



SITE ASSESSMENT AND REMEDIATION WORK PLAN

Marwari 28 CTB 1

Incident ID: NAPP2312128151

Facility ID: fAPP2130555386

Prepared By:
Pima Environmental Services, LLC

Prepared For:
Devon Energy Production, LP

JANUARY 20, 2025
PIMA ENVIRONMENTAL SERVICES, LLC
5614 N Lovington Hwy, Hobbs, NM 88240

Pima Environmental Services

5614 N Lovington Hwy
Hobbs, NM 88240
575-964-7740



NMOCD District 1
1625 N. French Drive
Hobbs, NM 88240

Bureau of Land Management
620 E Green St.
Carlsbad, NM 88220

Re: Site Characteristic and Remediation Work Plan
Marwari 28 CTB 1
Facility ID: fAPP2130555386
GPS: Latitude 32.10587173 Longitude -103.68769
UL –D, Section 28, T25S, R32E
Lea County, NM
NMOCD Ref. No. NAPP2312128151

Pima Environmental Services, LLC. (Pima) has been contracted by Devon Energy Production Company, LP (Devon) to prepare this Site Characteristic and Remediation Work Plan for a produced water release that occurred at the Marwari 28 CTB 1 (Marwari). This incident was assigned Incident ID NAPP2312128151 by the New Mexico Oil Conservation Division (NMOCD).

Site Characterization

The Marwari is located approximately twenty-three (23) miles southwest of Malaga, NM. This spill site is in Unit D, Section 28, Township 25S, Range 32E, Latitude 32.10587173 Longitude -103.68769, Lea County, NM. Figure 1 references a Location Map.

Per the New Mexico Bureau of Geology and Mineral Resources, the geology is made up of Interlayered eolian sands and piedmont-slope deposits along the eastern flank of the Pecos River valley, primarily between Roswell and Carlsbad. Typically capped by thin eolian deposits. The soil in this area is made up of Pyote loamy fine sands, according to the United States Department of Agriculture Natural Resources Conservation Service soil survey (Appendix B). The drainage class in this area is well drained. There is a low potential for karst geology to be present around the Marwari (Figure 3). Reference Figure 2 for a Topographic Map.

Based on the well water data from the New Mexico Office of the State Engineer water well (C-04879-POD 1), the depth to the nearest groundwater in this vicinity measures 52 feet below grade surface (BGS), positioned 0.06 miles away from the Marwari, drilled, August 28, 2024. Conversely, as per the United States Geological Survey well water data (USGS 320643103465002 25S.31E.21.413314A), the nearest groundwater depth in this region is recorded at 318 feet BGS, situated approximately 5.57 miles away from the Marwari, with the last gauge conducted in 1959. The nearest surface water feature is the Red Bluff Reservoir located approximately 17.69 miles to the Southwest of this site. For detailed references to water surveys and the precise locations of water wells, please refer to Appendix A, inclusive of the relevant maps.

Table 1 NMAC and Closure Criteria 19.15.29

Depth to Groundwater (Appendix A)	Constituent & Limits				
	Chlorides	Total TPH	GRO+DRO	BTEX	Benzene
<50'	600 mg/kg	100 mg/kg		50 mg/kg	10 mg/kg
51-100' (C-04879-POD1)	10,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg
>100'	20,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg

5614 N Lovington Hwy
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575-964-7740



Release Information

NAPP2312128151: On April 29, 2023, the lease operator received a call that there was produced water on the ground. There was a hole in the bottom of a 6-inch water line from the 3-phase to the gun barrel. The well was shut in to stop the leak. Release did not leave location. The released fluids were calculated to be approximately 7 barrels (bbl.) of produced water. A vacuum truck was called and was able to recover 3 bbl. of standing fluid.

Remediation Activities, Site Assessment, and Soil Sampling Results

On May 4, 2023, Pima mobilized personnel to the site to collect soil samples from the spill area. A hand auger was used to collect the samples from the affected area. The laboratory results of these sampling events are provided in the following data table. A Site Map is available in Figure 4.

5-4-23 Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is 51-100')								
DEVON ENERGY -MARWARI 28 CTB 1								
Date: 5/4/23		NM Approved Laboratory Results						
Sample ID	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	CI mg/kg
S-1	1'	ND	ND	ND	ND	ND	0	1060
	2'	ND	ND	ND	ND	ND	0	340
	3'	ND	ND	ND	ND	ND	0	144
	4'	ND	ND	ND	ND	ND	0	34.1
S-2	1'	ND	ND	ND	ND	ND	0	582
	2'	ND	ND	ND	ND	ND	0	337
	3'	ND	ND	ND	ND	ND	0	145
	4'	ND	ND	ND	ND	ND	0	39.1
S-3	1'	ND	ND	ND	ND	ND	0	598
	2'	ND	ND	ND	ND	ND	0	394
	3'	ND	ND	ND	ND	ND	0	158
	4'	ND	ND	ND	ND	ND	0	36.7
S-4	1'	ND	ND	ND	ND	ND	0	604
	2'	ND	ND	ND	ND	ND	0	327
	3'	ND	ND	ND	ND	ND	0	178
	4'	ND	ND	ND	ND	ND	0	107
S-5	1'	ND	ND	ND	ND	ND	0	912
	2'	ND	ND	ND	ND	ND	0	316
	3'	ND	ND	ND	ND	ND	0	155
	4'	ND	ND	ND	ND	ND	0	27.3
S-6	1'	ND	ND	ND	ND	ND	0	612
	2'	ND	ND	ND	ND	ND	0	335
	3'	ND	ND	ND	ND	ND	0	144
	4'	ND	ND	ND	ND	ND	0	114
S-7	1'	ND	ND	ND	ND	ND	0	867
	2'	ND	ND	ND	ND	ND	0	273
	3'	ND	ND	ND	ND	ND	0	154
	4'	ND	ND	ND	ND	ND	0	121
SW 1	Surface-4' Comp	ND	ND	ND	ND	ND	0	ND
SW 2	Surface-4' Comp	ND	ND	ND	ND	ND	0	ND
SW 3	Surface-4' Comp	ND	ND	ND	ND	ND	0	ND
SW 4	Surface-4' Comp	ND	ND	ND	ND	ND	0	ND
SW 5	Surface-4' Comp	ND	ND	ND	ND	ND	0	ND
SW 6	Surface-4' Comp	ND	ND	ND	ND	ND	0	ND
SW 7	Surface-4' Comp	ND	ND	ND	ND	ND	0	ND
SW 8	Surface-4' Comp	ND	ND	ND	ND	ND	0	ND
BG 1	1'	ND	ND	ND	ND	ND	0	ND

ND/0: Analyte non-detect

Complete Laboratory Reports are attached in Appendix E.



Remediation Work Plan

Based on the sample results and available groundwater information, remediation of the impacted areas is not required beyond addressing surface staining. However, areas S1 through S7 will need to be excavated to a depth of six inches (6") below ground surface to remediate surface contamination.

1. Submit a one-call through the NM811 system.
2. The estimated volume of soil to be remediated from the above-mentioned sample points is totaling 6,150 square feet at an average depth of 6 inches below ground surface and approximately 114 cubic yards.
3. We propose to excavate the affected areas using mechanical and hand equipment and dispose of the contaminated soil at an NMOCD-approved facility. A Proposed Excavation Map can be found in Figure 5.
4. After Devon submits a 48-hour sampling notification, we will collect 5-point composite samples from the excavated areas. These sample points will include base samples from excavated areas, and sidewall samples from the walls of each excavation representative of no more than 200 square feet.
5. Upon final receipt of laboratory reports showing contamination levels are under the regulatory limits of Table 1 19.15.29 NMAC. The excavation will be backfilled with clean, like material, and a remediation closure report will be drafted and submitted to the NMOCD portal for review and approval.
6. Work will commence within 30 days of approval of this work plan by NMOCD and will be completed within 30 days after the start of construction. Contention of personnel and equipment.

On behalf of Devon, Pima would like to request approval of this remediation work plan. Work can begin within 30 days of approval, contingent upon personnel and equipment scheduling.

Should you have any questions or need additional information, please feel free to contact:

Devon Energy Production – Jim Raley at 575-689-7597 or jim.raley@devon.com.

Pima Environmental – Gio Gomez at 806-782-1151 or gio@pimaoil.com.

Respectfully,

Gio Gomez
Project Manager
Pima Environmental Services, LLC

Attachments

Figures:

- 1- Location Map
- 2- Topographic Map
- 3- Karst Map
- 4- Site Map
- 5- Proposed Excavation Map

Appendices:

- Appendix A – Referenced Water Surveys
Appendix B – Soil Survey, Geological Data, FEMA, and Wetlands Map
Appendix C – Photographic Documentation
Appendix D – Laboratory Reports

Figures:

Figure 1- Location Map

Figure 2- Topographic Map

Figure 3- Karst Map



Figure 4- Site Map

Figure 5- Proposed Excavation Map

Marwari 28 CTB 1

Devon Energy
Facility ID: fAPP2130555386
Lea County, NM
Location Map
NAPP2312128151

Legend


-  23.94 Miles SE of Malaga
-  Marwari 28 CTB 1

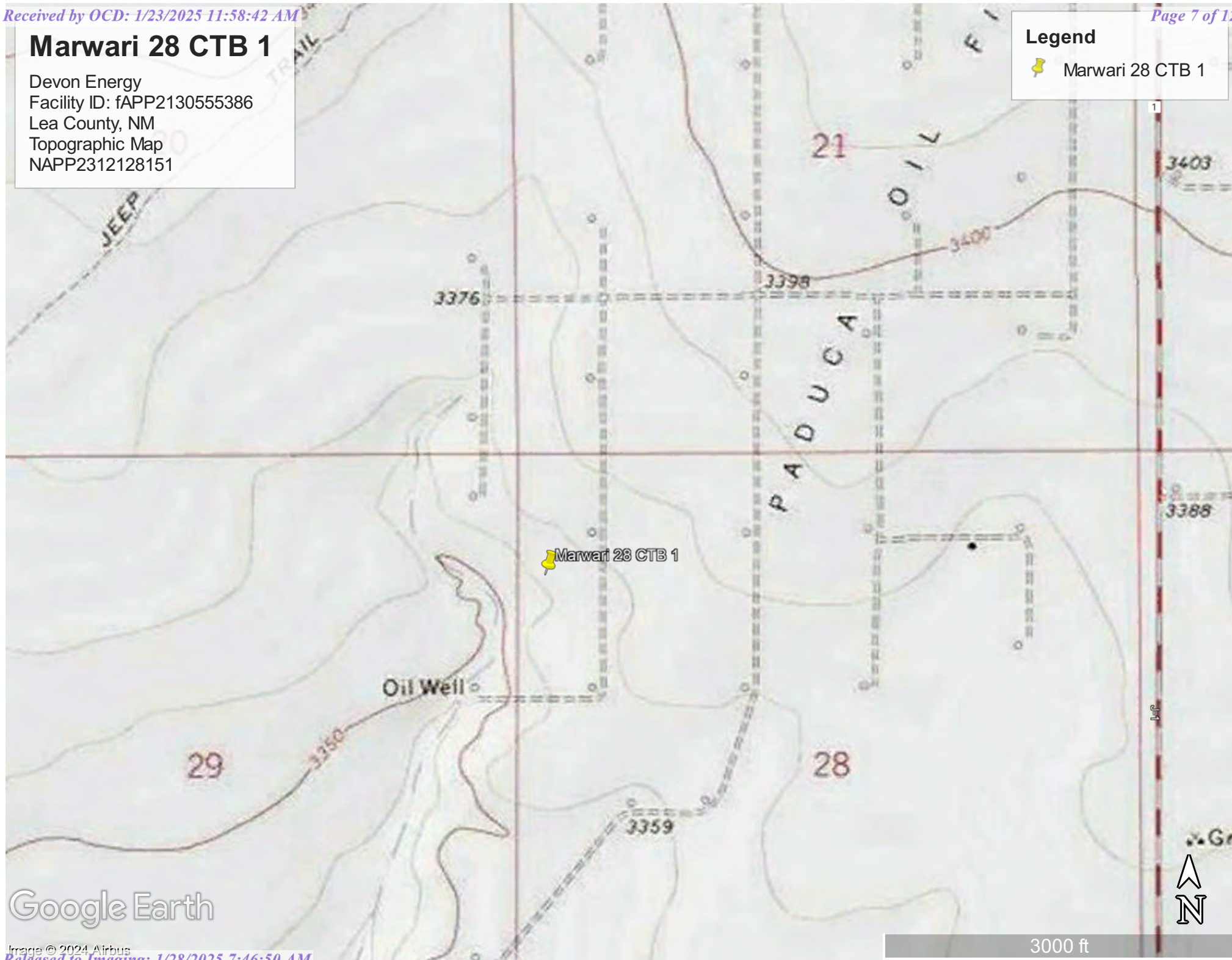


Marwari 28 CTB 1

Devon Energy
Facility ID: fAPP2130555386
Lea County, NM
Topographic Map
NAPP2312128151

