, or agreements of this Easement shall not constitute or be construed to be a waiver of such conditions, covenants, or agreements, nor shall it affect the validity of this Easement or any part thereof, or the Commissioner's right to thereafter enforce each and every such condition, covenant, or agreement.

**26. Scope of Agreement**

This Easement incorporates all the agreements, covenants, and understandings between the Commissioner and Grantee concerning the subject matter hereof and all such agreements, covenants, and understandings are merged into this Easement. No prior agreement or understanding between the Commissioner and Grantee shall be valid or enforceable unless expressly embodied in this Easement.

**27. Non-impairment**

Nothing in this Easement is to be construed to allow the impairment of the rights of any lawful holder, present or future, of any geothermal resources, or any mineral, grazing, commercial, easement, or Water Rights on the subject or any other state trust lands.

**28. Severability**

In the event that any provision of this Easement is held invalid or unenforceable under applicable law, this Easement shall be deemed not to include that provision and all other provisions shall remain in full force and effect.

**29. Successors In Interest**

All terms, conditions, and covenants of this Easement and all amendments thereto shall extend to and bind the permitted heirs, successors, and assigns of Grantee and the Commissioner. There are no third party beneficiaries of this Easement.

**30. Dispute Resolution, Applicable Law and Venue**

Any disputes arising under or in connection with this Easement shall be first resolved by mandatory contest pursuant to 19.2.15 NMAC. Subsequent appeal, if any, shall be in the First Judicial District Court of Santa Fe. In all instances, the law of New Mexico shall apply. The laws of the State of New Mexico shall govern this Easement, without giving effect to the conflict of law provisions of the State of New Mexico. Grantee consents to venue and jurisdiction in the District Court in and for the County of Santa Fe, State of New Mexico for purposes of any appeal pursuant to 19.2.15 NMAC, and to service of process under the laws of the State of New Mexico in any action relating to this Easement or its subject matter.

**31. Time**

Time is of the essence in the performance of each and every provision of this Easement. Grantee's failure to perform any or all of its obligations under this Easement in a timely manner shall be a breach of this Easement.

**32. Singular And Plural**

Whenever the singular is used herein, the same shall include the plural.

**33. Headings And Titles**

The use of section or paragraph headings and titles herein is for descriptive purposes only and is independent of the covenants, conditions, and agreements contained herein.

**34. No Joint Venture**

The Commissioner is not and will not be construed or held to be a partner, joint venturer or associate of Grantee in the conduct of the business of Grantee. The Commissioner will not be liable for any debts incurred by Grantee in the conduct of the business of Grantee. The relationship between the Commissioner and Grantee is, and will remain, solely that of the Commissioner and Grantee.

**35. No Commissioner Personal Liability**

In the event of a court action, Grantee shall not seek damages from the Commissioner or any employee of SLO or the State of New Mexico in their individual capacity. This Section shall survive termination of this Easement.

**36. Stipulations**

This easement is being issued with the expectation that all fees, bond(s) and requested data and information has been submitted or will imminently be received by the State Land Office. Should a subsequent audit of this easement reveal any of the above stated items have not been submitted, the New Mexico State Land Office will issue a letter to you requiring that you come into compliance, and the easement holder shall have 30 days to submit the missing item(s) or this easement may be terminated.

- Quickly re-establish vegetation on reclaimed areas upon completion of the well installation to minimize impacts to the watershed, water quality, and wildlife habitat.
- Quickly correct any erosion that occurs on the easement and take proper measures to prevent future erosion.
- Adhere to the recommendations outlined in the *Karst Survey Report for the Way South State 001H Monitoring Wells and Boreholes* published by CEHMM.
- Adhere to the stipulations outlined in the NMSLO biological field report.
- Provide the NMSLO Water Bureau 1) Well Files and 2) PODs from the Office of the State Engineer, 'NMOSE' when available.

**37. Notices**

Written notice by registered or certified U.S. Postal Service, return receipt requested, or delivered by reputable overnight courier, return receipt of tracking system, to the addresses of the party hereunder shall constitute sufficient notice to comply with the terms of this Easement. Notice will be deemed effective upon delivery. Either the Commissioner or Grantee may change its respective address as provided in this Section effective three (3) business days after giving written notice of the change to the other. The addresses for notice are:



**Notice to the Commissioner:**

New Mexico Commissioner of Public Lands  
Attn: Oil Gas Minerals Division  
P.O. Box 1148  
Santa Fe, New Mexico 87504-1148  
Tel: (505) 827-5760

**With copy to:**

New Mexico State Land Office  
General Counsel  
P.O. Box 1148  
Santa Fe, NM 87504-1148  
Tel: (505) 827-5756

**Notice to Grantee:**

COG Operating LLC  
Attn: Ike Tavaréz  
600 W. Illinois Ave.  
Midland, TX 79701  
Phone: 432-701-8630  
Email: Ike.Tavaréz@ConocoPhillips.com

2023 SEP 18 AM 11:28

IN WITNESS WHEREOF, the Commissioner of Public Lands and Grantee have signed this Easement to be effective on the date signed by the Commissioner.

**GRANTEE:**

COG OPERATING LLC

By: [Signature]Date: 9-7-23Name: Ike TavarézTitle: Owner - Propan managerACKNOWLEDGMENT IN A REPRESENTATIVE CAPACITYState of TEXASCounty of MidlandThis instrument was acknowledged before me on 9/7/23 (date) byIke Tavaréz

(name) as

Staff Manager

(title) of

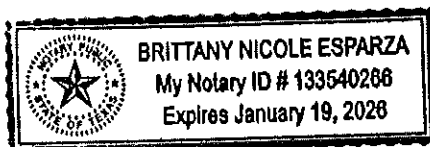
ConocoPhillips

(name of party on behalf of whom instrument is executed).

[Signature]

(Signature of notarial officer)

(seal)

My commission expires: 1/19/26**GRANTOR**

NEW MEXICO COMMISSIONER OF PUBLIC LANDS

[Signature]  
Stephanie Garcia Richard, Commissioner of Public LandsDated: 9/28/23



Stephanie Garcia Richard  
COMMISSIONER

*State of New Mexico*  
*Commissioner of Public Lands*

310 OLD SANTA FE TRAIL  
P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S  
OFFICE

Phone (505) 827-5760  
Fax (505) 827-5766  
www.nmstatelands.org

May 1, 2023

ConocoPhillips (Tetra Tech as Contractor)  
Attn: Ike Tavarez  
600 W Illinois Ave.  
Midland, TX 79701

RE: Rule 12 Water Exploration / Soil Boring Permit # **WE-0818**

We are in receipt of your application and fees (\$ 100.00 per Application) requesting a TEMPORARY BORING PERMIT for Water exploration. The effective date of this authorization is for a period of not to exceed 1 year, commencing on **May 1, 2023** and ending on **April 30, 2024**. This Authorization (Right of Entry) letter is for the sole purpose of **3 soil borings to depth of 25' bgs and 6 soil borings to 1' bgs** in the following locations:

Township	Range	Section	Subdivision	County	Coordinates
26S	28E	30	NE4NE4	Eddy	32.018720, -104.119516 32.019358, -104.118459 32.018332, -104.119744 32.019316, -104.119839 32.020156, -104.119364 32.018655, -104.120179

**CONDITIONS OF USE**

- The issuance of this Exploration Authorization does not guarantee a Water Easement will be issued for this property being explored, nor does it indicate a preference for a future water easement issuance to the holder of the authorization by the Commissioner of Public Lands.
- No refund of Permit application fees will occur after Permit approval letter is mailed.
- Authorized party shall notify the State Land Office District Resource Manager by telephone at least one business day prior to commencing any exploration activities.
- No blading or widening of any two-track dirt roads that provides access to the Property is permitted under this Authorization, except as necessary for the ingress and egress of required vehicles.
- No mining or removal of material for purposes other than testing is allowed under this Authorization. No sale of any material extracted from the Property is allowed under this Authorization.
- Authorized party shall observe all federal, state and local laws and regulations applicable to the Property.
- Authorized party shall take all reasonable precautions to prevent and suppress forest, brush and grass fires and prevent pollution of waters on or in the vicinity of the Property.
- Authorized party shall not block or disrupt roads or trails commonly in use.
- This Authorization is subject to any and all easements and rights-of-way previously granted and now in force and affect.

WE-818



- J. Authorized party shall be responsible for repair and restitution for damage to any property improvements as a result of activities related to this exploration.
- K. **Authorized party shall conduct exploration activities only if a state-permitted archaeologist as per the Cultural Properties Act, §18-6-5(O) is present on the permitted site if an archaeological survey has not been conducted clearing the work beforehand.** Authorized party shall abide by the decisions of the permitted Archaeologist regarding prevention of damage to cultural property sites. **An archaeological report is to be submitted to State Land Office Cultural Resources Specialist within fifteen (15) days of the expiration date of this Authorization.** (An archeologist is not required to be present as long as there are no surface disturbing activities being performed).

#### SURFACE RECLAMATION AND RESTORATION

- A. All test holes must be plugged as soon as testing is completed.
- B. Drilling, excavation and other surface disturbing activities shall be restricted to areas deemed to have no archaeological significance.
- C. Access to the Property shall be over existing roads. Reclamation of all roads shall conform to the requirements of State Land Office Rule 20. No upgrading of the existing roads shall be done, except as necessary for the ingress and egress of required vehicles.
- D. All topsoil from the areas to be disturbed shall be stockpiled for use in reclamation.
- E. Upon completion of the use and operations permitted by this Authorization, all disturbed sites shall be re-contoured to approximate the original contours.
- F. All material removed by excavation shall be replaced into the test holes, with the exception of an adequate sample, on or before the expiration date of this Authorization.
- G. The natural environmental conditions that exist contemporaneously with this grant shall be preserved and protected. All applicable environmental laws and regulations shall be complied with and such reclamation or corrective actions as may be necessary to conduct EXPLORATORY WELL BORING consistent with safe and sound environmental management principles and practices shall be taken in order to protect the Property from any pollution, erosion or other environmental degradation and to avoid diminishing the value of the Property for any future use.

#### INDEMNITY

Authorized party shall save, hold harmless, indemnify and defend the State of New Mexico, the Commissioner and Commissioner's employees, agents and contractors, in both their official and individual capacities, from any and all liability, claims, losses, damages, or expenses of any character or nature whatsoever, including but not limited to attorney's fees, court costs, loss of land value or use, third party claims, penalties, or removal, remedial or restoration costs arising out of, or alleged to arise out of:

- A. The operations or presence on the Property, or on adjacent or proximate state trust lands, including those used to access the Property for the purposes of this Authorization, of Authorized party or authorized party's employees, agents, contractors or invitees;
- B. The activities of third parties on the Property, or on adjacent or proximate state trust lands, including those used to access the Property or other adjacent or proximate state trust lands, whether with or without Authorized party's knowledge or consent;
- C. Any Hazardous Materials located in, under, upon or otherwise affecting the Property or adjacent or proximate state trust lands, regardless of their point of origin or date of contamination.

If you have any questions or concerns please contact Faith Crosby, Water Bureau Manager at (505) 827-5849 or David Gallegos, Water Resource Analyst at (505) 476-0378.

Respectfully,

*Stephanie Garcia Richard / SS*

Stephanie Garcia Richard  
Commissioner of Public Lands

SS/dg

xc: Azucena Ramirez, NMOSE District II, [Azucena.Ramirez@ose.nm.gov](mailto:Azucena.Ramirez@ose.nm.gov)  
Steve Jester, Tetra Tech, [STEVE.JESTER@tetratech.com](mailto:STEVE.JESTER@tetratech.com)  
Kelli Fox, NMSLO DRM Director

Date 5/1/23

Mike A. Hamman, P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 752532  
File Nbr: C 04784

Oct. 31, 2023

JOHN SCARBOROUGH  
TETRA TECH ON BEHALF OF CONOCO PHILLIPS  
PO BOX 305  
LAMESA, TX 79331

Greetings:

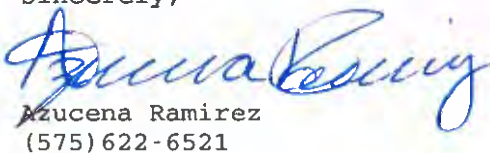
Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- \* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- \* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- \* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- \* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website [www.ose.state.nm.us](http://www.ose.state.nm.us).

