



October 31, 2024

New Mexico Oil Conservation Division  
506 W. Texas Ave  
Artesia, NM 88210

RE: **RDX Federal 28 #011 - Closure Request Report**  
Incident Number: nAPP2423424961  
GPS: 32.01974°, -103.89262°  
Eddy County, New Mexico  
ESRR Project No. 2409

To Whom It May Concern:

Earth Systems Response & Restoration (ESRR), on behalf of WPX Energy Permian, LLC (WPX), presents the following Closure Request Report (CRR) detailing excavation activities and subsequent soil sampling events associated with an inadvertent release of crude oil and produced water at the RDX Federal 28 #011 (Site). Based on completed remedial actions and laboratory analytical results from recent soil sampling events, WPX is requesting No Further Action (NFA) at the Site.

### Site Location & Incident Description

The Site is located in Unit D, Section 28, Township 26 South, Range 30 East, in Eddy County, New Mexico (32.01974°, -103.89262°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM) (**Figure 1**).

On August 18, 2024, a stuffing box failed, causing the release of approximately 1 barrel (bbl) of crude oil and 5 bbls of produced water onto a WPX production pad surface. A vacuum truck was immediately dispatched to the Site and recovered 2 bbls of fluids. ESRR conducted initial site assessment activities and mapped the observed release footprint on August 22, 2024, hereafter referred to as the Area of Concern (AOC) (**Figure 2**). WPX gave notice to the New Mexico Oil Conservation Division (NMOCD) on August 21, 2024, by Notification of Release (NOR) and Corrective Action Form C-141 (Form C-141) and was subsequently assigned Incident Number nAPP2423424961.

### Site Characterization

ESRR characterized the Site according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). The following proximities were estimated:

- Between 1 and 5 miles of any continuously flowing watercourse or any other significant watercourse;
- Greater than 5 miles of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- Between 1 and 5 miles of any occupied permanent residence, school, hospital, institution or church;
- Between 1 and 5 miles of any spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;
- Between 1 and 5 miles of any other freshwater well or spring;
- Greater than 5 miles of any incorporated municipal boundary or a defined municipal fresh water well field covered under a municipal ordinance;

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- Between 500 and 1,000 feet of any wetland;
- Greater than 5 miles of any subsurface mine;
- Between 1 and 5 miles of any unstable area (i.e. high karst potential); and
- Between 500 and 1,000 feet of a 100-year floodplain.

Receptor details used to determine the Site characterization are included in **Figure 1A** and **Figure 1B**. **Referenced Well Records** for the closest depth to water wells are attached.

Based on the results from the desktop review and depth to water estimated to be greater than 100 feet below ground surface (bgs), the following Closure Criteria was applied:

Constituents of Concern (COCs)	Closure Criteria <sup>‡</sup>
Chloride	20,000 milligram per kilogram (mg/kg)
Total Petroleum Hydrocarbon (TPH)	2,500 mg/kg
Gasoline Range Organics (GRO) + Diesel Range Organics (ORO)	1,000 mg/kg
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	50 mg/kg

<sup>‡</sup>The reclamation concentration requirements of 600 mg/kg Chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

Laboratory Analytical Methods used: Environmental Protection Agency (EPA) 300.0, EPA 8015 NM, EPA 8021 B

## Delineation Activities

On August 28, 2024, ESRR conducted delineation activities to assess the presence or absence of residual soil impacts associated with the AOC. Fourteen delineation boreholes (HA-1 through HA-14) were advanced via hand auger within and surrounding the AOC. Delineation activities were driven by field screening soil for chloride utilizing QuanTab® test strips. A minimum of two soil samples were collected from each delineation borehole, representing the highest observed field screening concentrations and the greatest depth. Delineation soil samples were placed directly into pre-cleaned jars, packed with minimal void space, labeled, and placed on ice. The delineation soil samples were transported under strict chain-of-custody procedures, to Envirotech in Farmington, New Mexico, for analysis of the COCs. **Soil Sampling Logs** and **Photographic Documentation** of all activities are attached.

Laboratory analytical results for soil samples collected surrounding the AOC (HA-9 through HA-14) were compliant with Site Closure Criteria and/ or the reclamation standard defining the horizontal periphery of the AOC.

Laboratory analytical results for samples collected within the AOC (HA-1 through HA-8) indicated either BTEX, TPH-GRO+TPH-DRO/TPH, and/or chloride were above the Site Closure Criteria and/or the reclamation standard up to 4 feet bgs. Elevated BTEX concentrations were characterized by concentrations ranging from 53.8 mg/kg to 64.1 mg/kg. Elevated chloride concentrations were characterized by concentrations ranging from 20,600 mg/kg to 23,100 mg/kg. Elevated TPH-GRO+TPH-DRO/TPH concentrations were characterized by concentrations ranging from 11,113 mg/kg to 55,520 mg/kg. Laboratory results are summarized in **Table 1**, included in the attachments. The locations of all delineation soil samples are shown in **Figure 2**.

## Remediation Activities

From September 17 through September 19, 2024, ESRR oversaw excavation activities of identified impacts performed via mechanical equipment and hand digging based on laboratory analytical results associated

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with delineation soil sampling activities, and visual observation. The excavation was vertically advanced to a depth of approximately 1-foot bgs.

Following the removal of soil, ESRR collected 5-point composite soil samples at a sampling frequency of 200 square feet from the excavation floor (CS-1 through CS-11) and sidewalls (SW-1 through SW-4). The 5-point composite soil samples were comprised of five equivalent aliquots homogenized in a 1-gallon resealable plastic bag. The confirmation soil samples were handled, transported, and analyzed as previously described.

Laboratory analytical results indicated that concentrations of COCs for all final confirmation soil samples were below the applicable Site Closure Criteria and/or reclamation standard. Laboratory results are summarized in **Table 1**, included in the attachments. The locations of all final confirmation soil samples are shown in **Figure 3**.

Approximately 140 cubic yards (CY) of impacted soil was removed from the Site and transported to R360 Red Bluff in Orla, Texas under WPX approved manifests. Upon receipt of the final confirmation soil samples results, the excavation was backfilled with clean, locally sourced soil and the Site was restored to "as close to its original state" as possible. The final soil cover was contoured to match the Site's pre-existing grade to prevent ponding of water and erosion.

### Closure Request

Based on laboratory analytical results, impacts associated with the inadvertent release have been delineated, excavated and removed from the Site in accordance with Site Closure Criteria. Due to the active status of the well pad, the top 4 feet of the AOC is not ready to undergo complete reclamation in which the primary purpose is to reestablish vegetation. With depth to groundwater estimated to be greater than 100 feet bgs and no sensitive receptors within the established buffers in NMAC 19.15.29.12, WPX believes residual chloride concentrations within the AOC exceeding the reclamation standard but below the Site Closure Criteria meets the requirements set forth in NMAC 19.15.29.13 regulations and is equally protective of human health, the environment, and groundwater.

WPX will reassess the Site during plugging and abandonment activities and address soil concentrations above the reclamation requirements of 100 mg/kg TPH and 600 mg/kg chloride (**Figure 4**). The final remediation will be confirmed via final confirmation sampling and is subject to change. As such, NFA appears warranted at this time, and WPX respectfully requests Closure of this CRR associated with Incident Number nAPP2423424961.

If you have any questions or comments, please do not hesitate to contact Gilbert Moreno at (832) 541-7719 or [gmoreno@earthsys.net](mailto:gmoreno@earthsys.net). Documentation and correspondence notifications and Executed chain-of-custody forms and laboratory analytical reports are attached.

Sincerely,

**EARTH SYSTEMS RESPONSE & RESTORATION**

A handwritten signature in black ink, appearing to read "Gilbert Moreno".

Gilbert Moreno  
Carlsbad Operations Manager-Project Geologist

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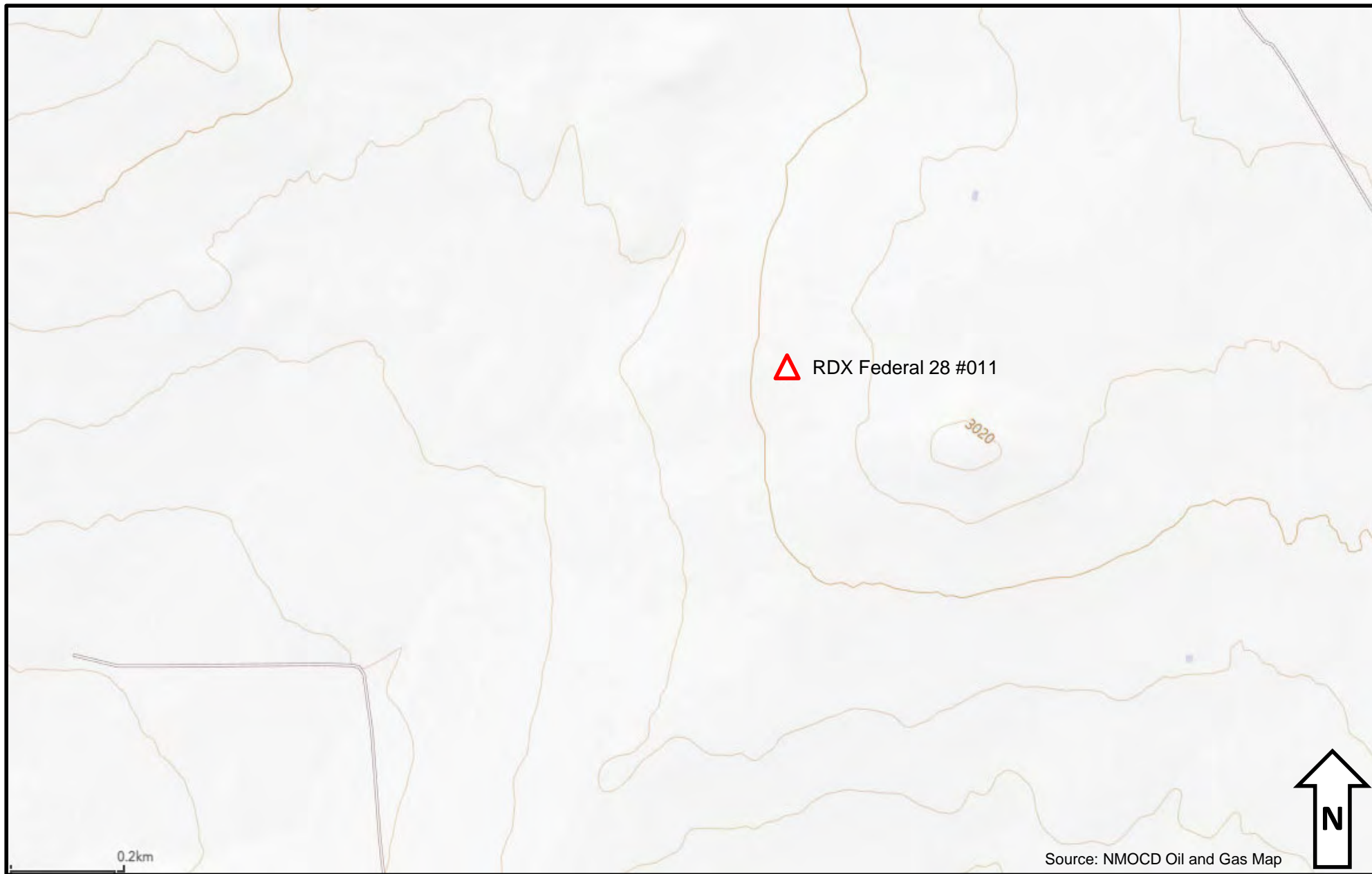


cc: Jim Raley, WPX Energy Permian, LLC  
Bureau of Land Management

Attachments:

Figure 1 - Site Map  
Figure 1A - Ground Water  
Figure 1B - Karst Potential  
Figure 2 - Delineation Soil Sample Locations  
Figure 3 - Excavation Soil Sample Locations  
Figure 4 - Future Restoration Areas  
Referenced Well Records  
Soil Sampling Logs  
Photographic Documentation  
Table 1 - Soil Sample Analytical Results  
NMOCD Email Documentation & Correspondance  
Executed Chain-of-Custody Forms and Laboratory Analytical Reports

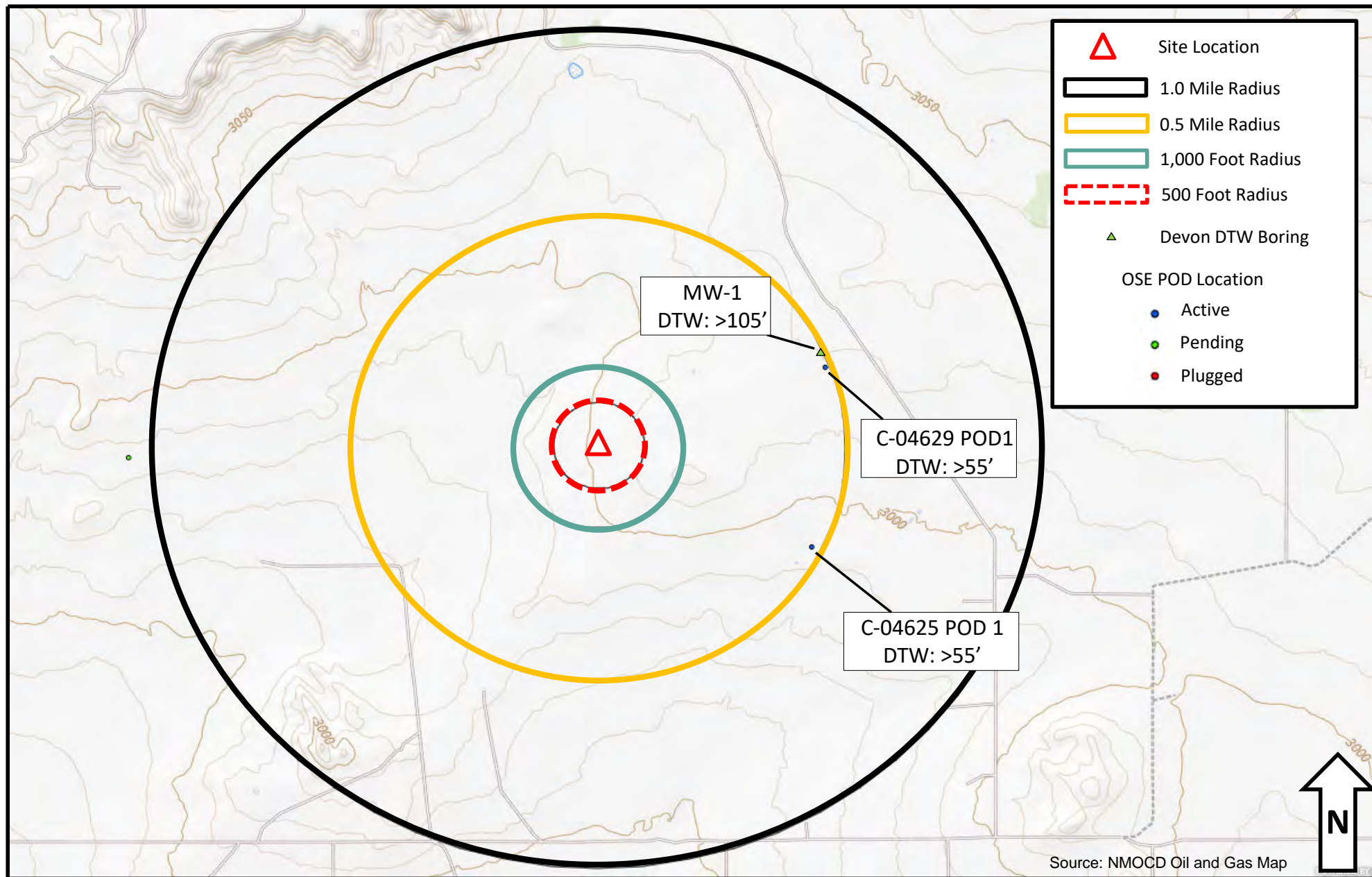




**Figure 1 – Site Map**

WPX Energy Permian – RDX Federal 28 #011  
GPS: 32.01974°, -103.89262°  
Eddy County, New Mexico