Legend

 Marwari 28 CTB 1







Google Earth

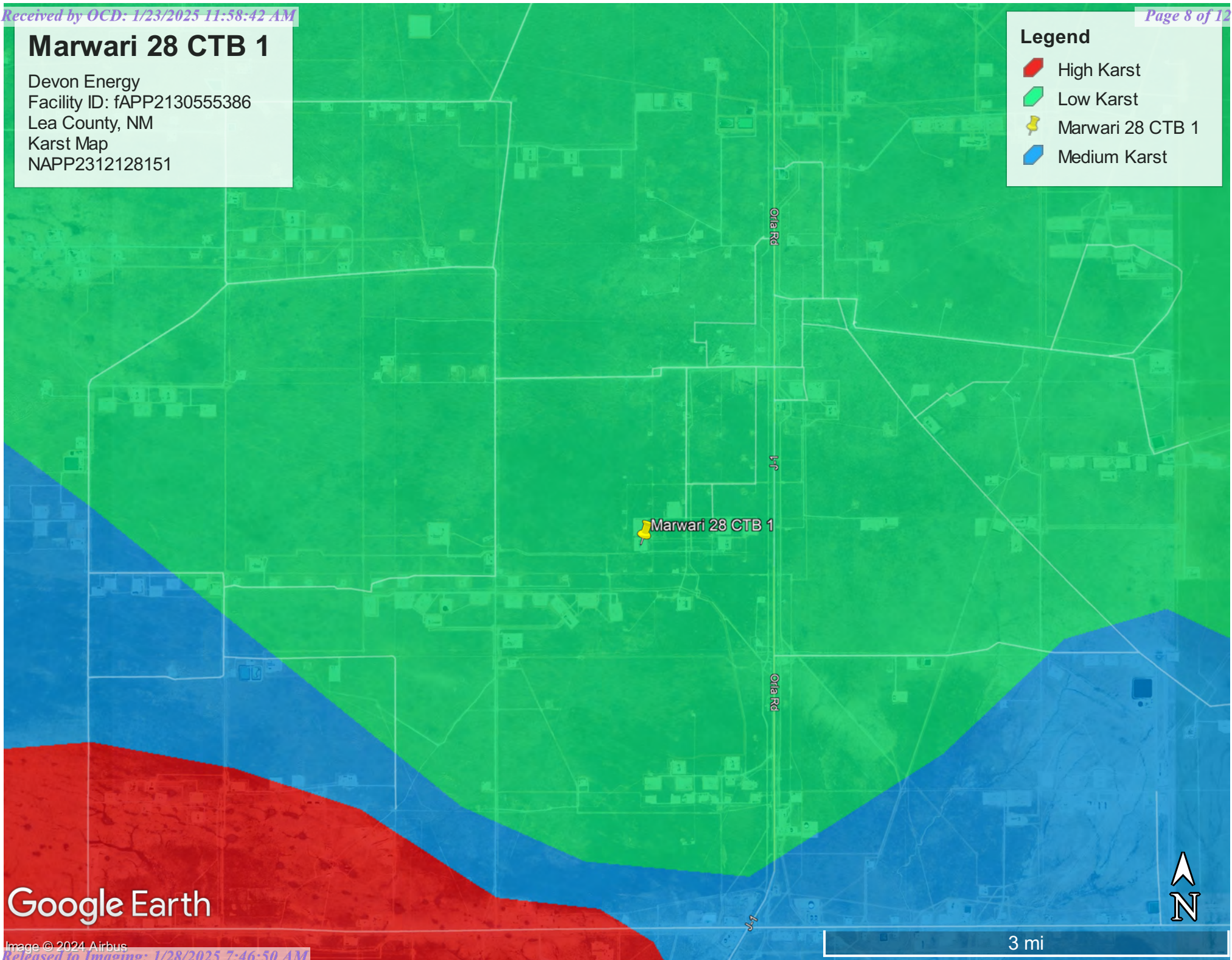
Image © 2024 Airbus

Marwari 28 CTB 1

Devon Energy
Facility ID: fAPP2130555386
Lea County, NM
Karst Map
NAPP2312128151

Legend




-  High Karst
-  Low Karst
-  Marwari 28 CTB 1
-  Medium Karst

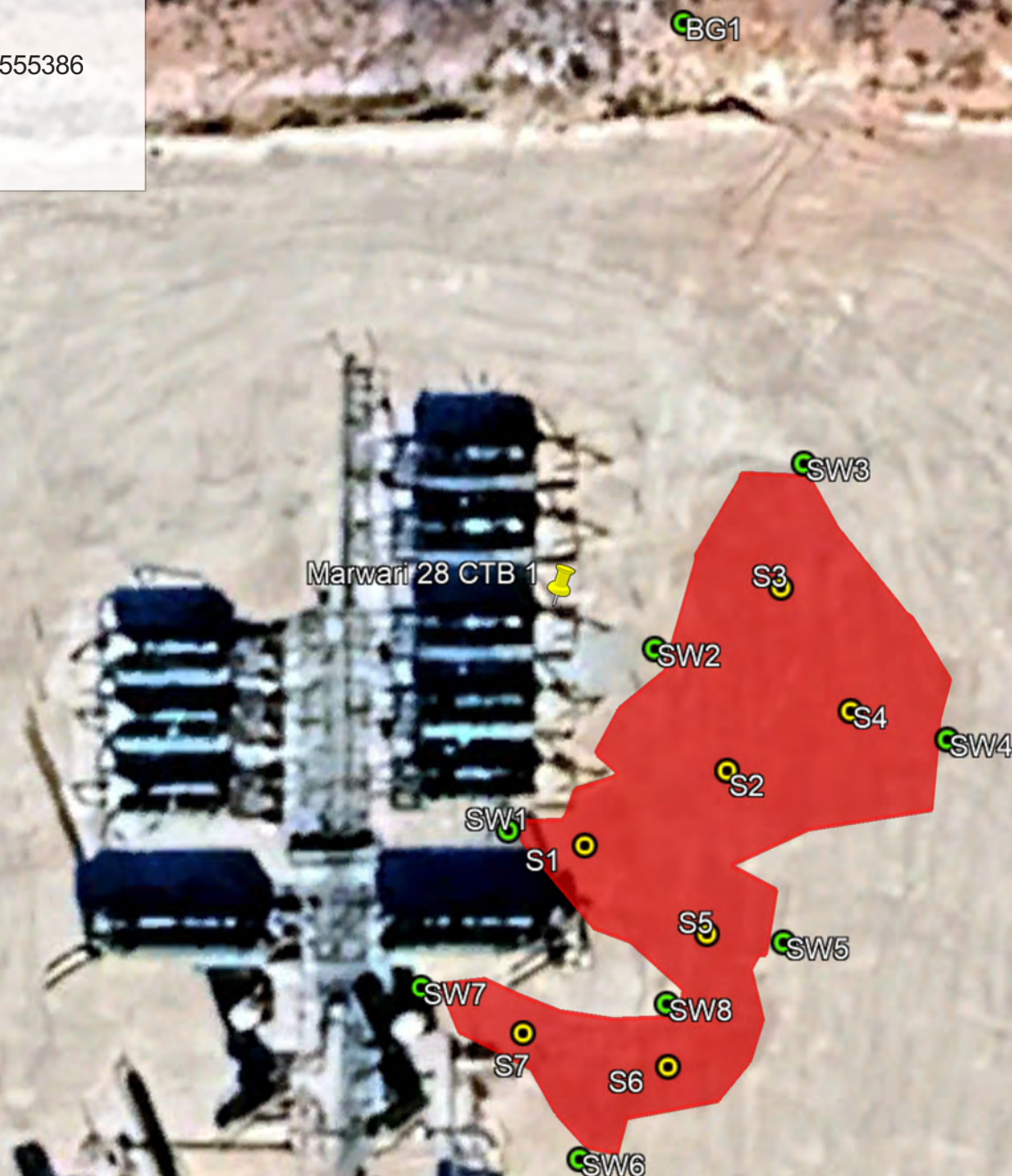


Marwari 28 CTB 1

Devon Energy
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Lea County, NM
Site Map
NAPP2312128151

Legend

-  Samples
-  Sidewall/Background Samples
-  Spill Area 6,150 Sqft





Google Earth



Marwari 28 CTB 1

Devon Energy
Facility ID: fAPP2130555386
Lea County, NM
Proposed Excavation Map
NAPP2312128151

Legend

-  Marwari 28 CTB 1
-  Proposed Excavation Area- 6 inches

Marwari 28 CTB 1 



Google Earth





Appendix A


Water Surveys:

- OSE
- USGS
- Surface Water Map

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	Tws	Rng	X	Y	Map
NA	C 04879 POD1	SW	NW	NW	28	25S	32E	623751.7	3552857.9	

* UTM location was derived from PLSS - see Help

Driller License:

1839

Driller Company:

COFFEY DRILLING LLC

Driller Name:

COFFEY, BOYDVID K.(CALL OFF

Drill Start Date:

Drill Finish Date:

Plug Date:

Log File Date:

PCW Rcv Date:

Source:

Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

2.00

Depth Well:

52

Depth Water:

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.

File No. C-4879



NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT



(check applicable boxes):

For fees, see State Engineer website: <https://www.ose.nm.gov/>

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

☐ Check here if the borehole is anything other than vertical (directional boring or angle boring) and include a schematic of your design.

☒ Temporary Request - Requested Start Date: August 15, 2024 Requested End Date: October 15, 2024

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

Note: if there is known artesian conditions, contamination or high mineral content at the drilling location, include the borehole log or a well log from an existing well at that location. If this information is not submitted, check box and attach form WD-09 to this form. ☐

1. APPLICANT(S)

Name: Devon Energy Corp	Name:
Contact or Agent: Dale Woodall	Contact or Agent:
check here if Agent <input type="checkbox"/>	check here if Agent <input type="checkbox"/>
Mailing Address: 205 East Bender Road #150	Mailing Address:
City: Hobbs	City:
State: New Mexico	State:
Zip Code: 88240	Zip Code:
Phone: Phone (Work):	Phone: Phone (Work):
<input type="checkbox"/> Home <input type="checkbox"/> Cell	<input type="checkbox"/> Home <input type="checkbox"/> Cell
E-mail (optional):	E-mail (optional):

OSE DII ROSWELL NM
AUG 16 2024 AM 11:1

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 07/10/2024

File No.: C-4879	Trm. No.: 766045	Receipt No.: 2-47211
Trans Description (optional): EXPL		
Sub-Basin: CUB	PCW/LOG Due Date: 9-9-2025	

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), <u>or</u> Latitude/Longitude (Lat/Long - WGS84). District II (Roswell), District V (Aztec) and District VII (Cimarron) customers, provide a PLSS location in addition to above.					
<input type="checkbox"/> NM State Plane (NAD83) (Feet) <input type="checkbox"/> NM West Zone <input type="checkbox"/> NM East Zone <input type="checkbox"/> NM Central Zone		<input type="checkbox"/> UTM (NAD83) (Meters) <input type="checkbox"/> Zone 12N <input type="checkbox"/> Zone 13N		<input type="checkbox"/> Lat/Long (WGS84) (to the nearest 1/10 th of second)	
Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	-Public Land Survey System (PLSS) (QQQSection, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name	Well Depth in feet	Casing Diameter (OD)
C-4879 Pod1 TMW-2	32.105265	-103.688384	Unit letter B sec 28, T25S, R32E	52'	2"
NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions) Additional well descriptions are attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how many _____					
Other description relating well to common landmarks, streets, or other: Site is Devon Marwari 28 CTB pad					
Well is on land owned by: U.S Bureau of land management					
Well Information: NOTE: If casings telescope or involve nested casing, please provide diagram. Attached? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Approximate depth to water (feet): 52					
Driller Name: Boyd Coffey			Driller License Number: 1839		

