

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NVV2002831233
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC.	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: james.ralej@wpxenergy.com	Incident # (assigned by OCD)
Contact mailing address: 5315 Buena Vista Dr., Carlsbad, NM 88220	

Location of Release Source

Latitude 32.01613 _____ Longitude -103.88090 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: RDX FEDERAL 28 #024	Site Type: Production Facility
Date Release Discovered: 1/12/2020	API# (if applicable): 30-015-43038

Unit Letter	Section	Township	Range	County
H	28	26S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 13	Volume Recovered (bbls) 10
☒ Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 10
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Flowline failure resulted in approx. 33 bbls of fluids impacting pad surface.

$$bbl\ estimate = \frac{saturated\ soil\ volume\ (ft^3)}{4.21(\frac{ft^3}{bbl\ equivalent})} * estimated\ soil\ porosity(\%) + recovered\ fluids\ (bbl)$$

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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Volume exceeded 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Phone call to Mike Bratcher on 1/13/2019 at 8:49 AM	

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. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Jim Raley	Title: Environmental Specialist
Signature: 	Date: 1/15/2020
email: james.raley@wpenergy.com	Telephone: 575-689-7597
<u>OCD Only</u>	
Received by: Victoria Venegas	Date: 01/28/2020

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Site Assessment/Characterization

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

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

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

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

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

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

Oil Conservation Division

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

Printed Name: Jim Raley Title: Environmental Specialist
Signature:  Date: 2/11/2021
email: james.raley@wpenergy.com Telephone: 575-689-7597

OCD Only

Received by: _____ Date: _____

Incident ID	NVV2002831233
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Closure

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

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

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

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

Printed Name: Jim Raley

Title: Environmental Specialist

Signature: 

Date: 2/11/2021

email: james.raley@wpenergy.com

Telephone: 575-689-7597

OCD Only

Received by: _____

Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____

Title: _____



WSP USA

3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

February 10, 2021

District II
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

**RE: Closure Request Addendum
WPX Energy Permian, LLC
RDX Federal 28 #024
Incident Number NVV2002831233
Eddy County, New Mexico**

To Whom it May Concern:

WSP USA Inc. (WSP, formerly LT Environmental, Inc.), on behalf of WPX Energy Permian, LLC (WPX), is pleased to present the following addendum to an original Closure Request submitted May 28, 2020. This Addendum provides an update to the depth to groundwater determination and horizontal delineation request at RDX Federal 28 #024 (Site) in Unit H, Section 28, Township 26 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The New Mexico Oil Conservation Division (NMOCD) denied the original Closure Request based on concern that the depth to groundwater assessment may not be sufficient and horizontal delineation to 600 milligrams per kilogram (mg/kg) should be achieved. Based on the additional depth to groundwater determination information and delineation activities described below, WPX is requesting no further action (NFA) for Incident Number NVV2002831233.

REVISIONS

The revised report addresses the following updates:

- Depth to water was initially determined to be greater than 100 feet below ground surface (bgs) based on a water well approximately 1.1 miles away. WPX installed a soil boring approximately 0.46 miles north to northwest of the Site and confirmed depth to water is greater than 100 feet bgs. A completed well boring log is included in the report.
- Approximately 180 cubic yards of impacted soil were removed from the Site and all subsequent final confirmation soil samples collected from the excavation are compliant with applicable Table 1 Closure Criteria. Additional delineation samples were collected for horizontal delineation of chloride concentrations to the requested 600 mg/kg. The analytical laboratory results, soil sampling logs and locations for the additional boreholes are included in the report.



- This Closure Request Addendum only includes field summaries relevant to fulfilling the condition issued by the NMOCD in the August 18, 2020 denial. All previous data can be referenced in the original report.

BACKGROUND

On January 12, 2020, a failed subsurface flowline resulted in the release of approximately 20 barrels (bbls) of produced water and 13 bbls of crude oil onto the well pad surface. Vacuum trucks were dispatched and recovered a total of 10 bbls of produced water and 10 bbls of crude oil. WPX reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on January 15, 2020, and the release event was subsequently assigned Incident Number NVV2002831233.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *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). Results from the characterization desktop review are presented on the Form C-141, Site Assessment/Characterization Form. Potential site receptors are identified on Figure 1.

In the original report, WSP referenced available data and determined depth to groundwater to be greater than 100 feet bgs. Additional data from the recently drilled soil boring, MW-1, located approximately 0.46 miles north to northwest of the Site, further supports the original depth to water assessment. The soil boring was drilled by WPX on December 9, 2020 to approximately 110 feet bgs, where no water was encountered during the drilling process or after the 72-hr waiting period. The referenced boring log is included as Attachment 1.

WXP confirmed the following NMOCD Table 1 closure criteria apply:

- Benzene: 10 mg/kg
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg



DELINEATION AND SOIL SAMPLING ACTIVITIES

On January 28, 2021, WSP returned to the Site for further horizontal delineation activities and evaluation of the release extent. WSP utilized a hand auger to advance seven boreholes (BH01 through BH07) around the subject release extent. Two soil samples were collected at 0.5 foot bgs and 1 foot bgs. Soil samples were field screened for volatile aromatic hydrocarbons using a PID and chloride using Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the boreholes were recorded on a lithologic/soil sampling log and is presented in Attachment 2. The borehole locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are shown on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil sample was shipped at or below 4 degrees Celsius (°C) under strict chain-of custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results from all of the borehole samples confirm compliance with the requested 600 mg/kg chloride and defines the periphery of horizontal impact as originally presented. Analytical results from delineation sampling activities are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 3.

CLOSURE REQUEST

Due to further investigation of depth to water and horizontal impacts, WSP has addressed all concerns in the denial response from the NMOCD from the original Closure Request and confirmed all data previously submitted. With the advancement of MW-1, WSP confirmed a depth to groundwater greater than 100 feet at the Site. Groundwater was not encountered at any point in the drilling processes. Additionally, delineation soil samples BH01 through BH07 defines the periphery of horizontal impact to the requested 600 mg/kg chloride. As such, WPX respectfully re-requests NFA for Incident Number NVV2002831233.

If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 385-1096.



District II
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Sincerely,

WSP USA Inc.

A handwritten signature in black ink, appearing to read 'Fatima Smith'.

Fatima Smith
Assistant Consultant, Geologist

A handwritten signature in black ink, appearing to read 'Ashley L. Ager'.