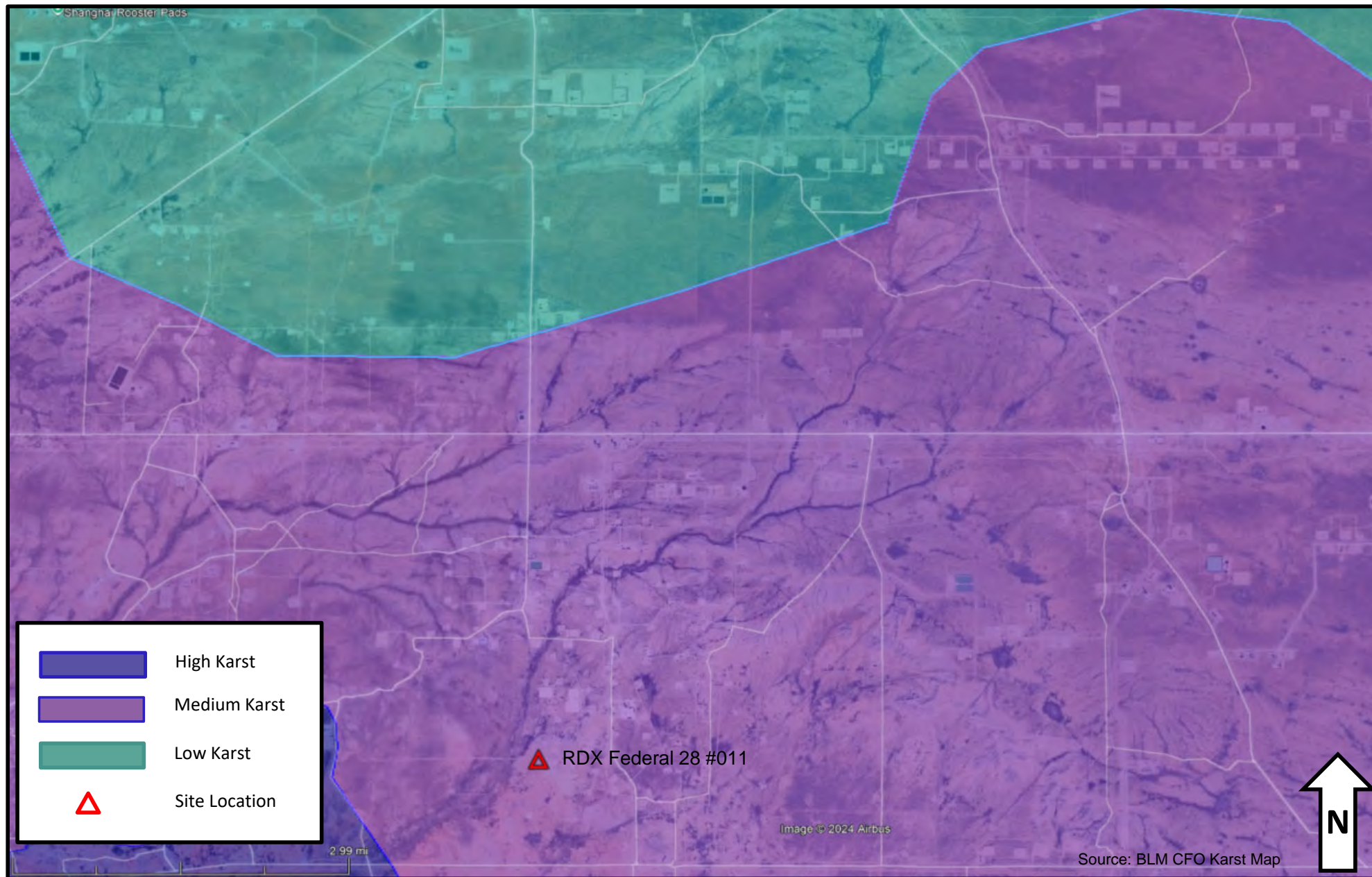




**Figure 1A – Ground Water**

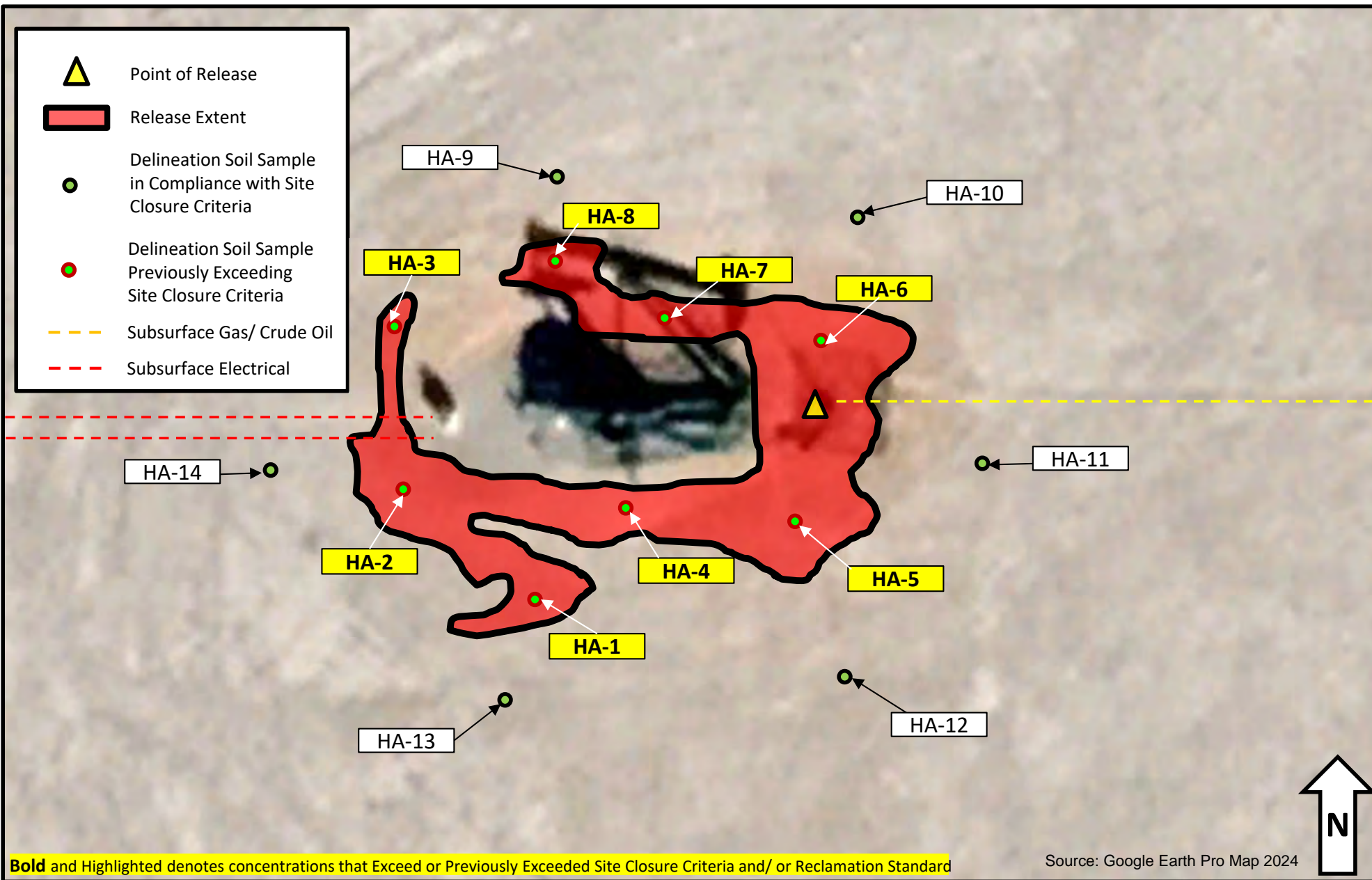
WPX Energy Permian – RDX Federal 28 #011  
GPS: 32.01974°, -103.89262°  
Eddy County, New Mexico



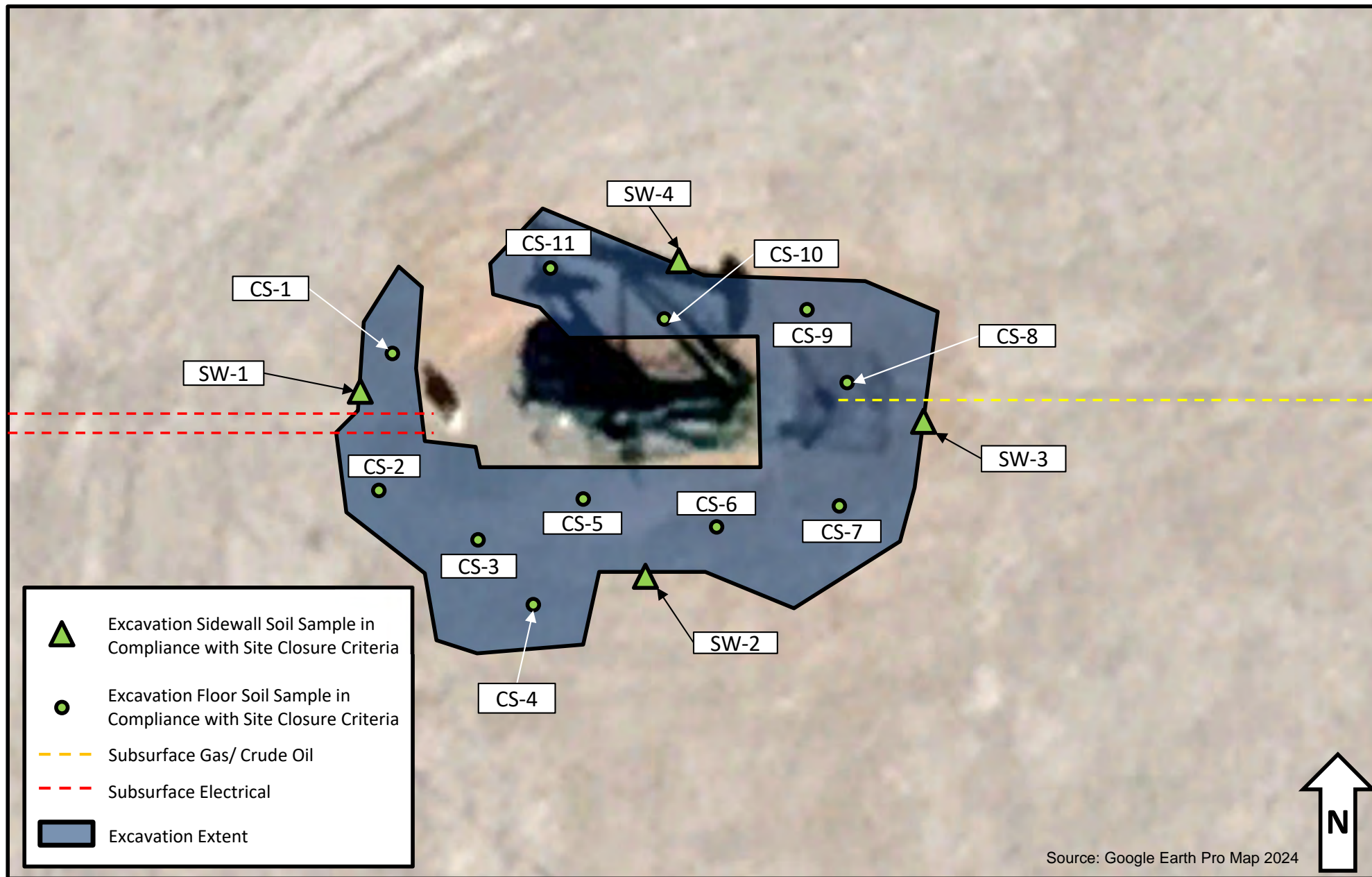


**Figure 1B – Karst Potential**

WPX Energy Permian – RDX Federal 28 #011  
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Eddy County, New Mexico








**Figure 3 – Excavation Soil Sample Locations**

WPX Energy Permian – RDX Federal 28 #011  
GPS: 32.01974°, -103.89262°  
Eddy County, New Mexico



 <b>HRL COMPLIANCE SOLUTIONS</b>							BORING LOG/MONITORING WELL COMPLETION DIAGRAM										
Drilling Method: <b>Air Rotary</b>							Sampling Method: <b>None</b>			Boring/Well Number: <b>MW-1</b>			Location: <b>RDX Federal Com 21-43</b>				
Gravel Pack Type: <b>10/20 Sand</b>							Gravel Pack Depth Interval: <b>3 Bags</b>			Seal Type: <b>None</b>		Seal Depth Interval: <b>None</b>		Date: <b>12/9/2020</b>		Client: <b>WPX Energy</b>	
Casing Type: <b>PVC</b>							Diameter: <b>2-inch</b>		Depth Interval: <b>0-100 feet bgs</b>		Boring Total Depth (ft. BGS): <b>110</b>			Latitude: <b>32.022571</b>			
Screen Type: <b>PVC</b>							Slot: <b>0.010-inch</b>		Diameter: <b>2-inch</b>		Depth Interval: <b>100 - 105 ft</b>		Well Total Depth (ft. BGS): <b>105</b>			Longitude: <b>-103.884371</b>	
														Depth to Water (ft. BTOW): <b>&gt; 105</b>		DTW Date: <b>12/16/2020</b>	
Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks				Well Completion				
0	NM	L	D	N	N	NM	SP	NS	Pale orange to tan poorly graded fine sand								
5																	
10																	
15																	
20	NM	H	D	N	N	NM	CL	NS	Pale orange/tan/pale red clay, dry, with silt, fine sand, and minor caliche								
25																	
30																	
35																	
40	NM	L	D	N	N	NM	SP	NS	Pale orange to pale red poorly graded fine sand								
45																	
50																	
55																	
60	NM	L	D	N	N	NM	SP	NS	Golden yellow poorly graded fine sand with minor silt and clay								
65																	
70																	
75																	
80	NM	L	D	N	N	NM	SP	NS	Pale orange to pale red poorly graded fine sand with minor silt/clay								
85																	
90																	
95																	
100	NM	M	D	N	N	NM	SC	NS	Buff to orange color fine sand with medium sand and clay								
85																	
90																	
95																	
95	NM	H	D	N	N	NM	CL	NS	Brown orange clay with silt and fine sand								
100																	
105																	
105																	
100	NM	H	D	N	N	NM	SC	NS	Golden yellow and buff colored clay with fine sand - TD Boring: 110' BGS; Sand 110' - 105' BGS								
105																	





# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

REC'D 11/08/2022 #16-18

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD 1 (TW-1)		WELL TAG ID NO. N/A		OSE FILE NO(S). C-4625			
	WELL OWNER NAME(S) Devon Energy				PHONE (OPTIONAL) 575-748-1838			
	WELL OWNER MAILING ADDRESS 6488 7 Rivers Hwy				CITY Artesia	STATE NM	ZIP 88210	
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 0	SECONDS 58.53	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
		LONGITUDE 103	53	4.54	W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NW SW NE Sec.28 T26S R30S NMPM								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 6/15/2022		DRILLING ENDED 6/15/2022		DEPTH OF COMPLETED WELL (FT) Temporary Well		BORE HOLE DEPTH (FT) ±55	
	DEPTH WATER FIRST ENCOUNTERED (FT) n/a							
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a		
	DATE STATIC MEASURED 6/15/22, 7/12/22							
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES – SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER – SPECIFY: Hollow Stem Auger					CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>		
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0	55	±6.5	Boring-HSA	--	--	--	--
	3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL		AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

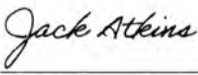
FILE NO. <b>C-04625</b>	POD NO. <b>1</b>	TRN NO. <b>726170</b>
LOCATION <b>26S.30E.28.1.3.2</b>	WELL TAG ID NO. <b>—</b>	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	20	20	Sand, Fine-grained, poorly graded, 5 YR 5/6, Reddish Yellow	Y    ✓ N	
	20	40	20	Sand, Fine-grained, poorly graded, with clay, 2.5 YR 5/6, Red	Y    ✓ N	
	40	55	15	Sand, Fine-grained, poorly graded, with clay, Reddish Yellow	Y    ✓ N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
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					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm):    0.00	

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION: Temporary well material removed and soil boring backfilled using drill cuttings from total depth to ten feet below ground surface(bgs), then hydrated bentonite chips ten feet bgs to surface.	
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge, Cameron Pruitt		

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:	
	Jackie D. Atkins	8/4/2022
SIGNATURE OF DRILLER / PRINT SIGNEE NAME		DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 01/28/2022)

FILE NO. <u>C-04625</u>	POD NO. <u>1</u>	TRN NO. <u>726170</u>
LOCATION <u>265.30E.28.13.2</u>	WELL TAG ID NO. <u>—</u>	PAGE 2 OF 2



2904 W 2nd St.  
Roswell, NM 88201  
voice: 575.624.2420  
fax: 575.624.2421  
www.atkinseng.com

August 4, 2022

DII-NMOSE  
1900 W 2<sup>nd</sup> Street  
Roswell, NM 88201

*Hand Delivered to the DII Office of the State Engineer*

Re: Well Record C-4625 Pod1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, C-4625 Pod1.

If you have any questions, please contact me at 575.499.9244 or [lucas@atkinseng.com](mailto:lucas@atkinseng.com).