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

<p>This Soil Boring is to prove That ground water does not exist between the land surface and 52'. Per New Mexico oil conservation division. The Boring will remain open for 72 Hours to prove the boring is dry.</p> <p>This is a Exploration boring, the sole purpose is to prove that the depth to ground water exceeds 52' below ground surface. Upon completion, the casing will be removed and the bore hole will be plugged per the specifications provided in the plugging plan</p> <p style="text-align: right;">OSE DII ROSWELL NM AUG 16 2024 AM 11:1</p>
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FOR OSE INTERNAL USE

Application for Permit, Form WR-07 Version 07/10/2024

File No.: C-4879

Trm No.: 766045

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:

<p>Exploratory*: Is proposed well a future public water supply well? <input type="checkbox"/> Yes <input type="checkbox"/> NO If Yes, an application must be filed with NMED-DWB, concurrently. <input type="checkbox"/> Include a description of any proposed pump test, if applicable.</p> <p>Monitoring*: <input type="checkbox"/> Include the reason for the monitoring well, and, <input type="checkbox"/> The duration of the planned monitoring.</p>	<p>Pollution Control and/or Recovery: <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.</p>	<p>Construction De-Watering: <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.</p> <p>Ground Source Heat Pump: <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.</p>	<p>Mine De-Watering: <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.</p>
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(* if exploration or monitoring drilling activity is required by NMED, then you must also submit the NMED Work Plan)

ACKNOWLEDGEMENT

I, We (name of applicant(s)), DAVE WOODS, AL
Print Name(s)

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

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.
Elizabeth K. Anderson, P.E.

Witness my hand and seal this 9th day of September 20 24, for the State Engineer

Elizabeth K. Anderson, P.E. State Engineer

By: K. Parekh
Signature

Print

Title: Water Resources Manager I
Print



FOR OSE INTERNAL USE

Application for Permit, Form WR-07 Version 07/10/2024

File No.: C-4879

Trn No.: 766045

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U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

08/14/2024

Well Name: MARWARI 21-16 STATE
FED COM**Well Location:** T25S / R32E / SEC 28 /
NWNW / 32.1076809 / -103.6880643**County or Parish/State:** LEA /
NM**Well Number:** 712H**Type of Well:** OIL WELL**Allottee or Tribe Name:****Lease Number:** NMLC061869**Unit or CA Name:****Unit or CA Number:****US Well Number:** 3002548586**Operator:** DEVON ENERGY
PRODUCTION COMPANY LP

Notification

Sundry ID: 2806823**Type of Submission:** Notification**Type of Action:** Other**Date Sundry Submitted:** Aug 14, 2024**Time Sundry Submitted:** 9:45:41 AM**Date Operation will begin:** Aug 28, 2024**Time Operation will begin:** 8:00:00 AM**Field Contact Name:** ETHAN SESSUMS**Field Contact Number:** 4327012159**Rig Name:** N/A**Rig Number:** 1**Procedure Description:** INSTALL A TEST BORING TO DETERMINE DEPTH TO GROUNDWATER AT THE MARWARI 28 CTB 2 PAD, THE MARWARI 21-16 STATE FED COM 712H. AFTER THE BORING IS INSTALLED, IT WILL BE MEASURED FOR GROUNDWATER AND THEN PLUGGED AND ABANDONED IN ACCORDANCE WITH STATE PROTOCOLS**Disposition:** Accepted**Accepted Date:** 08/14/2024

Notification

OSE DII ROSWELL NM
AUG 16 2024 AM 11:11

Procedure Description

Devon_TMW_2_PLugging_Plan_20240814094507.pdf

Devon_TMW_2_20240814094458.pdf

Conditions of Approval

Specialist Review

20240814_MARWARI_21_16_STATE_FED_COM_712H_St_Engineer_Office_drilling_approval_20240814110447.pdf

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.5. Lease Serial No. **NMLC061869**

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator **DEVON ENERGY PRODUCTION COMPANY LP**3a. Address **333 WEST SHERIDAN AVE, OKLAHOMA CITY,**
3b. Phone No. (include area code)
(405) 235-36114. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC 28/T25S/R32E/NMP

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No. **MARWARI 21-16 STATE FED COM.**9. API Well No. **3002548586**10. Field and Pool or Exploratory Area
WC-025 G-08 S253216D/UPPER WOLFCAMP11. Country or Parish, State
LEA/NM**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

INSTALL A TEST BORING TO DETERMINE DEPTH TO GROUNDWATER AT THE MARWARI 28 CTB 2 PAD, THE MARWARI 21-16 STATE FED COM 712H. AFTER THE BORING IS INSTALLED, IT WILL BE MEASURED FOR GROUNDWATER AND THEN PLUGGED AND ABANDONED IN ACCORDANCE WITH STATE PROTOCOLS

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
DALE WOODALL / Ph: (405) 235-3611Title **Environmental Professional**

Signature (Electronic Submission)

Date **08/14/2024****THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

CRISHA A MORGAN / Ph: (575) 234-5987 / AcceptedTitle **Environmental Protection Specialist**Date **08/14/2024**

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office **CARLSBAD**

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

OSE DII ROSWELL NM
AUG 16 2024 AM 11:11

Additional Information

Location of Well

0. SHL: NWNW / 325 FNL / 190 FWL / TWSP: 25S / RANGE: 32E / SECTION: 28 / LAT: 32.1076809 / LONG: -103.6880643 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 100 FSL / 980 FWL / TWSP: 25S / RANGE: 32E / SECTION: 21 / LAT: 32.1088791 / LONG: -103.6855192 (TVD: 12024 feet, MD: 12186 feet)

BHL: NWNW / 20 FNL / 980 FWL / TWSP: 25S / RANGE: 32E / SECTION: 16 / LAT: 32.1375966 / LONG: -103.6854385 (TVD: 11976 feet, MD: 22462 feet)

CONFIDENTIAL

**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 04879 POD1File Number: C 04879Trn Number: 766045

page: 1

**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-C2 No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before , unless a permit to use water from this well is acquired from the Office of the State Engineer.
- 17-G If artesian water is encountered, the well driller shall comply with all rules and regulations pertaining to the drilling and casing of artesian wells.
- 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.

Trn Desc: C 04879 POD1

File Number: C 04879

Trn Number: 766045

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

- 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.
- LOG The Point of Diversion C 04879 POD1 must be completed and the Well Log filed on or before 09/09/2025.

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHROIZATIONS 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: 08/16/2024	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 09 day of Sep A.D., 2024

Elizabeth K. Anderson, P.E., State Engineer

By:

K. Parekh
KASHYAP PAREKH



Trn Desc: C 04879 POD1

File Number: C 04879

Trn Number: 766045

Elizabeth K. Anderson, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201



Trn Nbr: 766045
File Nbr: C 04879

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

Sep. 09, 2024

DALE WOODALL
DEVON ENERGY CORP
205 E. BENDER RD. #150
HOBBS, NM 88240

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.

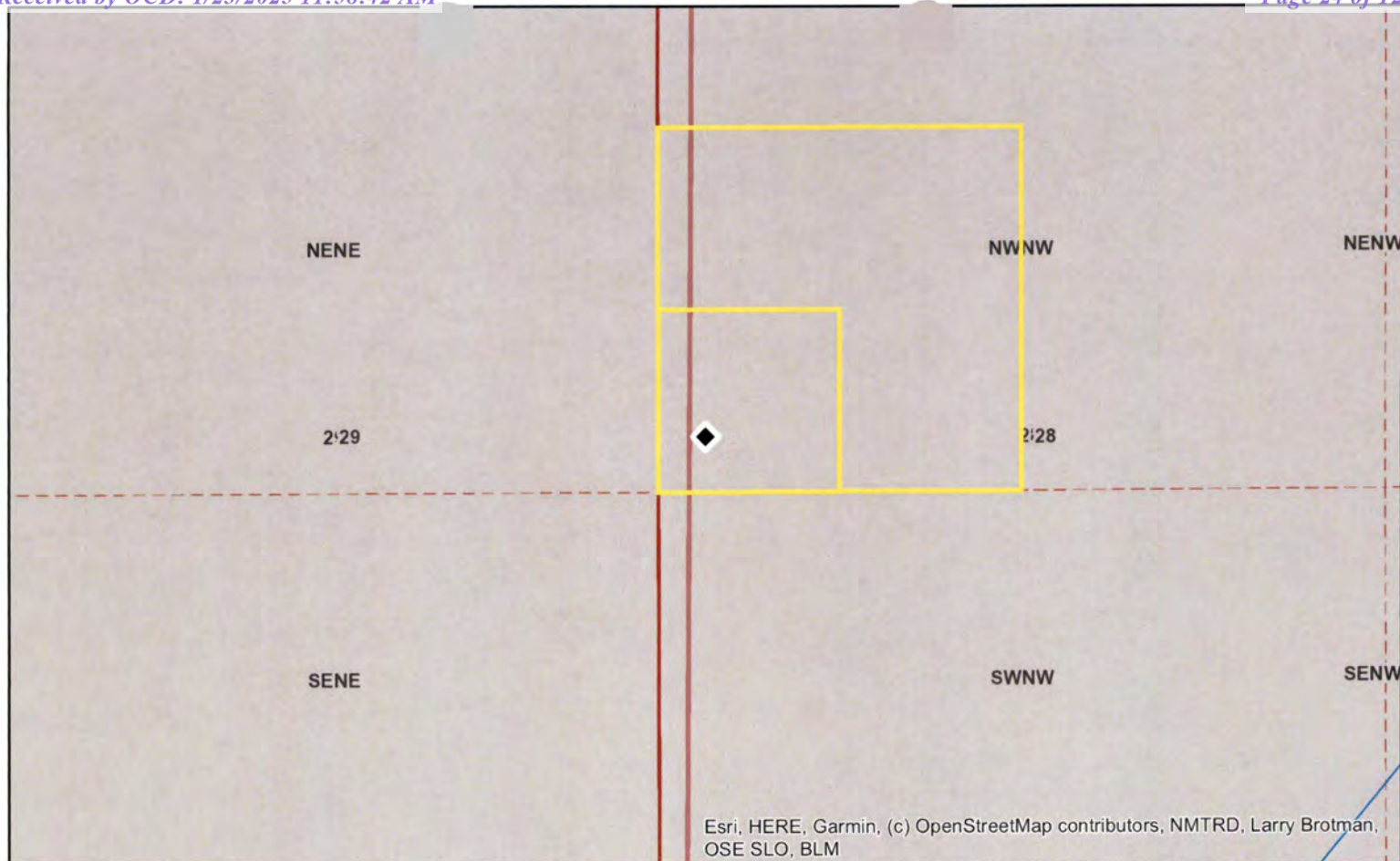
Sincerely,

A handwritten signature in cursive script that reads "Vanessa Clements".

Vanessa Clements
(575) 622-6521

Enclosure

explore

**Coordinates****UTM - NAD 83 (m) - Zone 13**

Easting 623753.000
 Northing 3552855.943

State Plane - NAD 83 (f) - Zone E

Easting 741040.039
 Northing 402627.352

Degrees Minutes Seconds

Latitude 32 : 6 : 18.954000
 Longitude -103 : 41 : 18.182400

Location pulled from Coordinate Search

NEW MEXICO OFFICE
 OF THE
 STATE ENGINEER

1:4,514

N



9/9/2024



Reasonable efforts have been made by the New Mexico Office of the State Engineer (OSE) to verify that these maps accurately integrate the source data used in their preparation; however, a degree of error is inherent in all maps, and these maps may contain omissions and errors in scale, resolution, certification, positional accuracy, development methodology, interpretation of source data, and other circumstances. These maps are distributed "as is" without warranty of any kind.