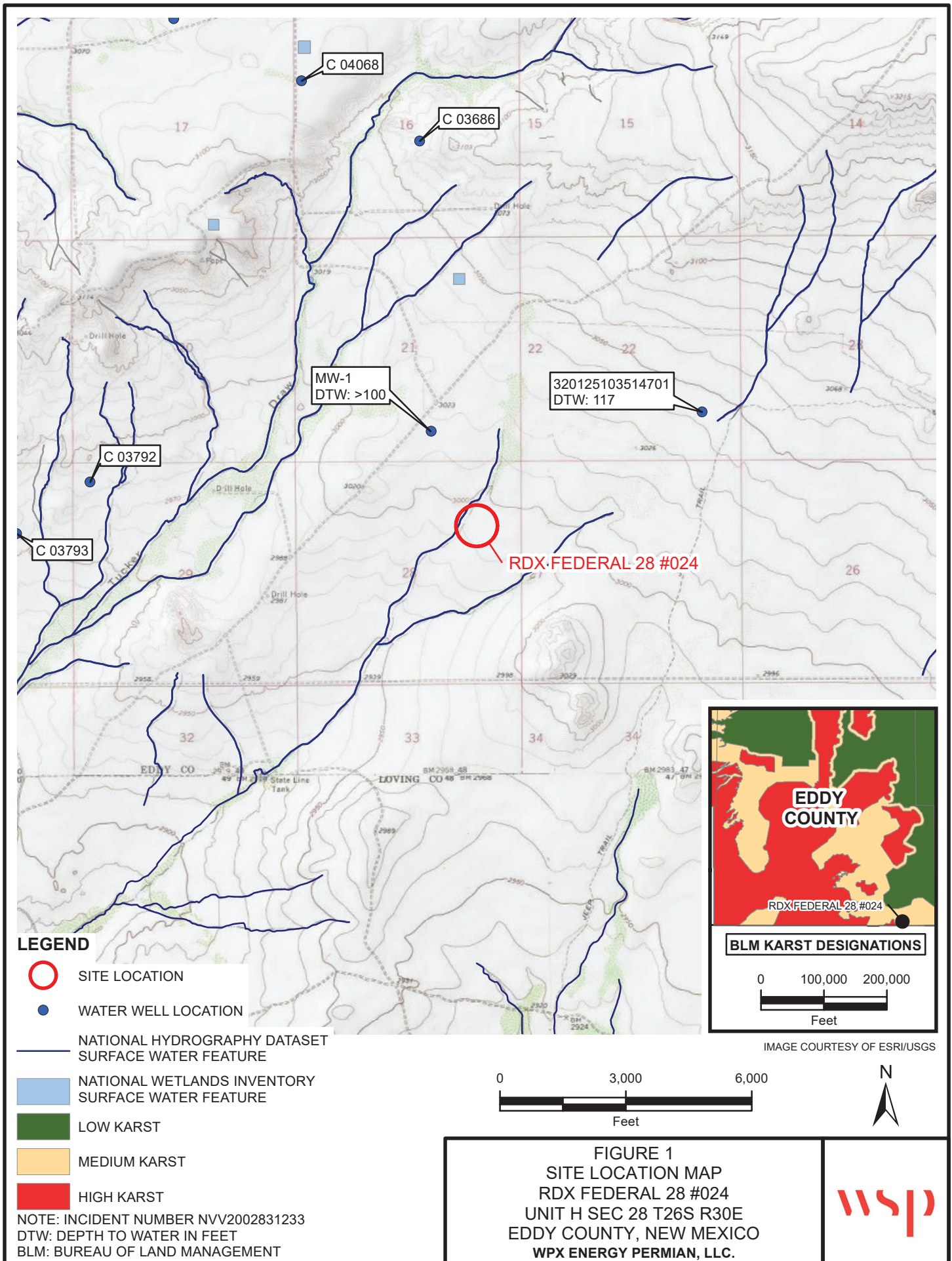
Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Jim Raley, WPX
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Bureau of Land Management

Attachments:

Figure 1 Site Location Map
Figure 2 Delineation Soil Sample Location Map
Table 1 Soil Analytical Results
Attachment 1 Referenced Bore log
Attachment 2 Lithologic/Sampling Log
Attachment 3 Laboratory Analytical Reports

FIGURES



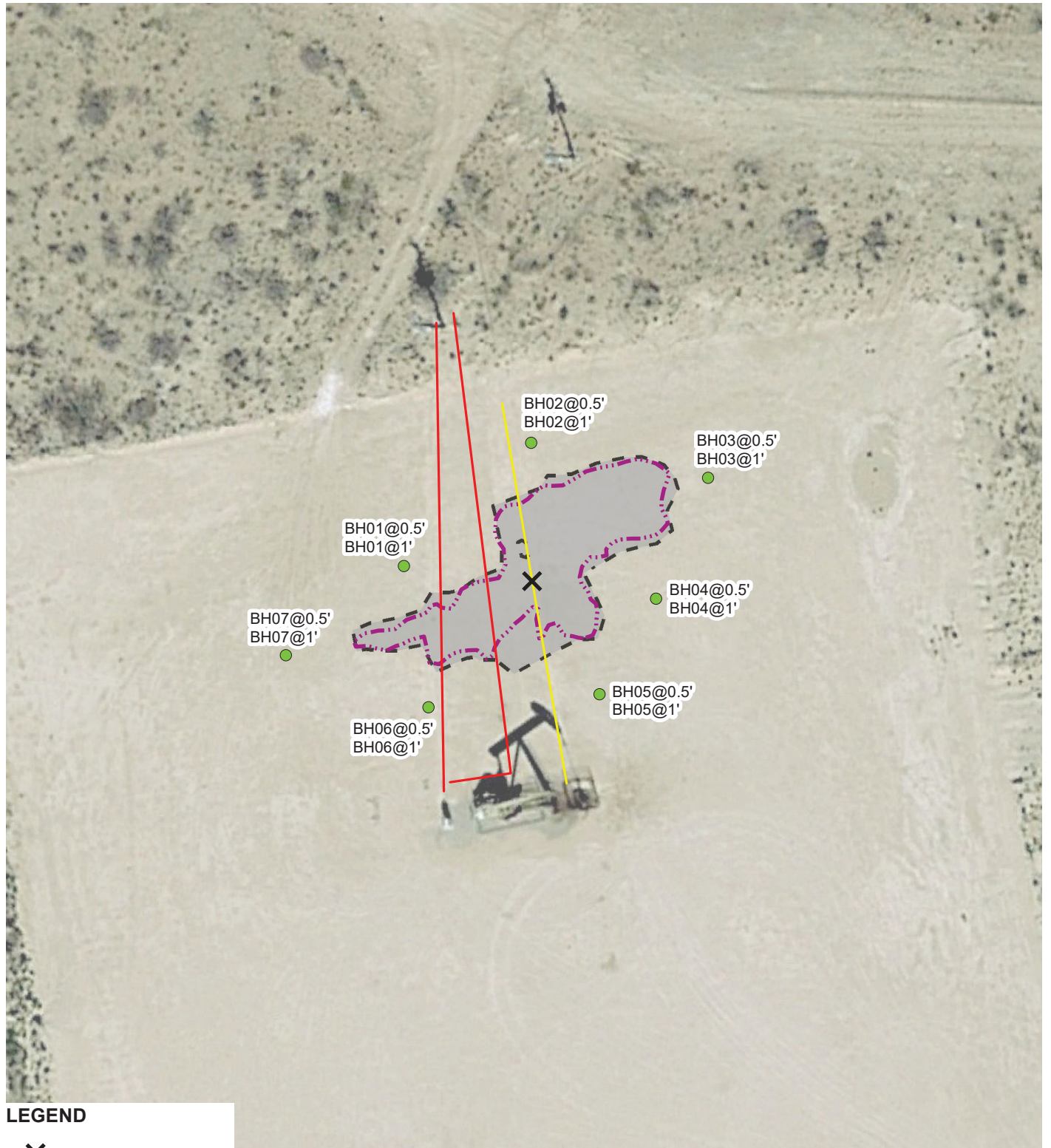


IMAGE COURTESY OF GOOGLE EARTH 2019

LEGEND

RELEASE LOCATION

DELINEATION SOIL SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIA

ELECTRIC LINE



GAS/PIPELINE



RELEASE EXTENT (2,987.16 SQUARE FEET)



EXCAVATION EXTENT

NOTE: INCIDENT NUMBER NVV2002831233

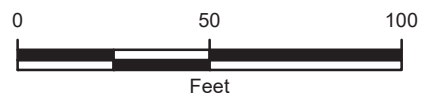


FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
 RDX FEDERAL 28 #024
 UNIT H SEC 28 T26S R30E
 EDDY COUNTY, NEW MEXICO
 WPX ENERGY PERMIAN, LLC.