Sincerely,

A handwritten signature in black ink that reads "Lucas Middleton". The signature is written in a cursive, flowing style.

Lucas Middleton

Enclosures: as noted above

RECEIVED AUG 6 2022 PM 1:00





# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

OSE 001 AUG 8 2022 14:11:18

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD 1 (TW-1)		WELL TAG ID NO. N/A		OSE FILE NO(S). C-4629			
	WELL OWNER NAME(S) Devon Energy				PHONE (OPTIONAL) 575-748-1838			
	WELL OWNER MAILING ADDRESS 6488 7 Rivers Hwy				CITY Artesia	STATE NM	ZIP 88210	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 1	SECONDS 20.62 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE 103	53	2.72 W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SE SW SE Sec.21 T26S R30S NMPM								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 6/15/2022	DRILLING ENDED 6/15/2022	DEPTH OF COMPLETED WELL (FT) Temporary Well		BORE HOLE DEPTH (FT) ±55	DEPTH WATER FIRST ENCOUNTERED (FT) N/A		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a	DATE STATIC MEASURED 6/15/22, 7/12/22		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger					CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>		
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0	55	±6.5	Boring-HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL		AMOUNT (cubic feet)	METHOD OF PLACEMENT	

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

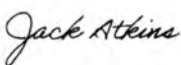
FILE NO. <u>C-4629</u>	POD NO. <u>1</u>	TRN NO. <u>726185</u>
LOCATION <u>26S.30E.21.4.3.4.</u>	WELL TAG ID NO. <u>---</u>	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	40	40	Sand, Fine-grained, poorly graded, with gravel (0.25") 7.5 YR 7/4, Pink	Y ✓ N	
	40	55	15	Sand, Fine-grained, poorly graded, with clay, Reddish Yellow	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
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					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	

5. TEST, RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION: Temporary well material removed and soil boring backfilled using drill cuttings from total depth to ten feet below ground surface(bgs), then hydrated bentonite chips ten feet bgs to surface.	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge, Cameron Pruitt	

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	 JACKIE D. ATKINS SIGNATURE OF DRILLER / PRINT SIGNEE NAME	8/4/2022 DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 01/28/2022)

FILE NO. C-4629	POD NO. 1	TRN NO. 726185
LOCATION 265.30E.21.4.3.4	WELL TAG ID NO. —	PAGE 2 OF 2



2904 W 2nd St.  
Roswell, NM 88201  
voice: 575.624.2420  
fax: 575.624.2421  
www.atkinseng.com

August 4, 2022

DII-NMOSE  
1900 W 2<sup>nd</sup> Street  
Roswell, NM 88201

*Hand Delivered to the DII Office of the State Engineer*

Re: Well Record C-4629 Pod1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, C-4629 Pod1.

If you have any questions, please contact me at 575.499.9244 or [lucas@atkinseng.com](mailto:lucas@atkinseng.com).

Sincerely,


A handwritten signature in black ink, appearing to read "Lucas Middleton". The signature is written in a cursive, flowing style.

Lucas Middleton


Enclosures: as noted above


USE DTI AUG 8 2022 AM 10:12





								Sample Name: HA-1		8/28/2024					
								Site Name: RDX Federal 28 #011							
								Incident Number: nAPP2423424961							
								Job Number: 2402							
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger					
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet					
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.															
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes							
Moist	8,424	-	Yes	HA-1	0.5	0	CCHE	(0-1) CALICHE, moist, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, brown stain, strong H-C odor.							
Dry	3,252	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, some small gravel, no stain, no odor.							
Dry	1,588	-	No		2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, no stain, no odor.							
Dry	828	-	No	HA-1	4	4									
Total Depth															





 <b>Earth Systems</b> Response & Restoration								Sample Name: HA-2		8/28/2024	
								Site Name: RDX Federal 28 #011			
								Incident Number: nAPP2423424961			
								Job Number: 2402			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger	
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet	
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes			
Moist	9,120	-	Yes	HA-2	0.5	0	CCHE	(0-1) CALICHE, moist, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, brown stain, strong H-C odor.			
Dry	3,840	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, trace small gravel, no stain, no odor.			
Dry	4,164	-	No		2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, no stain, no odor.			
Dry	2,248	-	No	HA-2	4	4		Total Depth			


								Sample Name: HA-3		8/28/2024			
								Site Name: RDX Federal 28 #011					
								Incident Number: nAPP2423424961					
								Job Number: 2402					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger			
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes					
Moist	896	-	Yes	HA-3	0.5	0	CCHE	(0-1) CALICHE, moist, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, brown stain, strong H-C odor.					
Dry	532	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, some small gravel, no stain, no odor.					
Dry	1,292	-	No		2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, no stain, no odor.					
								@4', increased silt.					
Dry	532	-	No	HA-3	4	4		Total Depth					

								Sample Name: HA-4		8/28/2024			
								Site Name: RDX Federal 28 #011					
								Incident Number: nAPP2423424961					
								Job Number: 2402					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger			
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes					
Moist	11,680	-	Yes	HA-4	0.5	0	CCHE	(0-1) CALICHE, moist, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, brown stain, strong H-C odor.					
Dry	8,424	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, some small gravel, no stain, no odor.					
Dry	436	-	No	HA-4	2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, trace organics, no stain, no odor.					
Dry	352	-	No	HA-4	4	4		@4', color change to tan, no organics.					
Total Depth													


								Sample Name: HA-5		8/28/2024			
								Site Name: RDX Federal 28 #011					
								Incident Number: nAPP2423424961					
								Job Number: 2402					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger			
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes					
Moist	9,884	-	Yes	HA-5	0.5	0	CCHE	(0-1) CALICHE, moist, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, brown stain, strong H-C odor.					
Dry	9,120	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, trace small gravel, no stain, no odor.					
Dry	9,120	-	No		2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, no stain, no odor.					
Dry	896	-	No	HA-5	4	4		Total Depth					


 <b>Earth Systems</b> Response & Restoration								Sample Name: HA-6		8/28/2024	
								Site Name: RDX Federal 28 #011			
								Incident Number: nAPP2423424961			
								Job Number: 2402			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger	
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet	
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes			
Moist	>2,420	-	Yes	HA-6	0.5	0	CCHE	(0-1) CALICHE, moist, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, brown stain, strong H-C odor.  (1-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, trace small gravel, no stain, no odor.			
Dry	>2,420	-	No		1		SP-SM				
Dry	>2,420	-	No		2	2					
Dry	>2,420	-	No	HA-6	4	4					
Total Depth											


								Sample Name: HA-7		8/28/2024			
								Site Name: RDX Federal 28 #011					
								Incident Number: nAPP2423424961					
								Job Number: 2402					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger			
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes					
Moist	>2,420	-	Yes	HA-7	0.5	0	CCHE	(0-1) CALICHE, moist, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, brown stain, strong H-C odor.					
Dry	532	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, trace small gravel, no stain, no odor.					
Dry	216	-	No	HA-7	2	2	SP-SM	(2-4) SAND, dry, brown, poorly graded with silt, very fine to fine grain, no stain, no odor.					
Dry	120	-	No	HA-7	4	4							
Total Depth													


								Sample Name: HA-8		8/28/2024			
								Site Name: RDX Federal 28 #011					
								Incident Number: nAPP2423424961					
								Job Number: 2402					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger			
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes					
Moist	2,420	-	Yes	HA-8	0.5	0	CCHE	(0-1) CALICHE, moist, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, brown stain, strong H-C odor.					
Dry	1,204	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, trace small gravel, no stain, no odor.					
Dry	396	-	No	HA-8	2	2	SP-SM	(2-4) SAND, dry, brown, poorly graded with silt, very fine to fine grain, no stain, faint H-C odor.					
Dry	188	-	No	HA-8	4	4		@4' no odor.					
Total Depth													





								Sample Name: HA-9		8/28/2024					
								Site Name: RDX Federal 28 #011							
								Incident Number: nAPP2423424961							
								Job Number: 2402							
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger					
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet					
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.															
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes							
Dry	<120	-	No	HA-9	0.5	0	CCHE	(0-1) CALICHE, dry, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, no stain, no odor.							
Dry	<120	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, some small gravel, no stain, no odor.							
Dry	<120	-	No		2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, no stain, no odor.							
Dry	<120	-	No	HA-9	4	4		Total Depth							

								Sample Name: HA-10		8/28/2024			
								Site Name: RDX Federal 28 #011					
								Incident Number: nAPP2423424961					
								Job Number: 2402					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger			
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes					
Dry	<120	-	No	HA-10	0.5	0	CCHE	(0-1) CALICHE, dry, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, no stain, no odor.					
Dry	<120	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, some small gravel, no stain, no odor.					
Dry	<120	-	No		2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, no stain, no odor.					
Dry	<120	-	No	HA-10	4	4		Total Depth					

								Sample Name: HA-11		8/28/2024			
								Site Name: RDX Federal 28 #011					
								Incident Number: nAPP2423424961					
								Job Number: 2402					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger			
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes					
Dry	<120	-	No	HA-11	0.5	0	CCHE	(0-1) CALICHE, dry, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, no stain, no odor.					
Dry	<120	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, some small gravel, no stain, no odor.					
Dry	<120	-	No		2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, no stain, no odor.					
Dry	<120	-	No	HA-11	4	4		Total Depth					

								Sample Name: HA-12		8/28/2024			
								Site Name: RDX Federal 28 #011					
								Incident Number: nAPP2423424961					
								Job Number: 2402					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger			
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes					
Dry	<120	-	No	HA-12	0.5	0	CCHE	(0-1) CALICHE, dry, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, no stain, no odor.					
Dry	<120	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, some small gravel, no stain, no odor.					
Dry	<120	-	No		2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, no stain, no odor.					
Dry	<120	-	No	HA-12	4	4							
Total Depth													

								Sample Name: HA-13		8/28/2024			
								Site Name: RDX Federal 28 #011					
								Incident Number: nAPP2423424961					
								Job Number: 2402					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger			
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes					
Dry	<120	-	No	HA-13	0.5	0	CCHE	(0-1) CALICHE, dry, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, no stain, no odor.					
Dry	<120	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, some small gravel, no stain, no odor.					
Dry	<120	-	No		2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, no stain, no odor.					
Dry	<120	-	No	HA-13	4	4		Total Depth					

								Sample Name: HA-14		8/28/2024			
								Site Name: RDX Federal 28 #011					
								Incident Number: nAPP2423424961					
								Job Number: 2402					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: GM		Method: Hand Auger			
Site Coordinates: 32.01974°, -103.89262°								Hole Diameter: 3.75"		Total Depth: 4 feet			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes					
Dry	<120	-	No	HA-14	0.5	0	CCHE	(0-1) CALICHE, dry, tan, well graded with silt, fine to coarse grain, abundant sm-large gravel, no stain, no odor.					
Dry	<120	-	No		1		SW-SM	(1-2) SAND, dry, tan, well graded with silt, fine to coarse grain, some small gravel, no stain, no odor.					
Dry	<120	-	No		2	2	SP-SM	(2-4) SAND, dry, tan to brown, poorly graded with silt, very fine to fine grain, no stain, no odor.					
Dry	<120	-	No	HA-14	4	4		Total Depth					



2409 – RDX Federal 28 #011  
32.01974°, -103.89262°  
Eddy County, Texas

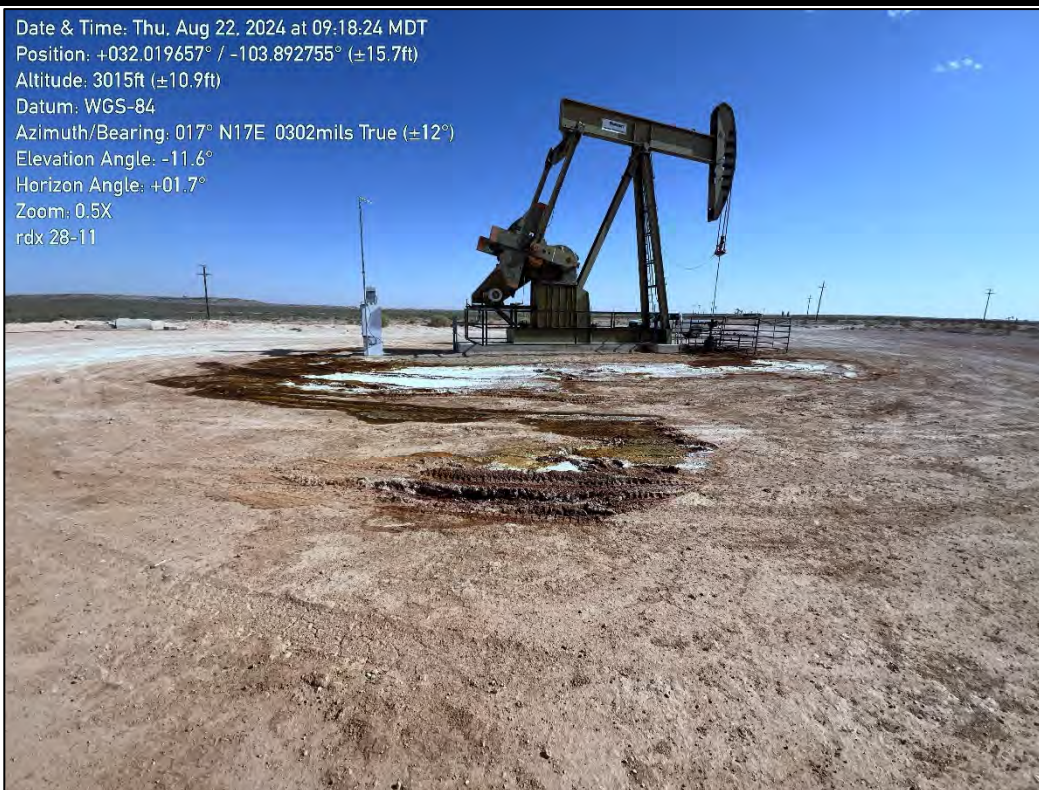


Date & Time: Thu, Aug 22, 2024 at 09:17:43 MDT  
Position: +032.019898° / -103.892633° (±64.6ft)  
Altitude: 3038ft (±105.0ft)  
Datum: WGS-84  
Azimuth/Bearing: 251° S71W 4462mils True (±10°)  
Elevation Angle: -06.6°  
Horizon Angle: +01.4°  
Zoom: 0.5X  
rdx 28-11



**PHOTO 1:** Southwestern view during initial site assessment. 08/22/2024

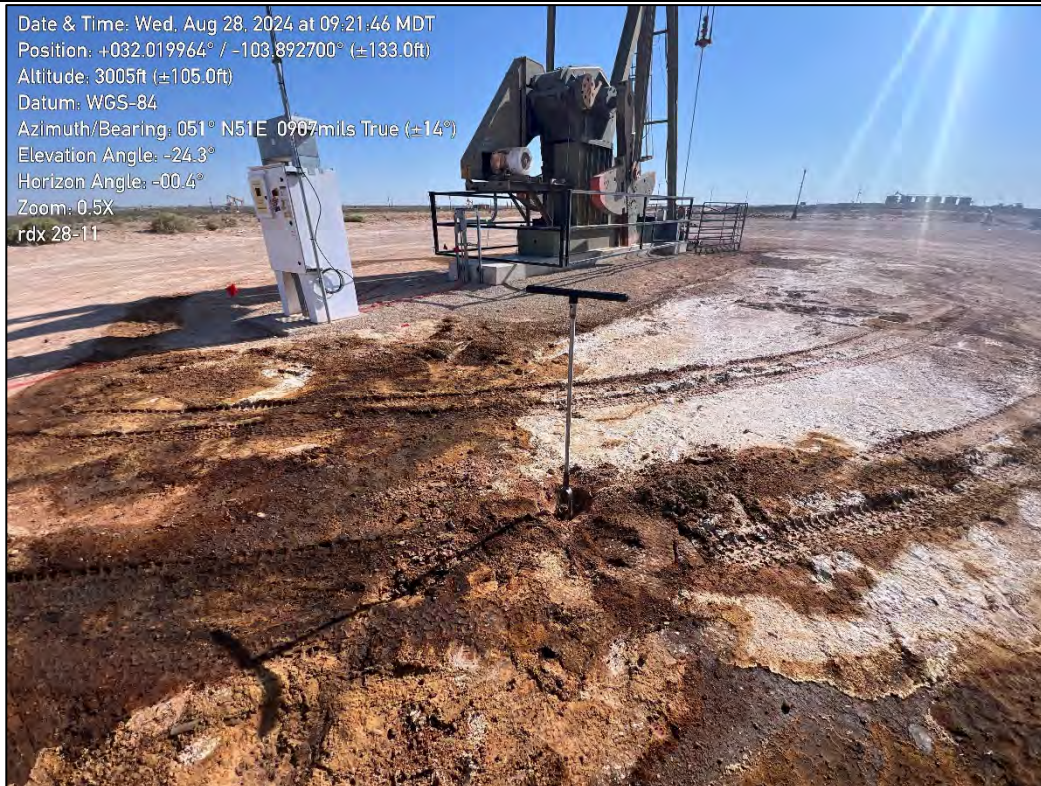
Date & Time: Thu, Aug 22, 2024 at 09:18:24 MDT  
Position: +032.019657° / -103.892755° (±15.7ft)  
Altitude: 3015ft (±10.9ft)  
Datum: WGS-84  
Azimuth/Bearing: 017° N17E 0302mils True (±12°)  
Elevation Angle: -11.6°  
Horizon Angle: +01.7°  
Zoom: 0.5X  
rdx 28-11