Sincerely,

  
Azucena Ramirez  
(575) 622-6521

Enclosure

explore

File No. **C-4784 POD313**

# NEW MEXICO OFFICE OF THE STATE ENGINEER



## WR-07 APPLICATION FOR PERMIT TO DRILL

### A WELL WITH NO WATER RIGHT



(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose:	<input type="checkbox"/> Pollution Control And/Or Recovery	<input type="checkbox"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well*(Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input type="checkbox"/> Other(Describe)
<input checked="" type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

\*New Mexico Environment Department-Drinking Water Bureau (NMED-DWB) will be notified if a proposed exploratory well is used for public water supply

<input checked="" type="checkbox"/> Temporary Request - Requested Start Date: November 1, 2023	Requested End Date: June 30, 2024
--	-----------------------------------

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

#### 1. APPLICANT(S)

Name: Tetra Tech Inc on Behalf of ConocoPhillips	Name:
Contact or Agent: check here if Agent <input checked="" type="checkbox"/> John Scarborough Drilling Inc	Contact or Agent: check here if Agent <input type="checkbox"/>
Mailing Address: P.O. Box 305	Mailing Address:
City: Lamesa	City:
State: Zip Code: Texas 79331	State: Zip Code:
Phone: 806-759-4239 <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell Phone (Work):	Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work):
E-mail (optional): svs51@hotmail.com	E-mail (optional):

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 07/12/22

File No.: <b>C-4784</b>	Trn. No.: <b>752532</b>	Receipt No.: <b>2-45234</b>
Trans Description (optional): <b>MON</b>		
Sub-Basin: <b>CUB</b>	PCW/LOG Due Date: <b>10/30/24</b>	

Page 1 of 3



## 2. WELL(S) Describe the well(s) applicable to this application

**Location Required:** Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).

District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

- ☐ NM State Plane (NAD83) (Feet)
 ☐ UTM (NAD83) (Meters)
 ☒ Lat/Long (WGS84) (to the nearest 1/10<sup>th</sup> of second)
- ☐ NM West Zone
 ☐ Zone 12N
- ☐ NM East Zone
 ☐ Zone 13N
- ☐ NM Central Zone

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
C-4784-P001 MW-1	32.018726°	-104.119419°	Section 30, Township 26 South, Range 28 East
C-4784-P002 MW-2	32.019704°	-104.119080°	Section 30, Township 26 South, Range 28 East
C-4784-P003 MW-3	32.018475°	-104.118415°	Section 30, Township 26 South, Range 28 East

**NOTE:** If more well locations need to be described, complete form WR-08 (Attachment 1 – POB Descriptions)

Additional well descriptions are attached: Yes ☒ No ☐ If yes, how many \_\_\_\_\_

Other description relating well to common landmarks, streets, or other: \_\_\_\_\_

Well is on land owned by NMSLO

**Well Information:** NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☐ Yes ☒ No

If yes, how many \_\_\_\_\_

Approximate depth of well (feet): MWs are 50 ft, BGs are 25 ft

Outside diameter of well casing (inches): 2

Driller Name: John Scarborough

Driller License Number: WD1188

## 3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Drilling temporary monitoring wells to determine depth to groundwater. Drilling 3 soil borings.

USE OCT 25 2023 PM 3:02

FOR OSE INTERNAL USE

Application for Permit, Form WR-07 Version 07/12/22

File No.:

C-4784

Trm No.:

752532

Page 2 of 3

**4. SPECIFIC REQUIREMENTS:** The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

<b>Exploratory:</b> Is proposed well a future public water supply well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NO If Yes, an application must be filed with NMED-DWB, concurrently. <input type="checkbox"/> Include a description of the requested pump test if applicable.	<b>Pollution Control and/or Recovery:</b> <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located	<b>Construction De-Watering:</b> <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of. <b>Ground Source Heat Pump:</b> <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	<b>Mine De-Watering:</b> <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water. <input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
--	--	---	---

#### ACKNOWLEDGEMENT

I, We (name of applicant(s)), Stephen L. Jester

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief

Stephen L. Jester  
Applicant Signature

Applicant Signature

#### ACTION OF THE STATE ENGINEER

This application is:

☒ approved

☐ partially approved

☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval

Witness my hand and seal this 31<sup>st</sup> day of October 20 23, for the State Engineer,

Mike A. Hamman, P.E. State Engineer

By:

Signature

K. Parekh

Print

Kashyap Parekh

Title:

Print

Water Resources Manager I

FOR USE INTERNAL USE

Application for Permit, Form WR-07 Version 07/12/22

File No.:

C-4784

Trn No.:

752532

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**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL**

- 17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.
- 17-1A Depth of the well shall not exceed the thickness of the valley fill.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: C 04784 PODS1-3

File Number: C 04784

Trn Number: 752532



**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL (Continued)**

- 17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- 17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- 17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.  
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.
- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

Trn Desc: C 04784 PODS1-3

File Number: C 04784

Trn Number: 752532

NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

- LOG The Point of Diversion C 04784 POD1 must be completed and the Well Log filed on or before 10/30/2024.
- LOG The Point of Diversion C 04784 POD2 must be completed and the Well Log filed on or before 10/30/2024.
- LOG The Point of Diversion C 04784 POD3 must be completed and the Well Log filed on or before 10/30/2024.

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:  
Formal Application Rcvd: 10/25/2023 Pub. of Notice Ordered:  
Date Returned - Correction: Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 31 day of Oct A.D., 2023

Mike A. Hamman, P.E., State Engineer

By: K. Parekh  
KASHYAP PAREKH

Trn Desc: C 04784 PODS1-3

File Number: C 04784

Trn Number: 752532



**STATE OF NEW MEXICO**  
**OFFICE OF THE STATE ENGINEER**  
**ROSWELL**

**Mike A. Hamman, P.E.**  
State Engineer

**DISTRICT II**  
1900 West Second St.  
Roswell, New Mexico 88201  
Phone: (575) 622-6521  
Fax: (575) 623-8559

October 30, 2023

Tetra Tech Inc. on behalf of Conoco Phillips  
901 W. Wall Street, Suite 100  
Midland, TX 79701

RE: Well Plugging Plan of Operations for well No. C-4784-POD1 to POD3

Greetings:

Enclosed is your copy of the Well Plugging Plan of Operations for the above referenced well subject to the attached Conditions of Approval. The proposed method of operation is found to be acceptable and in accordance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted June 30, 2017 by the State Engineer. subject to the attached Conditions of Approval.

Within 30 days after the well is plugged, the well driller is required to file a complete plugging record with the OSE and the permit holder.

Sincerely,

A handwritten signature in black ink that reads "K. Parekh".

Kashyap Parekh  
Water Resources Manager I





**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER  
ROSWELL**

1900 West Second St.  
Roswell, New Mexico 88201  
Phone: (575) 622-6521  
Fax: (575) 623- 8559

Applicant has identified wells, listed below, to be plugged. John Scarborough (WD-1188) will perform the plugging.

Permittee: Tetra Tech Inc. on behalf of Conoco Phillips  
NMOSE Permit Number: C-4784-POD1 to POD3

NMOSE File	Casing diameter (inches)	Well depth (feet bgl)	Approximate static water level (feet bgl)	Latitude	Longitude
C-4784-POD1	2.0	50.0	Unknown	32.018726°	104.119419°
C-4784-POD2	2.0	50.0	Unknown	32.019704°	104.119080°
C-4784-POD3	2.0	50.0	Unknown	32.018475°	104.118415°

**Specific Plugging Conditions of Approval for Well located in Eddy County.**

1. Water well drilling and well drilling activities, including well plugging, are regulated under 19.27.4 NMAC, which requires any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the New Mexico Office of the State Engineer (NMOSE). Therefore, the firm of a New Mexico licensed Well Driller shall perform the well plugging.
2. Theoretical volume of sealant required for abandonment of the 2.0 inch diameter casing is approximately 8.15 gallons. Total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 50.0 feet below ground surface (b.g.s.).
3. The cement-bentonite slurry (bentonite powder) shall be mixed using a maximum of 5.2 gallons water per 94-lb sack of Type I/II Portland cement **PLUS** 0.65 gallons per 1% increase in bentonite up to a maximum 6% bentonite by dry weight ratio.
4. The bentonite shall be hydrated separately with its required increments of water prior to being mixed into the cement slurry.
5. Placement of the sealant within the wells shall be by pumping through a tremie pipe extended to near well bottom and kept below top of the slurry column as the well is plugged from bottom-upwards in a manner that displaces the standing water column.

6. Should cement "shrinks-back" occur in the well, use of a tremie for topping off is required for cement placement deeper than 20 feet below land surface or if water is present in the casing. The approved sealant for topping off is identified in condition 3. of these Specific Conditions of Approval.
7. Any open annulus encountered surrounding the casing shall also be sealed by the placement of the approved sealant. When plugging shallow wells with no construction or environmental concerns, and if the well record on a well to be plugged shows a proper 20-foot annular seal, a plugging plan can propose the use of clean fill material to a nominal 30 feet bgs, then placing an OSE approved sealant to surface. Lacking that information, we would require an excavation of at least 2-feet which shall then be filled in its entirety with sealant to surface.
8. Should the NMED, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein acknowledged, the more-stringent procedure should be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process.
9. NMOSE witnessing of the plugging of the non-artesian well will not be required.
10. Any deviation from this plan must obtain an approved variance from this office prior to implementation.
11. A Well Plugging Record itemizing actual abandonment process and materials used shall be filed with the State Engineer within 30 days after completion of well plugging. For the plugging record, please resurvey coordinate location for well and note coordinate system for GPS unit. Please attach a copy of these plugging conditions.

The NMOSE Well Plugging Plan of Operations is hereby approved with the aforesaid conditions applied.

Witness my hand and seal this 30<sup>th</sup> day of October 2023

Mike A. Hamman, P.E. State Engineer



By: K. Parekh

Kashyap Parekh  
Water Resources Manager I



# WELL PLUGGING PLAN OF OPERATIONS



NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology [geoinfo.nmt.edu/resources/water/cgmn/](http://geoinfo.nmt.edu/resources/water/cgmn/) if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email [nmbg-waterlevels@nmt.edu](mailto:nmbg-waterlevels@nmt.edu), prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

**I. FILING FEE:** There is no filing fee for this form.

**II. GENERAL / WELL OWNERSHIP:** ☒ Check here if proposing one plan for multiple monitoring wells on the same site and attaching WD-08m

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: C-4784-POD1 to POD3

Name of well owner: Tetra Tech Inc. on Behalf of ConocoPhillips

Mailing address: 901 W Wall St. Suite 100 County: \_\_\_\_\_

City: Midland State: Texas Zip code: 79701

Phone number: 713-806-8871 E-mail: steve.jester@tetrattech.com

**III. WELL DRILLER INFORMATION:**

Well Driller contracted to provide plugging services: John Scarborough Drilling Inc.

New Mexico Well Driller License No.: WD1188 Expiration Date: 03/31/2024

**IV. WELL INFORMATION:** ☒ Check here if this plan describes method for plugging multiple monitoring wells on the same site and attach supplemental form WD-08m and skip to #2 in this section.

Note: A copy of the existing Well Record for the well(s) to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: \_\_\_\_\_ deg, \_\_\_\_\_ min, \_\_\_\_\_ sec  
Longitude: \_\_\_\_\_ deg, \_\_\_\_\_ min, \_\_\_\_\_ sec, NAD 83

2) Reason(s) for plugging well(s):

Completion of monitoring period

3) Was well used for any type of monitoring program? Yes If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? UNK If yes, provide additional detail, including analytical results and/or laboratory report(s): Unknown

5) Static water level: UNK feet below land surface / feet above land surface (circle one)

6) Depth of the well: up to 50 feet



- 7) Inside diameter of innermost casing: 2 inches.
- 8) Casing material: Sch. 40 PVC
- 9) The well was constructed with:  
☐ an open-hole production interval, state the open interval: \_\_\_\_\_  
☒ a well screen or perforated pipe, state the screened interval(s): 20-30 ft bgs/depending on depth to GW
- 10) What annular interval surrounding the artesian casing of this well is cement-grouted? NA- Temp
- 11) Was the well built with surface casing? NA If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? NA If yes, please describe:  

Temporary Well
- 12) Has all pumping equipment and associated piping been removed from the well? \_\_\_\_\_ If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

**V. DESCRIPTION OF PLANNED WELL PLUGGING:** ☐ If plugging method differs between multiple wells on same site, a separate form must be completed for each method.

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.

Also, if this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.

- 1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:  

Tremie Type 1 Cement-Bentonite Slurry from bottom of boring to ground level.
- 2) Will well head be cut-off below land surface after plugging? NA Temporary

**VI. PLUGGING AND SEALING MATERIALS:**

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

- 1) For plugging intervals that employ cement grout, complete and attach Table A.
- 2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
- 3) Theoretical volume of grout required to plug the well to land surface: 8.1 gallons
- 4) Type of Cement proposed: Type 1 Cement-Bentonite
- 5) Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
- 6) Will the grout be: \_\_\_\_\_ batch-mixed and delivered to the site  
x mixed on site

7) Grout additives requested, and percent by dry weight relative to cement:

N/A

8) Additional notes and calculations:

N/A

**VII. ADDITIONAL INFORMATION:** List additional information below, or on separate sheet(s):

N/A

**VIII. SIGNATURE:**

I, Stephen Jester, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Stephen Jester

Digitally signed by Stephen Jester  
Date: 2023.10.30 12:52:14 -05'00'

10/30/2023

Signature of Applicant

Date

**IX. ACTION OF THE STATE ENGINEER:**

This Well Plugging Plan of Operations is:

X Approved subject to the attached conditions.  
       Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this 30<sup>th</sup> day of October, 2023



Mike A. Hamman P.E., New Mexico State Engineer

By: K. Parekh  
KASHYAP PAREKH  
W.R.M.I

WD-08 Well Plugging Plan  
Version: March 07, 2022  
Page 3 of 5

**TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.**

	<b>Interval 1 – deepest</b>	<b>Interval 2</b>	<b>Interval 3 – most shallow</b> Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			50
Theoretical volume of grout required per interval (gallons)			8.1
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch-mixed and delivered?			on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			



**TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.**

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant or grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			

058 DT OCT 30 2023 11:55



# NEW MEXICO OFFICE OF THE STATE ENGINEER



## ATTACHMENT to WD-08 Plan of Plugging MULTIPLE MONITORING WELL DESCRIPTIONS

This Attachment is to be completed if more than one (1) monitoring well is to be plugged using the same method.