TABLES

Table 1
Soil Analytical Results
RDX Federal 28 #024
Incident Number NVV2002831233
WPX Energy Permian, LLC
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)										
Delineation Samples										
BH01	01/28/2021	0.5	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	541
BH01	01/28/2021	1	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	209
BH02	01/28/2021	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	134
BH02	01/28/2021	1	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	50.0
BH03	01/28/2021	0.5	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	246
BH03	01/28/2021	1	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	120
BH04	01/28/2021	0.5	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	110
BH04	01/28/2021	1	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	161
BH05	01/28/2021	0.5	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	351
BH05	01/28/2021	1	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	220
BH06	01/28/2021	0.5	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	189
BH06	01/28/2021	1	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	130
BH07	01/28/2021	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	207
BH07	01/28/2021	1	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	235

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard

Grayed data represents samples that were excavated

ATTACHMENT 1: REFERENCED BORE LOG

 HRL COMPLIANCE SOLUTIONS							BORING LOG/MONITORING WELL COMPLETION DIAGRAM						
							Boring/Well Number: MW-1		Location: RDX Federal Com 21-43				
							Date: 12/9/2020		Client: WPX Energy				
Drilling Method: Air Rotary		Sampling Method: None		Logged By: J. Linn, P.G.		Drilled By: Talon LPE							
Gravel Pack Type: 10/20 Sand		Gravel Pack Depth Interval: 3 Bags		Seal Type: None		Seal Depth Interval: None		Latitude: 32.022571					
Casing Type: PVC		Diameter: 2-inch		Depth Interval: 0-100 feet bgs		Boring Total Depth (ft. BGS): 110		Longitude: -103.884371					
Screen Type: PVC		Slot: 0.010-inch		Diameter: 2-inch		Depth Interval: 100 - 105 ft		Well Total Depth (ft. BGS): 105		Depth to Water (ft. BTOC): > 105		DTW Date: 12/16/2020	
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	H	D	N	N	NM	CL	NS	Brown orange clay with silt and fine sand				
105													
105	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				

ATTACHMENT 2: LITHOLOGIC/SOIL SAMPLING LOG

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH01		Date: 01/28/2021				
		Site Name: RDX Federal 28 #024						
		RP or Incident Number: NVV2002831233						
		WSP Job Number: TE034820003						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.016370, -103.881070		Field Screening: Hach chloride strips, PID		Hole Diameter: 2 inches				
				Total Depth: 1 ft bgs				
Comments: All chloride field screenings include a 40% correction factor M - moist; D - dry; Y - yes; N - no; SAA - same as above								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, dry, tan-off white, moderatley consolidated, no stain no odor
D	459	0.3	N	BH01	0.5		SP	SAND, dry, poorly graded, tan, fine-very fine grain, some caliche gravel, off-white, no stain, no odor
D	296	0.2	N	BH01	1	1	SP	SAA
TD @ 1 ft bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH02		Date: 01/28/2021				
		Site Name: RDX Federal 28 #024						
		RP or Incident Number: NVV2002831233						
		WSP Job Number: TE034820003						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.016489, -103.880925		Field Screening: Hach chloride strips, PID		Hole Diameter: 2 inches				
				Total Depth: 1 ft bgs				
Comments: All chloride field screenings include a 40% correction factor M - moist; D - dry; Y - yes; N - no; SAA - same as above								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, dry, tan-off white, moderatley consolidated, no stain no odor
D	212	0.0	N	BH02	0.5		SP	SAND, dry, poorly graded, tan, fine-very fine grain, some caliche gravel, off-white, no stain, no odor
D	<179	0.0	N	BH02	1	1	SP	SAA
TD @ 1 ft bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH03		Date: 01/28/2021				
		Site Name: RDX Federal 28 #024						
		RP or Incident Number: NVV2002831233						
		WSP Job Number: TE034820003						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.016454, -103.880724		Field Screening: Hach chloride strips, PID		Logged By: FS				
				Method: Hand Auger				
				Hole Diameter: 2 inches				
				Total Depth: 1 ft bgs				
Comments: All chloride field screenings include a 40% correction factor M - moist; D - dry; Y - yes; N - no; SAA - same as above								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, dry, tan-off white, moderatley consolidated, no stain no odor
D	296	0.5	N	BH03	0.5		SP	SAND, dry, poorly graded, tan, fine-very fine grain, some caliche
D	179	0.0	N	BH03	1	1	SP	gravel, off-white, no stain, no odor SAA
TD @ 1 ft bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH04		Date: 01/28/2021				
		Site Name: RDX Federal 28 #024						
		RP or Incident Number: NVV2002831233						
		WSP Job Number: TE034820003						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.016337, -103.880784		Field Screening: Hach chloride strips, PID		Logged By: FS				
				Method: Hand Auger				
				Hole Diameter: 2 inches				
				Total Depth: 1 ft bgs				
Comments: All chloride field screenings include a 40% correction factor M - moist; D - dry; Y - yes; N - no; SAA - same as above								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, dry, tan-off white, moderatley consolidated, no stain no odor
D	179	0.0	N	BH04	0.5		SP	SAND, dry, poorly graded, tan, fine-very fine grain, some caliche
D	212	0.0	N	BH04	1	1	SP	gravel, off-white, no stain, no odor SAA
TD @ 1 ft bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220								BH or PH Name: BH05		Date: 01/28/2021	
								Site Name: RDX Federal 28 #024			
								RP or Incident Number: NVV2002831233			
								WSP Job Number: TE034820003			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: FS		Method: Hand Auger	
Lat/Long: 32.016245, -103.880848				Field Screening: Hach chloride strips, PID				Hole Diameter: 2 inches		Total Depth: 1 ft bgs	
Comments: All chloride field screenings include a 40% correction factor M - moist; D - dry; Y - yes; N - no; SAA - same as above											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0	CCHE	CALICHE, dry, tan-off white, moderatley consolidated, no stain no odor			
D	436	0.1	N	BH05	0.5		SP	SAND, dry, poorly graded, tan, fine-very fine grain, some caliche gravel, off-white, no stain, no odor			
D	296	0.0	N	BH05	1	1	SP	SAA			
TD @ 1 ft bgs											

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH06		Date: 01/28/2021				
		Site Name: RDX Federal 28 #024						
		RP or Incident Number: NVV2002831233						
		WSP Job Number: TE034820003						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.016233, -103.881043		Field Screening: Hach chloride strips, PID		Logged By: FS				
				Method: Hand Auger				
				Hole Diameter: 2 inches				
				Total Depth: 1 ft bgs				
Comments: All chloride field screenings include a 40% correction factor M - moist; D - dry; Y - yes; N - no; SAA - same as above								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, dry, tan-off white, moderatley consolidated, no stain no odor
D	252	0.0	N	BH06	0.5		SP	SAND, dry, poorly graded, tan, fine-very fine grain, some caliche gravel, off-white, no stain, no odor
D	212	0.0	N	BH06	1	1	SP	SAA
TD @ 1 ft bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH07		Date: 01/28/2021				
		Site Name: RDX Federal 28 #024						
		RP or Incident Number: NVV2002831233						
		WSP Job Number: TE034820003						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.016284, -103.881205		Field Screening: Hach chloride strips, PID		Logged By: FS				
				Method: Hand Auger				
				Hole Diameter: 2 inches				
				Total Depth: 1 ft bgs				
Comments: All chloride field screenings include a 40% correction factor M - moist; D - dry; Y - yes; N - no; SAA - same as above								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	CALICHE, dry, tan-off white, moderatley consolidated, no stain no odor
D	212	0.0	N	BH07	0.5		SP	SAND, dry, poorly graded, tan, fine-very fine grain, some caliche gravel, off-white, no stain, no odor
D	296	0.0	N	BH07	1	1	SP	SAA
TD @ 1 ft bgs								

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

Certificate of Analysis Summary 686527
WSP USA, Dallas, TX
Project Name: RDX 28-24