**PHOTO 2:** Northeastern view during initial site assessment. 08/22/2024



2409 – RDX Federal 28 #011  
32.01974°, -103.89262°  
Eddy County, Texas



**PHOTO 3:** Northeastern view during delineation activities. 08/28/2024



**PHOTO 4:** Northeastern view during delineation activities. 08/28/2024



2409 – RDX Federal 28 #011  
32.01974°, -103.89262°  
Eddy County, Texas



**PHOTO 5:** Southeastern view during delineation activities. 08/28/2024



**PHOTO 6:** View of the impacted area after the initial release response facing southwest. 07/24/2024



2409 – RDX Federal 28 #011  
32.01974°, -103.89262°  
Eddy County, Texas



**PHOTO 7:** Southeastern view of excavation extent. 09/19/2024



**PHOTO 8:** Southwestern view of excavation extent. 09/19/2024



2409 – RDX Federal 28 #011  
32.01974°, -103.89262°  
Eddy County, Texas



**PHOTO 9:** Northeastern view following restoration activities. 10/04/2024



**PHOTO 10:** Southwestern view following restoration activities. 10/04/2024



**Table 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**RDX Federal 28 #011**  
**Eddy County, New Mexico**



Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO + GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples - nAPP2423424961										
HA-1	08/28/24	0.5	<0.0250	15.70	213	10,900	4,130	11,113	15,243	13,100
HA-1	08/28/24	4	<0.0250	<0.0250	25.3	<25.0	<50.0	25.3	25.3	1,040
HA-2	08/28/24	0.5	<0.0250	<0.0250	<20.0	890	328	890	1,218	15,000
HA-2	08/28/24	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	3,110
HA-3	08/28/24	0.5	<0.0250	30.34	335	25,800	10,400	26,135	36,535	2,010
HA-3	08/28/24	4	<0.0250	0.0365	<20.0	219	149	219	368	871
HA-4	08/28/24	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	17,100
HA-4	08/28/24	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	529
HA-4	08/28/24	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	339
HA-5	08/28/24	0.5	<0.0250	<0.0250	<20.0	202	76.6	202	279	20,600
HA-5	08/28/24	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	1,360
HA-6	08/28/24	0.5	<0.0250	<0.0250	<20.0	136	71.9	136	208	23,100
HA-6	08/28/24	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	4,320
HA-7	08/28/24	0.5	0.0605	53.8	447	34,800	13,200	35,247	48,447	4,780
HA-7	08/28/24	2	<0.0250	<0.0250	<20.0	43.3	<50.0	43.3	43.3	216
HA-7	08/28/24	4	<0.0250	<0.0250	<20.0	249	97.3	249	346	131
HA-8	08/28/24	0.5	<0.0250	64.1	1,120	39,300	15,100	39,747	55,520	4,900
HA-8	08/28/24	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	518
HA-8	08/28/24	4	<0.0250	<0.0250	<20.0	36.0	<50.0	36.0	36.0	217
HA-9	08/28/24	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-9	08/28/24	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-10	08/28/24	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-10	08/28/24	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-11	08/28/24	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-11	08/28/24	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-12	08/28/24	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-12	08/28/24	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-13	08/28/24	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-13	08/28/24	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-14	08/28/24	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
HA-14	08/08/24	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0



Table 1  
SOIL SAMPLE ANALYTICAL RESULTS  
RDX Federal 28 #011  
Eddy County, New Mexico



Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO + GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Confirmation Soil Samples - nAPP2423424961										
CS-1	09/19/24	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	1,180
CS-2	09/19/24	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	3,900
CS-3	09/19/24	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	6,860
CS-4	09/19/24	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	1,340
CS-5	09/19/24	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	2,690
CS-6	09/19/24	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	6,940
CS-7	09/19/24	1	<0.0250	<0.0250	<20.0	62.7	<50.0	62.7	62.7	6,530
CS-8	09/19/24	1	<0.0250	<0.0250	<20.0	57.7	<50.0	57.7	57.7	6,430
CS-9	09/19/24	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	3,600
CS-10	09/19/24	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	317
CS-11	09/19/24	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	754
SW-1	09/19/24	0-1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
SW-2	09/19/24	0-1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
SW-3	09/19/24	0-1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0
SW-4	09/19/24	0-1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<45.0	<95.0	<20.0

## Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Text in ""grey"" represents excavated soil samples

Concentrations in **bold and highlighted** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard<sup>†</sup> for Soils Impacted by a Release<sup>†</sup>The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.



nAPP2423424961 - Soil Sampling Activities

Gilbert Moreno <gmoreno@earthsys.net>

Mon 9/16/2024 6:53 PM

To: ocd.enviro@emnrd.nm.gov <ocd.enviro@emnrd.nm.gov>

Cc: Raley, Jim <Jim.Raley@dvn.com>

Hello,

Earth Systems R & R anticipates conducting soil sampling activities at the RDX Federal 28 #011 on September 19<sup>th</sup> and 20<sup>th</sup>, 2024. This email will be followed up with a Notification of Sampling (C-141N) for the proposed dates.

Proposed Time:	08:00-17:00 MST
Site Name:	RDX Federal 28 #011
Incident Number:	nAPP2423424961
Sampling Surface Area:	2,143 sq. ft.
Samples to be collected:	20
Sampling Date:	9/19/2024 & 9/20/2024
Who to Contact:	Gilbert Moreno P: 832-541-7719
Site GPS:	32.0197411°, -103.8926239°
Navigation to Site:	From the intersection of HWY 285 & Longhorn Rd/Whitehorn Rd-Head East on Longhorn Rd/Whitehorn Rd 2.5 mi.-slight left to stay on Longhorn Rd 2.8 mi.-Turn left onto Pipeline Rd-continue E 2.8 mi.-Turn right onto Tarbrush Rd-continue 0.3 mi-Turn left and continue E 0.5 mi-Turn right and continue SE 0.6 mi.-Turn left and continue E 0.7 mi-Keep left and continue E 2.1 mi-Turn right and continue S 0.68 mi.- Turn right and continue W 0.54 mi.- Turn left and continue S 0.36 mi.- Turn right and continue 0.19 mi to location.

**Gilbert Moreno** | Carlsbad Operations Manager- Project Geologist  
1910 Resource Ct | Carlsbad NM, 88220  
O. 575.323.9034 M. (832) 541-7719 | [gmoreno@earthsys.net](mailto:gmoreno@earthsys.net)

Report to:

Gilbert Moreno



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

### Earth Systems

Project Name: RDX 28-11

Work Order: E408270

Job Number: 01058-0007

Received: 8/30/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/6/24

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.  
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Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.



Date Reported: 9/6/24

Gilbert Moreno  
1910 Resource Ct  
Carlsbad, NM 88220



Project Name: RDX 28-11  
Workorder: E408270  
Date Received: 8/30/2024 5:00:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/30/2024 5:00:00AM, under the Project Name: RDX 28-11.

The analytical test results summarized in this report with the Project Name: RDX 28-11 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  
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[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Sample Summary

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/06/24 13:16

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
HA-1 -0.5'	E408270-01A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-1 -4'	E408270-02A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-2-0.5'	E408270-03A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-2-4'	E408270-04A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-3-0.5'	E408270-05A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-3-4'	E408270-06A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-4-0.5'	E408270-07A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-4-2'	E408270-08A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-4-4'	E408270-09A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-5-0.5'	E408270-10A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-5-4'	E408270-11A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-6-0.5'	E408270-12A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-6-4'	E408270-13A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-7-0.5'	E408270-14A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-8-0.5'	E408270-15A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/6/2024 1:16:03PM
---	--	---------------------------------

HA-1 -0.5'  
E408270-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2435120
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	1.19	0.0250	1	08/30/24	09/03/24	
Toluene	0.248	0.0250	1	08/30/24	09/03/24	
o-Xylene	2.70	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	4.43	0.0500	1	08/30/24	09/03/24	
Total Xylenes	7.13	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		94.9 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		107 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2435120
Gasoline Range Organics (C6-C10)	213	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		94.9 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		107 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435121
Diesel Range Organics (C10-C28)	10900	125	5	08/30/24	09/04/24	
Oil Range Organics (C28-C36)	4130	250	5	08/30/24	09/04/24	
Surrogate: n-Nonane		166 %	50-200	08/30/24	09/04/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2435126
Chloride	13100	400	20	08/30/24	08/31/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	<b>Reported:</b> 9/6/2024 1:16:03PM
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

HA-1 -4'

E408270-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	103 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	95.1 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	105 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Gasoline Range Organics (C6-C10)	25.3	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	103 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	95.1 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	105 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435121	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/04/24	
Surrogate: n-Nonane	73.6 %	50-200		08/30/24	09/04/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2435126	
Chloride	1040	20.0	1	08/30/24	08/31/24	



## Sample Data

Earth Systems  
1910 Resource Ct  
Carlsbad NM, 88220

Project Name: RDX 28-11  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
9/6/2024 1:16:03PM

HA-2-0.5'

E408270-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2435120
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		97.5 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		106 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2435120
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		97.5 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		106 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435121
Diesel Range Organics (C10-C28)	890	125	5	08/30/24	09/04/24	
Oil Range Organics (C28-C36)	328	250	5	08/30/24	09/04/24	
Surrogate: n-Nonane		77.3 %	50-200	08/30/24	09/04/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2435126
Chloride	15000	400	20	08/30/24	08/31/24	





Sample Data

Earth Systems	Project Name:	RDX 28-11	<b>Reported:</b> 9/6/2024 1:16:03PM
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

HA-2-4'  
E408270-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	102 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	94.4 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	107 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	102 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	94.4 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	107 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435121	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane	78.1 %	50-200		08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2435126	
Chloride	3110	40.0	2	08/30/24	08/31/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/6/2024 1:16:03PM
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HA-3-0.5'

E408270-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2435120
Benzene	ND	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	2.59	0.0250	1	08/30/24	09/04/24	
Toluene	0.699	0.0250	1	08/30/24	09/04/24	
o-Xylene	5.09	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	8.46	0.0500	1	08/30/24	09/04/24	
Total Xylenes	13.5	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	104 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	98.2 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	110 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2435120
Gasoline Range Organics (C6-C10)	335	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	104 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	98.2 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	110 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435121
Diesel Range Organics (C10-C28)	25800	250	10	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	10400	500	10	08/30/24	09/05/24	
Surrogate: n-Nonane	300 %	50-200		08/30/24	09/05/24	S5
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2435126
Chloride	2010	200	10	08/30/24	08/31/24	



## Sample Data

Earth Systems  
1910 Resource Ct  
Carlsbad NM, 88220

Project Name: RDX 28-11  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
9/6/2024 1:16:03PM

HA-3-4'

E408270-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2435120
Benzene	ND	0.0250	1	08/30/24	09/05/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/05/24	
Toluene	<b>0.0365</b>	0.0250	1	08/30/24	09/05/24	
o-Xylene	ND	0.0250	1	08/30/24	09/05/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/05/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/05/24	
Surrogate: Bromofluorobenzene	99.2 %	70-130		08/30/24	09/05/24	
Surrogate: 1,2-Dichloroethane-d4	98.0 %	70-130		08/30/24	09/05/24	
Surrogate: Toluene-d8	105 %	70-130		08/30/24	09/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2435120
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/05/24	
Surrogate: Bromofluorobenzene	99.2 %	70-130		08/30/24	09/05/24	
Surrogate: 1,2-Dichloroethane-d4	98.0 %	70-130		08/30/24	09/05/24	
Surrogate: Toluene-d8	105 %	70-130		08/30/24	09/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435121
Diesel Range Organics (C10-C28)	<b>219</b>	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	<b>149</b>	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane	81.0 %	50-200		08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2435126
Chloride	<b>871</b>	20.0	1	08/30/24	08/31/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/6/2024 1:16:03PM
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HA-4-0.5'  
E408270-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Benzene	ND	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/04/24	
Toluene	ND	0.0250	1	08/30/24	09/04/24	
o-Xylene	ND	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/04/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	103 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	97.9 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	106 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	103 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	97.9 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	106 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435121	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane	79.5 %	50-200		08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2435126	
Chloride	17100	1000	50	08/30/24	08/31/24	





## Sample Data

Earth Systems  
1910 Resource Ct  
Carlsbad NM, 88220

Project Name: RDX 28-11  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
9/6/2024 1:16:03PM

**HA-4-2'**  
**E408270-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2435120
Benzene	ND	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/04/24	
Toluene	ND	0.0250	1	08/30/24	09/04/24	
o-Xylene	ND	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/04/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	08/30/24	09/04/24	
Surrogate: Toluene-d8		106 %	70-130	08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2435120
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	08/30/24	09/04/24	
Surrogate: Toluene-d8		106 %	70-130	08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435121
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane		82.1 %	50-200	08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2435126
Chloride	529	20.0	1	08/30/24	08/31/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	Reported: 9/6/2024 1:16:03PM
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

HA-4-4'  
E408270-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Benzene	ND	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/04/24	
Toluene	ND	0.0250	1	08/30/24	09/04/24	
o-Xylene	ND	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/04/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	99.8 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	97.0 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	107 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	99.8 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	97.0 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	107 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435121	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane	79.1 %	50-200		08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2435126	
Chloride	339	20.0	1	08/30/24	08/31/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	Reported: 9/6/2024 1:16:03PM
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

HA-5-0.5'

E408270-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Benzene	ND	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/04/24	
Toluene	ND	0.0250	1	08/30/24	09/04/24	
o-Xylene	ND	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/04/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	105 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	92.7 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	106 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	105 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	92.7 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	106 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435121	
Diesel Range Organics (C10-C28)	202	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	76.6	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane	77.1 %	50-200		08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2435126	
Chloride	20600	1000	50	08/30/24	08/31/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 1:16:03PM

HA-5-4'

E408270-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	99.8 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	91.8 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	108 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	99.8 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	91.8 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	108 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435121	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane	73.0 %	50-200		08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2435126	
Chloride	1360	40.0	2	08/30/24	08/31/24	





Sample Data

Earth Systems	Project Name:	RDX 28-11	<b>Reported:</b> 9/6/2024 1:16:03PM
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

HA-6-0.5'  
E408270-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Benzene	ND	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/04/24	
Toluene	ND	0.0250	1	08/30/24	09/04/24	
o-Xylene	ND	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/04/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	103 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	94.5 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	105 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	103 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	94.5 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	105 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435121	
Diesel Range Organics (C10-C28)	136	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	71.9	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane	70.5 %	50-200		08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2435126	
Chloride	23100	1000	50	08/30/24	08/31/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	Reported: 9/6/2024 1:16:03PM
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

HA-6-4'  
E408270-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Benzene	ND	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/04/24	
Toluene	ND	0.0250	1	08/30/24	09/04/24	
o-Xylene	ND	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/04/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	103 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	92.1 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	107 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	103 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	92.1 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	107 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435121	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane	77.6 %	50-200		08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2435126	
Chloride	4320	100	5	08/30/24	08/31/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/6/2024 1:16:03PM
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HA-7-0.5'

E408270-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Benzene	0.0605	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	4.98	0.0250	1	08/30/24	09/04/24	
Toluene	3.53	0.0250	1	08/30/24	09/04/24	
o-Xylene	7.95	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	14.7	0.0500	1	08/30/24	09/04/24	
Total Xylenes	22.6	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	104 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	95.9 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	116 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Gasoline Range Organics (C6-C10)	447	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	104 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	95.9 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	116 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435121	
Diesel Range Organics (C10-C28)	34800	500	20	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	13200	1000	20	08/30/24	09/05/24	
Surrogate: n-Nonane	462 %	50-200		08/30/24	09/05/24	S5
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2435126	
Chloride	4780	200	10	08/30/24	08/31/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/6/2024 1:16:03PM
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HA-8-0.5'