### Location (Required):

- ☐ NM State Plane (NAD83)  
(Feet)  
☐ NM West Zone  
☐ NM Central Zone  
☐ NM East Zone

- ☐ UTM (NAD83) (Meters)  
☐ Zone 13N  
☐ Zone 12N

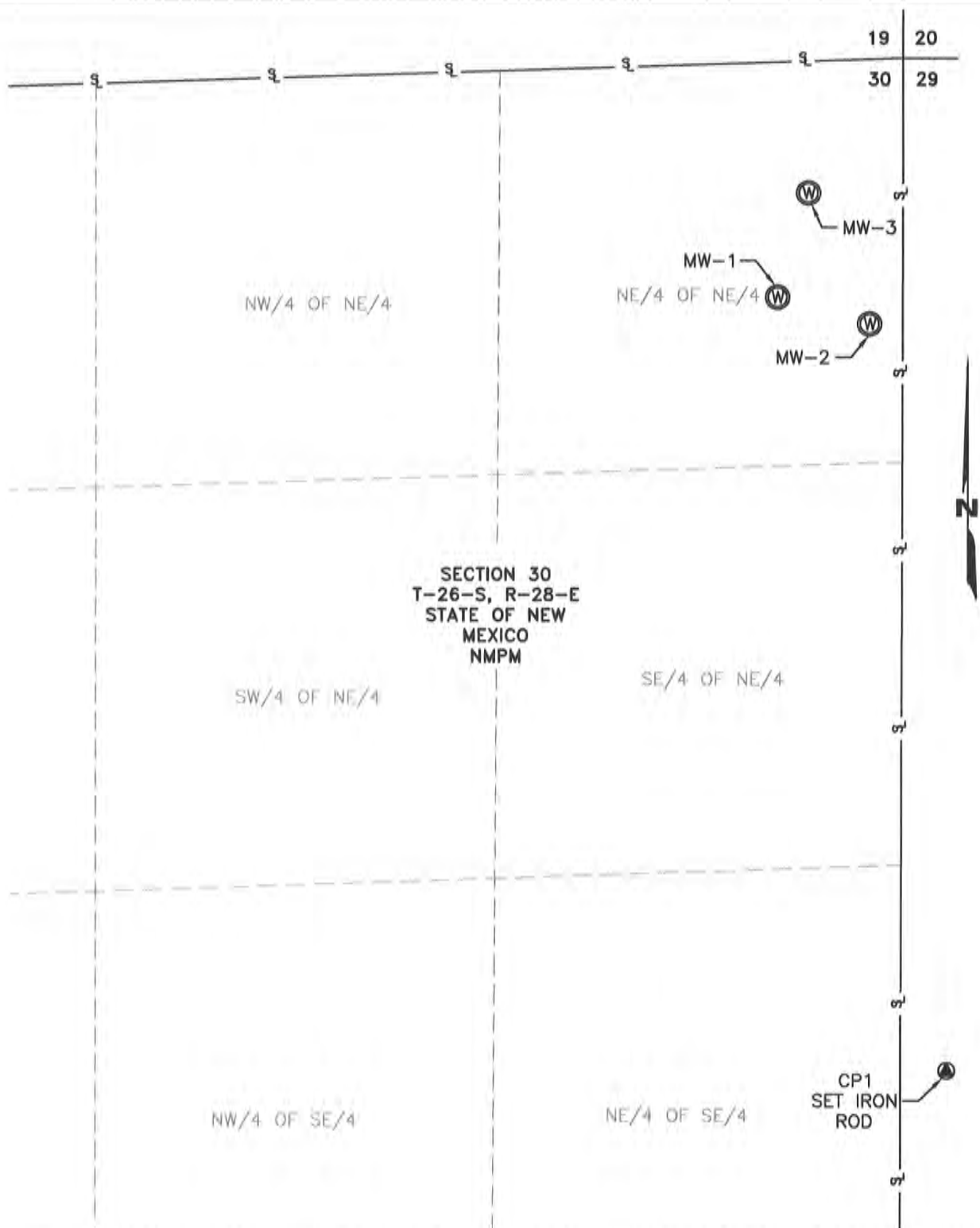
- ☐ Lat/Long (WGS84)  
(1/10<sup>th</sup> of second)

- OTHER (allowable only for move-from  
descriptions - see application form for format)  
☒ PLSS (quarters, section, township, range)  
☐ Hydrographic Survey, Map & Tract  
☐ Lot, Block & Subdivision  
☐ Grant

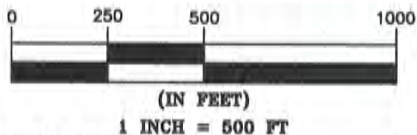
OSE POD Number:	Other Well ID	X or Longitude (ddmmss)	Y or Latitude (ddmmss)	Other Location Info (PLSS)	Casing ID- (inches)	Depth to Water- (ft bgs)	Total well Depth- (ft bgs)	Grout Volume	Surface Casing (Y or N)
	MW-1	32.018726°	-104.119419°	UL A.530, T26S, Range 28E	2	UNK	50		
	MW-2	32.019704°	-104.119080°	UL A.530, T26S, Range 28E	2	UNK	50		
	MW-3	32.018475°	-104.118415°	UL A.530, T26S, Range 28E	2	UNK	50		

2025 OCT 20 2025 10:08:10 AM

FOR OSE INTERNAL USE		Multiple Monitoring POD Descriptions, Form wr-08m (Rev 7/31/19)	
File Number:		Trn Number:	
Trans Description (optional):			



DESCRIPTION	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
CONTROL POINT 1 (5/8" IRON ROD W/CAP)	368091.99'	608191.64'	N 32.01178154°	W 104.11763916°	3061.27'
CONTROL POINT 2 (5/8" IRON ROD W/CAP)	366892.72'	608124.14'	N 32.00848514°	W 104.11786466°	3059.39'
MW-1 TOP OF WELL PLATE	370617.40'	607636.25'	N 32.01872687°	W 104.11941488°	3010.89'
MW-1 TOP OF WELL HEAD	370617.34'	607636.26'	N 32.01872672°	W 104.11941485°	3010.80'
MW-1 TOP OF CONCRETE NORTH SIDE	370618.10'	607636.47'	N 32.01872880°	W 104.11941418°	3008.13'
MW-1 TOP OF GROUND	370615.38'	607636.20'	N 32.01872131°	W 104.11941508°	3007.90'
MW-2 TOP OF WELL PLATE	370959.72'	607738.53'	N 32.01966733°	W 104.11908270°	3009.64'
MW-2 TOP OF WELL HEAD	370959.80'	607738.59'	N 32.01966755°	W 104.11908249°	3009.56'
MW-2 TOP CONCRETE NORTH SIDE	370960.53'	607738.79'	N 32.01966956°	W 104.11908184°	3007.24'
MW-2 TOP OF GROUND	370957.49'	607738.34'	N 32.01966120°	W 104.11908331°	3006.83'
MW-3 TOP OF WELL PLATE	370531.03'	607937.94'	N 32.01848779°	W 104.11844204°	3009.07'
MW-3 TOP OF WELL HEAD	370530.97'	607937.89'	N 32.01848762°	W 104.11844219°	3008.99'
MW-3 TOP OF CONCRETE NORTH SIDE	370531.62'	607937.87'	N 32.01848942°	W 104.11844224°	3006.84'
MW-3 TOP OF GROUND	370524.17'	607938.69'	N 32.01846894°	W 104.11843964°	3006.37'



SURVEY DATE: 04/30/2024  
NOTES:  
1. COMPANION PLAT IS FILED IN THE OFFICE OF THIS SURVEYOR AND FURTHER DESCRIBES THE RECONSTRUCTION OF THE SURVEY UNDER M:\1024087618\100\Survey\02Base\87618 - Base.dwg  
2. COORDINATES SHOWN HEREON ARE BASED UPON THE TRANSVERSE MERCATOR PROJECTION OF THE NEW MEXICO SYSTEM, NEW MEXICO EAST ZONE, NORTH AMERICAN DATUM OF 1983(2011). COORDINATES ARE GRID.  
3. ALL ELEVATION SHOWN HEREON ARE NAVD88 IN U.S. SURVEY FEET.



**LEGEND**  
⊙ MONITOR WELL  
● CONTROL POINT

LOCATION OF MONITOR WELLS  
MW-1, MW-2, MW-3  
SECTION 30, T-26-S, R-28-E,  
STATE OF NEW MEXICO, NMPM,  
EDDY COUNTY, NEW MEXICO

*Jennifer Ward-Nusz* 5/22/24  
JENNIFER WARD-NUSZ NM PLS 24514

JOB NO.: 87618  
DATE: 05/21/2024  
PAGE NO.: 1 OF 1

**SAM** 15 SMITH ROAD, SUITE 2000  
MIDLAND, TX 79705  
Off: 432.699.0601  
Fax: 432.699.0601  
Email: info@sam.biz



## **APPENDIX F**

### **Laboratory Analytical Data**



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

April 23, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WAY SOUTH STATE COM #001H FWKO TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 04/17/24 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 2 ( 0 -1' ) (H242053-01)**

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	04/20/2024	ND	2.13	106	2.00	3.48		
Toluene*	<0.050	0.050	04/20/2024	ND	2.07	103	2.00	3.66		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.01	101	2.00	4.05		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	5.93	98.9	6.00	3.91		
Total BTX	<0.300	0.300	04/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.0 % 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	416	16.0	04/19/2024	ND	464	116	400	3.39		

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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 67.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 2 ( 1'-2' ) (H242053-02)**

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	04/20/2024	ND	2.13	106	2.00	3.48		
Toluene*	<0.050	0.050	04/20/2024	ND	2.07	103	2.00	3.66		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.01	101	2.00	4.05		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	5.93	98.9	6.00	3.91		
Total BTEX	<0.300	0.300	04/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.1 % 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	704	16.0	04/19/2024	ND	464	116	400	3.39		

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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 70.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.5 % 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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 2 ( 2'-3' ) (H242053-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	464	16.0	04/19/2024	ND	464	116	400	3.39		

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

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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 2 ( 3'-4' ) (H242053-04)**

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	04/20/2024	ND	2.13	106	2.00	3.48		
Toluene*	<0.050	0.050	04/20/2024	ND	2.07	103	2.00	3.66		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.01	101	2.00	4.05		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	5.93	98.9	6.00	3.91		
Total BTEX	<0.300	0.300	04/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.8 % 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	304	16.0	04/19/2024	ND	464	116	400	3.39		

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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 75.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 2 ( 4'-5' ) (H242053-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	04/19/2024	ND	464	116	400	3.39		

**Sample ID: BG - 2 ( 5'-6' ) (H242053-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	04/22/2024	ND	480	120	400	0.00	QR-03

**Sample ID: BG - 2 ( 6'-7' ) (H242053-07)**

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	04/22/2024	ND	480	120	400	0.00	

**Sample ID: BG - 2 ( 7'-8' ) (H242053-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 2 ( 8'-9' ) (H242053-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	04/22/2024	ND	480	120	400	0.00	

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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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 2 ( 9'-10' ) (H242053-10)**

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	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 2 ( 10'-11' ) (H242053-11)**

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	04/22/2024	ND	480	120	400	0.00	

**Sample ID: BG - 2 ( 11'-12' ) (H242053-12)**

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	04/22/2024	ND	480	120	400	0.00	

**Sample ID: BG - 2 ( 12'-13' ) (H242053-13)**

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	04/22/2024	ND	480	120	400	0.00	

**Sample ID: BG - 2 ( 13'-14' ) (H242053-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	04/22/2024	ND	480	120	400	0.00	

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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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 2 ( 14'-15' ) (H242053-15)**

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	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 2 ( 15'-16' ) (H242053-16)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 2 ( 16'-17' ) (H242053-17)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 2 ( 17'-18' ) (H242053-18)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	04/22/2024	ND	480	120	400	0.00	

**Sample ID: BG - 2 ( 18'-19' ) (H242053-19)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	04/22/2024	ND	480	120	400	0.00	

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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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 2 ( 19'-20' ) (H242053-20)**

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	04/20/2024	ND	2.13	106	2.00	3.48		
Toluene*	<0.050	0.050	04/20/2024	ND	2.07	103	2.00	3.66		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.01	101	2.00	4.05		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	5.93	98.9	6.00	3.91		
Total BTEX	<0.300	0.300	04/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.2 % 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	304	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 79.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.2 % 49.1-148

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Notes and Definitions

- 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.
- 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



### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

**BILL TO**

ANALYSIS REQUEST

Project Manager: Sam Abbott	P.O. #:
Address: 8911 Capital o Texas Hwy, Suite 2310	Company: Tetra Tech
City: Austin	Attn: Sam Abbott
Phone #: (512)565-0190 State: TX Zip:	Address: EMAIL
Project #: 212C-MD-02839 Fax #: Project Owner:	City:
Project Name: Way South State Com #001H FWKO Tank Battery Release	State:
Project Location: Eddy County, New Mexico	Phone #:
Sampler Name: Colton Bickensstaff	Fax #:

Lab I.D.	MATRIX						PRESERV.	SAMPLING


**Sample I.D.**

Sample I.D.		(G)RAB OR (C)COMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	TPH 8015M	BTEX 8021B	Chloride SM
1	BG-2 (0-1')	G	1		X						X		4/16/2024		X	X	X
2	BG-2 (1'-2')	G	1		X								4/16/2024		X	X	
3	BG-2 (2'-3')	G	1		X								4/16/2024			X	
4	BG-2 (3'-4')	G	1		X						X		4/16/2024		X	X	
5	BG-2 (4'-5')	G	1		X								4/16/2024			X	
6	BG-2 (5'-6')	G	1		X								4/16/2024			X	
7	BG-2 (6'-7')	G	1		X								4/16/2024			X	
8	BG-2 (7'-8')	G	1		X								4/16/2024			X	
9	BG-2 (8'-9')	G	1		X								4/16/2024			X	
10	BG-2 (9'-10')	G	1		X								4/16/2024			X	

FIELD NOTE: Location: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Notes: Check the following and identify the location for any other existing number based on container or box, shall be included in the amount used by the client for the analysis. All claims regarding these for negligence and any other means whatsoever shall be deemed waived unless raised in writing and resolved by "Certified" letter. No damages or accessories arising out of or related to this design, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries or affiliates shall be included in the amount used by the client for the analysis.