Project Id: TE034820003
Contact: Joseph Hernandez
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu 01.28.2021 15:43
Report Date: 02.04.2021 09:25
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	686527-001	686527-002	686527-003	686527-004	686527-005	686527-006
	Field Id:	BH01	BH01	BH02	BH02	BH03	BH03
	Depth:	0.5- ft	1- ft	0.5- ft	1- ft	0.5- ft	1- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	01.28.2021 11:08	01.28.2021 11:12	01.28.2021 11:25	01.28.2021 11:29	01.28.2021 11:39	01.28.2021 11:43
BTEX by EPA 8021B	Extracted:	01.29.2021 14:36	01.29.2021 14:36	01.29.2021 14:36	01.29.2021 14:36	01.29.2021 14:36	01.29.2021 14:36
	Analyzed:	01.30.2021 06:19	01.30.2021 06:41	01.30.2021 07:04	01.30.2021 07:26	01.30.2021 07:48	01.30.2021 08:11
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
	Toluene	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
	Ethylbenzene	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Inorganic Anions by EPA 300	m,p-Xylenes	<0.00398 0.00398	<0.00398 0.00398	<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398
	o-Xylene	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
	Total Xylenes	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
	Total BTEX	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
	Extracted:	01.29.2021 16:56	01.29.2021 16:56	01.29.2021 16:56	01.29.2021 16:56	01.29.2021 16:56	01.29.2021 16:56
	Analyzed:	01.30.2021 05:44	01.30.2021 06:01	01.30.2021 06:07	01.30.2021 06:13	01.30.2021 06:18	01.30.2021 06:24
TPH by SW8015 Mod SUB: T104704400-20-21	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Chloride	541 50.2	209 50.0	134 50.2	50.0 50.0	246 50.3	120 50.5
	Extracted:	02.02.2021 12:00	02.02.2021 12:00	02.02.2021 12:00	02.02.2021 12:00	02.02.2021 12:00	02.02.2021 12:00
	Analyzed:	02.02.2021 17:50	02.02.2021 18:11	02.02.2021 18:33	02.02.2021 18:54	02.02.2021 19:15	02.02.2021 19:37
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)	Diesel Range Organics (DRO)	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.8 49.8
	Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.8 49.8
	Total TPH	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.8 49.8

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 686527
WSP USA, Dallas, TX
Project Name: RDX 28-24

Project Id: TE034820003
Contact: Joseph Hernandez
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu 01.28.2021 15:43
Report Date: 02.04.2021 09:25
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	686527-007	686527-008	686527-009	686527-010	686527-011	686527-012
	Field Id:	BH04	BH04	BH05	BH05	BH06	BH06
	Depth:	0.5- ft	1- ft	0.5- ft	1- ft	0.5- ft	1- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	01.28.2021 11:57	01.28.2021 11:59	01.28.2021 12:11	01.28.2021 12:14	01.28.2021 12:25	01.28.2021 12:28
BTEX by EPA 8021B	Extracted:	01.29.2021 14:36	01.29.2021 16:21	01.29.2021 16:21	01.29.2021 16:21	01.29.2021 16:21	01.29.2021 16:21
	Analyzed:	01.30.2021 08:33	01.30.2021 08:56	01.30.2021 11:04	01.30.2021 11:26	01.30.2021 11:49	01.30.2021 12:11
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Inorganic Anions by EPA 300	Extracted:	01.29.2021 16:56	01.29.2021 16:56	01.30.2021 13:05	01.30.2021 13:05	01.30.2021 13:05	01.30.2021 13:05
	Analyzed:	01.30.2021 06:30	01.30.2021 06:35	01.30.2021 23:10	01.30.2021 20:43	01.30.2021 21:00	01.30.2021 21:05
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		110 49.9	161 50.5	351 99.8	220 49.5	189 99.0	130 101
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	02.02.2021 12:00	02.02.2021 12:00	02.02.2021 17:00	02.02.2021 17:00	02.02.2021 12:00	02.02.2021 12:00
	Analyzed:	02.02.2021 19:58	02.02.2021 20:19	02.02.2021 23:08	02.02.2021 23:29	02.02.2021 19:31	02.02.2021 19:52
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
Gasoline Range Hydrocarbons (GRO)	Extracted:	02.02.2021 12:00	02.02.2021 12:00	02.02.2021 17:00	02.02.2021 17:00	02.02.2021 12:00	02.02.2021 12:00
	Analyzed:	02.02.2021 19:58	02.02.2021 20:19	02.02.2021 23:08	02.02.2021 23:29	02.02.2021 19:31	02.02.2021 19:52
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)	Extracted:	02.02.2021 12:00	02.02.2021 12:00	02.02.2021 17:00	02.02.2021 17:00	02.02.2021 12:00	02.02.2021 12:00
	Analyzed:	02.02.2021 19:58	02.02.2021 20:19	02.02.2021 23:08	02.02.2021 23:29	02.02.2021 19:31	02.02.2021 19:52
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)	Extracted:	02.02.2021 12:00	02.02.2021 12:00	02.02.2021 17:00	02.02.2021 17:00	02.02.2021 12:00	02.02.2021 12:00
	Analyzed:	02.02.2021 19:58	02.02.2021 20:19	02.02.2021 23:08	02.02.2021 23:29	02.02.2021 19:31	02.02.2021 19:52
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
Total TPH	Extracted:	02.02.2021 12:00	02.02.2021 12:00	02.02.2021 17:00	02.02.2021 17:00	02.02.2021 12:00	02.02.2021 12:00
	Analyzed:	02.02.2021 19:58	02.02.2021 20:19	02.02.2021 23:08	02.02.2021 23:29	02.02.2021 19:31	02.02.2021 19:52
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0

Jessica Kramer

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 686527
WSP USA, Dallas, TX
Project Name: RDX 28-24

Date Received in Lab: Thu 01.28.2021 15:43
Report Date: 02.04.2021 09:25
Project Manager: Jessica Kramer

Project Id: TE034820003
Contact: Joseph Hernandez
Project Location: Eddy County, New Mexico

Analysis Requested	Lab Id:	686527-013	686527-014		
	Field Id: Depth: Matrix: Sampled:	BH07 0.5- ft SOIL 01.28.2021 12:58	BH07 1- ft SOIL 01.28.2021 13:00		
BTEX by EPA 8021B	Extracted:	01.29.2021 16:21	01.29.2021 16:21		
	Analyzed:	01.30.2021 12:33	01.30.2021 12:56		
	Units/RL:	mg/kg RL	mg/kg RL		
		<0.00200 0.00200	<0.00200 0.00200		
		<0.00200 0.00200	<0.00200 0.00200		
		<0.00200 0.00200	<0.00200 0.00200		
Inorganic Anions by EPA 300	Extracted:	01.30.2021 13:05	01.30.2021 13:05		
	Analyzed:	01.30.2021 21:11	01.30.2021 21:17		
	Units/RL:	mg/kg RL	mg/kg RL		
		207 101	235 100		
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	02.02.2021 12:00	02.02.2021 12:00		
	Analyzed:	02.02.2021 20:13	02.02.2021 20:34		
	Units/RL:	mg/kg RL	mg/kg RL		
		<49.9 49.9	<50.0 50.0		
		<49.9 49.9	<50.0 50.0		
		<49.9 49.9	<50.0 50.0		
Gasoline Range Hydrocarbons (GRO)					
Diesel Range Organics (DRO)					
Motor Oil Range Hydrocarbons (MRO)					
Total TPH					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer



Environment Testing
Xenco

Analytical Report 686527

for

WSP USA

Project Manager: Joseph Hernandez

RDX 28-24

TE034820003

02.04.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



02.04.2021

Project Manager: **Joseph Hernandez**

WSP USA

2777 N. Stemmons Freeway, Suite 1600

Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **686527**

RDX 28-24

Project Address: Eddy County, New Mexico

Joseph Hernandez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 686527. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 686527 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 686527****WSP USA, Dallas, TX**