E408270-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Benzene	ND	0.250	10	08/30/24	09/04/24	
Ethylbenzene	5.26	0.250	10	08/30/24	09/04/24	
Toluene	2.04	0.250	10	08/30/24	09/04/24	
o-Xylene	10.0	0.250	10	08/30/24	09/04/24	
p,m-Xylene	18.4	0.500	10	08/30/24	09/04/24	
Total Xylenes	28.4	0.250	10	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	102 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	95.5 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	103 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2435120	
Gasoline Range Organics (C6-C10)	1120	200	10	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	102 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	95.5 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	103 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435121	
Diesel Range Organics (C10-C28)	39300	500	20	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	15100	1000	20	08/30/24	09/05/24	
Surrogate: n-Nonane	435 %	50-200		08/30/24	09/05/24	S5
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2435126	
Chloride	4900	200	10	08/30/24	08/31/24	



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 1:16:03PM

Volatile Organic Compounds by EPA 8260B

Analyst: BA

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

Blank (2435120-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

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	0.519		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.492		0.500		98.4	70-130			
Surrogate: Toluene-d8	0.530		0.500		106	70-130			

LCS (2435120-BS1) Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.45	0.0250	2.50		98.1	70-130			
Ethylbenzene	2.41	0.0250	2.50		96.4	70-130			
Toluene	2.42	0.0250	2.50		96.6	70-130			
o-Xylene	2.29	0.0250	2.50		91.8	70-130			
p,m-Xylene	4.63	0.0500	5.00		92.5	70-130			
Total Xylenes	6.92	0.0250	7.50		92.3	70-130			
Surrogate: Bromofluorobenzene	0.507		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.476		0.500		95.2	70-130			
Surrogate: Toluene-d8	0.522		0.500		104	70-130			

Matrix Spike (2435120-MS1) Source: E408270-11 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.49	0.0250	2.50	ND	99.6	48-131			
Ethylbenzene	2.46	0.0250	2.50	ND	98.4	45-135			
Toluene	2.46	0.0250	2.50	ND	98.4	48-130			
o-Xylene	2.32	0.0250	2.50	ND	92.9	43-135			
p,m-Xylene	4.68	0.0500	5.00	ND	93.5	43-135			
Total Xylenes	7.00	0.0250	7.50	ND	93.3	43-135			
Surrogate: Bromofluorobenzene	0.508		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			

Matrix Spike Dup (2435120-MSD1) Source: E408270-11 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.47	0.0250	2.50	ND	98.8	48-131	0.847	23	
Ethylbenzene	2.44	0.0250	2.50	ND	97.6	45-135	0.898	27	
Toluene	2.44	0.0250	2.50	ND	97.5	48-130	0.878	24	
o-Xylene	2.29	0.0250	2.50	ND	91.5	43-135	1.54	27	
p,m-Xylene	4.64	0.0500	5.00	ND	92.8	43-135	0.805	27	
Total Xylenes	6.93	0.0250	7.50	ND	92.4	43-135	1.05	27	
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.3	70-130			
Surrogate: Toluene-d8	0.529		0.500		106	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 1:16:03PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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 (2435120-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.519		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.492		0.500		98.4	70-130			
Surrogate: Toluene-d8	0.530		0.500		106	70-130			

LCS (2435120-BS2) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	47.4	20.0	50.0		94.8	70-130			
Surrogate: Bromofluorobenzene	0.511		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.5	70-130			
Surrogate: Toluene-d8	0.533		0.500		107	70-130			

Matrix Spike (2435120-MS2) Source: E408270-11 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	47.3	20.0	50.0	ND	94.7	70-130			
Surrogate: Bromofluorobenzene	0.506		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.460		0.500		92.0	70-130			
Surrogate: Toluene-d8	0.535		0.500		107	70-130			

Matrix Spike Dup (2435120-MSD2) Source: E408270-11 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	49.7	20.0	50.0	ND	99.5	70-130	4.93	20	
Surrogate: Bromofluorobenzene	0.506		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.463		0.500		92.5	70-130			
Surrogate: Toluene-d8	0.540		0.500		108	70-130			





QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 1:16:03PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2435121-BLK1) Prepared: 08/30/24 Analyzed: 09/04/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	37.9		50.0		75.8	50-200			

LCS (2435121-BS1) Prepared: 08/30/24 Analyzed: 09/04/24

Diesel Range Organics (C10-C28)	188	25.0	250		75.2	38-132			
Surrogate: n-Nonane	40.5		50.0		80.9	50-200			

Matrix Spike (2435121-MS1) Source: E408270-08 Prepared: 08/30/24 Analyzed: 09/04/24

Diesel Range Organics (C10-C28)	195	25.0	250	ND	78.2	38-132			
Surrogate: n-Nonane	40.3		50.0		80.7	50-200			

Matrix Spike Dup (2435121-MSD1) Source: E408270-08 Prepared: 08/30/24 Analyzed: 09/04/24

Diesel Range Organics (C10-C28)	203	25.0	250	ND	81.1	38-132	3.60	20	
Surrogate: n-Nonane	42.6		50.0		85.2	50-200			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 1:16:03PM

Anions by EPA 300.0/9056A

Analyst: DT

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

Blank (2435126-BLK1)					Prepared: 08/30/24 Analyzed: 08/31/24				
Chloride	ND	20.0							
LCS (2435126-BS1)					Prepared: 08/30/24 Analyzed: 08/31/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2435126-MS1)					Source: E408270-03		Prepared: 08/30/24 Analyzed: 08/31/24		
Chloride	16200	400	250	15000	476	80-120			M4
Matrix Spike Dup (2435126-MSD1)					Source: E408270-03		Prepared: 08/30/24 Analyzed: 08/31/24		
Chloride	15900	400	250	15000	339	80-120	2.13	20	M4

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

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/06/24 13:16

- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- S5 Surrogate spike recovery exceeded acceptance limits due to interfering target and/or non-target analytes.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

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

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



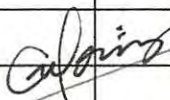

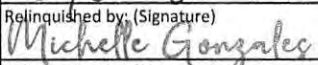
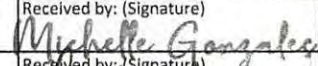
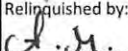
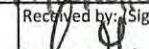
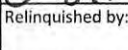
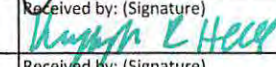
## Chain of Custody

Client Information				Invoice Information		Lab Use Only		TAT				State							
Client: Earth Systems R & R				Company: WPX Energy Permian		Lab WO#	Job Number	1D	2D	3D	Std	NM	CO	UT	TX				
Project Name: RDX 28-11				Address: 5315 Buena Vista Dr		E408270	0458-0007				X	X							
Project Manager: Gilbert Moreno				City, State, Zip: Carlsbad, NM 88220															
Address: 1910 Resource Ct				Phone:															
City, State, Zip: Carlsbad NM, 88220				Email: jim.raley@dvn.com															
Phone: 832-541-7719				WO: TBD															
Email: gmoreno@earthsys.net																			
Sample Information							Analysis and Method						EPA Program						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	Depth (ft)	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Plg	SDWA	CWA	RCRA	
9:00	8/28/2024	S	1	HA-1		1		0.5				X							
9:10	8/28/2024	S	1	HA-1		2		4				X							
9:20	8/28/2024	S	1	HA-2		3		0.5				X							
9:30	8/28/2024	S	1	HA-2		4		4				X							
9:40	8/28/2024	S	1	HA-3		5		0.5				X							
9:50	8/28/2024	S	1	HA-3		6		4				X							
10:00	8/28/2024	S	1	HA-4		7		0.5				X							
10:10	8/28/2024	S	1	HA-4		8		2				X							
10:20	8/28/2024	S	1	HA-4		9		4				X							
10:30	8/28/2024	S	1	HA-5		10		0.5				X							
Additional Instructions:																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																			
Sampled by: <i>Cap</i>																			
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		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 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>							
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time									
Sample Matrix: S - Soil, <b>Sd</b> - Solid, <b>Sg</b> - Sludge, A - Aqueous, O - Other _____												Container Type: <b>g</b> - glass, <b>p</b> - poly/plastic, <b>ag</b> - amber glass, v - VOA							
Note: Samples are discarded 14 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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## Chain of Custody

Client Information					Invoice Information			Lab Use Only				TAT				State							
Client: Earth Systems R & R					Company: WPX Energy Permian			Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX				
Project Name: RDX 28-11					Address: 5315 Buena Vista Dr			E408270		01058-0007					X	X							
Project Manager: Gilbert Moreno					City, State, Zip: Carlsbad, NM 88220																		
Address: 1910 Resource Ct					Phone:																		
City, State, Zip: Carlsbad NM, 88220					Email: jim.raley@dyn.com																		
Phone: 832-541-7719					WO: TBD																		
Email: gmoreno@earthsys.net																							
Sample Information					Analysis and Method												EPA Program						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	Depth (ft)	BTX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Pkg	SDWA	CWA	RCRA					
10:40	8/28/2024	S	1	HA-5		11		4				X											
10:50	8/28/2024	S	1	HA-6		12		0.5				X											
11:00	8/28/2024	S	1	HA-6		13		4				X											
11:10	8/28/2024	S	1	HA-7		14		0.5				X											
11:30	8/28/2024	S	1	HA-8		15		0.5				X											
																							
Additional Instructions:																							
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling 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	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 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>									
					8-29-24	08:00						8-29-24	0800										
Relinquished by: (Signature)					Date	Time	Received by: (Signature)					Date	Time										
					8-29-24	1640						8-29-24	1640										
Relinquished by: (Signature)					Date	Time	Received by: (Signature)					Date	Time										
					8-29-24	2300						8-30-24	0500										
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 14 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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## Envirotech Analytical Laboratory

Printed: 8/30/2024 11:09:11AM

## 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:	Earth Systems	Date Received:	08/30/24 05:00	Work Order ID:	E408270
Phone:	832-541-7719	Date Logged In:	08/30/24 06:14	Logged In By:	Keyliegh Hall
Email:	gmoreno@earthsys.net	Due Date:	09/06/24 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/ResolutionSample 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? Yes

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:

Client Instruction

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

Date



envirotech Inc.



Report to:

Gilbert Moreno



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

### Earth Systems

Project Name: RDX 28-11

Work Order: E408266

Job Number: 01058-0007

Received: 8/30/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/6/24

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: 9/6/24

Gilbert Moreno  
1910 Resource Ct  
Carlsbad, NM 88220



Project Name: RDX 28-11  
Workorder: E408266  
Date Received: 8/30/2024 5:00:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/30/2024 5:00:00AM, under the Project Name: RDX 28-11.

The analytical test results summarized in this report with the Project Name: RDX 28-11 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  
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Sample Summary

Earth Systems	Project Name:	RDX 28-11	Reported: 09/06/24 07:59
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
HA-7 - 2	E408266-01A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/6/2024 7:59:55AM
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HA-7 - 2

E408266-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2435115	
Benzene	ND	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/04/24	
Toluene	ND	0.0250	1	08/30/24	09/04/24	
o-Xylene	ND	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/04/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	95.8 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	92.6 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	100 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2435115	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	95.8 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	92.6 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	100 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2435117	
Diesel Range Organics (C10-C28)	43.3	25.0	1	08/30/24	09/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/02/24	
Surrogate: n-Nonane	91.6 %	50-200		08/30/24	09/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: IY		Batch: 2435123	
Chloride	216	20.0	1	08/30/24	08/31/24	



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:59:55AM

Volatile Organic Compounds by EPA 8260B

Analyst: BA

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

Blank (2435115-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

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	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

LCS (2435115-BS1) Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.33	0.0250	2.50		93.3	70-130			
Ethylbenzene	2.37	0.0250	2.50		94.8	70-130			
Toluene	2.52	0.0250	2.50		101	70-130			
o-Xylene	2.51	0.0250	2.50		100	70-130			
p,m-Xylene	5.06	0.0500	5.00		101	70-130			
Total Xylenes	7.57	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

Matrix Spike (2435115-MS1) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.36	0.0250	2.50	ND	94.5	48-131			
Ethylbenzene	2.38	0.0250	2.50	ND	95.1	45-135			
Toluene	2.52	0.0250	2.50	ND	101	48-130			
o-Xylene	2.54	0.0250	2.50	ND	102	43-135			
p,m-Xylene	5.10	0.0500	5.00	ND	102	43-135			
Total Xylenes	7.64	0.0250	7.50	ND	102	43-135			
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.484		0.500		96.7	70-130			
Surrogate: Toluene-d8	0.511		0.500		102	70-130			

Matrix Spike Dup (2435115-MSD1) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.25	0.0250	2.50	ND	89.9	48-131	5.01	23	
Ethylbenzene	2.27	0.0250	2.50	ND	90.8	45-135	4.54	27	
Toluene	2.41	0.0250	2.50	ND	96.5	48-130	4.28	24	
o-Xylene	2.50	0.0250	2.50	ND	100	43-135	1.45	27	
p,m-Xylene	4.98	0.0500	5.00	ND	99.5	43-135	2.42	27	
Total Xylenes	7.48	0.0250	7.50	ND	99.7	43-135	2.10	27	
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.4	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			





QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:59:55AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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 (2435115-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

LCS (2435115-BS2) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	39.7	20.0	50.0		79.4	70-130			
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.463		0.500		92.5	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			

Matrix Spike (2435115-MS2) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	39.2	20.0	50.0	ND	78.4	70-130			
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.464		0.500		92.7	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			

Matrix Spike Dup (2435115-MSD2) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	38.5	20.0	50.0	ND	77.1	70-130	1.74	20	
Surrogate: Bromofluorobenzene	0.490		0.500		98.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:59:55AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2435117-BLK1)					Prepared: 08/30/24 Analyzed: 09/01/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	48.2		50.0		96.5	50-200			

LCS (2435117-BS1)					Prepared: 08/30/24 Analyzed: 09/01/24				
Diesel Range Organics (C10-C28)	230	25.0	250		92.0	38-132			
Surrogate: n-Nonane	48.2		50.0		96.4	50-200			

Matrix Spike (2435117-MS1)					Source: E408260-02		Prepared: 08/30/24 Analyzed: 09/01/24		
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.4	38-132			
Surrogate: n-Nonane	46.8		50.0		93.7	50-200			

Matrix Spike Dup (2435117-MSD1)					Source: E408260-02		Prepared: 08/30/24 Analyzed: 09/01/24		
Diesel Range Organics (C10-C28)	236	25.0	250	ND	94.4	38-132	1.11	20	
Surrogate: n-Nonane	48.7		50.0		97.4	50-200			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:59:55AM

Anions by EPA 300.0/9056A

Analyst: IY

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

Blank (2435123-BLK1)					Prepared: 08/30/24 Analyzed: 08/31/24				
Chloride	ND	20.0							
LCS (2435123-BS1)					Prepared: 08/30/24 Analyzed: 08/31/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2435123-MS1)					Source: E408260-03		Prepared: 08/30/24 Analyzed: 08/31/24		
Chloride	253	20.0	250	ND	101	80-120			
Matrix Spike Dup (2435123-MSD1)					Source: E408260-03		Prepared: 08/30/24 Analyzed: 08/31/24		
Chloride	253	20.0	250	ND	101	80-120	0.0119	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

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/06/24 07:59

- ND Analyte NOT DETECTED at or above the reporting limit
  - NR Not Reported
  - RPD Relative Percent Difference
  - DNI Did Not Ignite
  - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with \*\* are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





## Envirotech Analytical Laboratory

Printed: 8/30/2024 10:45:15AM

## 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:	Earth Systems	Date Received:	08/30/24 05:00	Work Order ID:	E408266
Phone:	832-541-7719	Date Logged In:	08/29/24 17:03	Logged In By:	Noe Soto
Email:	gmoreno@earthsys.net	Due Date:	09/06/24 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/ResolutionSample 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? Yes

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:

Gilbert Moreno



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

### Earth Systems

Project Name: RDX 28-11

Work Order: E408265

Job Number: 01058-0007

Received: 8/30/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/6/24

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: 9/6/24

Gilbert Moreno  
1910 Resource Ct  
Carlsbad, NM 88220



Project Name: RDX 28-11  
Workorder: E408265  
Date Received: 8/30/2024 5:00:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/30/2024 5:00:00AM, under the Project Name: RDX 28-11.

The analytical test results summarized in this report with the Project Name: RDX 28-11 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**  
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QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

Sample Summary

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/06/24 07:58

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
HA-7 - 4	E408265-01A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.





Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/6/2024 7:58:25AM
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HA-7 - 4

E408265-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2435115	
Benzene	ND	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/04/24	
Toluene	ND	0.0250	1	08/30/24	09/04/24	
o-Xylene	ND	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/04/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene		97.8 %	70-130	08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4		92.5 %	70-130	08/30/24	09/04/24	
Surrogate: Toluene-d8		101 %	70-130	08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2435115	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene		97.8 %	70-130	08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4		92.5 %	70-130	08/30/24	09/04/24	
Surrogate: Toluene-d8		101 %	70-130	08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2435117	
Diesel Range Organics (C10-C28)	249	25.0	1	08/30/24	09/02/24	
Oil Range Organics (C28-C36)	97.3	50.0	1	08/30/24	09/02/24	
Surrogate: n-Nonane		90.9 %	50-200	08/30/24	09/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: IY		Batch: 2435123	
Chloride	131	20.0	1	08/30/24	08/31/24	



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:58:25AM

Volatile Organic Compounds by EPA 8260B

Analyst: BA

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

Blank (2435115-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

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	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

LCS (2435115-BS1) Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.33	0.0250	2.50		93.3	70-130			
Ethylbenzene	2.37	0.0250	2.50		94.8	70-130			
Toluene	2.52	0.0250	2.50		101	70-130			
o-Xylene	2.51	0.0250	2.50		100	70-130			
p,m-Xylene	5.06	0.0500	5.00		101	70-130			
Total Xylenes	7.57	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

Matrix Spike (2435115-MS1) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.36	0.0250	2.50	ND	94.5	48-131			
Ethylbenzene	2.38	0.0250	2.50	ND	95.1	45-135			
Toluene	2.52	0.0250	2.50	ND	101	48-130			
o-Xylene	2.54	0.0250	2.50	ND	102	43-135			
p,m-Xylene	5.10	0.0500	5.00	ND	102	43-135			
Total Xylenes	7.64	0.0250	7.50	ND	102	43-135			
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.484		0.500		96.7	70-130			
Surrogate: Toluene-d8	0.511		0.500		102	70-130			

Matrix Spike Dup (2435115-MSD1) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.25	0.0250	2.50	ND	89.9	48-131	5.01	23	
Ethylbenzene	2.27	0.0250	2.50	ND	90.8	45-135	4.54	27	
Toluene	2.41	0.0250	2.50	ND	96.5	48-130	4.28	24	
o-Xylene	2.50	0.0250	2.50	ND	100	43-135	1.45	27	
p,m-Xylene	4.98	0.0500	5.00	ND	99.5	43-135	2.42	27	
Total Xylenes	7.48	0.0250	7.50	ND	99.7	43-135	2.10	27	
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.4	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:58:25AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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 (2435115-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

LCS (2435115-BS2) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	39.7	20.0	50.0		79.4	70-130			
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.463		0.500		92.5	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			

Matrix Spike (2435115-MS2) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	39.2	20.0	50.0	ND	78.4	70-130			
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.464		0.500		92.7	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			

Matrix Spike Dup (2435115-MSD2) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	38.5	20.0	50.0	ND	77.1	70-130	1.74	20	
Surrogate: Bromofluorobenzene	0.490		0.500		98.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:58:25AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2435117-BLK1)					Prepared: 08/30/24 Analyzed: 09/01/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	48.2		50.0		96.5	50-200			

LCS (2435117-BS1)					Prepared: 08/30/24 Analyzed: 09/01/24				
Diesel Range Organics (C10-C28)	230	25.0	250		92.0	38-132			
Surrogate: n-Nonane	48.2		50.0		96.4	50-200			

Matrix Spike (2435117-MS1)					Source: E408260-02		Prepared: 08/30/24 Analyzed: 09/01/24		
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.4	38-132			
Surrogate: n-Nonane	46.8		50.0		93.7	50-200			

Matrix Spike Dup (2435117-MSD1)					Source: E408260-02		Prepared: 08/30/24 Analyzed: 09/01/24		
Diesel Range Organics (C10-C28)	236	25.0	250	ND	94.4	38-132	1.11	20	
Surrogate: n-Nonane	48.7		50.0		97.4	50-200			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:58:25AM

Anions by EPA 300.0/9056A

Analyst: IY

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

Blank (2435123-BLK1)					Prepared: 08/30/24 Analyzed: 08/31/24				
Chloride	ND	20.0							
LCS (2435123-BS1)					Prepared: 08/30/24 Analyzed: 08/31/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2435123-MS1)					Source: E408260-03		Prepared: 08/30/24 Analyzed: 08/31/24		
Chloride	253	20.0	250	ND	101	80-120			
Matrix Spike Dup (2435123-MSD1)					Source: E408260-03		Prepared: 08/30/24 Analyzed: 08/31/24		
Chloride	253	20.0	250	ND	101	80-120	0.0119	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

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/06/24 07:58

- ND Analyte NOT DETECTED at or above the reporting limit
  - NR Not Reported
  - RPD Relative Percent Difference
  - DNI Did Not Ignite
  - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with \*\* are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



## Chain of Custody

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT		State											
Client: Earth Systems R & R				Company: WPX Energy Permian		Lab WO#	Job Number	1D	2D	3D	Std	NM	CO	UT	TX						
Project Name: RDX 28-11				Address: 5315 Buena Vista Dr		E 408265	01058-0007				X	X									
Project Manager: Gilbert Moreno				City, State, Zip: Carlsbad, NM 88220																	
Address: 1910 Resource Ct				Phone:																	
City, State, Zip: Carlsbad NM, 88220				Email: jim.raley@dv.com																	
Phone: 832-541-7719				WO: TBD																	
Email: gmoreno@earthsys.net																					
Sample Information																					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/ORO by 8015	Depth (ft)	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Pkg	EPA Program				
11:20	8/28/2024	S	1	HA-7			1		4				X					SDWA	CWA	RCRA	
																	Compliance	Y	or	N	
																	PWSID #				
																	Remarks				
																	Incident #: nAPP2422545957				
Additional Instructions:																					
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																					
Sampled by: <i>Cal</i>																					
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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 6 °C on subsequent days.													
<i>Cal</i>		8.29.24	08:00	<i>Michelle Gonzalez</i>		8.29.24	0800														
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time														
<i>Michelle Gonzalez</i>		8.29.24	1640	<i>L.H.</i>		8.29.24	1640														
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>													
<i>L.H.</i>		8.29.24	2300	<i>Highly R Heller</i>		8.30.24	0500														
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 14 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

## Envirotech Analytical Laboratory

Printed: 8/30/2024 10:41:02AM

## 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:	Earth Systems	Date Received:	08/30/24 05:00	Work Order ID:	E408265
Phone:	832-541-7719	Date Logged In:	08/29/24 16:59	Logged In By:	Noe Soto
Email:	gmoreno@earthsys.net	Due Date:	09/06/24 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/ResolutionSample 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? Yes

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:  
Gilbert Moreno



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

### Earth Systems

Project Name: RDX 28-11

Work Order: E408264

Job Number: 01058-0007

Received: 8/30/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/6/24

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: 9/6/24

Gilbert Moreno  
1910 Resource Ct  
Carlsbad, NM 88220



Project Name: RDX 28-11  
Workorder: E408264  
Date Received: 8/30/2024 5:00:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/30/2024 5:00:00AM, under the Project Name: RDX 28-11.

The analytical test results summarized in this report with the Project Name: RDX 28-11 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](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
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Sample Summary

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/06/24 07:55

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
HA-8-2'	E408264-01A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/6/2024 7:55:52AM
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HA-8-2'  
E408264-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2435115	
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	99.7 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	92.5 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	102 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2435115	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	99.7 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	92.5 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	102 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2435117	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/01/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/01/24	
Surrogate: n-Nonane	92.7 %	50-200		08/30/24	09/01/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: IY		Batch: 2435123	
Chloride	518	100	5	08/30/24	08/31/24	

QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:55:52AM

Volatile Organic Compounds by EPA 8260B

Analyst: BA

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 (2435115-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

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	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

LCS (2435115-BS1) Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.33	0.0250	2.50		93.3	70-130			
Ethylbenzene	2.37	0.0250	2.50		94.8	70-130			
Toluene	2.52	0.0250	2.50		101	70-130			
o-Xylene	2.51	0.0250	2.50		100	70-130			
p,m-Xylene	5.06	0.0500	5.00		101	70-130			
Total Xylenes	7.57	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

Matrix Spike (2435115-MS1) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.36	0.0250	2.50	ND	94.5	48-131			
Ethylbenzene	2.38	0.0250	2.50	ND	95.1	45-135			
Toluene	2.52	0.0250	2.50	ND	101	48-130			
o-Xylene	2.54	0.0250	2.50	ND	102	43-135			
p,m-Xylene	5.10	0.0500	5.00	ND	102	43-135			
Total Xylenes	7.64	0.0250	7.50	ND	102	43-135			
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.484		0.500		96.7	70-130			
Surrogate: Toluene-d8	0.511		0.500		102	70-130			

Matrix Spike Dup (2435115-MSD1) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.25	0.0250	2.50	ND	89.9	48-131	5.01	23	
Ethylbenzene	2.27	0.0250	2.50	ND	90.8	45-135	4.54	27	
Toluene	2.41	0.0250	2.50	ND	96.5	48-130	4.28	24	
o-Xylene	2.50	0.0250	2.50	ND	100	43-135	1.45	27	
p,m-Xylene	4.98	0.0500	5.00	ND	99.5	43-135	2.42	27	
Total Xylenes	7.48	0.0250	7.50	ND	99.7	43-135	2.10	27	
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.4	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:55:52AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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 (2435115-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

LCS (2435115-BS2) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	39.7	20.0	50.0		79.4	70-130			
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.463		0.500		92.5	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			

Matrix Spike (2435115-MS2) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	39.2	20.0	50.0	ND	78.4	70-130			
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.464		0.500		92.7	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			

Matrix Spike Dup (2435115-MSD2) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	38.5	20.0	50.0	ND	77.1	70-130	1.74	20	
Surrogate: Bromofluorobenzene	0.490		0.500		98.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			





QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:55:52AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2435117-BLK1)					Prepared: 08/30/24 Analyzed: 09/01/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	48.2		50.0		96.5	50-200			

LCS (2435117-BS1)					Prepared: 08/30/24 Analyzed: 09/01/24				
Diesel Range Organics (C10-C28)	230	25.0	250		92.0	38-132			
Surrogate: n-Nonane	48.2		50.0		96.4	50-200			

Matrix Spike (2435117-MS1)					Source: E408260-02		Prepared: 08/30/24 Analyzed: 09/01/24		
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.4	38-132			
Surrogate: n-Nonane	46.8		50.0		93.7	50-200			

Matrix Spike Dup (2435117-MSD1)					Source: E408260-02		Prepared: 08/30/24 Analyzed: 09/01/24		
Diesel Range Organics (C10-C28)	236	25.0	250	ND	94.4	38-132	1.11	20	
Surrogate: n-Nonane	48.7		50.0		97.4	50-200			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:55:52AM

Anions by EPA 300.0/9056A

Analyst: IY

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

Blank (2435123-BLK1)					Prepared: 08/30/24 Analyzed: 08/31/24				
Chloride	ND	20.0							
LCS (2435123-BS1)					Prepared: 08/30/24 Analyzed: 08/31/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2435123-MS1)					Source: E408260-03		Prepared: 08/30/24 Analyzed: 08/31/24		
Chloride	253	20.0	250	ND	101	80-120			
Matrix Spike Dup (2435123-MSD1)					Source: E408260-03		Prepared: 08/30/24 Analyzed: 08/31/24		
Chloride	253	20.0	250	ND	101	80-120	0.0119	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

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/06/24 07:55

- ND      Analyte NOT DETECTED at or above the reporting limit
  - NR      Not Reported
  - RPD      Relative Percent Difference
  - DNI      Did Not Ignite
  - DNR      Did not react with the addition of acid or base.
- Note (1): Methods marked with \*\* are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





## Envirotech Analytical Laboratory

Printed: 8/30/2024 10:35:21AM

## 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:	Earth Systems	Date Received:	08/30/24 05:00	Work Order ID:	E408264
Phone:	832-541-7719	Date Logged In:	08/29/24 16:49	Logged In By:	Noe Soto
Email:	gmoreno@earthsys.net	Due Date:	09/06/24 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/ResolutionSample 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? Yes

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:

Gilbert Moreno



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

### Earth Systems

Project Name: RDX 28-11

Work Order: E408263

Job Number: 01058-0007

Received: 8/30/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/6/24

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.  
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Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 9/6/24

Gilbert Moreno  
1910 Resource Ct  
Carlsbad, NM 88220



Project Name: RDX 28-11  
Workorder: E408263  
Date Received: 8/30/2024 6:00:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/30/2024 6:00:00AM, under the Project Name: RDX 28-11.

The analytical test results summarized in this report with the Project Name: RDX 28-11 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**  
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[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/06/24 07:49

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
HA-8 4	E408263-01A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.



## Sample Data

Earth Systems  
1910 Resource Ct  
Carlsbad NM, 88220

Project Name: RDX 28-11  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
9/6/2024 7:49:03AM

## HA-8 4

## E408263-01

Analyte	Reporting					
	Result	Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg	Analyst: BA			Batch: 2435115
Benzene	ND	0.0250	1	08/30/24	09/04/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/04/24	
Toluene	ND	0.0250	1	08/30/24	09/04/24	
o-Xylene	ND	0.0250	1	08/30/24	09/04/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/04/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	91.7 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	92.8 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	103 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA			Batch: 2435115
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/04/24	
Surrogate: Bromofluorobenzene	91.7 %	70-130		08/30/24	09/04/24	
Surrogate: 1,2-Dichloroethane-d4	92.8 %	70-130		08/30/24	09/04/24	
Surrogate: Toluene-d8	103 %	70-130		08/30/24	09/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV			Batch: 2435117
Diesel Range Organics (C10-C28)	36.0	25.0	1	08/30/24	09/01/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/01/24	
Surrogate: n-Nonane	93.3 %	50-200		08/30/24	09/01/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: IY			Batch: 2435123
Chloride	217	20.0	1	08/30/24	08/31/24	





QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:49:03AM

Volatile Organic Compounds by EPA 8260B

Analyst: BA

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

Blank (2435115-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

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	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

LCS (2435115-BS1) Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.33	0.0250	2.50		93.3	70-130			
Ethylbenzene	2.37	0.0250	2.50		94.8	70-130			
Toluene	2.52	0.0250	2.50		101	70-130			
o-Xylene	2.51	0.0250	2.50		100	70-130			
p,m-Xylene	5.06	0.0500	5.00		101	70-130			
Total Xylenes	7.57	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

Matrix Spike (2435115-MS1) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.36	0.0250	2.50	ND	94.5	48-131			
Ethylbenzene	2.38	0.0250	2.50	ND	95.1	45-135			
Toluene	2.52	0.0250	2.50	ND	101	48-130			
o-Xylene	2.54	0.0250	2.50	ND	102	43-135			
p,m-Xylene	5.10	0.0500	5.00	ND	102	43-135			
Total Xylenes	7.64	0.0250	7.50	ND	102	43-135			
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.484		0.500		96.7	70-130			
Surrogate: Toluene-d8	0.511		0.500		102	70-130			

Matrix Spike Dup (2435115-MSD1) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.25	0.0250	2.50	ND	89.9	48-131	5.01	23	
Ethylbenzene	2.27	0.0250	2.50	ND	90.8	45-135	4.54	27	
Toluene	2.41	0.0250	2.50	ND	96.5	48-130	4.28	24	
o-Xylene	2.50	0.0250	2.50	ND	100	43-135	1.45	27	
p,m-Xylene	4.98	0.0500	5.00	ND	99.5	43-135	2.42	27	
Total Xylenes	7.48	0.0250	7.50	ND	99.7	43-135	2.10	27	
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.4	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:49:03AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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 (2435115-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

LCS (2435115-BS2) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	39.7	20.0	50.0		79.4	70-130			
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.463		0.500		92.5	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			

Matrix Spike (2435115-MS2) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	39.2	20.0	50.0	ND	78.4	70-130			
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.464		0.500		92.7	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			

Matrix Spike Dup (2435115-MSD2) Source: E408264-01 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	38.5	20.0	50.0	ND	77.1	70-130	1.74	20	
Surrogate: Bromofluorobenzene	0.490		0.500		98.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:49:03AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2435117-BLK1) Prepared: 08/30/24 Analyzed: 09/01/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	48.2		50.0		96.5	50-200			

LCS (2435117-BS1) Prepared: 08/30/24 Analyzed: 09/01/24

Diesel Range Organics (C10-C28)	230	25.0	250		92.0	38-132			
Surrogate: n-Nonane	48.2		50.0		96.4	50-200			

Matrix Spike (2435117-MS1) Source: E408260-02 Prepared: 08/30/24 Analyzed: 09/01/24

Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.4	38-132			
Surrogate: n-Nonane	46.8		50.0		93.7	50-200			

Matrix Spike Dup (2435117-MSD1) Source: E408260-02 Prepared: 08/30/24 Analyzed: 09/01/24

Diesel Range Organics (C10-C28)	236	25.0	250	ND	94.4	38-132	1.11	20	
Surrogate: n-Nonane	48.7		50.0		97.4	50-200			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 7:49:03AM

Anions by EPA 300.0/9056A

Analyst: IY

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

Blank (2435123-BLK1)					Prepared: 08/30/24 Analyzed: 08/31/24				
Chloride	ND	20.0							
LCS (2435123-BS1)					Prepared: 08/30/24 Analyzed: 08/31/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2435123-MS1)					Source: E408260-03		Prepared: 08/30/24 Analyzed: 08/31/24		
Chloride	253	20.0	250	ND	101	80-120			
Matrix Spike Dup (2435123-MSD1)					Source: E408260-03		Prepared: 08/30/24 Analyzed: 08/31/24		
Chloride	253	20.0	250	ND	101	80-120	0.0119	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

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/06/24 07:49

- ND Analyte NOT DETECTED at or above the reporting limit
  - NR Not Reported
  - RPD Relative Percent Difference
  - DNI Did Not Ignite
  - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with \*\* are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





envirotech

## Envirotech Analytical Laboratory

Printed: 8/30/2024 10:29:39AM

## 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:	Earth Systems	Date Received:	08/30/24 06:00	Work Order ID:	E408263
Phone:	832-541-7719	Date Logged In:	08/29/24 16:47	Logged In By:	Raina Schwanz
Email:	gmoreno@earthsys.net	Due Date:	09/06/24 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/ResolutionSample 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? Yes

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:

Gilbert Moreno



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

### Earth Systems

Project Name: RDX 28-11

Work Order: E408262

Job Number: 01058-0007

Received: 8/30/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/6/24

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: 9/6/24

Gilbert Moreno  
1910 Resource Ct  
Carlsbad, NM 88220



Project Name: RDX 28-11  
Workorder: E408262  
Date Received: 8/30/2024 5:00:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/30/2024 5:00:00AM, under the Project Name: RDX 28-11.