Spatial Information

Land Grant: Not in Land Grant
 County: Lea
 Groundwater Basin: Carlsbad
 Abstract Area:
 Carlsbad 72-12-1
 Carlsbad Underground Basin

Regulation Area:

Carlsbad/Capitan/Lea Closure

PLSS Description

SWSWNNW Qtr of Sec 28 of 025S 032E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information

UPC/DocNum:

Parcel Owner:

Address:null null null

Legal:

POD Information

Owner:

File Number:

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose:

Calculated PLSS	<input type="checkbox"/>	Bernalillo County Parcels 2023	<input type="checkbox"/>	De Baca County Parcels 2023	<input type="checkbox"/>	Harding County Parcels 2023	<input type="checkbox"/>	McKinley County Parcels 2023	<input type="checkbox"/>	Roosevelt County Parcels 2023	<input type="checkbox"/>	Santa Fe County Parcels 2023	<input type="checkbox"/>	Valencia County Parcels 2023	<input type="checkbox"/>
User Defined Point	<input type="checkbox"/>	Catron County Parcels 2023	<input type="checkbox"/>	Dofia Ana County Parcels 2023	<input type="checkbox"/>	Hidalgo County Parcel 2023	<input type="checkbox"/>	Mora County Parcels 2023	<input type="checkbox"/>	Sandoval County Parcels 2023	<input type="checkbox"/>	Sierra County Parcels 2023	<input type="checkbox"/>	Sections	<input type="checkbox"/>
Water Right Regulations	<input type="checkbox"/>	Chaves County Parcels 2023	<input type="checkbox"/>	Eddy County Parcels 2023	<input type="checkbox"/>	Lea County Parcels 2023	<input type="checkbox"/>	Otero County Parcels 2023	<input type="checkbox"/>	San Juan County Parcels 2023	<input type="checkbox"/>	Socorro County Parcels 2023	<input type="checkbox"/>		
Closure Area	<input type="checkbox"/>	Cibola County Parcels 2023	<input type="checkbox"/>	Grant County Parcels 2023	<input type="checkbox"/>	Lincoln County Parcels 2023	<input type="checkbox"/>	Quay County Parcels 2023	<input type="checkbox"/>	San Miguel County Parcels 2023	<input type="checkbox"/>	Taos County Parcels 2023	<input type="checkbox"/>		
Artesian Planning Area	<input type="checkbox"/>	Colfax County Parcels 2023	<input type="checkbox"/>	Guadalupe County Parcels 2023	<input type="checkbox"/>	Los Alamos County Parcels 2023	<input type="checkbox"/>	Rio Arriba County Parcels 2023	<input type="checkbox"/>			Torrance County Parcels 2023	<input type="checkbox"/>		
OSE District Boundary	<input type="checkbox"/>	Curry County Parcels 2023	<input type="checkbox"/>			Luna County Parcels 2023	<input type="checkbox"/>					Union County Parcels 2023	<input type="checkbox"/>		



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
620 E. Greene St.
Carlsbad, NM 88220-6292

In Reply Refer To:
3162.4 (NM-080)

August 14, 2024

NM Office of the State Engineer
1900 W. Second St.
Roswell, NM 88201

Re: MARWARI 21-16 STATE FED COM 712H
Sec 28, TS 25S, RE 32E
Lea County, New Mexico

To Whom It May Concern:

The above well location and the immediate area mentioned above requires advanced soil boring to take place at approximately 52 feet below ground surface. The boring will be secured and left open for 72 hours at which time Devon Energy Production Company LP will assess for the presence or absence of groundwater. Temporary PVC well material will be placed to total depth of the boring and secured at the surface. If water is encountered at any point during the boring, installation of the soil boring will be plugged using Portland Type 1/11 neat cement less than 6.0 gallons of water per 94lb sack. If no water is encountered, then the soil boring will be plugged. The Bureau of Land Management (landowner) authorizes the access of the area to accomplish depth to groundwater determination of this site.

If you have any questions contact Crisha Morgan, at 575-234-5987.

OSE DII ROSWELL NM
AUG 16 2024 AM 11:17

Sincerely,

CRISHA MORGAN Digitally signed by CRISHA MORGAN
Date: 2024.08.14 11:04:08 -06'00'

Crisha A. Morgan
Certified Environmental Protection Specialist



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/ 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, 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-4879-POD1

Name of well owner: DEVON ENERGY

Mailing address: 205 E BANDER #150 County: LEA

City: HUBBS State: NM Zip code: 88240

Phone number: 575-248-1838 E-mail: DALE.WOODALL@DEVON.COM

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: Coffey Drilling

New Mexico Well Driller License No.: 1839 Expiration Date: April 22, 2026

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: 32 deg, 06 min, 19.0 sec
Longitude: 103 deg, 41 min, 18.2 sec, NAD 83

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

purpose is to prove Groundwater to a depth of greater than 52', the planned depth is 52' BGs. The Borehole will remain open for 72 Hours. an electronic measuring tape will be used to determine if the bore hole is wet or dry. ground water if any will be reported to NMOSE and the bore hole will be plugged per the plan

3) Was well used for any type of monitoring program? NO 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? NA If yes, provide additional detail, including analytical results and/or laboratory report(s):

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

6) Depth of the well: Approx. 52' feet

OSE DII ROSWELL NM
WD-08 Well Plugging Plan
Version: March 07, 2022
Page 1 of 5
AUG 16 2024 AM 11:18

- 7) Inside diameter of innermost casing: 2 3/8 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): Screen at Approx. 47'-52'
- 10) What annular interval surrounding the artesian casing of this well is cement-grouted? NA
- 11) Was the well built with surface casing? no If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? NA If yes, please describe:
NA
- 12) Has all pumping equipment and associated piping been removed from the well? NA 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:
If Water is Found, Driller will use High solids Bentonite Grout with mixing ratios to attain 20% active solids by weight or Neat Type I/II placed bottom to top using Tremmie. If hole is dry, Cuttings will be used to backfill to 20' BLS and bentonite chips Hydrated at 5 gallons per sack hole plug, from 20' to surface
- 2) Will well head be cut-off below land surface after plugging? Yes

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: 77
- 4) Type of Cement proposed: Neat cement Type I/II
- 5) Proposed cement grout mix: 6 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:

None

- 8) Additional notes and calculations:

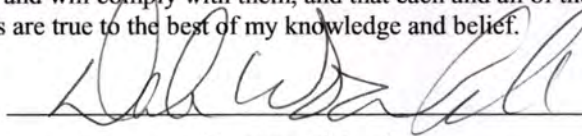
None

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

None

VIII. SIGNATURE:

I, DALE WOODALL, 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.



Signature of Applicant

8-13-24

Date

OSE DII ROSWELL NM
AUG 16 2024 AM 11:11

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

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

Witness my hand and official seal this 20th day of August, 2024



Elizabeth K. Anderson, P.E.

_____, New Mexico State Engineer

By: K. Parekh
Kashyap Parekh

Water Resources Manager 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.

	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 grout placement (ft bgl)	52' to ground surface		
Bottom of proposed interval of grout placement (ft bgl)			
Theoretical volume of grout required per interval (gallons)			
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement	77 gallons Fresh water. 4.5 SKS quick grout. Mixing ratio of one 50 LB sack per 24 gallons water to create 20% active solids		
Mixed on-site or batch-mixed and delivered?			
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)	Baroid Quick grout		

OSE DII ROSWELL NM
AUG 16 2024 AM 11:11



Office of the State Engineer State of New Mexico

DISTRICT 2 OFFICE

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

Applicant has identified a well, listed below, to be plugged. Coffey Drilling (WD-1839) will perform the plugging.

Permittee: Devon Energy
NMOSE Permit Number: C-4879-POD1

NMOSE File	Casing diameter (inches)	Well depth (feet bgl)	Approximate static water level (feet bgl)	Latitude	Longitude
C-4879-POD1	2.0	52.0	Unknown	32° 6' 19.0"	103° 41' 18.2"

Specific Plugging Conditions of Approval for Well located in Lea 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. Ground Water encountered: The total Theoretical volume of sealant required for abandonment of soil boring well is approximately 77.0 gallons. The total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 102 feet.

3. Dry Hole: The total Theoretical volume of sealant required for abandonment of soil boring well is approximately 1.63 gallons. Total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 10 feet.

4. Ground Water encountered: Type I/II Portland cement mixed with 5.2 to 6.0 gallons of fresh water per 94-lb sack of cement is approved for plugging the well.

5. Dry Hole: (a) Drill cuttings up to ten feet of land surface. (b) 10 feet to 0 feet – Hydrated bentonite. The bentonite shall be hydrated separately with its required increments of water prior to being mixed into the cement slurry.

6. Sealant shall be placed 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 upwards from below. Tremie pipe may be pulled as necessary to retain minimal submergence in the advancing column of sealant.

7. 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 4. and 5. of these Specific Conditions of Approval.

8. 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.

9. 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.

10. NMOSE witnessing the plugging of the soil boring will not be required.

11. Any deviation from this plan must obtain an approved variance from this office prior to implementation.

12. 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 21st day of August 2024

Elizabeth K. Anderson, P.E. State Engineer

By: K. Parekh

Kashyap Parekh
Water Resources Manager I



MICHELLE LUJAN GRISHAM
GOVERNOR



ELIZABETH K. ANDERSON, P.E.
STATE ENGINEER

State of New Mexico
Office of the State Engineer

DISTRICT 2 OFFICE

August 21, 2024

Devon Energy
205 E. Bender, Suite 150
Hobbs, NM 88240

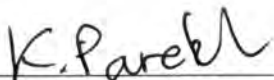
RE: Well Plugging Plan of Operations for well No. C-4879-POD1

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,


Kashyap Parekh
Water Resources Manager I

1900 WEST SECOND STREET, ROSWELL, NM 88201
(575) 622/6521 FAX (575) 623-8559

WWW.OSE.STATE.NM.GOV

Marwari 28 CTB 1

Devon Energy
Facility ID: fAPP2130555386
Lea County, NM
OSE Pod Map
NAPP2312128151

Legend

- 0.06 miles
- C 04879 POD1
- Marwari 28 CTB 1

Marwari 28 CTB 1

C 04879 POD1

Google Earth

Image © 2024 Airbus



500 ft



[USGS Home](#)
[Contact USGS](#)
[Search USGS](#)

National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

Click to hide News Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.

Groundwater levels for the Nation

 Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

site_no list =

- 320643103465002

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320643103465002 25S.31E.21.413314A

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13070001

Latitude 32°06'46.0", Longitude 103°46'56.3" NAD83

Land-surface elevation 3,374.00 feet above NGVD29

The depth of the well is 400 feet below land surface.