RDX 28-24

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	01.28.2021 11:08	0.5 ft	686527-001
BH01	S	01.28.2021 11:12	1 ft	686527-002
BH02	S	01.28.2021 11:25	0.5 ft	686527-003
BH02	S	01.28.2021 11:29	1 ft	686527-004
BH03	S	01.28.2021 11:39	0.5 ft	686527-005
BH03	S	01.28.2021 11:43	1 ft	686527-006
BH04	S	01.28.2021 11:57	0.5 ft	686527-007
BH04	S	01.28.2021 11:59	1 ft	686527-008
BH05	S	01.28.2021 12:11	0.5 ft	686527-009
BH05	S	01.28.2021 12:14	1 ft	686527-010
BH06	S	01.28.2021 12:25	0.5 ft	686527-011
BH06	S	01.28.2021 12:28	1 ft	686527-012
BH07	S	01.28.2021 12:58	0.5 ft	686527-013
BH07	S	01.28.2021 13:00	1 ft	686527-014



CASE NARRATIVE

Client Name: WSP USA

Project Name: RDX 28-24

Project ID: *TE034820003*
Work Order Number(s): *686527*

Report Date: *02.04.2021*
Date Received: *01.28.2021*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH01**
 Lab Sample Id: 686527-001

Matrix: Soil
 Date Collected: 01.28.2021 11:08

Date Received: 01.28.2021 15:43
 Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:56

% Moisture:
 Basis: Wet Weight

Seq Number: 3149465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	541	50.2	mg/kg	01.30.2021 05:44		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.02.2021 17:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.02.2021 17:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.02.2021 17:50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.02.2021 17:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	02.02.2021 17:50	
o-Terphenyl	84-15-1	121	%	70-130	02.02.2021 17:50	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH01**
Lab Sample Id: 686527-001

Matrix: Soil
Date Collected: 01.28.2021 11:08

Date Received: 01.28.2021 15:43
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 14:36

% Moisture:
Basis: Wet Weight

Seq Number: 3149459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.30.2021 06:19	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.30.2021 06:19	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.30.2021 06:19	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.30.2021 06:19	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.30.2021 06:19	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.30.2021 06:19	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.30.2021 06:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	01.30.2021 06:19	
1,4-Difluorobenzene	540-36-3	91	%	70-130	01.30.2021 06:19	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH01**
 Lab Sample Id: 686527-002

Matrix: Soil
 Date Collected: 01.28.2021 11:12

Date Received: 01.28.2021 15:43
 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:56

% Moisture:
 Basis: Wet Weight

Seq Number: 3149465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	209	50.0	mg/kg	01.30.2021 06:01		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.02.2021 18:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.02.2021 18:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.02.2021 18:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.02.2021 18:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	02.02.2021 18:11	
o-Terphenyl	84-15-1	101	%	70-130	02.02.2021 18:11	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH01**
Lab Sample Id: 686527-002

Matrix: Soil
Date Collected: 01.28.2021 11:12

Date Received: 01.28.2021 15:43
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 14:36

% Moisture:
Basis: Wet Weight

Seq Number: 3149459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.30.2021 06:41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.30.2021 06:41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.30.2021 06:41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.30.2021 06:41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.30.2021 06:41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.30.2021 06:41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.30.2021 06:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	01.30.2021 06:41	
4-Bromofluorobenzene	460-00-4	128	%	70-130	01.30.2021 06:41	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH02**
 Lab Sample Id: 686527-003

Matrix: Soil
 Date Collected: 01.28.2021 11:25

Date Received: 01.28.2021 15:43
 Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:56

% Moisture:
 Basis: Wet Weight

Seq Number: 3149465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	134	50.2	mg/kg	01.30.2021 06:07		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.02.2021 18:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.02.2021 18:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.02.2021 18:33	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.02.2021 18:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-130	02.02.2021 18:33	
o-Terphenyl	84-15-1	111	%	70-130	02.02.2021 18:33	



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WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH02**
 Lab Sample Id: 686527-003

Matrix: Soil
 Date Collected: 01.28.2021 11:25

Date Received: 01.28.2021 15:43
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 14:36

% Moisture:
 Basis: Wet Weight

Seq Number: 3149459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 07:04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 07:04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 07:04	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.30.2021 07:04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 07:04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 07:04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 07:04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.30.2021 07:04		
4-Bromofluorobenzene	460-00-4	122	%	70-130	01.30.2021 07:04		



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WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH02**
 Lab Sample Id: 686527-004

Matrix: Soil
 Date Collected: 01.28.2021 11:29

Date Received: 01.28.2021 15:43
 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:56

% Moisture:
 Basis: Wet Weight

Seq Number: 3149465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.0	50.0	mg/kg	01.30.2021 06:13		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.02.2021 18:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.02.2021 18:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.02.2021 18:54	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.02.2021 18:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	02.02.2021 18:54	
o-Terphenyl	84-15-1	96	%	70-130	02.02.2021 18:54	



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WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH02**
Lab Sample Id: 686527-004

Matrix: Soil
Date Collected: 01.28.2021 11:29

Date Received: 01.28.2021 15:43
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 14:36

% Moisture:
Basis: Wet Weight

Seq Number: 3149459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 07:26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 07:26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 07:26	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.30.2021 07:26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 07:26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 07:26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 07:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	01.30.2021 07:26	
4-Bromofluorobenzene	460-00-4	124	%	70-130	01.30.2021 07:26	



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RDX 28-24

Sample Id: **BH03**
 Lab Sample Id: 686527-005

Matrix: Soil
 Date Collected: 01.28.2021 11:39

Date Received: 01.28.2021 15:43
 Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:56

% Moisture:
 Basis: Wet Weight

Seq Number: 3149465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	246	50.3	mg/kg	01.30.2021 06:18		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.02.2021 19:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.02.2021 19:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.02.2021 19:15	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.02.2021 19:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-130	02.02.2021 19:15	
o-Terphenyl	84-15-1	120	%	70-130	02.02.2021 19:15	



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WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH03**
Lab Sample Id: 686527-005

Matrix: Soil
Date Collected: 01.28.2021 11:39

Date Received: 01.28.2021 15:43
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 14:36

% Moisture:
Basis: Wet Weight

Seq Number: 3149459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.30.2021 07:48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.30.2021 07:48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.30.2021 07:48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.30.2021 07:48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.30.2021 07:48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.30.2021 07:48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.30.2021 07:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	01.30.2021 07:48	
4-Bromofluorobenzene	460-00-4	126	%	70-130	01.30.2021 07:48	



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WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH03**
 Lab Sample Id: 686527-006

Matrix: Soil
 Date Collected: 01.28.2021 11:43

Date Received: 01.28.2021 15:43
 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:56

% Moisture:
 Basis: Wet Weight

Seq Number: 3149465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	120	50.5	mg/kg	01.30.2021 06:24		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.02.2021 19:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	02.02.2021 19:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.02.2021 19:37	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	02.02.2021 19:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	02.02.2021 19:37	
o-Terphenyl	84-15-1	98	%	70-130	02.02.2021 19:37	



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WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH03**
Lab Sample Id: 686527-006

Matrix: Soil
Date Collected: 01.28.2021 11:43

Date Received: 01.28.2021 15:43
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 14:36

% Moisture:
Basis: Wet Weight

Seq Number: 3149459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.30.2021 08:11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.30.2021 08:11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.30.2021 08:11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.30.2021 08:11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.30.2021 08:11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.30.2021 08:11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.30.2021 08:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.30.2021 08:11	
4-Bromofluorobenzene	460-00-4	121	%	70-130	01.30.2021 08:11	



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WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH04**
 Lab Sample Id: 686527-007

Matrix: Soil
 Date Collected: 01.28.2021 11:57

Date Received: 01.28.2021 15:43
 Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:56