[illegible]

Relinquished By: Colton Bickersstaff		Date: 04/11/24		Received By: <i>Sheddiequell</i>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Type: <i>Gas</i>		Date: _____		Time: _____		All Results are emailed. Please provide Email address: Sam.Abbott@terratech.com AND Christian.Livji@terratech.com		_____	
Relinquished By: _____		Date: _____		Time: _____		REMARKS:		_____	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Observed Temp. °C <i>28.5</i>		Corrected Temp. °C		Sample Condition Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		CHECKED BY: (Initials) <i>SR</i>	
Turnaround Time: _____		Standard 		Barium (only) Sample Condition		Break <i>Yes</i> <input type="checkbox"/> Cool <input type="checkbox"/> Observed Temp. °C		Thermometer ID #140	
Correction Factor 0°C		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		Corrected Temp. °C		_____	

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinalabnm.com](mailto:celey.keene@cardinalabnm.com)





### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

<b>Company Name:</b> Tetra Tech <b>Project Manager:</b> Sam Abbott <b>Address:</b> 8911 Capital o Texas Hwy, Suite 2310 <b>City:</b> Austin <b>State:</b> TX <b>Zip:</b> _____ <b>Phone #:</b> (512)565-0190 <b>Fax #:</b> _____ <b>Project #:</b> 212C-MD-02839 <b>Project Owner:</b> ConocoPhillips <b>Project Name:</b> Way South State Com #001H FWKO Tank Battery Release <b>Project Location:</b> Eddy County, New Mexico <b>Sampler Name:</b> Colton Bickelstaff <b>Phone #:</b> _____ <b>Fax #:</b> _____										<b>BILL TO</b> <b>P.O. #:</b> _____ <b>Company:</b> Tetra Tech <b>Attn:</b> Sam Abbott <b>Address: EMAIL</b> <b>City:</b> _____ <b>State:</b> _____ <b>Zip:</b> _____										<b>ANALYSIS REQUEST</b>									
<b>FOR LAB USE ONLY</b> <b>Lab I.D.</b> 1724B053 <b>Sample I.D.</b>										<b>TPH 8015M</b> <b>BTEX 8021B</b> <b>Chloride SM4500Cl-B</b>																			
<b>Matrix</b> <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SOIL <input type="checkbox"/> OIL <input type="checkbox"/> SLUDGE <input type="checkbox"/> OTHER : <b>ACID/BASE:</b> <input type="checkbox"/> ICE / COOL <input type="checkbox"/> OTHER :										<b>DATE</b> <b>TIME</b>																			
<b>Relinquished By:</b> Colton Bickelstaff <b>Date:</b> 04/17/24 <b>Received By:</b> [Signature] <b>Date:</b> 04/17/24										<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> _____ <b>REMARKS:</b> All Results are emailed. Please provide Email address: Sam.Abbott@tetratech.com AND Christian.Liuli@tetratech.com																			
<b>Relinquished By:</b> [Signature] <b>Date:</b> 04/17/24 <b>Received By:</b> [Signature]										<b>REMARKS:</b>																			
<b>Delivered By:</b> (Circle One) Sampler - UPS - Bus - Other:										<b>Thermometer Type:</b> Standard <input checked="" type="checkbox"/> Bacteria (only) Sample Condition <b>Reck:</b> <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Hot <b>Observed Temp. °C</b> <b>Thermometer ID #140</b> <b>Correction Factor 0°C</b>																			
<b>Observed Temp. °C</b> 28.0 <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes										<b>CHECKED BY:</b> (Initials) [Signature] <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes																			

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)





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

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April 23, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WAY SOUTH STATE COM #001H FWKO TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 04/17/24 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -1 ( 0 -1' ) (H242055-01)**

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	04/20/2024	ND	2.13	106	2.00	3.48		
Toluene*	<0.050	0.050	04/20/2024	ND	2.07	103	2.00	3.66		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.01	101	2.00	4.05		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	5.93	98.9	6.00	3.91		
Total BTX	<0.300	0.300	04/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.6 % 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	192	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	24.9	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 72.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.4 % 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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -1 ( 3'-4' ) (H242055-02)**

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	04/20/2024	ND	2.13	106	2.00	3.48		
Toluene*	<0.050	0.050	04/20/2024	ND	2.07	103	2.00	3.66		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.01	101	2.00	4.05		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	5.93	98.9	6.00	3.91		
Total BTEX	<0.300	0.300	04/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.1 % 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	272	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 68.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.5 % 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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -1 ( 5'-6' ) (H242055-03)**

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	04/20/2024	ND	2.13	106	2.00	3.48		
Toluene*	<0.050	0.050	04/20/2024	ND	2.07	103	2.00	3.66		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.01	101	2.00	4.05		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	5.93	98.9	6.00	3.91		
Total BTEX	<0.300	0.300	04/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.3 % 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	240	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 81.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.9 % 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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -1 ( 7'-8' ) (H242055-04)**

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	04/20/2024	ND	2.11	105	2.00	5.75		
Toluene*	<0.050	0.050	04/20/2024	ND	2.19	109	2.00	11.2		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.28	114	2.00	11.5		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	6.83	114	6.00	11.3		
Total BTEX	<0.300	0.300	04/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	04/22/2024	ND	480	120	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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 71.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.5 % 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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -1 ( 9'-10' ) (H242055-05)**

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	04/20/2024	ND	2.11	105	2.00	5.75		
Toluene*	<0.050	0.050	04/20/2024	ND	2.19	109	2.00	11.2		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.28	114	2.00	11.5		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	6.83	114	6.00	11.3		
Total BTEX	<0.300	0.300	04/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 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	544	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 72.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.3 % 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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -1 ( 14'-15' ) (H242055-06)**

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	04/20/2024	ND	2.11	105	2.00	5.75		
Toluene*	<0.050	0.050	04/20/2024	ND	2.19	109	2.00	11.2		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.28	114	2.00	11.5		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	6.83	114	6.00	11.3		
Total BTEX	<0.300	0.300	04/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	992	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 73.4 % 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:	04/17/2024	Sampling Date:	04/16/2024
Reported:	04/23/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -1 ( 19'-20' ) (H242055-07)**

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	04/20/2024	ND	2.11	105	2.00	5.75		
Toluene*	<0.050	0.050	04/20/2024	ND	2.19	109	2.00	11.2		
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.28	114	2.00	11.5		
Total Xylenes*	<0.150	0.150	04/20/2024	ND	6.83	114	6.00	11.3		
Total BTEX	<0.300	0.300	04/20/2024	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	496	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	192	96.1	200	7.38	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	185	92.3	200	7.11	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 72.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.7 % 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

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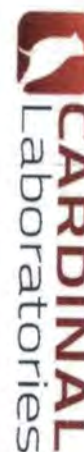
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



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

April 24, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WAY SOUTH STATE COM #001H FWKO TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 04/18/24 13:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -2 ( 0 -1' ) (H242073-01)**

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	04/22/2024	ND	1.87	93.5	2.00	14.8		
Toluene*	<0.050	0.050	04/22/2024	ND	1.90	95.2	2.00	18.0		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	1.94	97.2	2.00	22.6		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	5.78	96.3	6.00	22.6		
Total BTEX	<0.300	0.300	04/22/2024	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	2680	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	193	96.5	200	4.87	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	180	90.0	200	3.85	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 91.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.2 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -2 ( 3'-4' ) (H242073-02)**

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	04/22/2024	ND	1.87	93.5	2.00	14.8		
Toluene*	<0.050	0.050	04/22/2024	ND	1.90	95.2	2.00	18.0		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	1.94	97.2	2.00	22.6		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	5.78	96.3	6.00	22.6		
Total BTEX	<0.300	0.300	04/22/2024	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	2320	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	193	96.5	200	4.87	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	180	90.0	200	3.85	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 98.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.9 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -2 ( 5'-6' ) (H242073-03)**

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	04/22/2024	ND	1.87	93.5	2.00	14.8		
Toluene*	<0.050	0.050	04/22/2024	ND	1.90	95.2	2.00	18.0		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	1.94	97.2	2.00	22.6		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	5.78	96.3	6.00	22.6		
Total BTEX	<0.300	0.300	04/22/2024	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	2280	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	193	96.5	200	4.87	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	180	90.0	200	3.85	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.1 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -2 ( 7'-8' ) (H242073-04)**

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	04/22/2024	ND	1.87	93.5	2.00	14.8		
Toluene*	<0.050	0.050	04/22/2024	ND	1.90	95.2	2.00	18.0		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	1.94	97.2	2.00	22.6		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	5.78	96.3	6.00	22.6		
Total BTEX	<0.300	0.300	04/22/2024	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	2200	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	193	96.5	200	4.87	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	180	90.0	200	3.85	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.6 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -2 ( 9'-10' ) (H242073-05)**

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	04/22/2024	ND	1.87	93.5	2.00	14.8		
Toluene*	<0.050	0.050	04/22/2024	ND	1.90	95.2	2.00	18.0		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	1.94	97.2	2.00	22.6		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	5.78	96.3	6.00	22.6		
Total BTEX	<0.300	0.300	04/22/2024	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	1870	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -2 ( 14'-15' ) (H242073-06)**

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	04/22/2024	ND	1.87	93.5	2.00	14.8		
Toluene*	<0.050	0.050	04/22/2024	ND	1.90	95.2	2.00	18.0		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	1.94	97.2	2.00	22.6		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	5.78	96.3	6.00	22.6		
Total BTEX	<0.300	0.300	04/22/2024	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	1600	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -2 ( 19'-20' ) (H242073-07)**

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	04/22/2024	ND	1.87	93.5	2.00	14.8		
Toluene*	<0.050	0.050	04/22/2024	ND	1.90	95.2	2.00	18.0		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	1.94	97.2	2.00	22.6		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	5.78	96.3	6.00	22.6		
Total BTEX	<0.300	0.300	04/22/2024	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	688	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 89.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

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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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -3 ( 0 -1' ) (H242073-08)**

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	04/22/2024	ND	1.87	93.5	2.00	14.8		
Toluene*	<0.050	0.050	04/22/2024	ND	1.90	95.2	2.00	18.0		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	1.94	97.2	2.00	22.6		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	5.78	96.3	6.00	22.6		
Total BTEX	<0.300	0.300	04/22/2024	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	192	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.4 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -3 ( 3'-4' ) (H242073-09)**

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	04/22/2024	ND	1.87	93.5	2.00	14.8		
Toluene*	<0.050	0.050	04/22/2024	ND	1.90	95.2	2.00	18.0		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	1.94	97.2	2.00	22.6		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	5.78	96.3	6.00	22.6		
Total BTEX	<0.300	0.300	04/22/2024	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	80.0	16.0	04/22/2024	ND	480	120	400	0.00	QM-07	

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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 95.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -3 ( 5'-6' ) (H242073-10)**

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	04/20/2024	ND	2.24	112	2.00	4.53	
Toluene*	<0.050	0.050	04/20/2024	ND	2.18	109	2.00	4.66	
Ethylbenzene*	<0.050	0.050	04/20/2024	ND	2.14	107	2.00	5.04	
Total Xylenes*	<0.150	0.150	04/20/2024	ND	6.28	105	6.00	5.21	
Total BTEX	<0.300	0.300	04/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.2 % 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	80.0	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 95.1 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -3 ( 7'-8' ) (H242073-11)**

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	04/22/2024	ND	2.24	112	2.00	4.53		
Toluene*	<0.050	0.050	04/22/2024	ND	2.18	109	2.00	4.66		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	2.14	107	2.00	5.04		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	6.28	105	6.00	5.21		
Total BTEX	<0.300	0.300	04/22/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.0 % 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	112	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 90.9 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -3 ( 9'-10' ) (H242073-12)**

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	04/22/2024	ND	2.24	112	2.00	4.53		
Toluene*	<0.050	0.050	04/22/2024	ND	2.18	109	2.00	4.66		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	2.14	107	2.00	5.04		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	6.28	105	6.00	5.21		
Total BTEX	<0.300	0.300	04/22/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.1 % 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	48.0	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 92.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -3 ( 14'-15' ) (H242073-13)**

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	04/22/2024	ND	2.24	112	2.00	4.53		
Toluene*	<0.050	0.050	04/22/2024	ND	2.18	109	2.00	4.66		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	2.14	107	2.00	5.04		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	6.28	105	6.00	5.21		
Total BTEX	<0.300	0.300	04/22/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 97.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

Cardinal Laboratories

\*=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:	04/18/2024	Sampling Date:	04/17/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM #001H FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: MW -3 ( 19'-20' ) (H242073-14)**

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	04/22/2024	ND	2.24	112	2.00	4.53		
Toluene*	<0.050	0.050	04/22/2024	ND	2.18	109	2.00	4.66		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	2.14	107	2.00	5.04		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	6.28	105	6.00	5.21		
Total BTEX	<0.300	0.300	04/22/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.1 % 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	368	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 97.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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### Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
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 "C. D. Keene", is written over a horizontal line.