This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

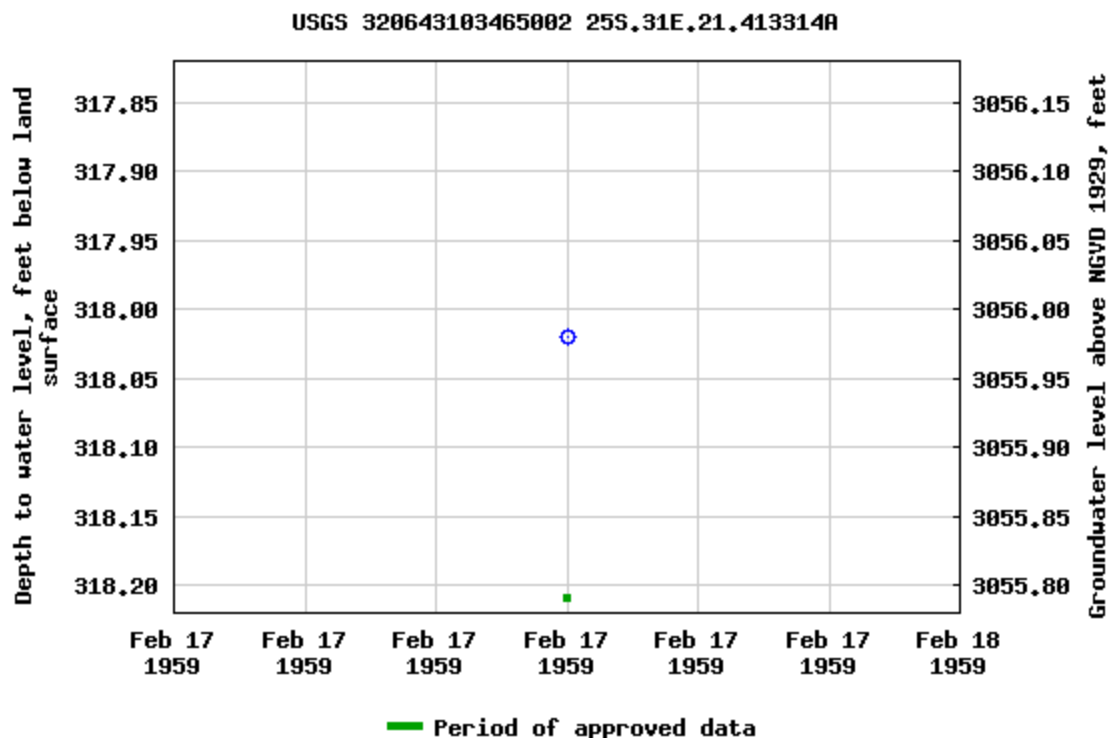
Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

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Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)




Page Last Modified: 2024-12-03 11:22:18 EST

0.71 0.56 nadww01

Marwari 28 CTB 1

Devon Energy
Facility ID: fAPP2130555386
Lea County, NM
USGS Map
NAPP2312128151

Legend

-  5.57 miles
-  Marwari 28 CTB 1
-  USGS 320643103465002

USGS 320643103465002

Marwari 28 CTB 1

Google Earth

Image © 2024 Airbus

Released to Imaging: 1/28/2025 7:46:50 AM

2 mi

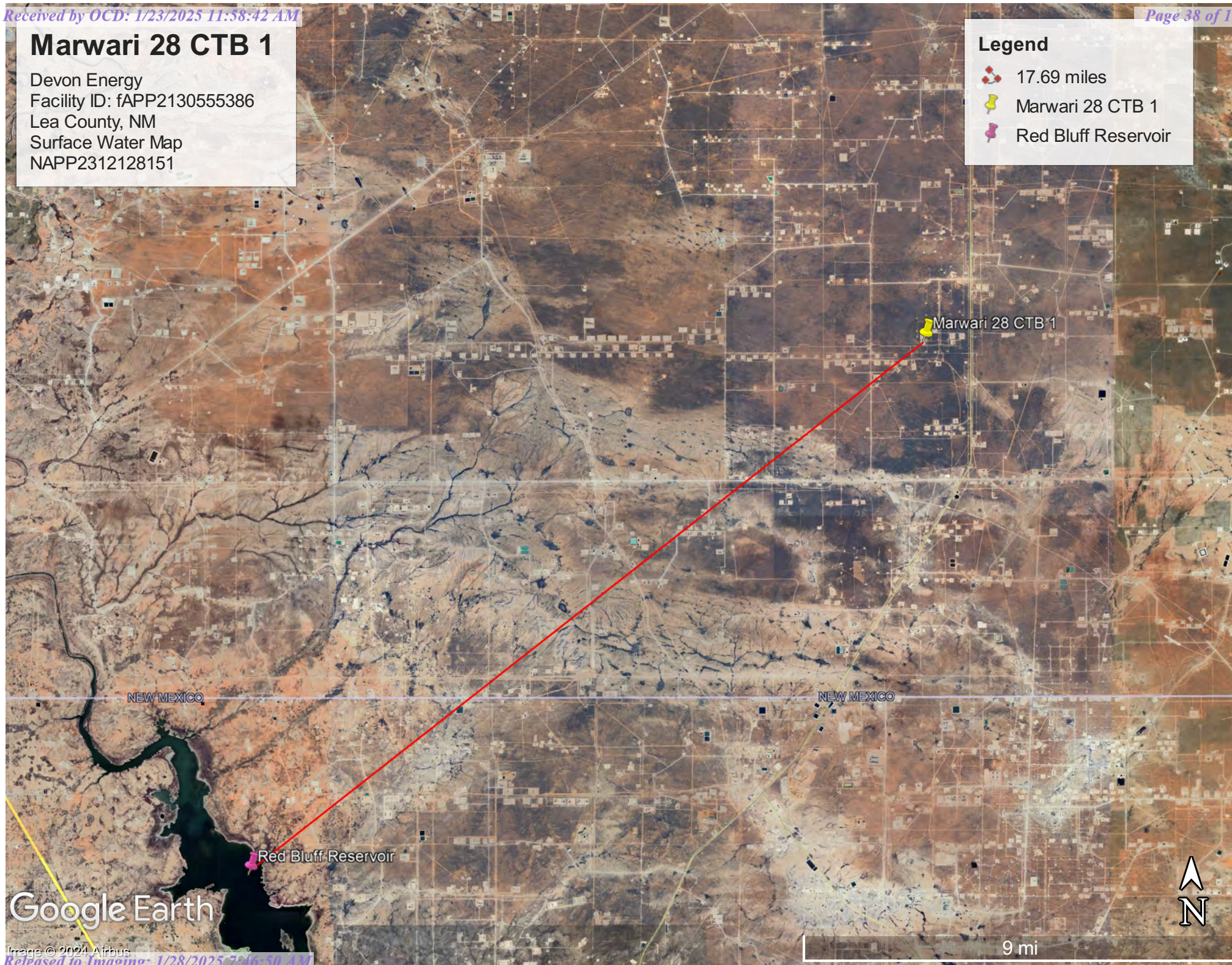


Marwari 28 CTB 1

Devon Energy
Facility ID: fAPP2130555386
Lea County, NM
Surface Water Map
NAPP2312128151

Legend

- 17.69 miles
- Marwari 28 CTB 1
- Red Bluff Reservoir



Google Earth

Image © 2024 Airbus



Appendix B

- Soil Survey & Soil Maps
- Geological Data
- FEMA Flood Map
- Wetlands Map

Map Unit Description: Pyote loamy fine sand---Lea County, New Mexico

Lea County, New Mexico

PT—Pyote loamy fine sand

Map Unit Setting

National map unit symbol: dmqp

Elevation: 3,000 to 3,900 feet

Mean annual precipitation: 10 to 12 inches

Mean annual air temperature: 60 to 62 degrees F

Frost-free period: 190 to 200 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Pyote and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pyote

Setting

Landform: Plains

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 25 inches: loamy fine sand

Bt - 25 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High
(2.00 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Gypsum, maximum content: 1 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 2.0

Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): 6e

Land capability classification (nonirrigated): 7s

Map Unit Description: Pyote loamy fine sand---Lea County, New Mexico

Hydrologic Soil Group: A
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Maljamar

Percent of map unit: 8 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Palomas

Percent of map unit: 7 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 21, Sep 3, 2024

Soil Map—Lea County, New Mexico



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

12/3/2024
Page 1 of 3

Soil Map—Lea County, New Mexico

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: Lea County, New Mexico

Survey Area Data: Version 21, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PT	Pyote loamy fine sand	22.9	100.0%
Totals for Area of Interest		22.9	100.0%

(<https://www.usgs.gov/>)

Mineral Resources (<https://www.usgs.gov/energy-and-minerals/mineral-resources-program>)

/ Online Spatial Data (/) / Geology (/geology/) / by state (/geology/state/)

/ New Mexico (/geology/state/state.php?state=NM)

Eolian and piedmont deposits

XML (/geology/state/xml/NMQep;0)

JSON (/geology/state/json/NMQep;0)

Shapefile (/geology/state/unit-shape.php?unit=NMQep;0)

Interlayered eolian sands and piedmont-slope deposits along the eastern flank of the Pecos River valley, primarily between Roswell and Carlsbad. Typically capped by thin eolian deposits.

State New Mexico (/geology/state/state.php?state=NM)

Name Eolian and piedmont deposits

Geologic age Holocene to middle Pleistocene

Lithologic constituents Major
Unconsolidated (Eolian) Interlayered eolian sands and piedmont-slope deposits

References New Mexico Bureau of Geology and Mineral Resources, 2003, Geologic Map of New Mexico, scale 1:500,000 (includes some new polygons, faults, and attributes not in NM001 - heads up digitizing by JHorton).

NGMDB product NGMDB product page for 22974
(https://ngmdb.usgs.gov/Prodesc/proddesc_22974.htm)

Counties Chaves (/geology/state/fips-unit.php?code=f35005) - DeBaca (/geology/state/fips-unit.php?code=f35011) - Eddy (/geology/state/fips-unit.php?code=f35015) - Lea (/geology/state/fips-unit.php?code=f35025) - Roosevelt (/geology/state/fips-unit.php?code=f35041)

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Accessibility (<https://www2.usgs.gov/laws/accessibility.html>) | Site Map (<https://www.usgs.gov/sitemap.html>) |

Contact USGS (<https://answers.usgs.gov/>)

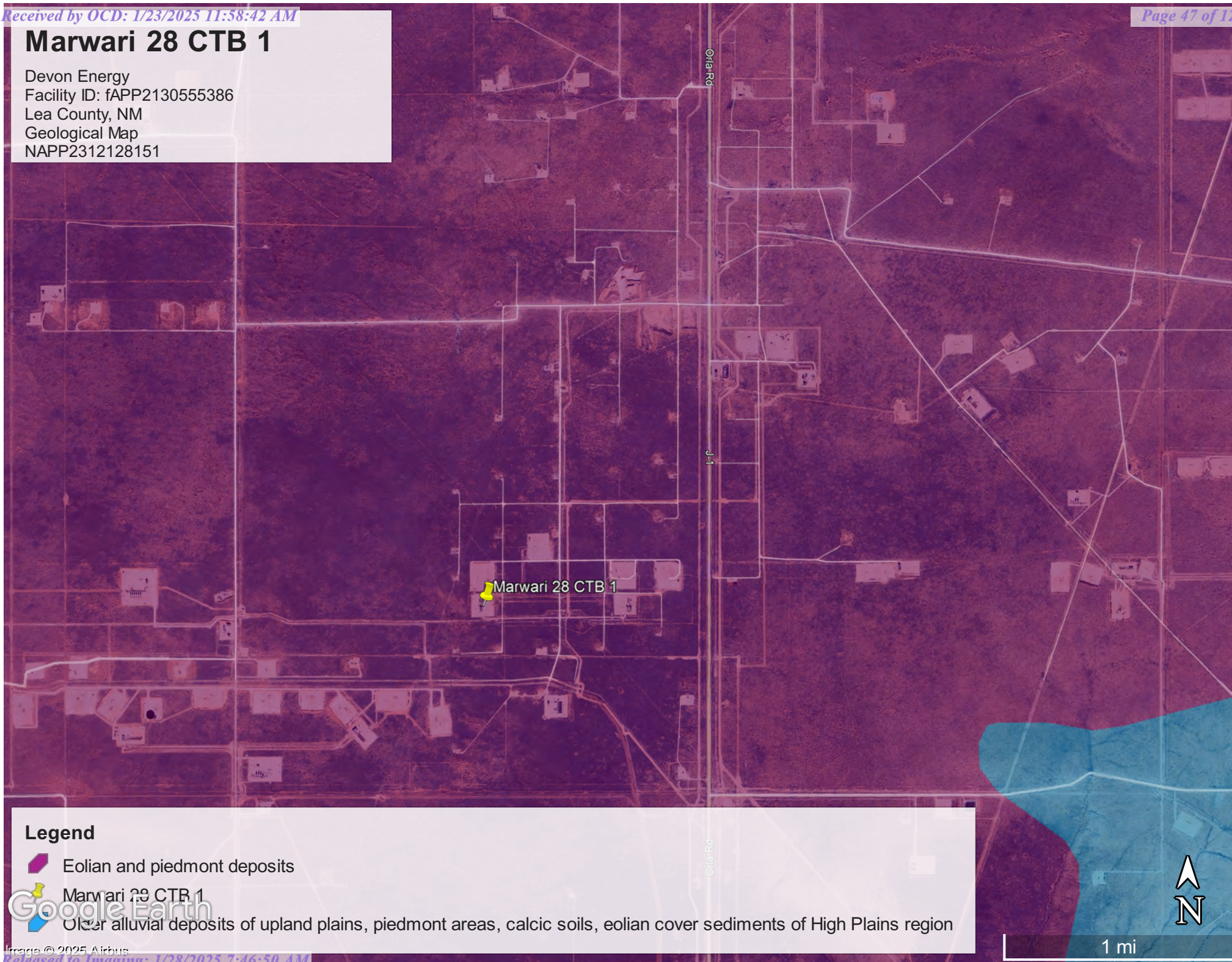
U.S. Department of the Interior (<https://www.doi.gov/>) | DOI Inspector General (<https://www.doiig.gov/>) |