% Moisture:
 Basis: Wet Weight

Seq Number: 3149465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	110	49.9	mg/kg	01.30.2021 06:30		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.02.2021 19:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.02.2021 19:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.02.2021 19:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.02.2021 19:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	106	%	70-130	02.02.2021 19:58		
o-Terphenyl	84-15-1	94	%	70-130	02.02.2021 19:58		



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH04**
 Lab Sample Id: 686527-007

Matrix: Soil
 Date Collected: 01.28.2021 11:57

Date Received: 01.28.2021 15:43
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 14:36

% Moisture:
 Basis: Wet Weight

Seq Number: 3149459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 08:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 08:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 08:33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.30.2021 08:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 08:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 08:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 08:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	70-130	01.30.2021 08:33	
1,4-Difluorobenzene	540-36-3	91	%	70-130	01.30.2021 08:33	



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WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH04**
 Lab Sample Id: 686527-008

Matrix: Soil
 Date Collected: 01.28.2021 11:59

Date Received: 01.28.2021 15:43
 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:56

% Moisture:
 Basis: Wet Weight

Seq Number: 3149465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	161	50.5	mg/kg	01.30.2021 06:35		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.02.2021 20:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.02.2021 20:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.02.2021 20:19	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.02.2021 20:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	02.02.2021 20:19	
o-Terphenyl	84-15-1	100	%	70-130	02.02.2021 20:19	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH04**
Lab Sample Id: 686527-008

Matrix: Soil
Date Collected: 01.28.2021 11:59

Date Received: 01.28.2021 15:43
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 14:36

% Moisture:
Basis: Wet Weight

Seq Number: 3149459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.30.2021 08:56	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.30.2021 08:56	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.30.2021 08:56	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.30.2021 08:56	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.30.2021 08:56	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.30.2021 08:56	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.30.2021 08:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	126	%	70-130	01.30.2021 08:56	
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.30.2021 08:56	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH05**
 Lab Sample Id: 686527-009

Matrix: Soil
 Date Collected: 01.28.2021 12:11

Date Received: 01.28.2021 15:43
 Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.30.2021 13:05

% Moisture:
 Basis: Wet Weight

Seq Number: 3149503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	351	99.8	mg/kg	01.30.2021 23:10		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 17:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149859

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.02.2021 23:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.02.2021 23:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.02.2021 23:08	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.02.2021 23:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-130	02.02.2021 23:08		
o-Terphenyl	84-15-1	97	%	70-130	02.02.2021 23:08		



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH05**
Lab Sample Id: 686527-009

Matrix: Soil
Date Collected: 01.28.2021 12:11

Date Received: 01.28.2021 15:43
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.30.2021 11:04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.30.2021 11:04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.30.2021 11:04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.30.2021 11:04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.30.2021 11:04	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.30.2021 11:04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.30.2021 11:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.30.2021 11:04	
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.30.2021 11:04	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH05**
 Lab Sample Id: 686527-010

Matrix: Soil
 Date Collected: 01.28.2021 12:14

Date Received: 01.28.2021 15:43
 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.30.2021 13:05

% Moisture:
 Basis: Wet Weight

Seq Number: 3149503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	220	49.5	mg/kg	01.30.2021 20:43		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 17:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149859

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.02.2021 23:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.02.2021 23:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.02.2021 23:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.02.2021 23:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	02.02.2021 23:29	
o-Terphenyl	84-15-1	96	%	70-130	02.02.2021 23:29	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH05**
Lab Sample Id: 686527-010

Matrix: Soil
Date Collected: 01.28.2021 12:14

Date Received: 01.28.2021 15:43
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.30.2021 11:26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.30.2021 11:26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.30.2021 11:26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.30.2021 11:26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.30.2021 11:26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.30.2021 11:26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.30.2021 11:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.30.2021 11:26	
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.30.2021 11:26	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH06**
 Lab Sample Id: 686527-011

Matrix: Soil
 Date Collected: 01.28.2021 12:25

Date Received: 01.28.2021 15:43
 Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.30.2021 13:05

% Moisture:
 Basis: Wet Weight

Seq Number: 3149503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	189	99.0	mg/kg	01.30.2021 21:00		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149864

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.02.2021 19:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	02.02.2021 19:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.02.2021 19:31	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	02.02.2021 19:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	02.02.2021 19:31	
o-Terphenyl	84-15-1	116	%	70-130	02.02.2021 19:31	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH06**
Lab Sample Id: 686527-011

Matrix: Soil
Date Collected: 01.28.2021 12:25

Date Received: 01.28.2021 15:43
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 11:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 11:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 11:49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.30.2021 11:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 11:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 11:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 11:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.30.2021 11:49	
4-Bromofluorobenzene	460-00-4	114	%	70-130	01.30.2021 11:49	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH06**
 Lab Sample Id: 686527-012

Matrix: Soil
 Date Collected: 01.28.2021 12:28

Date Received: 01.28.2021 15:43
 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.30.2021 13:05

% Moisture:
 Basis: Wet Weight

Seq Number: 3149503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	130	101	mg/kg	01.30.2021 21:05		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149864

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.02.2021 19:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.02.2021 19:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.02.2021 19:52	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.02.2021 19:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	105	%	70-130	02.02.2021 19:52		
o-Terphenyl	84-15-1	124	%	70-130	02.02.2021 19:52		



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH06**
Lab Sample Id: 686527-012

Matrix: Soil
Date Collected: 01.28.2021 12:28

Date Received: 01.28.2021 15:43
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.30.2021 12:11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.30.2021 12:11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.30.2021 12:11	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.30.2021 12:11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.30.2021 12:11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.30.2021 12:11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.30.2021 12:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	01.30.2021 12:11	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.30.2021 12:11	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH07**
 Lab Sample Id: 686527-013

Matrix: Soil
 Date Collected: 01.28.2021 12:58

Date Received: 01.28.2021 15:43
 Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.30.2021 13:05

% Moisture:
 Basis: Wet Weight

Seq Number: 3149503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	207	101	mg/kg	01.30.2021 21:11		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149864

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.02.2021 20:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.02.2021 20:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.02.2021 20:13	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.02.2021 20:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	02.02.2021 20:13	
o-Terphenyl	84-15-1	98	%	70-130	02.02.2021 20:13	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH07**
Lab Sample Id: 686527-013

Matrix: Soil
Date Collected: 01.28.2021 12:58

Date Received: 01.28.2021 15:43
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 12:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 12:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 12:33	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.30.2021 12:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 12:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 12:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 12:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.30.2021 12:33	
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.30.2021 12:33	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH07**
 Lab Sample Id: 686527-014

Matrix: Soil
 Date Collected: 01.28.2021 13:00

Date Received: 01.28.2021 15:43
 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.30.2021 13:05

% Moisture:
 Basis: Wet Weight

Seq Number: 3149503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	235	100	mg/kg	01.30.2021 21:17		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 02.02.2021 12:00

% Moisture:
 Basis: Wet Weight
 SUB: T104704400-20-21

Seq Number: 3149864

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.02.2021 20:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.02.2021 20:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.02.2021 20:34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.02.2021 20:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	02.02.2021 20:34	
o-Terphenyl	84-15-1	111	%	70-130	02.02.2021 20:34	



Certificate of Analytical Results 686527

WSP USA, Dallas, TX

RDX 28-24

Sample Id: **BH07**
Lab Sample Id: 686527-014

Matrix: Soil
Date Collected: 01.28.2021 13:00

Date Received: 01.28.2021 15:43
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 12:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 12:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 12:56	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.30.2021 12:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 12:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 12:56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 12:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	01.30.2021 12:56	
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.30.2021 12:56	

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



WSP USA

RDX 28-24

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3149465

MB Sample Id: 7720393-1-BLK

Matrix: Solid

LCS Sample Id: 7720393-1-BKS

Prep Method: E300P

Date Prep: 01.29.2021

LCSD Sample Id: 7720393-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	208	104	205	103	90-110	1	20	mg/kg	01.30.2021 03:51	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3149503

