



ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS HOLDINGS LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

May 19, 2020

Email Submittal

New Mexico Oil Conservation Division
District 1
1625 North French Drive
Hobbs, New Mexico 88240

**Re: Assessment and Remediation Plan
Pipeline 1009 Release
1RP-5269**

To Whom It May Concern:

Enterprise Field Services LLC is submitting the enclosed site assessment and remediation plan to the New Mexico Oil Conservation District as required by 19 NMAC 15.29.12(B)(1) for the pipeline 1009 releases which occurred on October 28, 2018 in Lea County, NM. The planned remediation activities are listed on pages 8-10 of the enclosed report.

If you have questions or require additional information, please contact Alena Miro, Senior Environmental Engineer at (575) 628-6802 or Paul Reinermann, Field Environmental Manager at (210) 528-2184.

Thank you,

A handwritten signature in blue ink, appearing to read 'Jon E. Fields'.

Jon E. Fields
Director, Field Environmental

A handwritten signature in blue ink, appearing to read 'Rodney M. Sartor'.

Rodney M. Sartor
Senior Director, Environmental

/bjm
Enclosure

Form C-141

State of New Mexico
Oil Conservation Division

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Incident ID	
District RP	1RP-5269
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	560 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs N/A – No 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.

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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: Jon E. Fields Title: Director, Field EnvironmentalSignature:  Date: 5/19/2020email: jeffields@eprod.com Telephone: 713-381-6684**OCD Only**Received by: Cristina Eads Date: 05/21/2020

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Remediation Plan

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

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

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

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

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

Printed Name: Jon E. FieldsTitle: Director, Field EnvironmentalSignature: Date: 5/19/2020email: jefields@eprod.comTelephone: 713-381-6684

OCD Only

Received by: Cristina EadsDate: 05/21/2020

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

Signature: Date: 07/06/2020



Site Assessment and Remediation Plan

Enterprise 1009 Line Strike
Lea County, New Mexico
1RP-5269

Prepared For:

Enterprise Products Operating, LLC
PO Box 4324
Houston, Texas 77210-4324

Prepared By:

TALON/LPE
408 W. Texas Avenue
Artesia, NM 88210

April 29, 2020

Ms. Alena Miro
Enterprise Products Operating, LLC
PO Box 4324
Houston, TX 77210-4324

Subject: **Supplemental Assessment and Remediation Plan**
Enterprise 1009 Line Strike
Lea County, New Mexico
1RP-5269, NRM2004431707

Dear Ms. Miro,

Talon/LPE (Talon) has been retained to provide Enterprise Products Operating, LLC (Enterprise), with supplemental soil assessment data pertaining to NMOCD comments regarding the initial release at this location (1RP-5268), and to assess the impacts from a second release that occurred on January 29, 2020.

Site Information

The Enterprise 1009 Line is located approximately fifty-four (54) miles southwest of Hobbs, New Mexico. The legal location for this release is Unit Letter A, Section 2, Township 22 South and Range 32 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.42711 North and -103.64110 West. Site location maps are presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Pyote and maljamar fine sands with 0 to 3 percent slopes. The referenced soil survey is presented in [Appendix II](#). Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Upper Permian in age and is comprised of sandy eolian deposits derived from sedimentary rock. Drainage coursed in this area are well drained.

Groundwater and Site Characterization

The New Mexico Office of the State Engineer web site indicates that the nearest reported depth to groundwater is 560-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data. The site is located in a low potential Karst area ([Appendix II](#)).

If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater in Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29, NMAC.

Approximate Depth to Groundwater	560 Feet/BGS
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- ☐ Yes ☒ No Within 300 feet of any continuously flowing watercourse or any other significant watercourse
- ☐ Yes ☒ No Within 200 feet of any lakebed, sinkhole or a playa lake
- ☐ Yes ☒ No Within 300 feet from an occupied permanent residence, school, hospital, institution or church
- ☐ Yes ☒ No Within 500 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 Within 1000 feet of any freshwater well or spring
- ☐ Yes ☒ No Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
- ☐ Yes ☒ No Within 300 feet of a wetland
- ☐ Yes ☒ No Within the area overlying a subsurface mine
- ☐ Yes ☒ No Within an unstable area
- ☐ Yes ☒ No Within a 100-year floodplain

This incident did not happen in any of these areas and occurred in a location with groundwater at a depth of greater than 100-feet BGS. However, as this release is on pasture lands, not on areas reasonably needed for production or future drilling operations, it must be treated as if the depth to groundwater is less than 50-feet deep. Therefore the clean up criteria is as follows:

Table I Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method	Limit
≤ 50 feet	Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Descriptions

1RP-5269

On October 29, 2018, the Enterprise 1009 Line was struck by heavy equipment doing unauthorized improvements to the pipeline right of way. As a result, an unknown volume of pipeline fluids was released into the right of way, including overspray into the pasture. The flow path encompassed approximately 1,100-feet varying from 3 to 9-feet wide. No fluids were recovered as the area is inaccessible to heavy trucks.