White House (<https://www.whitehouse.gov/>) | E-gov (<https://www.whitehouse.gov/omb/management/egov/>) |

No Fear Act (<https://www.doi.gov/pmb/eeo/no-fear-act>) | FOIA (<https://www2.usgs.gov/foia>)

Marwari 28 CTB 1

Devon Energy
Facility ID: fAPP2130555386
Lea County, NM
Geological Map
NAPP2312128151



Legend



Eolian and piedmont deposits



Marwari 28 CTB 1

Older alluvial deposits of upland plains, piedmont areas, calcic soils, eolian cover sediments of High Plains region

National Flood Hazard Layer FIRMMette



103°41'34"W 32°6'36"N



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

1:6,000

103°40'57"W 32°6'6"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		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

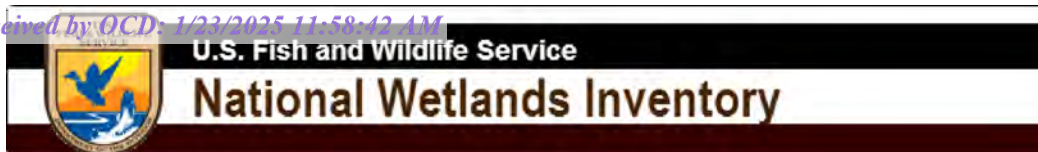


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/3/2024 at 3:51 PM 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.



Wetlands Map



December 3, 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.

Pima Environmental Services, LLC.



Appendix C

○ Photographic Documentation

PHOTOGRAPHIC DOCUMENTATION

SITE NAME: Marwari 28 CTB

Assessment :



Photograph of site tech assessing the area, Facing East.



Photograph of site tech assessing the area, Facing Northwest.



Photograph of site tech assessing the area, Facing Southwest.



Photograph of site tech assessing the area, Facing West.



Photograph of site tech assessing the area,
Facing Northeast.

PHOTOGRAPHIC DOCUMENTATION

SITE NAME: Marwari 28 CTB

Aerial Photos :



Aerial photos of location.



Aerial photos of location.



Aerial photos of location.

Pima Environmental Services, LLC.



Appendix D

○ Laboratory Reports

Report to:
Tom Bynum



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Pima Environmental Services-Carlsbad

Project Name: Marwari 28 CTB 1-1

Work Order: E305039

Job Number: 01058-0007

Received: 5/8/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/12/23

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/12/23



Tom Bynum
PO Box 247
Plains, TX 79355-0247

Project Name: Marwari 28 CTB 1-1
Workorder: E305039
Date Received: 5/8/2023 7:45:00AM

Tom Bynum,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/8/2023 7:45:00AM, under the Project Name: Marwari 28 CTB 1-1.

The analytical test results summarized in this report with the Project Name: Marwari 28 CTB 1-1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

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West Texas Midland/Odessa Area
Rayny Hagan
Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	05/12/23 11:45

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S1-1'	E305039-01A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S1-2'	E305039-02A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S1-3'	E305039-03A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S1-4'	E305039-04A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S2-1'	E305039-05A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S2-2'	E305039-06A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S2-3'	E305039-07A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S2-4'	E305039-08A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S3-1'	E305039-09A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S3-2'	E305039-10A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S3-3'	E305039-11A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S3-4'	E305039-12A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S4-1'	E305039-13A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S4-2'	E305039-14A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S4-3'	E305039-15A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S4-4'	E305039-16A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S5-1'	E305039-17A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S5-2'	E305039-18A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S5-3'	E305039-19A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S5-4'	E305039-20A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.



Sample Data

Pima Environmental Services-Carlsbad PO Box 247 Plains TX, 79355-0247	Project Name: Marwari 28 CTB 1-1 Project Number: 01058-0007 Project Manager: Tom Bynum	Reported: 5/12/2023 11:45:33AM
---	--	--

S1-1'

E305039-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
<i>Surrogate: Bromofluorobenzene</i>		106 %	70-130	05/08/23	05/08/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		117 %	70-130	05/08/23	05/08/23	
<i>Surrogate: Toluene-d8</i>		97.1 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
<i>Surrogate: Bromofluorobenzene</i>		106 %	70-130	05/08/23	05/08/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		117 %	70-130	05/08/23	05/08/23	
<i>Surrogate: Toluene-d8</i>		97.1 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/09/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/09/23	
<i>Surrogate: n-Nonane</i>		87.8 %	50-200	05/09/23	05/09/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	1060	20.0	1	05/08/23	05/10/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S1-2'

E305039-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		116 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		99.0 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		116 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		99.0 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/09/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/09/23	
Surrogate: n-Nonane		91.5 %	50-200	05/09/23	05/09/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	340	20.0	1	05/08/23	05/10/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S1-3'

E305039-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		98.1 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		98.1 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/09/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/09/23	
Surrogate: n-Nonane		93.0 %	50-200	05/09/23	05/09/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	144	20.0	1	05/08/23	05/10/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S1-4'

E305039-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		98.3 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		98.3 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/09/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/09/23	
Surrogate: n-Nonane		92.3 %	50-200	05/09/23	05/09/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	34.1	20.0	1	05/08/23	05/10/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S2-1'

E305039-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		97.1 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		97.1 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/09/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/09/23	
Surrogate: n-Nonane		93.6 %	50-200	05/09/23	05/09/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	582	20.0	1	05/08/23	05/10/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S2-2'

E305039-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		97.5 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		97.5 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/09/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/09/23	
Surrogate: n-Nonane		93.0 %	50-200	05/09/23	05/09/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	337	20.0	1	05/08/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S2-3'

E305039-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		98.5 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		98.5 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/09/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/09/23	
Surrogate: n-Nonane		91.5 %	50-200	05/09/23	05/09/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	145	20.0	1	05/08/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S2-4'

E305039-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		111 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		99.2 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		111 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		99.2 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/09/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/09/23	
Surrogate: n-Nonane		95.0 %	50-200	05/09/23	05/09/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	39.1	20.0	1	05/08/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S3-1'

E305039-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		97.7 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		97.7 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/09/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/09/23	
Surrogate: n-Nonane		95.0 %	50-200	05/09/23	05/09/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	598	20.0	1	05/08/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S3-2'

E305039-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		97.9 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		97.9 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/09/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/09/23	
Surrogate: n-Nonane		94.0 %	50-200	05/09/23	05/09/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	394	20.0	1	05/08/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S3-3'

E305039-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		98.6 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		98.6 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/10/23	
Surrogate: n-Nonane		93.2 %	50-200	05/09/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	158	20.0	1	05/08/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S3-4'

E305039-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/08/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/08/23	
Toluene	ND	0.0250	1	05/08/23	05/08/23	
o-Xylene	ND	0.0250	1	05/08/23	05/08/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/08/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		103 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		98.9 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/08/23	
Surrogate: Bromofluorobenzene		103 %	70-130	05/08/23	05/08/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/08/23	05/08/23	
Surrogate: Toluene-d8		98.9 %	70-130	05/08/23	05/08/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/10/23	
Surrogate: n-Nonane		92.7 %	50-200	05/09/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	36.7	20.0	1	05/08/23	05/12/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S4-1'

E305039-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.8 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.8 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/10/23	
Surrogate: n-Nonane		94.6 %	50-200	05/09/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	604	20.0	1	05/08/23	05/12/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S4-2'

E305039-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.4 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.4 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/10/23	
Surrogate: n-Nonane		92.6 %	50-200	05/09/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	327	20.0	1	05/08/23	05/12/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S4-3'

E305039-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.3 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.3 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/10/23	
Surrogate: n-Nonane		91.9 %	50-200	05/09/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	178	20.0	1	05/08/23	05/12/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S4-4'

E305039-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.9 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.9 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/10/23	
Surrogate: n-Nonane		96.5 %	50-200	05/09/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	107	20.0	1	05/08/23	05/12/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S5-1'

E305039-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.7 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.7 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/10/23	
Surrogate: n-Nonane		92.4 %	50-200	05/09/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	912	20.0	1	05/08/23	05/12/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S5-2'

E305039-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.8 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.8 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/10/23	
Surrogate: n-Nonane		89.8 %	50-200	05/09/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	316	20.0	1	05/08/23	05/12/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S5-3'

E305039-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.3 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.3 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/10/23	
Surrogate: n-Nonane		91.8 %	50-200	05/09/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319009
Chloride	155	20.0	1	05/08/23	05/12/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:45:33AM

S5-4'

E305039-20

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		103 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		99.5 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319005
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		103 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		99.5 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319030
Diesel Range Organics (C10-C28)	ND	25.0	1	05/09/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/09/23	05/10/23	
Surrogate: n-Nonane		95.0 %	50-200	05/09/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319041
Chloride	27.3	20.0	1	05/10/23	05/10/23	



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/12/2023 11:45:33AM

Volatile Organic Compounds by EPA 8260B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2319005-BLK1)

Prepared: 05/08/23 Analyzed: 05/08/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.542		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.564		0.500		113	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.1	70-130			

LCS (2319005-BS1)

Prepared: 05/08/23 Analyzed: 05/08/23

Benzene	2.55	0.0250	2.50		102	70-130			
Ethylbenzene	2.42	0.0250	2.50		96.9	70-130			
Toluene	2.44	0.0250	2.50		97.6	70-130			
o-Xylene	2.38	0.0250	2.50		95.2	70-130			
p,m-Xylene	4.73	0.0500	5.00		94.7	70-130			
Total Xylenes	7.11	0.0250	7.50		94.8	70-130			
Surrogate: Bromofluorobenzene	0.545		0.500		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.566		0.500		113	70-130			
Surrogate: Toluene-d8	0.493		0.500		98.5	70-130			

Matrix Spike (2319005-MS1)

Source: E305039-02

Prepared: 05/08/23 Analyzed: 05/08/23

Benzene	2.73	0.0250	2.50	ND	109	48-131			
Ethylbenzene	2.68	0.0250	2.50	ND	107	45-135			
Toluene	2.69	0.0250	2.50	ND	107	48-130			
o-Xylene	2.65	0.0250	2.50	ND	106	43-135			
p,m-Xylene	5.22	0.0500	5.00	ND	104	43-135			
Total Xylenes	7.87	0.0250	7.50	ND	105	43-135			
Surrogate: Bromofluorobenzene	0.552		0.500		110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.562		0.500		112	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.8	70-130			

Matrix Spike Dup (2319005-MSD1)

Source: E305039-02

Prepared: 05/08/23 Analyzed: 05/08/23

Benzene	2.53	0.0250	2.50	ND	101	48-131	7.58	23	
Ethylbenzene	2.48	0.0250	2.50	ND	99.4	45-135	7.46	27	
Toluene	2.48	0.0250	2.50	ND	99.3	48-130	7.90	24	
o-Xylene	2.48	0.0250	2.50	ND	99.4	43-135	6.43	27	
p,m-Xylene	4.88	0.0500	5.00	ND	97.5	43-135	6.75	27	
Total Xylenes	7.36	0.0250	7.50	ND	98.1	43-135	6.64	27	
Surrogate: Bromofluorobenzene	0.552		0.500		110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.546		0.500		109	70-130			
Surrogate: Toluene-d8	0.502		0.500		100	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/12/2023 11:45:33AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2319005-BLK1)

Prepared: 05/08/23 Analyzed: 05/08/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.542		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.564		0.500		113	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.1	70-130			

LCS (2319005-BS2)