MB Sample Id: 7720397-1-BLK

Matrix: Solid

LCS Sample Id: 7720397-1-BKS

Prep Method: E300P

Date Prep: 01.30.2021

LCSD Sample Id: 7720397-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	205	103	202	101	90-110	1	20	mg/kg	01.30.2021 20:31	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3149465

Parent Sample Id: 686525-001

Matrix: Soil

MS Sample Id: 686525-001 S

Prep Method: E300P

Date Prep: 01.29.2021

MSD Sample Id: 686525-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	432	201	641	104	624	95	90-110	3	20	mg/kg	01.30.2021 04:08	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3149465

Parent Sample Id: 686525-011

Matrix: Soil

MS Sample Id: 686525-011 S

Prep Method: E300P

Date Prep: 01.29.2021

MSD Sample Id: 686525-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1310	198	1520	106	1520	106	90-110	0	20	mg/kg	01.30.2021 05:27	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3149503

Parent Sample Id: 686527-010

Matrix: Soil

MS Sample Id: 686527-010 S

Prep Method: E300P

Date Prep: 01.30.2021

MSD Sample Id: 686527-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	220	199	416	98	402	91	90-110	3	20	mg/kg	01.30.2021 20:48	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3149503

Parent Sample Id: 686532-006

Matrix: Soil

MS Sample Id: 686532-006 S

Prep Method: E300P

Date Prep: 01.30.2021

MSD Sample Id: 686532-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	206	201	393	93	409	100	90-110	4	20	mg/kg	01.30.2021 22:08	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



WSP USA

RDX 28-24

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149858

MB Sample Id: 7720656-1-BLK

Matrix: Solid

LCS Sample Id: 7720656-1-BKS

Prep Method: SW8015P

Date Prep: 02.02.2021

LCSD Sample Id: 7720656-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	920	92	839	84	70-130	9	20	mg/kg	02.02.2021 11:35	
Diesel Range Organics (DRO)	<50.0	1000	910	91	895	90	70-130	2	20	mg/kg	02.02.2021 11:35	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag	Limits		Units	Analysis Date	
1-Chlorooctane	103		106			105		70-130		%	02.02.2021 11:35	
o-Terphenyl	105		101			103		70-130		%	02.02.2021 11:35	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149864

MB Sample Id: 7720662-1-BLK

Matrix: Solid

LCS Sample Id: 7720662-1-BKS

Prep Method: SW8015P

Date Prep: 02.02.2021

LCSD Sample Id: 7720662-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	971	97	991	99	70-130	2	20	mg/kg	02.02.2021 21:36	
Diesel Range Organics (DRO)	<50.0	1000	862	86	889	89	70-130	3	20	mg/kg	02.02.2021 21:36	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane	99		90			93			70-130	%	02.02.2021 21:36	
o-Terphenyl	109		89			96			70-130	%	02.02.2021 21:36	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149859

MB Sample Id: 7720657-1-BLK

Matrix: Solid

LCS Sample Id: 7720657-1-BKS

Prep Method: SW8015P

Date Prep: 02.02.2021

LCSD Sample Id: 7720657-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	990	99	70-130	6	20	mg/kg	02.02.2021 21:22	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1010	101	70-130	5	20	mg/kg	02.02.2021 21:22	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane	108		126			120			70-130	%	02.02.2021 21:22	
o-Terphenyl	105		113			105			70-130	%	02.02.2021 21:22	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149858

Matrix: Solid
MB Sample Id: 7720656-1-BLK

Prep Method: SW8015P

Date Prep: 02.02.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.02.2021 11:14	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



WSP USA

RDX 28-24

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149864

Matrix: Solid

Prep Method: SW8015P

Date Prep: 02.02.2021

MB Sample Id: 7720662-1-BLK

Parameter

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.01.2021 11:43	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149859

Matrix: Solid

Prep Method: SW8015P

Date Prep: 02.02.2021

MB Sample Id: 7720657-1-BLK

Parameter

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.02.2021 21:01	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149858

Matrix: Soil

Prep Method: SW8015P

Date Prep: 02.02.2021

Parent Sample Id: 686525-001

MS Sample Id: 686525-001 S

MSD Sample Id: 686525-001 SD

Parameter

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1010	101	1030	103	70-130	2	20	mg/kg	02.02.2021 12:39	
Diesel Range Organics (DRO)	<49.9	997	1060	106	1070	107	70-130	1	20	mg/kg	02.02.2021 12:39	

Surrogate

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		108		70-130	%	02.02.2021 12:39
o-Terphenyl	117		115		70-130	%	02.02.2021 12:39

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149864

Matrix: Soil

Prep Method: SW8015P

Date Prep: 02.02.2021

Parent Sample Id: 686411-001

MS Sample Id: 686411-001 S

MSD Sample Id: 686411-001 SD

Parameter

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1030	103	958	96	70-130	7	20	mg/kg	02.02.2021 13:08	
Diesel Range Organics (DRO)	<49.9	997	930	93	862	87	70-130	8	20	mg/kg	02.02.2021 13:08	

Surrogate

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		83		70-130	%	02.02.2021 13:08
o-Terphenyl	90		84		70-130	%	02.02.2021 13:08

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



WSP USA

RDX 28-24

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149859

Parent Sample Id: 686312-088

Matrix: Soil

MS Sample Id: 686312-088 S

Prep Method: SW8015P

Date Prep: 02.02.2021

MSD Sample Id: 686312-088 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	886	89	938	94	70-130	6	20	mg/kg	02.02.2021 22:25	
Diesel Range Organics (DRO)	728	997	1400	67	1420	69	70-130	1	20	mg/kg	02.02.2021 22:25	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		115		70-130	%	02.02.2021 22:25
o-Terphenyl	99		99		70-130	%	02.02.2021 22:25

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149459

MB Sample Id: 7720384-1-BLK

Matrix: Solid

LCS Sample Id: 7720384-1-BKS

Prep Method: SW5035A

Date Prep: 01.29.2021

LCSD Sample Id: 7720384-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0766	77	0.0786	79	70-130	3	35	mg/kg	01.29.2021 22:53	
Toluene	<0.00200	0.100	0.0918	92	0.0818	82	70-130	12	35	mg/kg	01.29.2021 22:53	
Ethylbenzene	<0.00200	0.100	0.102	102	0.0906	91	71-129	12	35	mg/kg	01.29.2021 22:53	
m,p-Xylenes	<0.00400	0.200	0.219	110	0.195	98	70-135	12	35	mg/kg	01.29.2021 22:53	
o-Xylene	<0.00200	0.100	0.111	111	0.0996	100	71-133	11	35	mg/kg	01.29.2021 22:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		90		84		70-130	%	01.29.2021 22:53
4-Bromofluorobenzene	125		123		116		70-130	%	01.29.2021 22:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149555

MB Sample Id: 7720402-1-BLK

Matrix: Solid

LCS Sample Id: 7720402-1-BKS

Prep Method: SW5035A

Date Prep: 01.29.2021

LCSD Sample Id: 7720402-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0908	91	0.0929	93	70-130	2	35	mg/kg	01.30.2021 08:59	
Toluene	<0.00200	0.100	0.0894	89	0.0932	93	70-130	4	35	mg/kg	01.30.2021 08:59	
Ethylbenzene	<0.00200	0.100	0.0944	94	0.0938	94	71-129	1	35	mg/kg	01.30.2021 08:59	
m,p-Xylenes	<0.00400	0.200	0.183	92	0.185	93	70-135	1	35	mg/kg	01.30.2021 08:59	
o-Xylene	<0.00200	0.100	0.0933	93	0.0933	93	71-133	0	35	mg/kg	01.30.2021 08:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		96		70-130	%	01.30.2021 08:59
4-Bromofluorobenzene	108		99		99		70-130	%	01.30.2021 08:59