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

[illegible]



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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]





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

April 24, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WAY SOUTH STATE COM#001H FWKO TANK BATTERY RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 04/18/24 13:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 3 (0-1') (H242074-01)**

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	04/22/2024	ND	2.24	112	2.00	4.53	
Toluene*	<0.050	0.050	04/22/2024	ND	2.18	109	2.00	4.66	
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	2.14	107	2.00	5.04	
Total Xylenes*	<0.150	0.150	04/22/2024	ND	6.28	105	6.00	5.21	
Total BTEX	<0.300	0.300	04/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.1 % 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	704	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 93.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 3 (1'-2') (H242074-02)**

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	04/22/2024	ND	2.24	112	2.00	4.53		
Toluene*	<0.050	0.050	04/22/2024	ND	2.18	109	2.00	4.66		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	2.14	107	2.00	5.04		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	6.28	105	6.00	5.21		
Total BTEX	<0.300	0.300	04/22/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 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	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 87.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.3 % 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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 3 (2'-3') (H242074-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1380	16.0	04/22/2024	ND	480	120	400	0.00		

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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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 3 (3'-4') (H242074-04)**

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	04/22/2024	ND	2.24	112	2.00	4.53		
Toluene*	<0.050	0.050	04/22/2024	ND	2.18	109	2.00	4.66		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	2.14	107	2.00	5.04		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	6.28	105	6.00	5.21		
Total BTX	<0.300	0.300	04/22/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1100	16.0	04/22/2024	ND	480	120	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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 92.4 % 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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 3 (4'-5') (H242074-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	896	16.0	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 3 (5'-6') (H242074-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1150	16.0	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 3 (6'-7') (H242074-07)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1150	16.0	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 3 (7'-8') (H242074-08)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1330	16.0	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 3 (8'-9') (H242074-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1150	16.0	04/22/2024	ND	480	120	400	0.00		

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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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 3 (9'-10') (H242074-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1260	16.0	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 3 (10'-11') (H242074-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	04/22/2024	ND	480	120	400	0.00	

**Sample ID: BG - 3 (11'-12') (H242074-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1220	16.0	04/22/2024	ND	480	120	400	0.00		

**Sample ID: BG - 3 (12'-13') (H242074-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1100	16.0	04/22/2024	ND	480	120	400	0.00	

**Sample ID: BG - 3 (13'-14') (H242074-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	04/22/2024	ND	480	120	400	0.00	

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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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 3 (14'-15') (H242074-15)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	704	16.0	04/22/2024	ND	464	116	400	3.39		

**Sample ID: BG - 3 (15'-16') (H242074-16)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	04/22/2024	ND	464	116	400	3.39		

**Sample ID: BG - 3 (16'-17') (H242074-17)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	04/22/2024	ND	464	116	400	3.39		

**Sample ID: BG - 3 (17'-18') (H242074-18)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	592	16.0	04/22/2024	ND	464	116	400	3.39		

**Sample ID: BG - 3 (18'-19') (H242074-19)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	04/22/2024	ND	464	116	400	3.39		

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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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 3 (19'-20') (H242074-20)**

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	04/22/2024	ND	464	116	400	3.39		

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

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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 4 (0-1') (H242074-21)**

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	04/22/2024	ND	2.24	112	2.00	4.53		
Toluene*	<0.050	0.050	04/22/2024	ND	2.18	109	2.00	4.66		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	2.14	107	2.00	5.04		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	6.28	105	6.00	5.21		
Total BTX	<0.300	0.300	04/22/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.4 % 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	1040	16.0	04/22/2024	ND	464	116	400	3.39		

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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 96.9 % 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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 4 (1'-2') (H242074-22)**

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	04/22/2024	ND	2.24	112	2.00	4.53		
Toluene*	<0.050	0.050	04/22/2024	ND	2.18	109	2.00	4.66		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	2.14	107	2.00	5.04		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	6.28	105	6.00	5.21		
Total BTEX	<0.300	0.300	04/22/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.3 % 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	1960	16.0	04/22/2024	ND	464	116	400	3.39		

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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.7 % 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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 4 (2'-3') (H242074-23)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2400	16.0	04/22/2024	ND	464	116	400	3.39		

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

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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 4 (3'-4') (H242074-24)**

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	04/22/2024	ND	2.24	112	2.00	4.53		
Toluene*	<0.050	0.050	04/22/2024	ND	2.18	109	2.00	4.66		
Ethylbenzene*	<0.050	0.050	04/22/2024	ND	2.14	107	2.00	5.04		
Total Xylenes*	<0.150	0.150	04/22/2024	ND	6.28	105	6.00	5.21		
Total BTEX	<0.300	0.300	04/22/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 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	2600	16.0	04/22/2024	ND	464	116	400	3.39		

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	04/19/2024	ND	186	93.0	200	5.18	
DRO >C10-C28*	<10.0	10.0	04/19/2024	ND	179	89.5	200	2.63	
EXT DRO >C28-C36	<10.0	10.0	04/19/2024	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.0 % 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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 4 (4'-5') (H242074-25)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2520	16.0	04/22/2024	ND	464	116	400	3.39		

**Sample ID: BG - 4 (5'-6') (H242074-26)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2760	16.0	04/22/2024	ND	464	116	400	3.39		

**Sample ID: BG - 4 (6'-7') (H242074-27)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2960	16.0	04/22/2024	ND	464	116	400	3.39		

**Sample ID: BG - 4 (7'-8') (H242074-28)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1090	16.0	04/22/2024	ND	464	116	400	3.39		

**Sample ID: BG - 4 (8'-9') (H242074-29)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1070	16.0	04/22/2024	ND	464	116	400	3.39		

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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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 4 (9'-10') (H242074-30)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1040	16.0	04/22/2024	ND	464	116	400	3.39		

**Sample ID: BG - 4 (10'-11') (H242074-31)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1040	16.0	04/22/2024	ND	464	116	400	3.39	

**Sample ID: BG - 4 (11'-12') (H242074-32)**

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	04/22/2024	ND	464	116	400	3.39	

**Sample ID: BG - 4 (12'-13') (H242074-33)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	04/22/2024	ND	464	116	400	3.39	

**Sample ID: BG - 4 (13'-14') (H242074-34)**

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	04/22/2024	ND	464	116	400	3.39	

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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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 4 (14'-15') (H242074-35)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	544	16.0	04/23/2024	ND	464	116	400	3.39		

**Sample ID: BG - 4 (15'-16') (H242074-36)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	04/23/2024	ND	464	116	400	3.39		

**Sample ID: BG - 4 (16'-17') (H242074-37)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	512	16.0	04/23/2024	ND	464	116	400	3.39		

**Sample ID: BG - 4 (17'-18') (H242074-38)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	04/23/2024	ND	464	116	400	3.39		

**Sample ID: BG - 4 (18'-19') (H242074-39)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	576	16.0	04/23/2024	ND	464	116	400	3.39		

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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:	04/18/2024	Sampling Date:	04/18/2024
Reported:	04/24/2024	Sampling Type:	Soil
Project Name:	WAY SOUTH STATE COM#001H FWKO T	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: BG - 4 (19'-20') (H242074-40)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	560	16.0	04/23/2024	ND	464	116	400	3.39		

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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", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Tetra Tech

Project Manager: Sam Abbott

Address: 8911 Capital o Texas Hwy, Suite 2310

City: Austin

Phone #: (512)565-0190

Project #: 212C-MD-02839

Project Name: Way South State Com #001H FWKO Tank Battery Release

Project Location: Eddy County, New Mexico

Sampler Name: Colton Bickelstaff

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

State: TX

City: Austin

Address: 8911 Capital o Texas Hwy, Suite 2310

Phone #: (512)565-0190

Project #: 212C-MD-02839

Project Name: Way South State Com #001H FWKO Tank Battery Release

Project Location: Eddy County, New Mexico

Sampler Name: Colton Bickelstaff

Company: Tetra Tech

Attn: Sam Abbott

Address: EMAIL

State: TX

City: Austin

Phone #: (512)565-0190

Project #: 212C-MD-02839

Project Name: Way South State Com #001H FWKO Tank Battery Release

Project Location: Eddy County, New Mexico

Sampler Name: Colton Bickelstaff

Sample I.D.

H2449074

Sample I.D.

H2449074

Matrix

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

DATE

TIME

TPH 8015M

BTEX 8021B

Chloride SM4500Cl-B

TPH 8015M

BTEX 8021B

Chloride SM4500Cl-B

Relinquished By: Colton Bickelstaff

Relinquished By:

Received By:

Received By:

Delivered By: (Circle One)

Delivered By:

Sample - UPS - Plus - Other:

Sample - UPS - Plus - Other:

FORA-006 R 3.2 10/07/21

FORA-006 R 3.2 10/07/21

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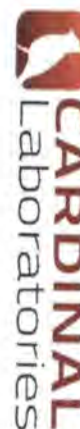
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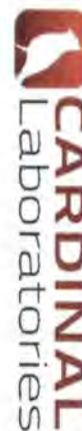
Released to Imaging: 9/30/2025 11:31:16 AM



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

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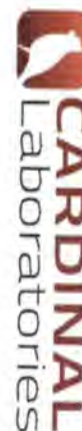




### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



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

[illegible]

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

---

April 29, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WAY SOUTH STATE COM#001H FWKO TANK BATTERY RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 04/17/24 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
29-Apr-24 16:18

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
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MW - 1	H242056-01	Water	17-Apr-24 00:00	17-Apr-24 15:25
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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  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
29-Apr-24 16:18

**MW - 1****H242056-01 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Alkalinity, Bicarbonate	390		5.00	mg/L	1	4041619	HM	19-Apr-24	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	4041619	HM	19-Apr-24	310.1	
Chloride*	12400		4.00	mg/L	1	4041702	AC	19-Apr-24	4500-Cl-B	
Conductivity*	39500		1.00	umhos/cm @ 25°C	1	4041825	HM	18-Apr-24	120.1	
pH*	6.82		0.100	pH Units	1	4041825	HM	18-Apr-24	150.1	
Temperature °C	18.1			pH Units	1	4041825	HM	18-Apr-24	150.1	
Sulfate*	3920		1000	mg/L	100	4041703	HM	18-Apr-24	375.4	
TDS*	27300		5.00	mg/L	1	4041752	AC	23-Apr-24	160.1	
Alkalinity, Total*	320		4.00	mg/L	1	4041619	HM	19-Apr-24	310.1	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<1.00		1.00	mg/L	0.1	4041934	MS	22-Apr-24	8015B	
DRO >C10-C28*	<1.00		1.00	mg/L	0.1	4041934	MS	22-Apr-24	8015B	
EXT DRO >C28-C36	<1.00		1.00	mg/L	0.1	4041934	MS	22-Apr-24	8015B	
Surrogate: 1-Chlorooctane			87.7 %	71.5-140		4041934	MS	22-Apr-24	8015B	
Surrogate: 1-Chlorooctadecane			81.4 %	60.4-151		4041934	MS	22-Apr-24	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.0005		0.0005	mg/L	1	4041824	MS	18-Apr-24	8260B	
Toluene*	<0.0005		0.0005	mg/L	1	4041824	MS	18-Apr-24	8260B	
Ethylbenzene*	<0.0005		0.0005	mg/L	1	4041824	MS	18-Apr-24	8260B	
Total Xylenes*	<0.001		0.001	mg/L	1	4041824	MS	18-Apr-24	8260B	
Total BTEX	<0.003		0.003	mg/L	1	4041824	MS	18-Apr-24	8260B	
Surrogate: Dibromofluoromethane			115 %	82.4-141		4041824	MS	18-Apr-24	8260B	
Surrogate: Toluene-d8			91.5 %	87.1-110		4041824	MS	18-Apr-24	8260B	
Surrogate: 4-Bromofluorobenzene			84.9 %	76.4-114		4041824	MS	18-Apr-24	8260B	

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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  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
29-Apr-24 16:18

**MW - 1****H242056-01 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Green Analytical Laboratories****Total Recoverable Metals by ICP (E200.7)**

<b>Calcium*</b>	<b>1490</b>		5.00	mg/L	25	B240950	AWG	23-Apr-24	EPA200.7
<b>Magnesium*</b>	<b>1350</b>		2.50	mg/L	25	B240950	AWG	23-Apr-24	EPA200.7
<b>Potassium*</b>	<b>62.4</b>		25.0	mg/L	25	B240950	AWG	23-Apr-24	EPA200.7
<b>Sodium*</b>	<b>6020</b>		25.0	mg/L	25	B240950	AWG	23-Apr-24	EPA200.7

**Dissolved Metals by ICP**

Iron*	<1.25		1.25	mg/L	25	B240987	AWG	25-Apr-24	EPA200.7
Manganese*	<0.500		0.500	mg/L	25	B240987	AWG	25-Apr-24	EPA200.7

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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
29-Apr-24 16:18

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4041619 - General Prep - Wet Chem****Blank (4041619-BLK1)**

Prepared &amp; Analyzed: 16-Apr-24

Alkalinity, Carbonate	ND	1.00	mg/L						
Alkalinity, Bicarbonate	5.00	5.00	mg/L						
Alkalinity, Total	4.00	4.00	mg/L						

**LCS (4041619-BS1)**

Prepared &amp; Analyzed: 16-Apr-24

Alkalinity, Carbonate	ND	2.50	mg/L			80-120			
Alkalinity, Bicarbonate	292	12.5	mg/L			80-120			
Alkalinity, Total	240	10.0	mg/L	250	96.0	80-120			

**LCS Dup (4041619-BSD1)**

Prepared &amp; Analyzed: 16-Apr-24

Alkalinity, Carbonate	ND	2.50	mg/L			80-120		20	
Alkalinity, Bicarbonate	305	12.5	mg/L			80-120	4.18	20	
Alkalinity, Total	250	10.0	mg/L	250	100	80-120	4.08	20	

**Batch 4041702 - General Prep - Wet Chem****Blank (4041702-BLK1)**

Prepared: 17-Apr-24 Analyzed: 19-Apr-24

Chloride	ND	4.00	mg/L						
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**LCS (4041702-BS1)**

Prepared: 17-Apr-24 Analyzed: 19-Apr-24

Chloride	104	4.00	mg/L	100	104	80-120			
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**LCS Dup (4041702-BSD1)**

Prepared: 17-Apr-24 Analyzed: 19-Apr-24

Chloride	108	4.00	mg/L	100	108	80-120	3.77	20	
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**Batch 4041703 - General Prep - Wet Chem****Blank (4041703-BLK1)**

Prepared &amp; Analyzed: 18-Apr-24

Sulfate	ND	10.0	mg/L						
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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  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
29-Apr-24 16:18

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4041703 - General Prep - Wet Chem****LCS (4041703-BS1)**