Site assessment activities and initial remedial actions were conducted. The excavation (averaging 3-4' deep) was not backfilled pending NMOCD approval to do so. A Remediation Plan and Variance Request were subsequently submitted to the NMOCD. Additional soil delineation information was requested and the liner installation variance was not approved by the NMOCD. A copy of the referenced NMOCD correspondence dated December 17, 2019, is attached for reference in [Appendix III](#).

NRM2004431707

A second release occurred in the same footprint on January 29, 2020. Approximately 100 barrels (bbls) of pipeline fluids were lost due to internal corrosion. The release occurred at the same source area in the repaired line as the initial release, traveling approximately 60-feet from the source trending to the northeast in the open excavation. The 1009 Line was removed from service. Initial remedial activities and decommissioning of the 1009 Line were completed by others. A copy of the Initial C-141 for this incident is also attached in [Appendix III](#). A site map depicting the second release at this location is presented as Figure 3, [Appendix I](#). Photo documentation with drone aerial images are attached in [Appendix IV](#).

Site Assessment Activities

On December 19, 2019, Talon personnel and equipment mobilized to the project location to begin additional site assessment and sampling activities as directed by the NMOCD regarding 1RP-5269. More specifically, the overspray area was addressed with a series of eleven (11) hand auger borings. Additional sample points were advanced between sample location S-4 and sample point SP-8, and between SP-8 and S-3. Sample point SP-4 was also vertically delineated.

All soil samples were properly packaged in laboratory provided glassware and transported to Cardinal Laboratories for analysis of the following constituents: Total Chlorides (SM4500Cl-B), Total Petroleum Hydrocarbons (TPH via EPA Method 8015M) and volatile organics Benzene, Toluene, Ethylbenzene and Xylenes (BTEX via EPA Method 8021B). Sampling locations are presented on Figure 1 and Figure 2 located in [Appendix I](#). Analytical results are presented in the following data table and the complete laboratory reports are attached in [Appendix V](#).

Table 1. Analytical Data

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg
HA-1	0-1	12/19/2019	0.542	0.355	ND	ND	ND	-	ND
	2	12/19/2019	ND	0.198	ND	ND	ND	-	16
HA-2	0-1	12/19/2019	ND	0.143	ND	11	ND	11.0	192
	2	12/19/2019	ND	ND	ND	ND	ND	-	160
HA-3	0-1	12/19/2019	ND	ND	ND	ND	ND	-	48
	2	12/19/2019	ND	ND	ND	ND	ND	-	48
HA-4	0-1	12/19/2019	ND	ND	ND	ND	ND	-	ND
	2	12/19/2019	ND	ND	ND	ND	ND	-	48
HA-5	0-1	12/19/2019	ND	ND	ND	ND	ND	-	ND
	2	12/19/2019	ND	ND	ND	ND	ND	-	16
HA-6	0-1	12/19/2019	ND	ND	ND	ND	ND	-	240
	2	12/19/2019	ND	ND	ND	ND	ND	-	160
HA-7	0-1	12/19/2019	ND	ND	ND	ND	ND	-	16
	2	12/19/2019	ND	ND	ND	ND	ND	-	240
HA-8	0-1	12/19/2019	ND	ND	ND	ND	ND	-	16
	2	12/19/2019	ND	ND	ND	ND	ND	-	16
HA-9	0-1	12/19/2019	ND	ND	ND	ND	ND	-	16
	2	12/19/2019	ND	ND	ND	ND	ND	-	32
HA-10	0-1	12/19/2019	ND	ND	ND	ND	ND	-	ND
	2	12/19/2019	ND	ND	ND	ND	ND	-	64
HA-11	0-1	12/19/2019	ND	ND	ND	ND	ND	-	16
	2	12/19/2019	ND	ND	ND	ND	ND	-	16
HA-12	3	12/19/2019	ND	ND	ND	ND	ND	-	16
	4	12/19/2019	ND	ND	ND	ND	ND	-	16