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



WSP USA

RDX 28-24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149459

Parent Sample Id: 686525-001

Matrix: Soil

MS Sample Id: 686525-001 S

Prep Method: SW5035A

Date Prep: 01.29.2021

MSD Sample Id: 686525-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0787	79	0.0735	74	70-130	7	35	mg/kg	01.29.2021 23:37	
Toluene	<0.00201	0.100	0.0838	84	0.0902	90	70-130	7	35	mg/kg	01.29.2021 23:37	
Ethylbenzene	<0.00201	0.100	0.0922	92	0.0988	99	71-129	7	35	mg/kg	01.29.2021 23:37	
m,p-Xylenes	<0.00402	0.201	0.200	100	0.214	107	70-135	7	35	mg/kg	01.29.2021 23:37	
o-Xylene	<0.00201	0.100	0.101	101	0.109	109	71-133	8	35	mg/kg	01.29.2021 23:37	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		87		70-130	%	01.29.2021 23:37
4-Bromofluorobenzene	118		127		70-130	%	01.29.2021 23:37

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149555

Parent Sample Id: 686527-009

Matrix: Soil

MS Sample Id: 686527-009 S

Prep Method: SW5035A

Date Prep: 01.29.2021

MSD Sample Id: 686527-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0949	95	0.0960	96	70-130	1	35	mg/kg	01.30.2021 09:44	
Toluene	<0.00200	0.100	0.0947	95	0.0953	96	70-130	1	35	mg/kg	01.30.2021 09:44	
Ethylbenzene	<0.00200	0.100	0.0951	95	0.0942	95	71-129	1	35	mg/kg	01.30.2021 09:44	
m,p-Xylenes	<0.00400	0.200	0.191	96	0.188	94	70-135	2	35	mg/kg	01.30.2021 09:44	
o-Xylene	<0.00200	0.100	0.0962	96	0.0969	97	71-133	1	35	mg/kg	01.30.2021 09:44	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		96		70-130	%	01.30.2021 09:44
4-Bromofluorobenzene	102		100		70-130	%	01.30.2021 09:44

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No: 1686527

Houston, TX (281) 240-4200 Dallas, TX (214) 502-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Bailey
Company Name:	WSP, Permian Office	Company Name:	WDX Energy
Address:	3300 North A Street	Address:	5315 Buendia Vista Dr
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(281) 702-2329	Email:	

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project:	
Reporting Level: ☐ I ☐ II ☐ III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

ANALYSIS REQUEST

Project Name:	RDX 28-24	Turn Around	Pres. Code
Project Number:	TE034820003	Routine	☒
Project Location:	Eddy County	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	
Temperature (°C):	1.2/1.0
Received Intact:	Yes No
Cooler Custody Seals:	Yes (NO) No
Sample Custody Seals:	Yes No N/A
Correction Factor:	-0.2
Total Containers:	14

Number of Containers
 TPH (EPA 8016)
 BTEX (EPA 0=8021)
 Chloride (EPA 300.0)

Preservative Codes
MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn
TAT starts the day received by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Analysis Request	Preservative Codes	Sample Comments
BH01		S	1/28/21	1108	0.5'	1			
BH01				1112	1'				
BH02				1125	0.5'				
BH02				1129	1'				
BH03				1139	0.5'				
BH03				1143	1'				
BH04				1157	0.5'				
BH04				1159	1'				
BH05				1211	0.5'				
BH05				1214	1'				

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		28.21.1543			



Chain of Custody

Work Order No: 686527

Project Manager: <u>Joseph Hernandez</u>		Bill to: (if different) <u>Jim Bailey</u>	
Company Name: <u>WSP, Permian Office</u>		Company Name: <u>WSP Energy</u>	
Address: <u>3300 North A Street</u>		Address: <u>5315 Buendia Vista Dr</u>	
City, State ZIP: <u>Midland, TX 79705</u>		City, State ZIP: <u>Carlsbad, NM 88220</u>	
Phone: <u>(281) 702-2329</u>		Email: <u></u>	
Project Name: <u>RDX 28-24</u>		Turn Around: <u></u>	
Project Number: <u>TE034820003</u>		Routine: ☒	
Project Location: <u>Eddy County</u>		Rush: <u></u>	
Sampler's Name: <u>Fatima Smith</u>		Due Date: <u></u>	
PO #: <u></u>		Quote #: <u></u>	

SAMPLE RECEIPT		Temp Blank: Yes No		Wet Ice: Yes No	
Temperature (°C): <u></u>		Received Intact: Yes No		Thermometer ID: <u>See Tag 1</u>	
Cooler Custody Seals: Yes No		Correction Factor: <u></u>		Total Containers: <u></u>	
Sample Custody Seals: Yes No		N/A		N/A	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
BH06	S	1/28/21	1225	0.5'	1	TPH (EPA 8015)		MeOH: Me
BH06			1228	1'		BTEX (EPA 0 = 8021)		None: NO
BH07			1258	0.5'		Chloride (EPA 300.0)		HNO3: HN
BH07			1300	1'				H2SO4: H2
								HCL: HL
								NaOH: Na
								Zn Acetate+ NaOH: Zn
								TAT starts the day received by the lab, if received by 4:00pm
								Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>Fatima Smith</u>	<u>Coe Cope</u>	<u>1-28-21 1547</u>			

Inter-Office Shipment

OS Number : 77320

Date/Time: 01.29.2021

Lab# From: Carlsbad

Lab# To: Midland

Created by: Cloe Clifton

Delivery Priority:

Air Bill No.:

Please send report to: Jessica Kramer

Address: 1089 N Canal Street

E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
86527-001	S	BH01	01.28.2021 11:08	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-002	S	BH01	01.28.2021 11:12	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-003	S	BH02	01.28.2021 11:25	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-004	S	BH02	01.28.2021 11:29	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-005	S	BH03	01.28.2021 11:39	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-006	S	BH03	01.28.2021 11:43	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-007	S	BH04	01.28.2021 11:57	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-008	S	BH04	01.28.2021 11:59	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-009	S	BH05	01.28.2021 12:11	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-010	S	BH05	01.28.2021 12:14	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-011	S	BH06	01.28.2021 12:25	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-012	S	BH06	01.28.2021 12:28	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-013	S	BH07	01.28.2021 12:58	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	
86527-014	S	BH07	01.28.2021 13:00	SW8015MOD_NM	TPH by SW8015 Mod	02.03.2021	02.11.2021	JKR	PHCC10C28 PHCC28C3:	

Inter Office Shipment or Sample Comments:

Relinquished By:

Cloe Clifton

Cloe Clifton

Received By:

Jessica Kramer

Jessica Kramer

Date Relinquished: 01.29.2021

Date Received: 02.01.2021

Cooler Temperature: 2.5

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 77320

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sent By: Cloe Clifton

Date Sent: 01.29.2021 12.56 PM

Received By: Jessica Kramer

Date Received: 02.01.2021 10.00 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:



Jessica Kramer

Date: 02.01.2021

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.28.2021 03.43.00 PM

Work Order #: 686527

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

TPH sent to Midland.

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.28.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.29.2021

Incident ID	NVV2002831233
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Jim Raley Title: Environmental Specialist
Signature:  Date: 2/11/2021
email: james.raley@wpenergy.com Telephone: 575-689-7597

OCD Only

Received by: Robert Hamlet Date: 6/30/2021

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

Closure Approved by: Robert Hamlet Date: 6/30/2021
Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

District I

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

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

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

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

CONDITIONS

Action 17829

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 17829
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NVV2002831233 RDX FEDERAL 28 #024, thank you. This closure is approved.	6/30/2021