The analytical test results summarized in this report with the Project Name: RDX 28-11 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**  
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Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

Earth Systems	Project Name:	RDX 28-11	Reported: 09/06/24 10:35
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
HA-9 0.5	E408262-01A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-9 4	E408262-02A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-10 0.5	E408262-03A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-10 4	E408262-04A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-11 0.5	E408262-05A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-11 4	E408262-06A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-12 0.5	E408262-07A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-12 4	E408262-08A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-13 0.5	E408262-09A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-13 4	E408262-10A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-14 0.5	E408262-11A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.
HA-14 4	E408262-12A	Soil	08/28/24	08/30/24	Glass Jar, 2 oz.

Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/6/2024 10:35:40AM
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HA-9 0.5

E408262-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		96.0 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		98.0 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		96.0 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		98.0 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane		96.5 %	50-200	08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

HA-9 4  
E408262-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		95.9 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		98.8 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		95.9 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		98.8 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane		98.4 %	50-200	08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

HA-10 0.5

E408262-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	99.5 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	98.3 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	95.4 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	99.5 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	98.3 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	95.4 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane	97.9 %	50-200		08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

HA-10 4

E408262-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		97.1 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		97.9 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		97.1 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		97.9 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane		95.0 %	50-200	08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	





Sample Data

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

HA-11 0.5

E408262-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		98.9 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		98.0 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		98.9 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		98.0 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane		95.5 %	50-200	08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	Reported: 9/6/2024 10:35:40AM
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

HA-11 4

E408262-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2435118	
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	103 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	96.8 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	95.1 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2435118	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	103 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	96.8 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	95.1 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2435119	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane	97.5 %	50-200		08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2435124	
Chloride	ND	20.0	1	08/30/24	08/30/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/6/2024 10:35:40AM
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HA-12 0.5  
E408262-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		96.9 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		98.1 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		96.9 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		98.1 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane		93.5 %	50-200	08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	

Sample Data

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

HA-12 4

E408262-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		97.3 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		98.1 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		97.3 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		98.1 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane		95.3 %	50-200	08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	



## Sample Data

Earth Systems  
1910 Resource Ct  
Carlsbad NM, 88220

Project Name: RDX 28-11  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
9/6/2024 10:35:40AM

## HA-13 0.5

## E408262-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		100 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		99.5 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		97.5 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		100 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		99.5 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		97.5 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/05/24	
Surrogate: n-Nonane		94.0 %	50-200	08/30/24	09/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

HA-13 4

E408262-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	99.0 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	96.3 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	97.6 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene	99.0 %	70-130		08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4	96.3 %	70-130		08/30/24	09/03/24	
Surrogate: Toluene-d8	97.6 %	70-130		08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/06/24	
Surrogate: n-Nonane	89.9 %	50-200		08/30/24	09/06/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	





Sample Data

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

HA-14 0.5

E408262-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		97.1 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		96.7 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		97.1 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		96.7 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/06/24	
Surrogate: n-Nonane		95.5 %	50-200	08/30/24	09/06/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	



## Sample Data

Earth Systems  
1910 Resource Ct  
Carlsbad NM, 88220

Project Name: RDX 28-11  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
9/6/2024 10:35:40AM

## HA-14 4

## E408262-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Benzene	ND	0.0250	1	08/30/24	09/03/24	
Ethylbenzene	ND	0.0250	1	08/30/24	09/03/24	
Toluene	ND	0.0250	1	08/30/24	09/03/24	
o-Xylene	ND	0.0250	1	08/30/24	09/03/24	
p,m-Xylene	ND	0.0500	1	08/30/24	09/03/24	
Total Xylenes	ND	0.0250	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		100 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		97.8 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		95.1 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2435118
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/30/24	09/03/24	
Surrogate: Bromofluorobenzene		100 %	70-130	08/30/24	09/03/24	
Surrogate: 1,2-Dichloroethane-d4		97.8 %	70-130	08/30/24	09/03/24	
Surrogate: Toluene-d8		95.1 %	70-130	08/30/24	09/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2435119
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/24	09/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/24	09/06/24	
Surrogate: n-Nonane		96.2 %	50-200	08/30/24	09/06/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2435124
Chloride	ND	20.0	1	08/30/24	08/30/24	



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

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

Blank (2435118-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

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	0.509		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.7	70-130			
Surrogate: Toluene-d8	0.492		0.500		98.4	70-130			

LCS (2435118-BS1) Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.38	0.0250	2.50		95.0	70-130			
Ethylbenzene	2.33	0.0250	2.50		93.2	70-130			
Toluene	2.21	0.0250	2.50		88.4	70-130			
o-Xylene	2.29	0.0250	2.50		91.6	70-130			
p,m-Xylene	4.58	0.0500	5.00		91.7	70-130			
Total Xylenes	6.87	0.0250	7.50		91.6	70-130			
Surrogate: Bromofluorobenzene	0.504		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.4	70-130			
Surrogate: Toluene-d8	0.491		0.500		98.1	70-130			

Matrix Spike (2435118-MS1) Source: E408262-06 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.50	0.0250	2.50	ND	100	48-131			
Ethylbenzene	2.45	0.0250	2.50	ND	98.2	45-135			
Toluene	2.33	0.0250	2.50	ND	93.2	48-130			
o-Xylene	2.47	0.0250	2.50	ND	99.0	43-135			
p,m-Xylene	4.95	0.0500	5.00	ND	99.0	43-135			
Total Xylenes	7.42	0.0250	7.50	ND	99.0	43-135			
Surrogate: Bromofluorobenzene	0.507		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.491		0.500		98.2	70-130			
Surrogate: Toluene-d8	0.492		0.500		98.3	70-130			

Matrix Spike Dup (2435118-MSD1) Source: E408262-06 Prepared: 08/30/24 Analyzed: 09/03/24

Benzene	2.44	0.0250	2.50	ND	97.5	48-131	2.63	23	
Ethylbenzene	2.42	0.0250	2.50	ND	96.9	45-135	1.31	27	
Toluene	2.28	0.0250	2.50	ND	91.1	48-130	2.30	24	
o-Xylene	2.42	0.0250	2.50	ND	96.7	43-135	2.33	27	
p,m-Xylene	4.84	0.0500	5.00	ND	96.8	43-135	2.27	27	
Total Xylenes	7.26	0.0250	7.50	ND	96.7	43-135	2.29	27	
Surrogate: Bromofluorobenzene	0.504		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.497		0.500		99.4	70-130			
Surrogate: Toluene-d8	0.491		0.500		98.1	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

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 (2435118-BLK1) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.509		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.7	70-130			
Surrogate: Toluene-d8	0.492		0.500		98.4	70-130			

LCS (2435118-BS2) Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	45.4	20.0	50.0		90.7	70-130			
Surrogate: Bromofluorobenzene	0.518		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.471		0.500		94.2	70-130			
Surrogate: Toluene-d8	0.499		0.500		99.7	70-130			

Matrix Spike (2435118-MS2) Source: E408262-06 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	43.3	20.0	50.0	ND	86.6	70-130			
Surrogate: Bromofluorobenzene	0.522		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.3	70-130			
Surrogate: Toluene-d8	0.492		0.500		98.4	70-130			

Matrix Spike Dup (2435118-MSD2) Source: E408262-06 Prepared: 08/30/24 Analyzed: 09/03/24

Gasoline Range Organics (C6-C10)	40.3	20.0	50.0	ND	80.6	70-130	7.22	20	
Surrogate: Bromofluorobenzene	0.520		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.1	70-130			
Surrogate: Toluene-d8	0.489		0.500		97.8	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2435119-BLK1) Prepared: 08/30/24 Analyzed: 09/05/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.1		50.0		94.1	50-200			

LCS (2435119-BS1) Prepared: 08/30/24 Analyzed: 09/05/24

Diesel Range Organics (C10-C28)	240	25.0	250		95.9	38-132			
Surrogate: n-Nonane	52.7		50.0		105	50-200			

Matrix Spike (2435119-MS1) Source: E408262-01 Prepared: 08/30/24 Analyzed: 09/05/24

Diesel Range Organics (C10-C28)	222	25.0	250	ND	88.8	38-132			
Surrogate: n-Nonane	49.1		50.0		98.2	50-200			

Matrix Spike Dup (2435119-MSD1) Source: E408262-01 Prepared: 08/30/24 Analyzed: 09/05/24

Diesel Range Organics (C10-C28)	228	25.0	250	ND	91.1	38-132	2.49	20	
Surrogate: n-Nonane	47.2		50.0		94.4	50-200			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/6/2024 10:35:40AM

Anions by EPA 300.0/9056A

Analyst: IY

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 (2435124-BLK1)					Prepared: 08/30/24 Analyzed: 08/30/24				
Chloride	ND	20.0							
LCS (2435124-BS1)					Prepared: 08/30/24 Analyzed: 08/30/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2435124-MS1)					Source: E408262-02		Prepared: 08/30/24 Analyzed: 08/30/24		
Chloride	254	20.0	250	ND	102	80-120			
Matrix Spike Dup (2435124-MSD1)					Source: E408262-02		Prepared: 08/30/24 Analyzed: 08/30/24		
Chloride	254	20.0	250	ND	102	80-120	0.132	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

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/06/24 10:35

- ND      Analyte NOT DETECTED at or above the reporting limit
- NR      Not Reported
- RPD      Relative Percent Difference
- DNI      Did Not Ignite
- DNR      Did not react with the addition of acid or base.
- Note (1): Methods marked with \*\* are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



## Chain of Custody

Page 1 of 2

Client Information				Invoice Information		Lab Use Only		TAT		State								
Client: Earth Systems R & R				Company: WPX Energy Permian		Lab WO#	Job Number	1D	2D	3D	Std	NM	CO	UT	TX			
Project Name: RDX 28-11				Address: 5315 Buena Vista Dr		E408262	01058-007				X	X						
Project Manager: Gilbert Moreno				City, State, Zip: Carlsbad, NM 88220														
Address: 1910 Resource Ct				Phone:														
City, State, Zip: Carlsbad NM, 88220				Email: jim.raley@dvn.com														
Phone: 832-541-7719				WO: TBD														
Email: gmoreno@earthsys.net																		
Sample Information						Analysis and Method						EPA Program						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	Depth (ft)	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Plg	SDWA	CWA	RCRA
11:50	8/28/2024	S	1	HA-9		1		0.5				X						
12:00	8/28/2024	S	1	HA-9		2		4										
12:10	8/28/2024	S	1	HA-10		3		0.5										
12:20	8/28/2024	S	1	HA-10		4		4										
12:30	8/28/2024	S	1	HA-11		5		0.5										
12:40	8/28/2024	S	1	HA-11		6		4										
12:50	8/28/2024	S	1	HA-12		7		0.5										
13:00	8/28/2024	S	1	HA-12		8		4										
13:10	8/28/2024	S	1	HA-13		9		0.5										
13:20	8/28/2024	S	1	HA-13		10		4										
Additional Instructions:																		
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																		
Sampled by: <i>Cal</i>																		
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>										
<i>Cal</i>		8-29-24	08:00	<i>Michelle Gonzales</i>		8-29-24	6:00											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time											
<i>Michelle Gonzales</i>		8-29-24	1640	<i>J.H.</i>		8-29-24	1640											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time											
<i>J.H.</i>		8-29-24	2300	<i>Michael R. Hill</i>		8-30-24	0500											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time											
Sample Matrix: S - Soil, <b>Sd</b> - Solid, <b>Sg</b> - Sludge, <b>A</b> - Aqueous, <b>O</b> - Other										Container Type: <b>g</b> - glass, <b>p</b> - poly/plastic, <b>ag</b> - amber glass, <b>v</b> - VOA								
Note: Samples are discarded 14 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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## Chain of Custody

Page 2 of 2

Client Information				Invoice Information				Lab Use Only				TAT				State				
Client: Earth Systems R & R				Company: WPX Energy Permian				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX	
Project Name: RDX 28-11				Address: 5315 Buena Vista Dr				E408242		01058-0007					X	X				
Project Manager: Gilbert Moreno				City, State, Zip: Carlsbad, NM 88220																
Address: 1910 Resource Ct				Phone:																
City, State, Zip: Carlsbad NM, 88220				Email: jim.raley@dvn.com																
Phone: 832-541-7719				WO: TBD																
Email: gmoreno@earthsys.net																				
Sample Information												Analysis and Method				EPA Program				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/ORO by 8015	Depth (ft)	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Pkg	SDWA	CWA	RCRA	
13:30	8/28/2024	S	1	HA-14			11		0.5				X							
13:40	8/28/2024	S	1	HA-14			12		4				X							
Remarks																				
Incident #: nAPP2422545957																				
Additional Instructions:																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																				
Sampled by: <i>Gilbert Moreno</i>																				
Relinquished by: (Signature)				Date		Time		Received by: (Signature)				Date		Time		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.  Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N  T1 _____ T2 _____ T3 _____  AVG Temp °C <u>4</u>				
Relinquished by: (Signature)				Date		Time		Received by: (Signature)				Date		Time						
Relinquished by: (Signature)				Date		Time		Received by: (Signature)				Date		Time						
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 14 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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## Envirotech Analytical Laboratory

Printed: 8/30/2024 10:24:12AM

## 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:	Earth Systems	Date Received:	08/30/24 05:00	Work Order ID:	E408262
Phone:	832-541-7719	Date Logged In:	08/29/24 16:42	Logged In By:	Raina Schwanz
Email:	gmoreno@earthsys.net	Due Date:	09/06/24 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/ResolutionSample 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? Yes

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:

Gilbert Moreno



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

### Earth Systems

Project Name: RDX 28-11

Work Order: E409188

Job Number: 01058-0007

Received: 9/23/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/27/24

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: 9/27/24

Gilbert Moreno  
1910 Resource Ct  
Carlsbad, NM 88220



Project Name: RDX 28-11  
Workorder: E409188  
Date Received: 9/23/2024 5:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 9/23/2024 5:30:00AM, under the Project Name: RDX 28-11.

The analytical test results summarized in this report with the Project Name: RDX 28-11 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](mailto:whinchman@envirotech-inc.com)

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)



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Sample Summary

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/27/24 18:08

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CS-1 - 1'	E409188-01A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
CS-2 - 1'	E409188-02A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
CS-3 - 1'	E409188-03A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
CS-4 - 1'	E409188-04A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
CS-5 - 1'	E409188-05A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
CS-6 - 1'	E409188-06A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
CS-7 - 1'	E409188-07A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
CS-8 - 1'	E409188-08A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
CS-9 - 1'	E409188-09A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
CS-10 - 1'	E409188-10A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
CS-11 - 1'	E409188-11A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
SW-1 -0 - 1'	E409188-12A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
SW-2 -0 - 1'	E409188-13A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
SW-3 -0 - 1'	E409188-14A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.
SW-4 -0 - 1'	E409188-15A	Soil	09/19/24	09/23/24	Glass Jar, 2 oz.