Prepared &amp; Analyzed: 18-Apr-24

Sulfate	18.2	10.0	mg/L	20.0	91.2	80-120
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**LCS Dup (4041703-BSD1)**

Prepared &amp; Analyzed: 18-Apr-24

Sulfate	18.0	10.0	mg/L	20.0	90.0	80-120	1.32	20
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**Batch 4041752 - Filtration****Blank (4041752-BLK1)**

Prepared: 18-Apr-24 Analyzed: 22-Apr-24

TDS	ND	5.00	mg/L
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**LCS (4041752-BS1)**

Prepared: 18-Apr-24 Analyzed: 22-Apr-24

TDS	806		mg/L	1000	80.6	80-120
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**Duplicate (4041752-DUP1)**

Source: H241997-01

Prepared: 18-Apr-24 Analyzed: 22-Apr-24

TDS	1130	5.00	mg/L	1190	5.26	20
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**Batch 4041825 - General Prep - Wet Chem****LCS (4041825-BS1)**

Prepared &amp; Analyzed: 18-Apr-24

Conductivity	50300		uS/cm	50000	101	80-120
pH	7.04		pH Units	7.00	101	90-110

**Duplicate (4041825-DUP1)**

Source: H242043-01

Prepared &amp; Analyzed: 18-Apr-24

pH	7.77	0.100	pH Units	7.71	0.775	20
Conductivity	1400	1.00	umhos/cm @ 25°C	1410	0.642	20
Temperature °C	18.6		pH Units	18.6	0.00	200

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
29-Apr-24 16:18

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4041934 - General Prep - Organics****Blank (4041934-BLK1)**

Prepared &amp; Analyzed: 22-Apr-24

GRO C6-C10	ND	1.00	mg/L							
DRO >C10-C28	ND	1.00	mg/L							
EXT DRO >C28-C36	ND	1.00	mg/L							
Surrogate: 1-Chlorooctane	4.40		mg/L	5.00		88.0	71.5-140			
Surrogate: 1-Chlorooctadecane	4.42		mg/L	5.00		88.5	60.4-151			

**LCS (4041934-BS1)**

Prepared &amp; Analyzed: 22-Apr-24

GRO C6-C10	49.2	1.00	mg/L	50.0		98.4	72.6-121			
DRO >C10-C28	49.3	1.00	mg/L	50.0		98.6	76-119			
Surrogate: 1-Chlorooctane	5.15		mg/L	5.00		103	71.5-140			
Surrogate: 1-Chlorooctadecane	5.74		mg/L	5.00		115	60.4-151			

**LCS Dup (4041934-BS1)**

Prepared &amp; Analyzed: 22-Apr-24

GRO C6-C10	49.7	1.00	mg/L	50.0		99.4	72.6-121	0.987	16.8	
DRO >C10-C28	48.9	1.00	mg/L	50.0		97.8	76-119	0.735	20.4	
Surrogate: 1-Chlorooctane	5.21		mg/L	5.00		104	71.5-140			
Surrogate: 1-Chlorooctadecane	5.61		mg/L	5.00		112	60.4-151			

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
29-Apr-24 16:18

**Volatile Organic Compounds by EPA Method 8260B - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4041824 - Volatiles****Blank (4041824-BLK1)**

Prepared &amp; Analyzed: 18-Apr-24

Benzene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
Ethylbenzene	ND	0.0005	mg/L							
Total Xylenes	ND	0.001	mg/L							
Total BTEX	ND	0.003	mg/L							
Surrogate: Dibromofluoromethane	0.0538		mg/L	0.0500		108	82.4-141			
Surrogate: Toluene-d8	0.0467		mg/L	0.0500		93.3	87.1-110			
Surrogate: 4-Bromofluorobenzene	0.0445		mg/L	0.0500		89.0	76.4-114			

**LCS (4041824-BS1)**

Prepared &amp; Analyzed: 18-Apr-24

Benzene	0.018	0.0005	mg/L	0.0200		89.1	85.9-114			
Toluene	0.018	0.0005	mg/L	0.0200		88.2	78.8-121			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		94.3	81.8-127			
m+p - Xylene	0.040	0.001	mg/L	0.0400		99.0	72.4-134			
Total Xylenes	0.058	0.001	mg/L	0.0600		97.0	74.3-134			
o-Xylene	0.019	0.0005	mg/L	0.0200		93.1	76.2-135			
Surrogate: Dibromofluoromethane	0.0553		mg/L	0.0500		111	82.4-141			
Surrogate: Toluene-d8	0.0469		mg/L	0.0500		93.9	87.1-110			
Surrogate: 4-Bromofluorobenzene	0.0473		mg/L	0.0500		94.6	76.4-114			

**LCS Dup (4041824-BS1)**

Prepared &amp; Analyzed: 18-Apr-24

Benzene	0.018	0.0005	mg/L	0.0200		90.9	85.9-114	2.00	4.14	
Toluene	0.017	0.0005	mg/L	0.0200		86.8	78.8-121	1.54	5.73	
Ethylbenzene	0.019	0.0005	mg/L	0.0200		93.0	81.8-127	1.44	4.95	
m+p - Xylene	0.039	0.001	mg/L	0.0400		98.6	72.4-134	0.430	5.81	
Total Xylenes	0.058	0.001	mg/L	0.0600		96.5	74.3-134	0.551	5.84	
o-Xylene	0.018	0.0005	mg/L	0.0200		92.3	76.2-135	0.809	6.32	
Surrogate: Dibromofluoromethane	0.0546		mg/L	0.0500		109	82.4-141			
Surrogate: Toluene-d8	0.0460		mg/L	0.0500		92.0	87.1-110			
Surrogate: 4-Bromofluorobenzene	0.0471		mg/L	0.0500		94.2	76.4-114			

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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  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
29-Apr-24 16:18

**Total Recoverable Metals by ICP (E200.7) - Quality Control****Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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**Batch B240950 - Total Recoverable by ICP****Blank (B240950-BLK1)**

Prepared: 19-Apr-24 Analyzed: 23-Apr-24

Sodium	ND	1.00	mg/L						
Calcium	ND	0.200	mg/L						
Magnesium	ND	0.100	mg/L						
Potassium	ND	1.00	mg/L						

**LCS (B240950-BS1)**

Prepared: 19-Apr-24 Analyzed: 23-Apr-24

Calcium	2.20	0.200	mg/L	2.00		110	85-115		
Sodium	1.68	1.00	mg/L	1.62		104	85-115		
Potassium	4.42	1.00	mg/L	4.00		110	85-115		
Magnesium	11.3	0.100	mg/L	10.0		113	85-115		

**LCS Dup (B240950-BSD1)**

Prepared: 19-Apr-24 Analyzed: 23-Apr-24

Potassium	4.44	1.00	mg/L	4.00		111	85-115	0.555	20
Magnesium	11.3	0.100	mg/L	10.0		113	85-115	0.382	20
Sodium	1.69	1.00	mg/L	1.62		104	85-115	0.785	20
Calcium	2.18	0.200	mg/L	2.00		109	85-115	0.811	20

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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
29-Apr-24 16:18

**Dissolved Metals by ICP - Quality Control****Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B240987 - Dissolved ICP****Blank (B240987-BLK1)**

Prepared &amp; Analyzed: 25-Apr-24

Iron	ND	0.050	mg/L							
Manganese	ND	0.020	mg/L							

**LCS (B240987-BS1)**

Prepared &amp; Analyzed: 25-Apr-24

Iron	4.14	0.050	mg/L	4.00		103	85-115			
Manganese	2.13	0.020	mg/L	2.00		106	85-115			

**LCS Dup (B240987-BSD1)**

Prepared &amp; Analyzed: 25-Apr-24

Manganese	2.16	0.020	mg/L	2.00		108	85-115	1.52	20	
Iron	4.21	0.050	mg/L	4.00		105	85-115	1.68	20	

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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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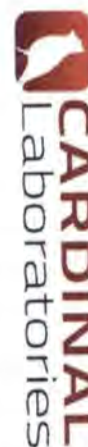
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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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(575) 393-2326 FAX (575) 393-2476

[illegible]

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

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May 01, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WAY SOUTH STATE COM#001H FWKO TANK BATTERY RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 04/18/24 13:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW - 2	H242072-01	Water	18-Apr-24 00:00	18-Apr-24 13:25
MW - 3	H242072-02	Water	18-Apr-24 00:00	18-Apr-24 13:25

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

**MW - 2****H242072-01 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Alkalinity, Bicarbonate	405		5.00	mg/L	1	4041619	HM	19-Apr-24	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	4041619	HM	19-Apr-24	310.1	
Chloride*	5000		4.00	mg/L	1	4041702	AC	19-Apr-24	4500-Cl-B	
Conductivity*	22200		1.00	umhos/cm @ 25°C	1	4041825	HM	18-Apr-24	120.1	
pH*	6.92		0.100	pH Units	1	4041825	HM	18-Apr-24	150.1	
Temperature °C	12.6			pH Units	1	4041825	HM	18-Apr-24	150.1	
Sulfate*	6790		1250	mg/L	125	4042506	CT	26-Apr-24	375.4	
TDS*	18100		5.00	mg/L	1	4041752	AC	23-Apr-24	160.1	
Alkalinity, Total*	332		4.00	mg/L	1	4041619	HM	19-Apr-24	310.1	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<1.00		1.00	mg/L	0.1	4041934	MS	22-Apr-24	8015B	
DRO >C10-C28*	<1.00		1.00	mg/L	0.1	4041934	MS	22-Apr-24	8015B	
EXT DRO >C28-C36	<1.00		1.00	mg/L	0.1	4041934	MS	22-Apr-24	8015B	
Surrogate: 1-Chlorooctane			88.9 %	71.5-140		4041934	MS	22-Apr-24	8015B	
Surrogate: 1-Chlorooctadecane			81.1 %	60.4-151		4041934	MS	22-Apr-24	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene	<0.0005		0.0005	mg/L	1	4041824	MS	18-Apr-24	8260B	
Toluene	<0.0005		0.0005	mg/L	1	4041824	MS	18-Apr-24	8260B	
Ethylbenzene	<0.0005		0.0005	mg/L	1	4041824	MS	18-Apr-24	8260B	
Total Xylenes	<0.001		0.001	mg/L	1	4041824	MS	18-Apr-24	8260B	
Total BTEX	<0.003		0.003	mg/L	1	4041824	MS	18-Apr-24	8260B	
Surrogate: Dibromofluoromethane			114 %	82.4-141		4041824	MS	18-Apr-24	8260B	
Surrogate: Toluene-d8			92.1 %	87.1-110		4041824	MS	18-Apr-24	8260B	
Surrogate: 4-Bromofluorobenzene			86.1 %	76.4-114		4041824	MS	18-Apr-24	8260B	

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  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

**MW - 2****H242072-01 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Green Analytical Laboratories****Total Recoverable Metals by ICP (E200.7)**

Calcium*	695		4.00	mg/L	20	B240988	AWG	26-Apr-24	EPA200.7
Magnesium*	1180		2.00	mg/L	20	B240988	AWG	26-Apr-24	EPA200.7
Potassium*	66.5		20.0	mg/L	20	B240988	AWG	26-Apr-24	EPA200.7
Sodium*	3530		20.0	mg/L	20	B240988	AWG	26-Apr-24	EPA200.7

**Dissolved Metals by ICP**

Iron*	<1.00		1.00	mg/L	20	B240987	AWG	25-Apr-24	EPA200.7
Manganese*	<0.400		0.400	mg/L	20	B240987	AWG	25-Apr-24	EPA200.7

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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

**MW - 3****H242072-02 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Alkalinity, Bicarbonate	405		5.00	mg/L	1	4041619	HM	19-Apr-24	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	4041619	HM	19-Apr-24	310.1	
Chloride*	5100		4.00	mg/L	1	4041702	AC	19-Apr-24	4500-Cl-B	
Conductivity*	22400		1.00	umhos/cm @ 25°C	1	4041825	HM	18-Apr-24	120.1	
pH*	7.11		0.100	pH Units	1	4041825	HM	18-Apr-24	150.1	
Temperature °C	13.3			pH Units	1	4041825	HM	18-Apr-24	150.1	
Sulfate*	5720		1250	mg/L	125	4042506	CT	26-Apr-24	375.4	
TDS*	18000		5.00	mg/L	1	4041752	AC	23-Apr-24	160.1	
Alkalinity, Total*	332		4.00	mg/L	1	4041619	HM	19-Apr-24	310.1	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<1.00		1.00	mg/L	0.1	4041934	MS	22-Apr-24	8015B	
DRO >C10-C28*	<1.00		1.00	mg/L	0.1	4041934	MS	22-Apr-24	8015B	
EXT DRO >C28-C36	<1.00		1.00	mg/L	0.1	4041934	MS	22-Apr-24	8015B	
Surrogate: 1-Chlorooctane			89.3 %	71.5-140		4041934	MS	22-Apr-24	8015B	
Surrogate: 1-Chlorooctadecane			81.5 %	60.4-151		4041934	MS	22-Apr-24	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene	<0.0005		0.0005	mg/L	1	4041824	MS	18-Apr-24	8260B	
Toluene	<0.0005		0.0005	mg/L	1	4041824	MS	18-Apr-24	8260B	
Ethylbenzene	<0.0005		0.0005	mg/L	1	4041824	MS	18-Apr-24	8260B	
Total Xylenes	<0.001		0.001	mg/L	1	4041824	MS	18-Apr-24	8260B	
Total BTEX	<0.003		0.003	mg/L	1	4041824	MS	18-Apr-24	8260B	
Surrogate: Dibromofluoromethane			111 %	82.4-141		4041824	MS	18-Apr-24	8260B	
Surrogate: Toluene-d8			92.3 %	87.1-110		4041824	MS	18-Apr-24	8260B	
Surrogate: 4-Bromofluorobenzene			88.1 %	76.4-114		4041824	MS	18-Apr-24	8260B	