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg
HA-13	3	12/20/2019	98.8	ND	1460	558	ND	2018.0	16
	4	12/20/2019	26	ND	3210	697	15.8	3922.8	16
HA-14	3	12/20/2019	0.998	ND	ND	ND	ND	-	16
	4	12/20/2019	ND	ND	ND	ND	ND	-	16
HA-15	3	12/20/2019	ND	ND	ND	ND	ND	-	ND
	4	12/20/2019	ND	ND	ND	ND	ND	-	16
HA-16	3	12/20/2019	28.8	ND	549	293	ND	842.0	ND
	4	12/20/2019	1110	ND	6690	966	21.9	7677.9	16
HA-17	3	12/20/2019	5.18	ND	143	461	ND	604.0	ND
	4	12/20/2019	53.4	ND	914	271	ND	1185.0	16
HA-18	3	12/20/2019	0.661	ND	ND	ND	ND	-	16
	4	12/20/2019	ND	ND	ND	ND	ND	-	ND
SW-1	3	12/20/2019	ND	ND	ND	ND	ND	-	48
SW-2	3	12/20/2019	ND	ND	ND	ND	ND	-	16
SW-3	3	12/20/2019	ND	ND	ND	106	ND	106.0	48
SW-4	3	12/20/2019	ND	ND	ND	ND	ND	-	ND
SW-5	3	12/20/2019	ND	ND	ND	ND	ND	-	48
SW-6	3	12/20/2019	ND	ND	ND	ND	ND	-	ND
SW-7	3	12/20/2019	ND	ND	ND	128	ND	128.0	16
SW-8	3	12/20/2019	ND	0.098	ND	ND	ND	-	ND
SW-9	3	12/20/2019	ND	0.102	ND	ND	ND	-	560
SW-10	3	12/20/2019	1.18	0.059	14.7	182	ND	196.7	16
SW-11	3	12/20/2019	ND	0.055	ND	ND	ND	-	32
SW-12	3	12/20/2019	ND	ND	ND	ND	ND	-	368
SW-13	3	12/20/2019	ND	ND	ND	ND	ND	-	ND
SW-14	3	12/20/2019	ND	ND	ND	ND	ND	-	ND
SP-4	8	12/19/2019	ND	ND	ND	ND	ND	-	ND
	10	12/19/2019	ND	ND	ND	ND	ND	-	ND
	12	12/19/2019	ND	ND	ND	ND	ND	-	ND
	14	12/19/2019	ND	ND	ND	ND	ND	-	16

HA - hand auger boring SW - side wall sample SP - sample point

ND - analyte not detected

On April 1, April 2, April 16 and April 17, 2020, Talon personnel and equipment returned to the project location to carry out additional site assessment activities to further vertically delineate boring location B-1 (source of release), to obtain supplemental closure criteria delineation based on current analytical data, and to address the footprint of the second release at this location (incident number NRM2004431707).

All soil samples were properly packaged in laboratory provided glassware and transported to Cardinal Laboratories for analysis of the following constituents: Total Chlorides (SM4500Cl-B), Total Petroleum Hydrocarbons (TPH via EPA Method 8015M) and volatile organics Benzene, Toluene, Ethylbenzene and Xylenes (BTEX via EPA Method 8021B). Sampling locations are presented on the site maps located in [Appendix I](#). Analytical results are presented in the following data table and the complete laboratory reports are attached in [Appendix V](#).