Prepared: 05/08/23 Analyzed: 05/08/23

Gasoline Range Organics (C6-C10)	42.2	20.0	50.0		84.4	70-130			
Surrogate: Bromofluorobenzene	0.542		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.530		0.500		106	70-130			
Surrogate: Toluene-d8	0.503		0.500		101	70-130			

Matrix Spike (2319005-MS2)

Source: E305039-02

Prepared: 05/08/23 Analyzed: 05/08/23

Gasoline Range Organics (C6-C10)	41.5	20.0	50.0	ND	83.0	70-130			
Surrogate: Bromofluorobenzene	0.536		0.500		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.537		0.500		107	70-130			
Surrogate: Toluene-d8	0.506		0.500		101	70-130			

Matrix Spike Dup (2319005-MSD2)

Source: E305039-02

Prepared: 05/08/23 Analyzed: 05/08/23

Gasoline Range Organics (C6-C10)	40.1	20.0	50.0	ND	80.3	70-130	3.39	20	
Surrogate: Bromofluorobenzene	0.550		0.500		110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.576		0.500		115	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/12/2023 11:45:33AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2319030-BLK1)					Prepared: 05/09/23 Analyzed: 05/09/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	46.6		50.0		93.2	50-200			

LCS (2319030-BS1)					Prepared: 05/09/23 Analyzed: 05/09/23				
Diesel Range Organics (C10-C28)	255	25.0	250		102	38-132			
Surrogate: n-Nonane	46.2		50.0		92.5	50-200			

Matrix Spike (2319030-MS1)					Source: E305039-12		Prepared: 05/09/23 Analyzed: 05/09/23		
Diesel Range Organics (C10-C28)	257	25.0	250	ND	103	38-132			
Surrogate: n-Nonane	46.5		50.0		92.9	50-200			

Matrix Spike Dup (2319030-MSD1)					Source: E305039-12		Prepared: 05/09/23 Analyzed: 05/09/23		
Diesel Range Organics (C10-C28)	262	25.0	250	ND	105	38-132	2.00	20	
Surrogate: n-Nonane	47.7		50.0		95.4	50-200			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/12/2023 11:45:33AM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2319009-BLK1)					Prepared: 05/08/23 Analyzed: 05/10/23				
Chloride	ND	20.0							
LCS (2319009-BS1)					Prepared: 05/08/23 Analyzed: 05/10/23				
Chloride	250	20.0	250		99.9	90-110			
Matrix Spike (2319009-MS1)					Source: E305039-01		Prepared: 05/08/23 Analyzed: 05/10/23		
Chloride	1320	20.0	250	1060	105	80-120			
Matrix Spike Dup (2319009-MSD1)					Source: E305039-01		Prepared: 05/08/23 Analyzed: 05/10/23		
Chloride	1300	20.0	250	1060	93.9	80-120	2.18	20	



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/12/2023 11:45:33AM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2319041-BLK1)					Prepared: 05/10/23 Analyzed: 05/10/23				
Chloride	ND	20.0							
LCS (2319041-BS1)					Prepared: 05/10/23 Analyzed: 05/10/23				
Chloride	242	20.0	250		97.0	90-110			
Matrix Spike (2319041-MS1)					Source: E305039-20		Prepared: 05/10/23 Analyzed: 05/10/23		
Chloride	272	20.0	250	27.3	98.1	80-120			
Matrix Spike Dup (2319041-MSD1)					Source: E305039-20		Prepared: 05/10/23 Analyzed: 05/10/23		
Chloride	265	20.0	250	27.3	95.2	80-120	2.64	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	
PO Box 247	Project Number:	01058-0007	Reported:
Plains TX, 79355-0247	Project Manager:	Tom Bynum	05/12/23 11:45

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Project Information

Chain of Custody

Page 1 of 4

Client: Pima Environmental Services		Bill To		Lab Use Only		TAT		EPA Program					
Project: <u>Marwari 28 CTB 1</u>		Attention: <u>Devon</u>		Lab WO# <u>305039</u>		Job Number <u>01058-007</u>		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Tom Bynum		Address:		Analysis and Method								RCRA	
Address: <u>5614 N. Lovington Hwy.</u>		City, State, Zip											
City, State, Zip <u>Hobbs, NM, 88240</u>		Phone:											
Phone: <u>580-748-1613</u>		Email:											
Email: <u>tom@pimaoil.com</u>		Pima Project # <u>139</u>											
Report due by:													

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks
9:05 ^{AM}	5/4/23	S	1	S1-1	1							X		
9:10 ^{AM}	5/4/23			S1-2	2									
9:15 ^{AM}	5/4/23			S1-3	3									
9:20 ^{AM}	5/4/23			S1-4	4									
9:25 ^{AM}	5/4/23			S2-1	5									
9:30 ^{AM}	5/4/23			S2-2	6									
9:35 ^{AM}	5/4/23			S2-3	7									
9:40 ^{AM}	5/4/23			S2-4	8									
9:45 ^{AM}	5/4/23			S3-1	9									
9:50 ^{AM}	5/4/23			S3-2	10									

Additional Instructions:

Billing # 21161793

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days.

Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only	
<u>Kerime Adame</u>		5-5-23	14:42	<u>[Signature]</u>		5-5-23	14:47	Received on ice: <u>(Y) N</u>	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3	
<u>[Signature]</u>		5-5-23	2300	<u>[Signature]</u>		5-8-23	7:45		
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C	
<u>[Signature]</u>				<u>[Signature]</u>				4	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

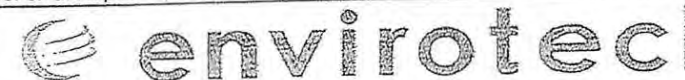
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotec

Project Information

Chain of Custody

Client: Pima Environmental Services					Bill To		Lab Use Only		TAT				EPA Program			
Project: <u>Marwari 28 STH 1</u>					Attention: <u>Devon</u>		Lab WO# <u>305039</u>		Job Number <u>01058-0007</u>		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Tom Bynum					Address:		Analysis and Method								RCRA	
Address: <u>56 14 N. Lovington Hwy.</u>					City, State, Zip		DRO/ORO by 8015		GRO/DRO by 8015		BTEX by 8021		VOC by 8260		Metals 6010	
City, State, Zip <u>Hobbs, NM. 88240</u>					Phone:		Chloride 300.0						BGDOC NM		BGDOC TX	
Phone: <u>580-748-1613</u>					Email:											
Email: <u>tom@pimaoil.com</u>					Pima Project # <u>139</u>										State	
Report due by:															NM CO UT AZ TX	
															Remarks	
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number											
9:55	5/4/23	S	1	S3-3'	11									X		
10:00	5/4/23		1	S3-4'	12											
10:05	5/4/23			S4-1'	13											
10:10	5/4/23			S4-2'	14											
10:15	5/4/23			S4-3'	15											
10:20	5/4/23			S4-4'	16											
10:25	5/4/23			S5-1'	17											
10:30	5/4/23			S5-2'	18											
10:35	5/4/23			S5-3'	19											
10:40	5/4/23			S5-4'	20											
Additional Instructions: <u>Billing # 21161793</u>																
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																
Sampled by:																
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only								
<u>Kerime Adams</u>		5-5-23	14:42	<u>Devon</u>		5-8-23	14:47	Received on ice: <u>Y</u> / N								
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1: T2: T3:								
<u>[Signature]</u>		5-8-23	2000	<u>[Signature]</u>		5-8-23	7:45									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C <u>4</u>								
<u>[Signature]</u>				<u>[Signature]</u>												
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other																
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																



Envirotech Analytical Laboratory

Printed: 5/8/2023 11:29:15AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Pima Environmental Services-Carlsbad	Date Received:	05/08/23 07:45	Work Order ID:	E305039
Phone:	(575) 631-6977	Date Logged In:	05/08/23 08:37	Logged In By:	Alexa Michaels
Email:	tom@pimaoil.com	Due Date:	05/12/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/Resolution

Project Marwari 28 CTB 1-1 has been separated into 2 reports due to sample volume. Workorders are as follows E305039 & E305040.

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Tom Bynum



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Pima Environmental Services-Carlsbad

Project Name: Marwari 28 CTB 1-1

Work Order: E305040

Job Number: 01058-0007

Received: 5/8/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/12/23

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/12/23



Tom Bynum
PO Box 247
Plains, TX 79355-0247

Project Name: Marwari 28 CTB 1-1
Workorder: E305040
Date Received: 5/8/2023 7:45:00AM

Tom Bynum,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/8/2023 7:45:00AM, under the Project Name: Marwari 28 CTB 1-1.

The analytical test results summarized in this report with the Project Name: Marwari 28 CTB 1-1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
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Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	05/12/23 11:15

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S6-1'	E305040-01A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S6-2'	E305040-02A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S6-3'	E305040-03A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S6-4'	E305040-04A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S7-1'	E305040-05A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S7-2'	E305040-06A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S7-3'	E305040-07A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
S7-4'	E305040-08A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
SW1	E305040-09A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
SW2	E305040-10A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
SW3	E305040-11A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
SW4	E305040-12A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
SW5	E305040-13A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
SW6	E305040-14A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
SW7	E305040-15A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
SW8	E305040-16A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.
BG1	E305040-17A	Soil	05/04/23	05/08/23	Glass Jar, 2 oz.



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

S6-1'

E305040-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene	107 %	70-130		05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4	106 %	70-130		05/08/23	05/09/23	
Surrogate: Toluene-d8	96.6 %	70-130		05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene	107 %	70-130		05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4	106 %	70-130		05/08/23	05/09/23	
Surrogate: Toluene-d8	96.6 %	70-130		05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/10/23	
Surrogate: n-Nonane	103 %	50-200		05/10/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	612	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

S6-2'

E305040-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		114 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.7 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		114 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.7 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/10/23	
Surrogate: n-Nonane		102 %	50-200	05/10/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	335	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

S6-3'

E305040-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		105 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.8 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		105 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.8 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/10/23	
Surrogate: n-Nonane		97.6 %	50-200	05/10/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	144	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

S6-4'

E305040-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.3 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.3 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/10/23	
Surrogate: n-Nonane		97.5 %	50-200	05/10/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	114	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

S7-1'

E305040-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.4 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.4 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/10/23	
Surrogate: n-Nonane		103 %	50-200	05/10/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	867	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

S7-2'

E305040-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		109 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		99.0 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		109 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		99.0 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/10/23	
Surrogate: n-Nonane		105 %	50-200	05/10/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	273	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

S7-3'

E305040-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		114 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		96.9 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		114 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		96.9 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/10/23	
Surrogate: n-Nonane		105 %	50-200	05/10/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	154	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

S7-4'

E305040-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.0 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.0 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/10/23	
Surrogate: n-Nonane		105 %	50-200	05/10/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	121	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

SW1

E305040-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		115 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.3 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		115 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.3 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/10/23	
Surrogate: n-Nonane		106 %	50-200	05/10/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	ND	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

SW2

E305040-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		101 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		101 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/10/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/10/23	
Surrogate: n-Nonane		107 %	50-200	05/10/23	05/10/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	ND	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

SW3

E305040-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.5 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.5 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/11/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/11/23	
Surrogate: n-Nonane		104 %	50-200	05/10/23	05/11/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	ND	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

SW4

E305040-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		115 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.5 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		115 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		97.5 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/11/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/11/23	
Surrogate: n-Nonane		103 %	50-200	05/10/23	05/11/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	ND	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

SW5

E305040-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		115 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		99.2 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		115 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		99.2 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/11/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/11/23	
Surrogate: n-Nonane		104 %	50-200	05/10/23	05/11/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	ND	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

SW6

E305040-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		109 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		100 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		109 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		100 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/11/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/11/23	
Surrogate: n-Nonane		103 %	50-200	05/10/23	05/11/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	ND	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

SW7

E305040-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		111 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		101 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		111 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		101 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/11/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/11/23	
Surrogate: n-Nonane		103 %	50-200	05/10/23	05/11/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	ND	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

SW8

E305040-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		111 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.8 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		111 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.8 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/11/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/11/23	
Surrogate: n-Nonane		103 %	50-200	05/10/23	05/11/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	ND	20.0	1	05/10/23	05/11/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: Marwari 28 CTB 1-1
Project Number: 01058-0007
Project Manager: Tom Bynum