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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  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

**MW - 3****H242072-02 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Green Analytical Laboratories****Total Recoverable Metals by ICP (E200.7)**

Calcium*	771		4.00	mg/L	20	B240988	AWG	30-Apr-24	EPA200.7
Magnesium*	1120		2.00	mg/L	20	B240988	AWG	30-Apr-24	EPA200.7
Potassium*	45.2		20.0	mg/L	20	B240988	AWG	30-Apr-24	EPA200.7
Sodium*	3550		20.0	mg/L	20	B240988	AWG	30-Apr-24	EPA200.7

**Dissolved Metals by ICP**

Iron*	<1.00		1.00	mg/L	20	B240987	AWG	25-Apr-24	EPA200.7
Manganese*	<0.400		0.400	mg/L	20	B240987	AWG	25-Apr-24	EPA200.7

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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4041619 - General Prep - Wet Chem****Blank (4041619-BLK1)**

Prepared &amp; Analyzed: 16-Apr-24

Alkalinity, Carbonate	ND	1.00	mg/L						
Alkalinity, Bicarbonate	5.00	5.00	mg/L						
Alkalinity, Total	4.00	4.00	mg/L						

**LCS (4041619-BS1)**

Prepared &amp; Analyzed: 16-Apr-24

Alkalinity, Carbonate	ND	2.50	mg/L			80-120			
Alkalinity, Bicarbonate	292	12.5	mg/L			80-120			
Alkalinity, Total	240	10.0	mg/L	250	96.0	80-120			

**LCS Dup (4041619-BSD1)**

Prepared &amp; Analyzed: 16-Apr-24

Alkalinity, Carbonate	ND	2.50	mg/L			80-120		20	
Alkalinity, Bicarbonate	305	12.5	mg/L			80-120	4.18	20	
Alkalinity, Total	250	10.0	mg/L	250	100	80-120	4.08	20	

**Batch 4041702 - General Prep - Wet Chem****Blank (4041702-BLK1)**

Prepared: 17-Apr-24 Analyzed: 19-Apr-24

Chloride	ND	4.00	mg/L						
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**LCS (4041702-BS1)**

Prepared: 17-Apr-24 Analyzed: 19-Apr-24

Chloride	104	4.00	mg/L	100	104	80-120			
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**LCS Dup (4041702-BSD1)**

Prepared: 17-Apr-24 Analyzed: 19-Apr-24

Chloride	108	4.00	mg/L	100	108	80-120	3.77	20	
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**Batch 4041752 - Filtration****Blank (4041752-BLK1)**

Prepared: 18-Apr-24 Analyzed: 22-Apr-24

TDS	ND	5.00	mg/L						
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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  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4041752 - Filtration**

**LCS (4041752-BS1)** Prepared: 18-Apr-24 Analyzed: 22-Apr-24

TDS	806		mg/L	1000		80.6	80-120			
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**Duplicate (4041752-DUP1)** Source: H241997-01 Prepared: 18-Apr-24 Analyzed: 22-Apr-24

TDS	1130	5.00	mg/L		1190			5.26	20	
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**Batch 4041825 - General Prep - Wet Chem**

**LCS (4041825-BS1)** Prepared & Analyzed: 18-Apr-24

Conductivity	50300		uS/cm	50000		101	80-120			
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pH	7.04		pH Units	7.00		101	90-110			
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**Duplicate (4041825-DUP1)** Source: H242043-01 Prepared & Analyzed: 18-Apr-24

Conductivity	1400	1.00	umhos/cm @ 25°C		1410			0.642	20	
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pH	7.77	0.100	pH Units		7.71			0.775	20	
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Temperature °C	18.6		pH Units		18.6			0.00	200	
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**Batch 4042506 - General Prep - Wet Chem**

**Blank (4042506-BLK1)** Prepared: 25-Apr-24 Analyzed: 26-Apr-24

Sulfate	ND	10.0	mg/L							
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**LCS (4042506-BS1)** Prepared: 25-Apr-24 Analyzed: 26-Apr-24

Sulfate	17.0	10.0	mg/L	20.0		85.2	80-120			
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**LCS Dup (4042506-BSD1)** Prepared: 25-Apr-24 Analyzed: 26-Apr-24

Sulfate	17.5	10.0	mg/L	20.0		87.4	80-120	2.49	20	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4041934 - General Prep - Organics****Blank (4041934-BLK1)**

Prepared &amp; Analyzed: 22-Apr-24

GRO C6-C10	ND	1.00	mg/L							
DRO >C10-C28	ND	1.00	mg/L							
EXT DRO >C28-C36	ND	1.00	mg/L							
Surrogate: 1-Chlorooctane	4.40		mg/L	5.00		88.0	71.5-140			
Surrogate: 1-Chlorooctadecane	4.42		mg/L	5.00		88.5	60.4-151			

**LCS (4041934-BS1)**

Prepared &amp; Analyzed: 22-Apr-24

GRO C6-C10	49.2	1.00	mg/L	50.0		98.4	72.6-121			
DRO >C10-C28	49.3	1.00	mg/L	50.0		98.6	76-119			
Surrogate: 1-Chlorooctane	5.15		mg/L	5.00		103	71.5-140			
Surrogate: 1-Chlorooctadecane	5.74		mg/L	5.00		115	60.4-151			

**LCS Dup (4041934-BS1)**

Prepared &amp; Analyzed: 22-Apr-24

GRO C6-C10	49.7	1.00	mg/L	50.0		99.4	72.6-121	0.987	16.8	
DRO >C10-C28	48.9	1.00	mg/L	50.0		97.8	76-119	0.735	20.4	
Surrogate: 1-Chlorooctane	5.21		mg/L	5.00		104	71.5-140			
Surrogate: 1-Chlorooctadecane	5.61		mg/L	5.00		112	60.4-151			

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

**Volatile Organic Compounds by EPA Method 8260B - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4041824 - Volatiles****Blank (4041824-BLK1)**

Prepared &amp; Analyzed: 18-Apr-24

Benzene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
Ethylbenzene	ND	0.0005	mg/L							
Total Xylenes	ND	0.001	mg/L							
Total BTEX	ND	0.003	mg/L							
Surrogate: Dibromofluoromethane	0.0538		mg/L	0.0500		108	82.4-141			
Surrogate: Toluene-d8	0.0467		mg/L	0.0500		93.3	87.1-110			
Surrogate: 4-Bromofluorobenzene	0.0445		mg/L	0.0500		89.0	76.4-114			

**LCS (4041824-BS1)**

Prepared &amp; Analyzed: 18-Apr-24

Benzene	0.018	0.0005	mg/L	0.0200		89.1	85.9-114			
Toluene	0.018	0.0005	mg/L	0.0200		88.2	78.8-121			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		94.3	81.8-127			
m+p - Xylene	0.040	0.001	mg/L	0.0400		99.0	72.4-134			
o-Xylene	0.019	0.0005	mg/L	0.0200		93.1	76.2-135			
Total Xylenes	0.058	0.001	mg/L	0.0600		97.0	74.3-134			
Surrogate: Dibromofluoromethane	0.0553		mg/L	0.0500		111	82.4-141			
Surrogate: Toluene-d8	0.0469		mg/L	0.0500		93.9	87.1-110			
Surrogate: 4-Bromofluorobenzene	0.0473		mg/L	0.0500		94.6	76.4-114			

**LCS Dup (4041824-BSD1)**

Prepared &amp; Analyzed: 18-Apr-24

Benzene	0.018	0.0005	mg/L	0.0200		90.9	85.9-114	2.00	4.14	
Toluene	0.017	0.0005	mg/L	0.0200		86.8	78.8-121	1.54	5.73	
Ethylbenzene	0.019	0.0005	mg/L	0.0200		93.0	81.8-127	1.44	4.95	
m+p - Xylene	0.039	0.001	mg/L	0.0400		98.6	72.4-134	0.430	5.81	
Total Xylenes	0.058	0.001	mg/L	0.0600		96.5	74.3-134	0.551	5.84	
o-Xylene	0.018	0.0005	mg/L	0.0200		92.3	76.2-135	0.809	6.32	
Surrogate: Dibromofluoromethane	0.0546		mg/L	0.0500		109	82.4-141			
Surrogate: Toluene-d8	0.0460		mg/L	0.0500		92.0	87.1-110			
Surrogate: 4-Bromofluorobenzene	0.0471		mg/L	0.0500		94.2	76.4-114			

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

**Total Recoverable Metals by ICP (E200.7) - Quality Control****Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B240988 - Total Recoverable by ICP****Blank (B240988-BLK1)**

Prepared: 25-Apr-24 Analyzed: 26-Apr-24

Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Calcium	ND	0.200	mg/L							
Sodium	ND	1.00	mg/L							

**LCS (B240988-BS2)**

Prepared: 25-Apr-24 Analyzed: 26-Apr-24

Potassium	1.87	1.00	mg/L	1.89		99.0	85-115			
Sodium	8.09	1.00	mg/L	8.13		99.6	85-115			

**LCS (B240988-BS3)**

Prepared: 25-Apr-24 Analyzed: 26-Apr-24

Calcium	1.16	0.200	mg/L	1.19		97.9	85-115			
Magnesium	1.63	0.100	mg/L	1.66		98.4	85-115			

**LCS Dup (B240988-BSD2)**

Prepared: 25-Apr-24 Analyzed: 26-Apr-24

Sodium	8.15	1.00	mg/L	8.13		100	85-115	0.656	20	
Potassium	1.89	1.00	mg/L	1.89		99.9	85-115	0.959	20	

**LCS Dup (B240988-BSD3)**

Prepared: 25-Apr-24 Analyzed: 26-Apr-24

Magnesium	1.59	0.100	mg/L	1.66		95.9	85-115	2.60	20	
Calcium	1.14	0.200	mg/L	1.19		95.8	85-115	2.18	20	

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**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: WAY SOUTH STATE COM#001H FV  
Project Number: 212C - MD - 02839  
Project Manager: SAM ABBOTT  
Fax To: (432) 682-3946

Reported:  
01-May-24 10:00

**Dissolved Metals by ICP - Quality Control****Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch B240987 - Dissolved ICP****Blank (B240987-BLK1)**

Prepared &amp; Analyzed: 25-Apr-24

Manganese	ND	0.020	mg/L							
Iron	ND	0.050	mg/L							

**LCS (B240987-BS1)**

Prepared &amp; Analyzed: 25-Apr-24

Iron	4.14	0.050	mg/L	4.00		103	85-115			
Manganese	2.13	0.020	mg/L	2.00		106	85-115			

**LCS Dup (B240987-BSD1)**

Prepared &amp; Analyzed: 25-Apr-24

Iron	4.21	0.050	mg/L	4.00		105	85-115	1.68	20	
Manganese	2.16	0.020	mg/L	2.00		108	85-115	1.52	20	

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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 cursive script, appearing to read "Celey D. Keene", written in black ink.

---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Tetra Tech		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: Sam Abbott		Address: 8911 Capital o Texas Hwy, Suite 2310		Company: Tetra Tech			
City: Austin		State: TX Zip:		Attn: Sam Abbott			
Phone #: (512)556-0190		Fax #: 212C-MD-02839		Address: EMAIL			
Project #: 212C-MD-02839		Project Owner: ConocoPhillips		City:			
Project Name: Way South State Com #001H FWKO Tank Battery Release		State:		Zip:			
Project Location: Eddy County, New Mexico		Phone #:		Fax #:			
Sampler Name: Colton Bickstaff		FOR LAB USE ONLY		PRESERV.		SAMPLING	
Lab I.D.		Sample I.D.		MATRIX			
		(G)RAB OR (C)OMP.		GROUNDWATER			
		# CONTAINERS		WASTEWATER			
				SOIL			
				OIL			
				SLUDGE			
				OTHER :			
				ACID/BASE:			
				ICE / COOL			
				OTHER :			
				DATE			
				TIME			
				VOC 8260		BTEX 8260 X	
				TPH 8015			
				Cation/Anion			
				Metals Digestion			
				Dissolved Iron			
				Dissolved Manganese			

Reinquinished By: Colton Bickstaff		Date: 04/18/24		Received By: [Signature]		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By:		Time: 1:35		Date: 4/18/24		Received By: [Signature]		All Results are emailed. Please provide Email address: Sam.Abbott@tetratech.com AND Christian.Linn@tetratech.com	
Delivered By: (Circle One)		Observed Temp. °C		Sample Condition		CHECKED BY: (Initials)		Thermometer ID #140	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool / Intact		BTEX 8260. Specimen 4/18/24		Correction Factor 0°C	

REMARKS: Customer changed ice 8260 to BTEX 8260. Specimen 4/18/24





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---

April 02, 2025

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WAY SOUTH STATE COM 1 FWKO

Enclosed are the results of analyses for samples received by the laboratory on 03/27/25 13:40.

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



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**Analytical Results For:**

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

Received:	03/27/2025	Sampling Date:	03/27/2025
Reported:	04/02/2025	Sampling Type:	Water
Project Name:	WAY SOUTH STATE COM 1 FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839A	Sample Received By:	Alyssa Parras
Project Location:	COP - EDDY CO NM		

**Sample ID: PW - 1 (H251831-01)**

Chloride, SM4500Cl-B (Water)		mg/L		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	120000	4.00	03/28/2025	ND	100	100	100	0.00		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	191000	5.00	03/31/2025	ND	937	93.7	1000	1.11		

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### Notes and Definitions

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RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
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Celey D. Keene, Lab Director/Quality Manager







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April 02, 2025

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WAY SOUTH STATE COM 1 FWKO

Enclosed are the results of analyses for samples received by the laboratory on 03/27/25 13:40.