## Sample Data

Earth Systems  
1910 Resource Ct  
Carlsbad NM, 88220

Project Name: RDX 28-11  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
9/27/2024 6:08:18PM

CS-1 - 1'

E409188-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2439002
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.5 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	99.1 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	100 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2439002
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.5 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	99.1 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	100 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2438162
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	115 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2439013
Chloride	1180	200	10	09/23/24	09/23/24	



## Sample Data

Earth Systems  
1910 Resource Ct  
Carlsbad NM, 88220

Project Name: RDX 28-11  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
9/27/2024 6:08:18PM

CS-2 - 1'

E409188-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2439002
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.8 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	100 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2439002
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.8 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	100 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2438162
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	106 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2439013
Chloride	3900	200	10	09/23/24	09/23/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	Reported: 9/27/2024 6:08:18PM
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

CS-3 - 1'

E409188-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2439002	
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	99.5 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	100 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2439002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	99.5 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	100 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: AF		Batch: 2438162	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	101 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2439013	
Chloride	6860	400	20	09/23/24	09/24/24	





Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/27/2024 6:08:18PM
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CS-4 - 1'

E409188-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2439002
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.9 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	101 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2439002
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.9 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	101 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2438162
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	102 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2439013
Chloride	1340	200	10	09/23/24	09/23/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/27/2024 6:08:18PM
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CS-5 - 1'

E409188-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2439002
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.2 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	102 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2439002
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.2 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	102 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2438162
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	104 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2439013
Chloride	2690	200	10	09/23/24	09/23/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/27/2024 6:08:18PM

CS-6 - 1'

E409188-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2439002
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.6 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	98.8 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2439002
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.6 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	98.8 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2438162
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	101 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2439013
Chloride	6940	400	20	09/23/24	09/24/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/27/2024 6:08:18PM

CS-7 - 1'

E409188-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2439002
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene		100 %	70-130	09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4		99.2 %	70-130	09/23/24	09/27/24	
Surrogate: Toluene-d8		101 %	70-130	09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2439002
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene		100 %	70-130	09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4		99.2 %	70-130	09/23/24	09/27/24	
Surrogate: Toluene-d8		101 %	70-130	09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2438162
Diesel Range Organics (C10-C28)	62.7	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane		104 %	50-200	09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2439013
Chloride	6530	200	10	09/23/24	09/23/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/27/2024 6:08:18PM
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CS-8 - 1'

E409188-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2439002	
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.3 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	93.7 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	105 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2439002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	98.3 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	93.7 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	105 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: AF		Batch: 2438162	
Diesel Range Organics (C10-C28)	57.7	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	100 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2439013	
Chloride	6430	200	10	09/23/24	09/23/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/27/2024 6:08:18PM
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CS-9 - 1'

E409188-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2439002	
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	97.7 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	96.7 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	104 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2439002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	97.7 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	96.7 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	104 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: AF		Batch: 2438162	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	104 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2439013	
Chloride	3600	200	10	09/23/24	09/23/24	





Sample Data

Earth Systems	Project Name:	RDX 28-11	Reported: 9/27/2024 6:08:18PM
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

CS-10 - 1'

E409188-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2439002	
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	97.0 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	92.8 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	103 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2439002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	97.0 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	92.8 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	103 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: AF		Batch: 2438162	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	100 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439013	
Chloride	317	100	5	09/23/24	09/23/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/27/2024 6:08:18PM
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CS-11 - 1'

E409188-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2439002	
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	99.0 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	95.6 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	102 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2439002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	99.0 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	95.6 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	102 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: AF		Batch: 2438162	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	110 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2439013	
Chloride	754	100	5	09/23/24	09/23/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/27/2024 6:08:18PM
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SW-1 -0 - 1'  
E409188-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2439002	
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	96.6 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	99.5 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2439002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	96.6 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	99.5 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: AF		Batch: 2438162	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	92.0 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2439013	
Chloride	ND	20.0	1	09/23/24	09/23/24	



Sample Data

Earth Systems 1910 Resource Ct Carlsbad NM, 88220	Project Name: RDX 28-11 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 9/27/2024 6:08:18PM
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SW-2 -0 - 1'  
E409188-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2439002	
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	95.0 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	98.2 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	101 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2439002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	95.0 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	98.2 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	101 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: AF		Batch: 2438162	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	102 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2439013	
Chloride	ND	20.0	1	09/23/24	09/23/24	



Sample Data

Earth Systems	Project Name:	RDX 28-11	Reported: 9/27/2024 6:08:18PM
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

SW-3 -0 - 1'  
E409188-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2439002	
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	96.9 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	97.1 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	101 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2439002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	96.9 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	97.1 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	101 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: AF		Batch: 2438162	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	93.3 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2439013	
Chloride	ND	20.0	1	09/23/24	09/23/24	



## Sample Data

Earth Systems  
1910 Resource Ct  
Carlsbad NM, 88220

Project Name: RDX 28-11  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
9/27/2024 6:08:18PM

## SW-4 -0 - 1'

## E409188-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2439002
Benzene	ND	0.0250	1	09/23/24	09/27/24	
Ethylbenzene	ND	0.0250	1	09/23/24	09/27/24	
Toluene	ND	0.0250	1	09/23/24	09/27/24	
o-Xylene	ND	0.0250	1	09/23/24	09/27/24	
p,m-Xylene	ND	0.0500	1	09/23/24	09/27/24	
Total Xylenes	ND	0.0250	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	95.2 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	96.3 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	101 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2439002
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/23/24	09/27/24	
Surrogate: Bromofluorobenzene	95.2 %	70-130		09/23/24	09/27/24	
Surrogate: 1,2-Dichloroethane-d4	96.3 %	70-130		09/23/24	09/27/24	
Surrogate: Toluene-d8	101 %	70-130		09/23/24	09/27/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2438162
Diesel Range Organics (C10-C28)	ND	25.0	1	09/21/24	09/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/21/24	09/26/24	
Surrogate: n-Nonane	101 %	50-200		09/21/24	09/26/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2439013
Chloride	ND	20.0	1	09/23/24	09/23/24	





QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/27/2024 6:08:18PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

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

Blank (2439002-BLK1) Prepared: 09/23/24 Analyzed: 09/27/24

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	0.479		0.500		95.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			

LCS (2439002-BS1) Prepared: 09/23/24 Analyzed: 09/27/24

Benzene	2.36	0.0250	2.50		94.4	70-130			
Ethylbenzene	2.48	0.0250	2.50		99.1	70-130			
Toluene	2.41	0.0250	2.50		96.2	70-130			
o-Xylene	2.40	0.0250	2.50		96.2	70-130			
p,m-Xylene	4.77	0.0500	5.00		95.3	70-130			
Total Xylenes	7.17	0.0250	7.50		95.6	70-130			
Surrogate: Bromofluorobenzene	0.474		0.500		94.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.508		0.500		102	70-130			
Surrogate: Toluene-d8	0.504		0.500		101	70-130			

LCS Dup (2439002-BSD1) Prepared: 09/23/24 Analyzed: 09/27/24

Benzene	2.33	0.0250	2.50		93.0	70-130	1.49	23	
Ethylbenzene	2.44	0.0250	2.50		97.5	70-130	1.59	27	
Toluene	2.39	0.0250	2.50		95.7	70-130	0.563	24	
o-Xylene	2.44	0.0250	2.50		97.5	70-130	1.36	27	
p,m-Xylene	4.88	0.0500	5.00		97.5	70-130	2.28	27	
Total Xylenes	7.31	0.0250	7.50		97.5	70-130	1.97	27	
Surrogate: Bromofluorobenzene	0.483		0.500		96.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.519		0.500		104	70-130			
Surrogate: Toluene-d8	0.509		0.500		102	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/27/2024 6:08:18PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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 (2439002-BLK1) Prepared: 09/23/24 Analyzed: 09/27/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.479		0.500		95.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			

LCS (2439002-BS2) Prepared: 09/23/24 Analyzed: 09/27/24

Gasoline Range Organics (C6-C10)	47.1	20.0	50.0		94.1	70-130			
Surrogate: Bromofluorobenzene	0.497		0.500		99.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.514		0.500		103	70-130			

LCS Dup (2439002-BSD2) Prepared: 09/23/24 Analyzed: 09/27/24

Gasoline Range Organics (C6-C10)	47.9	20.0	50.0		95.9	70-130	1.86	20	
Surrogate: Bromofluorobenzene	0.491		0.500		98.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.511		0.500		102	70-130			
Surrogate: Toluene-d8	0.516		0.500		103	70-130			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/27/2024 6:08:18PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

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 (2438162-BLK1)					Prepared: 09/21/24 Analyzed: 09/26/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	51.6		50.0		103	50-200			

LCS (2438162-BS1)					Prepared: 09/21/24 Analyzed: 09/26/24				
Diesel Range Organics (C10-C28)	262	25.0	250		105	38-132			
Surrogate: n-Nonane	54.2		50.0		108	50-200			

LCS Dup (2438162-BSD1)					Prepared: 09/21/24 Analyzed: 09/26/24				
Diesel Range Organics (C10-C28)	258	25.0	250		103	38-132	1.67	20	
Surrogate: n-Nonane	55.0		50.0		110	50-200			



QC Summary Data

Earth Systems	Project Name:	RDX 28-11	Reported:
1910 Resource Ct	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	9/27/2024 6:08:18PM

Anions by EPA 300.0/9056A

Analyst: DT

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 (2439013-BLK1)				Prepared: 09/23/24 Analyzed: 09/23/24					
Chloride	ND	20.0							
LCS (2439013-BS1)				Prepared: 09/23/24 Analyzed: 09/23/24					
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2439013-MS1)				Source: E409188-05		Prepared: 09/23/24 Analyzed: 09/23/24			
Chloride	2990	200	250	2690	121	80-120			M4
Matrix Spike Dup (2439013-MSD1)				Source: E409188-05		Prepared: 09/23/24 Analyzed: 09/23/24			
Chloride	2660	200	250	2690	NR	80-120	11.7	20	M4

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

Earth Systems	Project Name:	RDX 28-11	
1910 Resource Ct	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	09/27/24 18:08

- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

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

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



## Chain of Custody

Page 1 of 2

Client Information				Invoice Information		Lab Use Only		TAT				State								
Client: Earth Systems R & R				Company: WPX Energy Permian		Lab WO# E 409188		Job Number 010580007		1D	2D	3D	Std	NM	CO	UT	TX			
Project Name: RDX 28-11				Address: 5315 Buena Vista Dr									X	X						
Project Manager: Gilbert Moreno				City, State, Zip: Carlsbad, NM 88220																
Address: 1910 Resource Ct				Phone:																
City, State, Zip: Carlsbad NM, 88220				Email: jim.raley@dvn.com																
Phone: 832-541-7719				WO: 21402114																
Email: gmoreno@earthsys.net																				
Sample Information																				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	Depth (ft)	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Pkg	EPA Program				
																	SDWA	CWA	RCRA	
																	Compliance	Y	or	N
																	PWSID #			
																	Remarks			
9:00	9/19/2024	S	1	CS-1		1		1				X					Incident #:			
9:10	9/19/2024	S	1	CS-2		2		1				X					nAPP2423424961			
9:20	9/19/2024	S	1	CS-3		3		1				X								
9:30	9/19/2024	S	1	CS-4		4		1				X								
9:40	9/19/2024	S	1	CS-5		5		1				X								
9:50	9/19/2024	S	1	CS-6		6		1				X								
10:00	9/19/2024	S	1	CS-7		7		1				X								
10:10	9/19/2024	S	1	CS-8		8		1				X								
10:20	9/19/2024	S	1	CS-9		9		1				X								
10:30	9/19/2024	S	2	CS-10		10		1				X								
Additional Instructions:																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																				
Sampled by: GM																				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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.  Lab Use Only Received on ice: Y / N  T1 _____ T2 _____ T3 _____  AVG Temp °C 4												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time													
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 14 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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## Chain of Custody

Page 2 of 2

Client Information				Invoice Information		Lab Use Only		TAT				State							
Client: Earth Systems R & R				Company: WPX Energy Permian		Lab WO# E 409188		Job Number D1058-0007				1D 2D 3D Std X							
Project Name: RDX 28-11				Address: 5315 Buena Vista Dr								NM CO UT TX							
Project Manager: Gilbert Moreno				City, State, Zip: Carlsbad, NM 88220								X							
Address: 1910 Resource Ct				Phone:															
City, State, Zip: Carlsbad NM, 88220				Email: jim.raley@dvn.com															
Phone: 832-541-7719				WO: 21402114															
Email: gmoreno@earthsys.net																			
Sample Information										Analysis and Method						EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRG/ORO by 8015	Depth (ft)	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Pkg	SDWA	CWA	RCRA	
10:40	9/19/2024	S	1	CS-11		11		1				X							
10:50	9/19/2024	S	1	SW-1		12		0-1				X							
11:00	9/19/2024	S	1	SW-2		13		0-1				X							
11:10	9/19/2024	S	1	SW-3		14		0-1				X							
11:20	9/19/2024	S	1	SW-4		15		0-1				X							
Remarks																			
Incident #:																			
nAPP2423424961																			
Additional Instructions:																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																			
Sampled by: GM																			
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		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 6 °C on subsequent days. Lab Use Only Received on ice: Y/ N T1 T2 T3 AVG Temp °C 4							
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time									
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 14 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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## Envirotech Analytical Laboratory

Printed: 9/23/2024 10:45:34AM

## 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:	Earth Systems	Date Received:	09/23/24 05:30	Work Order ID:	E409188
Phone:	832-541-7719	Date Logged In:	09/20/24 15:05	Logged In By:	Caitlin Mars
Email:	gmoreno@earthsys.net	Due Date:	09/27/24 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/ResolutionSample 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.

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

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

QUESTIONS  
  
Action 399461

QUESTIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:
	246289
	Action Number:
	399461
Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2423424961
Incident Name	NAPP2423424961 RDX FEDERAL 28 #011 @ 30-015-42109
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-42109] RDX FEDERAL 28 #011

Location of Release Source	
Please answer all the questions in this group.	
Site Name	RDX FEDERAL 28 #011
Date Release Discovered	08/18/2024
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	Cause: Equipment Failure   Well   Crude Oil   Released: 1 BBL   Recovered: 1 BBL   Lost: 0 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Well   Produced Water   Released: 5 BBL   Recovered: 1 BBL   Lost: 4 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

**District I**

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

**District II**

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Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
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**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS, Page 2

Action 399461

**QUESTIONS (continued)**

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:
	246289
	Action Number:
	399461
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dmv.com Date: 11/05/2024
--	--



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**District III**

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**Santa Fe, NM 87505**

QUESTIONS, Page 3

Action 399461

**QUESTIONS (continued)**

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 399461
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**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 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 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	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 500 and 1000 (ft.)
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	Medium
A 100-year floodplain	Between 500 and 1000 (ft.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

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

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	23100
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	55520
GRO+DRO	(EPA SW-846 Method 8015M)	39749
BTEX	(EPA SW-846 Method 8021B or 8260B)	64.1
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	09/17/2024
On what date will (or did) the final sampling or liner inspection occur	09/19/2024
On what date will (or was) the remediation complete(d)	10/04/2024
What is the estimated surface area (in square feet) that will be reclaimed	2143
What is the estimated volume (in cubic yards) that will be reclaimed	318
What is the estimated surface area (in square feet) that will be remediated	2143
What is the estimated volume (in cubic yards) that will be remediated	140

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 399461

**QUESTIONS (continued)**

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:
	246289
	Action Number:
	399461
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS****Remediation Plan (continued)**

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.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Yes
In which state is the disposal taking place	Texas
What is the name of the out-of-state facility	R360 Red Bluff
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> 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.

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 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@dv.com Date: 11/05/2024
--	---

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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Action 399461

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 399461
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

<b>Deferral Requests Only</b>	
<i>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.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 399461

**QUESTIONS (continued)**

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:	246289
	Action Number:	399461
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	387061
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/20/2024
What was the (estimated) number of samples that were to be gathered	20
What was the sampling surface area in square feet	2143

**Remediation Closure Request**

*Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.*

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	2143
What was the total volume (cubic yards) remediated	140
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	The Site was remediated according to Site Closure Criteria and has been backfilled with clean, locally sourced material.

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

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

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dmv.com Date: 11/05/2024
--	--

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Action 399461

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 399461
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 399461

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 399461
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	11/6/2024