Reported:
5/12/2023 11:15:20AM

BG1

E305040-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Benzene	ND	0.0250	1	05/08/23	05/09/23	
Ethylbenzene	ND	0.0250	1	05/08/23	05/09/23	
Toluene	ND	0.0250	1	05/08/23	05/09/23	
o-Xylene	ND	0.0250	1	05/08/23	05/09/23	
p,m-Xylene	ND	0.0500	1	05/08/23	05/09/23	
Total Xylenes	ND	0.0250	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.9 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2319010
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/08/23	05/09/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/08/23	05/09/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/08/23	05/09/23	
Surrogate: Toluene-d8		98.9 %	70-130	05/08/23	05/09/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2319036
Diesel Range Organics (C10-C28)	ND	25.0	1	05/10/23	05/11/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/10/23	05/11/23	
Surrogate: n-Nonane		106 %	50-200	05/10/23	05/11/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2319006
Chloride	ND	20.0	1	05/10/23	05/11/23	



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/12/2023 11:15:20AM

Volatile Organic Compounds by EPA 8260B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2319010-BLK1)

Prepared: 05/08/23 Analyzed: 05/09/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.513		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.8	70-130			

LCS (2319010-BS1)

Prepared: 05/08/23 Analyzed: 05/09/23

Benzene	2.69	0.0250	2.50		107	70-130			
Ethylbenzene	2.57	0.0250	2.50		103	70-130			
Toluene	2.58	0.0250	2.50		103	70-130			
o-Xylene	2.55	0.0250	2.50		102	70-130			
p,m-Xylene	5.05	0.0500	5.00		101	70-130			
Total Xylenes	7.60	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.552		0.500		110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.505		0.500		101	70-130			

Matrix Spike (2319010-MS1)

Source: E305040-03

Prepared: 05/08/23 Analyzed: 05/09/23

Benzene	2.62	0.0250	2.50	ND	105	48-131			
Ethylbenzene	2.50	0.0250	2.50	ND	99.9	45-135			
Toluene	2.50	0.0250	2.50	ND	99.8	48-130			
o-Xylene	2.46	0.0250	2.50	ND	98.4	43-135			
p,m-Xylene	4.87	0.0500	5.00	ND	97.4	43-135			
Total Xylenes	7.33	0.0250	7.50	ND	97.8	43-135			
Surrogate: Bromofluorobenzene	0.542		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.528		0.500		106	70-130			
Surrogate: Toluene-d8	0.493		0.500		98.6	70-130			

Matrix Spike Dup (2319010-MSD1)

Source: E305040-03

Prepared: 05/08/23 Analyzed: 05/09/23

Benzene	2.49	0.0250	2.50	ND	99.8	48-131	5.06	23	
Ethylbenzene	2.43	0.0250	2.50	ND	97.1	45-135	2.80	27	
Toluene	2.44	0.0250	2.50	ND	97.6	48-130	2.27	24	
o-Xylene	2.44	0.0250	2.50	ND	97.5	43-135	0.980	27	
p,m-Xylene	4.76	0.0500	5.00	ND	95.1	43-135	2.39	27	
Total Xylenes	7.19	0.0250	7.50	ND	95.9	43-135	1.91	27	
Surrogate: Bromofluorobenzene	0.539		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.531		0.500		106	70-130			
Surrogate: Toluene-d8	0.505		0.500		101	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/12/2023 11:15:20AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2319010-BLK1)

Prepared: 05/08/23 Analyzed: 05/09/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.513		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.8	70-130			

LCS (2319010-BS2)

Prepared: 05/08/23 Analyzed: 05/09/23

Gasoline Range Organics (C6-C10)	42.1	20.0	50.0		84.2	70-130			
Surrogate: Bromofluorobenzene	0.541		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.531		0.500		106	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			

Matrix Spike (2319010-MS2)

Source: E305040-03

Prepared: 05/08/23 Analyzed: 05/09/23

Gasoline Range Organics (C6-C10)	39.9	20.0	50.0	ND	79.8	70-130			
Surrogate: Bromofluorobenzene	0.532		0.500		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.556		0.500		111	70-130			
Surrogate: Toluene-d8	0.495		0.500		99.0	70-130			

Matrix Spike Dup (2319010-MSD2)

Source: E305040-03

Prepared: 05/08/23 Analyzed: 05/09/23

Gasoline Range Organics (C6-C10)	39.1	20.0	50.0	ND	78.3	70-130	1.95	20	
Surrogate: Bromofluorobenzene	0.540		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.536		0.500		107	70-130			
Surrogate: Toluene-d8	0.504		0.500		101	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported: 5/12/2023 11:15:20AM
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2319036-BLK1)					Prepared: 05/10/23 Analyzed: 05/10/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	51.1		50.0		102	50-200			

LCS (2319036-BS1)					Prepared: 05/10/23 Analyzed: 05/10/23				
Diesel Range Organics (C10-C28)	271	25.0	250		108	38-132			
Surrogate: n-Nonane	50.5		50.0		101	50-200			

Matrix Spike (2319036-MS1)				Source: E305040-08		Prepared: 05/10/23 Analyzed: 05/10/23			
Diesel Range Organics (C10-C28)	268	25.0	250	ND	107	38-132			
Surrogate: n-Nonane	48.6		50.0		97.2	50-200			

Matrix Spike Dup (2319036-MSD1)				Source: E305040-08		Prepared: 05/10/23 Analyzed: 05/10/23			
Diesel Range Organics (C10-C28)	265	25.0	250	ND	106	38-132	1.40	20	
Surrogate: n-Nonane	49.1		50.0		98.2	50-200			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	Reported:
PO Box 247	Project Number:	01058-0007	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/12/2023 11:15:20AM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2319006-BLK1)					Prepared: 05/10/23 Analyzed: 05/11/23				
Chloride	ND	20.0							
LCS (2319006-BS1)					Prepared: 05/10/23 Analyzed: 05/11/23				
Chloride	259	20.0	250		104	90-110			
Matrix Spike (2319006-MS1)					Source: E305040-01		Prepared: 05/10/23 Analyzed: 05/11/23		
Chloride	893	20.0	250	612	112	80-120			
Matrix Spike Dup (2319006-MSD1)					Source: E305040-01		Prepared: 05/10/23 Analyzed: 05/11/23		
Chloride	828	20.0	250	612	86.4	80-120	7.50	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Pima Environmental Services-Carlsbad	Project Name:	Marwari 28 CTB 1-1	
PO Box 247	Project Number:	01058-0007	Reported:
Plains TX, 79355-0247	Project Manager:	Tom Bynum	05/12/23 11:15

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information

Chain of Custody

Page 3 of 4

Client: Pima Environmental Services		Bill To		Lab Use Only		TAT		EPA Program	
Project: <u>Mar Wari 28 CTB 1</u>		Attention: <u>Devon</u>		Lab WO# <u>40</u> Job Number <u>1058-0007</u>		1D 2D 3D Standard <u>Y</u>		CWA SDWA	
Project Manager: Tom Bynum		Address:		Analysis and Method				RCRA	
Address: <u>5614 N. Lovington Hwy.</u>		City, State, Zip							
City, State, Zip <u>Hobbs, NM, 88240</u>		Phone:							
Phone: <u>580-748-1613</u>		Email:							
Email: <u>tom@pimaoil.com</u>		Pima Project # <u>139</u>							
Report due by:									

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks
10:45 ^{am}	5/4/23	S	1	SG-1	1							X		
10:50 ^{am}	5/4/23			SG-2	2									
10:55 ^{am}	5/4/23			SG-3	3									
11:00 ^{am}	5/4/23			SG-4	4									
11:05 ^{am}	5/4/23			SW-1	5									
11:10 ^{am}	5/4/23			SW-2	6									
11:15 ^{am}	5/4/23			SW-3	7									
11:20 ^{am}	5/4/23			SW-4	8									
11:25 ^{am}	5/4/23			SW1	9									
11:30 ^{am}	5/4/23			SW2	10									

Additional Instructions:

Billing # 21161793

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days.

Relinquished by: (Signature) <u>Marime Adams</u>	Date <u>5-5-23</u>	Time <u>14:42</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>5-5-23</u>	Time <u>14:47</u>	Lab Use Only Received on ice: <u>Y</u> <u>N</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>5-5-23</u>	Time <u>2300</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>5-8-23</u>	Time <u>7:45</u>	T1: T2: T3:
Relinquished by: (Signature) <u>[Signature]</u>	Date	Time	Received by: (Signature)	Date	Time	AVG Temp °C <u>4</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Project Information

Chain of Custody

Page 4 of 4

Client: Pima Environmental Services					Bill To		Lab Use Only				TAT				EPA Program	
Project: <u>Maya Wari 28 CTB1</u>					Attention: <u>Devon</u>		Lab WO# <u>40</u>		Job Number <u>01058-0007</u>		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Tom Bynum					Address:		<u>Analysis and Method</u>								RCRA	
Address: 56 14 N. Lovington Hwy.					City, State, Zip											
City, State, Zip Hobbs, NM, 88240					Phone:											
Phone: 580-748-1613					Email:											
Email: tom@pimaoil.com					Pima Project # <u>139</u>											
Report due by:																

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks
11:35	5/4/23	S	1	SW3	11								X	
11:40	5/4/23			SW4	12									
11:45	5/4/23			SW5	13									
11:50	5/4/23			SW6	14									
11:55	5/4/23			SW7	15									
12:00 PM	5/4/23			SW8	16									
12:05 PM	5/4/23			BG1	17									

Additional Instructions: Billing # 21161793

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Relinquished by: (Signature) Karime Adams Date 5.5.23 Time 14:42 Received by: (Signature) [Signature] Date 5.5.23 Time 14:47

Relinquished by: (Signature) [Signature] Date 5.5.23 Time 3:00 Received by: (Signature) [Signature] Date 5.8.23 Time 7:45

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

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotec

Envirotech Analytical Laboratory

Printed: 5/8/2023 11:41:12AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Pima Environmental Services-Carlsbad	Date Received:	05/08/23 07:45	Work Order ID:	E305040
Phone:	(575) 631-6977	Date Logged In:	05/08/23 08:41	Logged In By:	Alexa Michaels
Email:	tom@pimaoil.com	Due Date:	05/12/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/Resolution

Project Marwari 28 CTB 1-1 has been separated into 2 reports due to sample volume. Workorders are as follows E305039 & E305040.

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

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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 424118

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 424118
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2312128151
Incident Name	NAPP2312128151 MARWARI 28 CTB 1 @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Facility	[fAPP2130555386] MARWARI 28 CTB 1

Location of Release Source

Please answer all the questions in this group.

Site Name	MARWARI 28 CTB 1
Date Release Discovered	04/29/2023
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Pipeline (Any) Produced Water Released: 7 BBL Recovered: 3 BBL Lost: 4 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
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)	Lease Operator received a call that there was produced water on the ground. There was a hole in the bottom of a 6 inch water line from the 3 phases to the gun barrel. Well was shut in to stop the leak. Fluids did not leave location.

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QUESTIONS, Page 2

Action 424118

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 424118
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	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: James Raley Title: EHS Professional Email: jim.raley@dvni.com Date: 01/23/2025
--	---

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QUESTIONS, Page 3

Action 424118

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 424118
	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)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 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	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<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)	1060
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
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	02/20/2025
On what date will (or did) the final sampling or liner inspection occur	02/25/2025
On what date will (or was) the remediation complete(d)	02/20/2025
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	6150
What is the estimated volume (in cubic yards) that will be remediated	114

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 424118

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 424118
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<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>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	HALFWAY DISPOSAL AND LANDFILL [FEEM0112334510]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<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: James Raley Title: EHS Professional Email: jim.raley@dmv.com Date: 01/23/2025
<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 424118

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 424118
	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 424118

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 424118
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	419838
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	01/16/2025
What was the (estimated) number of samples that were to be gathered	25
What was the sampling surface area in square feet	3086

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 424118

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 424118
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
nvez	The remediation plan is approved as written. Devon has 90-days (April 28, 2025) to submit to OCD its appropriate or final remediation closure report.	1/28/2025