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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



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**Analytical Results For:**

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

Received:	03/27/2025	Sampling Date:	03/27/2025
Reported:	04/02/2025	Sampling Type:	Water
Project Name:	WAY SOUTH STATE COM 1 FWKO	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02839A	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: PW - 1 (H251832-01)**

Sulfate 375.4		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	138	25.0	03/31/2025	ND	19.1	95.6	20.0	4.71		

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\*=Accredited Analyte

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RPD	Relative Percent Difference
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Celey D. Keene, Lab Director/Quality Manager



ANALYSIS REQUEST

† Cardinal cannot accept verbal changes. Please email changes to [celey.keena@cardinallabsnm.com](mailto:celey.keena@cardinallabsnm.com)



## **APPENDIX G**

### **Soils and Geologic Setting**



United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Eddy Area, New Mexico**

**Way South FWKO**



September 10, 2024

# Preface

---

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.



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## How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

## Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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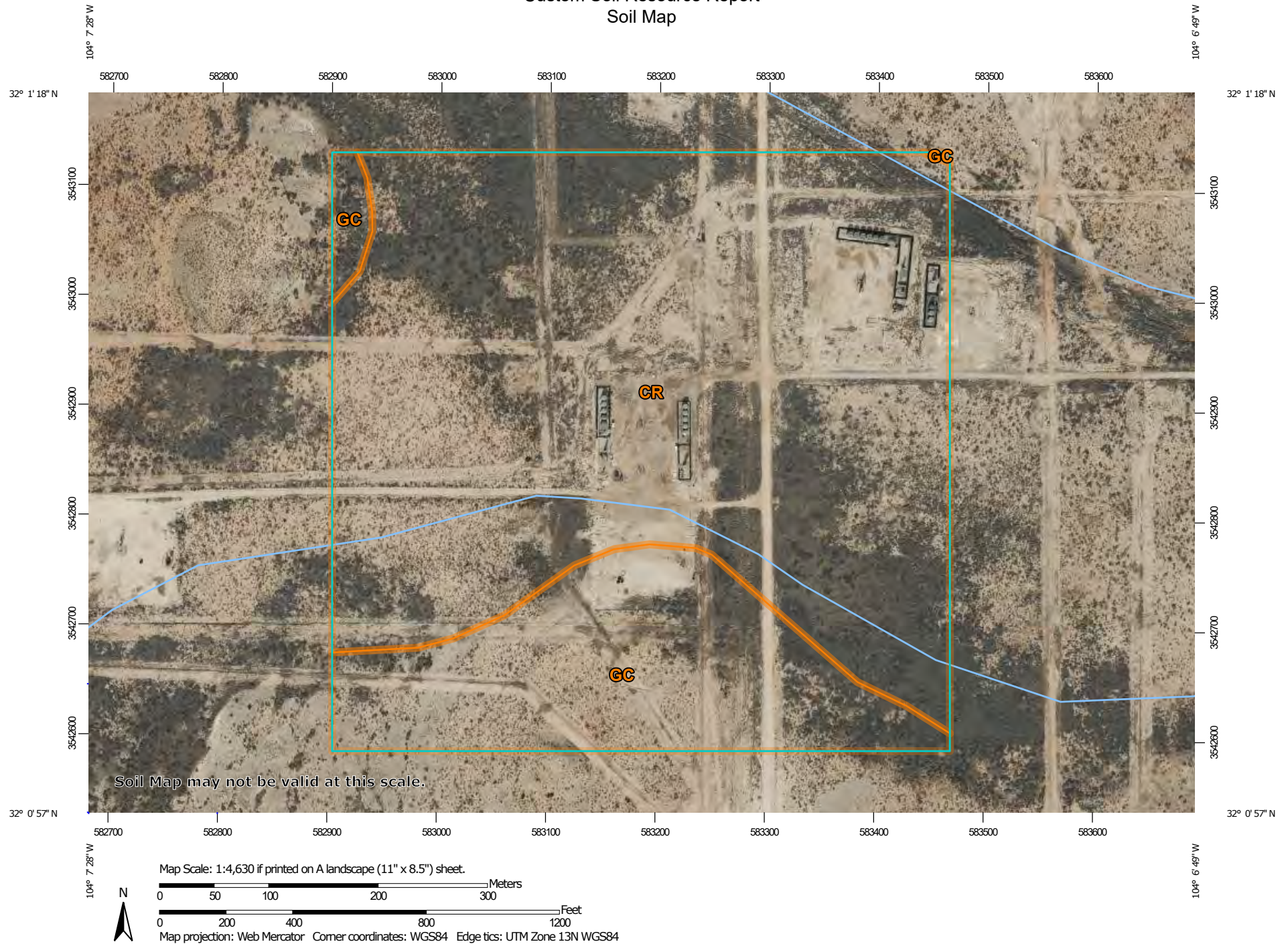
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.



## Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report  
Soil Map

## Custom Soil Resource Report

## MAP LEGEND

## Area of Interest (AOI)

 Area of Interest (AOI)


## Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

## Special Point Features

 Blowout

 Borrow Pit

 Clay Spot


 Closed Depression

 Gravel Pit


 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip


 Sodic Spot

 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

## Water Features

 Streams and Canals


## Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

## Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico  
Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 12, 2022—Dec 2, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Custom Soil Resource Report

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CR	Cottonwood-Reeves loams, overflow, 0 to 3 percent slopes	58.6	76.8%
GC	Gypsum land-Cottonwood complex, 0 to 3 percent slopes	17.8	23.2%
<b>Totals for Area of Interest</b>		<b>76.4</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The



## Custom Soil Resource Report

delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Custom Soil Resource Report

**Eddy Area, New Mexico****CR—Cottonwood-Reeves loams, overflow, 0 to 3 percent slopes****Map Unit Setting**

*National map unit symbol:* 1w47  
*Elevation:* 3,000 to 4,300 feet  
*Mean annual precipitation:* 10 to 14 inches  
*Mean annual air temperature:* 60 to 64 degrees F  
*Frost-free period:* 200 to 220 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Cottonwood and similar soils:* 60 percent  
*Reeves and similar soils:* 35 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Cottonwood****Setting**

*Landform:* Ridges, hills  
*Landform position (two-dimensional):* Shoulder, backslope, footslope, toeslope  
*Landform position (three-dimensional):* Side slope, head slope, nose slope, crest  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Residuum weathered from gypsum

**Typical profile**

*H1 - 0 to 9 inches:* loam  
*H2 - 9 to 60 inches:* bedrock

**Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* 3 to 12 inches to paralithic bedrock  
*Drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.20 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Gypsum, maximum content:* 20 percent  
*Maximum salinity:* Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 1.0  
*Available water supply, 0 to 60 inches:* Very low (about 1.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 6s  
*Hydrologic Soil Group:* D  
*Ecological site:* R070BB006NM - Gyp Upland  
*Hydric soil rating:* No

## Custom Soil Resource Report

**Description of Reeves****Setting***Landform:* Plains, ridges, hills*Landform position (two-dimensional):* Shoulder, backslope, footslope, toeslope*Landform position (three-dimensional):* Side slope, head slope, nose slope, crest*Down-slope shape:* Convex*Across-slope shape:* Linear*Parent material:* Residuum weathered from gypsum**Typical profile***H1 - 0 to 8 inches:* loam*H2 - 8 to 32 inches:* clay loam*H3 - 32 to 60 inches:* gypsiferous material**Properties and qualities***Slope:* 0 to 3 percent*Depth to restrictive feature:* More than 80 inches*Drainage class:* Well drained*Runoff class:* High*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)*Depth to water table:* More than 80 inches*Frequency of flooding:* Occasional*Frequency of ponding:* None*Calcium carbonate, maximum content:* 25 percent*Gypsum, maximum content:* 20 percent*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)*Sodium adsorption ratio, maximum:* 1.0*Available water supply, 0 to 60 inches:* Low (about 4.7 inches)**Interpretive groups***Land capability classification (irrigated):* None specified*Land capability classification (nonirrigated):* 6w*Hydrologic Soil Group:* B*Ecological site:* R070BB006NM - Gyp Upland*Hydric soil rating:* No**Minor Components****Unnamed soils***Percent of map unit:* 5 percent*Hydric soil rating:* No**GC—Gypsum land-Cottonwood complex, 0 to 3 percent slopes****Map Unit Setting***National map unit symbol:* 1w4g*Elevation:* 1,250 to 5,000 feet

## Custom Soil Resource Report

*Mean annual precipitation:* 10 to 25 inches  
*Mean annual air temperature:* 57 to 66 degrees F  
*Frost-free period:* 190 to 225 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Gypsum land:* 60 percent  
*Cottonwood and similar soils:* 30 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Gypsum Land****Setting**

*Landform:* Ridges, plains, hills  
*Landform position (two-dimensional):* Shoulder, backslope, footslope, toeslope  
*Landform position (three-dimensional):* Side slope, head slope, nose slope, crest  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Residuum weathered from gypsum

**Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 8s  
*Hydric soil rating:* No

**Description of Cottonwood****Setting**

*Landform:* Ridges, hills  
*Landform position (two-dimensional):* Shoulder, backslope, footslope, toeslope  
*Landform position (three-dimensional):* Side slope, head slope, nose slope, crest  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Residuum weathered from gypsum

**Typical profile**

*H1 - 0 to 8 inches:* loam  
*H2 - 8 to 60 inches:* bedrock

**Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* 3 to 12 inches to paralithic bedrock  
*Drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.20 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Gypsum, maximum content:* 5 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 1.0  
*Available water supply, 0 to 60 inches:* Very low (about 1.2 inches)



## Custom Soil Resource Report

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 6s

*Hydrologic Soil Group:* D

*Ecological site:* R070BB006NM - Gyp Upland

*Hydric soil rating:* No

### Minor Components

#### Cottonwood

*Percent of map unit:* 5 percent

*Ecological site:* R070BC033NM - Salty Bottomland

*Hydric soil rating:* No

#### Rock outcrop

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

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Phone: (505) 629-6116

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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

Action 487958

**QUESTIONS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 487958
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nRM2008650013
Incident Name	NRM2008650013 WAY SOUTH STATE COM #001H @ 30-015-37234
Incident Type	Release Other
Incident Status	Remediation Plan Approved
Incident Well	[30-015-37234] WAY SOUTH STATE COM #001H

**Location of Release Source**

Please answer all the questions in this group.

Site Name	WAY SOUTH STATE COM #001H
Date Release Discovered	12/25/2019
Surface Owner	State

**Incident Details**

Please answer all the questions in this group.

Incident Type	Release Other
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	Cause: Equipment Failure   Other (Specify)   Crude Oil   Released: 4 BBL   Recovered: 3 BBL   Lost: 1 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Other (Specify)   Produced Water   Released: 6 BBL   Recovered: 5 BBL   Lost: 1 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 487958

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 487958
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
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	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
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: 07/23/2025
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**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

QUESTIONS, Page 3

Action 487958

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 487958
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**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)	Less than or equal 25 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
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 200 and 300 (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 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Zero feet, overlying, or within area
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
<i>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.</i>	
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)	6960
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	80.6
GRO+DRO (EPA SW-846 Method 8015M)	80.6
BTEX (EPA SW-846 Method 8021B or 8260B)	0
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	11/01/2025
On what date will (or did) the final sampling or liner inspection occur	11/05/2025
On what date will (or was) the remediation complete(d)	11/06/2025
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	0
What is the estimated volume (in cubic yards) that will be remediated	0

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.

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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QUESTIONS, Page 4

Action 487958

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 487958
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**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.)	<i>Not answered.</i>
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	<i>Not answered.</i>
(In Situ) Soil Vapor Extraction	<i>Not answered.</i>
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	<i>Not answered.</i>
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	<i>Not answered.</i>
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	<i>Not answered.</i>
Ground Water Abatement pursuant to 19.15.30 NMAC	<i>Not answered.</i>
OTHER (Non-listed remedial process)	<b>Yes</b>
Other Non-listed Remedial Process. Please specify	P&A of onsite wells.
<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: 07/23/2025
<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 487958

QUESTIONS (continued)

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:  229137
	Action Number:  487958
	Action Type:  [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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 487958

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 487958
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	{Unavailable.}

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	No



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CONDITIONS

Action 487958

**CONDITIONS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 487958
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	The Revised Remediation Plan is Conditionally Approved. The OCD generally likes to see one monitoring well in the release area and additional groundwater monitoring wells outside of the area of concern, where no oil and gas activity has taken place. The additional monitoring wells should be in areas of high vegetation and away from roads, pads, and any other oil gas activity. The three monitoring wells in this case are relatively close together. The OCD is familiar with the draw in this particular area and is aware of the potential for saline groundwater in the immediate area of the draw. The groundwater analytical results collected during assessment activities show groundwater at the site is not protectable due to the high TDS. At this time, no additional action regarding groundwater abatement is requested at the site.	9/30/2025
rhamlet	The only boreholes that were taken in areas of high vegetation signifying areas of minimal activity were boreholes BG-2 and BG-4. These two boreholes will serve as background numbers in this immediate area. The other background boreholes were taken in areas of little to no vegetation, which is indicative of oil and gas activity. The two background numbers at a depth of 1 foot should be averaged. The two background numbers at a depth of 2 feet should be averaged and so on. The composite numbers will be used for the final background numbers. Due to the shallow groundwater and sensitive nature of the release location, the site will need to be remediated to the strictest closure criteria from Table 1 of the OCD Spill Rule or the calculated composite background numbers.	9/30/2025
rhamlet	Please collect confirmation samples, representing no more than 200 ft <sup>2</sup> . All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Sidewall/edge samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. All sidewall samples should be taken from the sidewall of the excavation. Please make sure that the edge of the release extent is accurately defined, especially around equipment. All off-pad areas must meet reclamation standards in the OCD Spill Rule. The work will need to be completed in 90 days after the report has been reviewed.	9/30/2025