Table 2, Analytical Data

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg
B-3	4	4/1/2020	ND	ND	ND	ND	ND	-	ND
SP-5	3	4/1/2020	ND	ND	ND	ND	ND	-	16
SP-6	3	4/1/2020	ND	ND	ND	ND	ND	-	32
HA-18	4	4/1/2020	ND	ND	ND	ND	ND	-	ND
SW-13	3	4/1/2020	ND	ND	ND	ND	ND	-	32
SW-14	3	4/1/2020	ND	ND	ND	ND	ND	-	16
S-4	4	4/1/2020	0.515	ND	25.5	368	10.1	403.6	16
	6	4/1/2020	ND	ND	ND	ND	ND	-	ND
	8	4/1/2020	3.67	ND	180	182	ND	362.0	ND
	10	4/1/2020	ND	ND	ND	ND	ND	-	ND
SW-15	3	4/1/2020	ND	ND	ND	39.8	ND	39.8	ND
SW-16	3	4/1/2020	0.674	ND	12.3	36.6	ND	48.9	48
HA-17	4	4/1/2020	50.3	ND	684	221	ND	905.0	16
	6	4/1/2020	252	ND	2870	433	ND	3303.0	16
	8	4/1/2020	11	ND	37.1	18.2	ND	55.3	ND
SW-11	3	4/1/2020	10.7	ND	178	315	ND	493.0	48
SW-12	3	4/1/2020	6.45	ND	154	344	ND	498.0	32
HA-16	4	4/1/2020	ND	ND	ND	ND	ND	-	ND
	6	4/1/2020	0.604	ND	ND	ND	ND	-	ND
	8	4/1/2020	ND	ND	ND	ND	ND	-	ND

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg
SW-9	3	4/1/2020	ND	ND	12.4	178	ND	190.4	ND
SW-10	3	4/1/2020	ND	ND	ND	ND	ND	-	ND
SP-8	4	4/1/2020	ND	ND	ND	ND	ND	-	ND
SP-7	3	4/1/2020	ND	ND	ND	78.8	ND	78.8	80
SP-9	3	4/1/2020	ND	ND	ND	ND	ND	-	32
HA-15	4	4/2/2020	71.7	ND	693	323	ND	1016.0	ND
	6	4/2/2020	103	ND	717	235	ND	952.0	32
	8	4/2/2020	ND	ND	ND	ND	ND	-	ND
SW-7	3	4/2/2020	0.882	ND	25.3	289	ND	314.3	ND
SW-8	3	4/2/2020	ND	ND	ND	ND	ND	-	ND
HA-14	4	4/2/2020	ND	ND	ND	ND	ND	-	80
SW-5	3	4/2/2020	ND	ND	ND	ND	ND	-	16
SW-6	3	4/2/2020	ND	ND	ND	ND	ND	-	ND
HA-13	4	4/2/2020	ND	ND	ND	ND	ND	-	144
	6	4/2/2020	ND	ND	ND	ND	ND	-	32
	8	4/2/2020	ND	ND	ND	ND	ND	-	16
SW-3	3	4/2/2020	6.89	ND	54.1	48.0	ND	102.1	160
SW-4	3	4/2/2020	ND	ND	ND	ND	ND	-	64
SP-11	3	4/2/2020	ND	ND	ND	ND	ND	-	112
SP-12	3	4/2/2020	ND	ND	ND	ND	ND	-	224
SP-10	4	4/2/2020	ND	ND	ND	ND	ND	-	128
SP-14	3	4/2/2020	ND	ND	ND	ND	ND	-	544
SP-15	3	4/2/2020	ND	ND	ND	ND	ND	-	976
SP-16	3	4/2/2020	ND	ND	15	203	ND	218.0	144
B-1	4	4/2/2020	ND	ND	ND	ND	ND	-	528
	16	4/2/2020	ND	ND	ND	ND	ND	-	ND
	18	4/2/2020	ND	ND	ND	ND	ND	-	32
	20	4/2/2020	ND	ND	ND	ND	ND	-	16
SW-3A	3	4/16/2020	ND	ND	ND	ND	ND	-	NT
SW-7A	3	4/16/2020	ND	ND	ND	16.3	ND	16.3	NT
SW-9A	3	4/16/2020	ND	ND	ND	ND	ND	-	NT
SW-10A	3	4/16/2020	ND	ND	ND	ND	ND	-	NT
SW-11A	3	4/16/2020	ND	ND	ND	31.9	ND	31.9	NT

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg
SW-12A	3	4/16/2020	53.3	ND	660	356	ND	1016.0	NT
SW-12B	3	4/16/2020	ND	ND	ND	ND	ND	-	NT
SP-15A	3	4/16/2020	ND	ND	ND	ND	ND	-	32
SP-16A	4	4/16/2020	ND	ND	ND	ND	ND	-	NT

HA - hand auger boring SW – side wall sample SP – sample point
 ND – analyte not detected NT – analyte not tested

Based on the field and lab data collected to date for this project, our proposed remedial actions to bring these incidents to closure are as follows.

Remedial Actions To Be Performed

1. The impacted soil in the vicinity of hand auger HA-13 will be excavated to a depth 4-feet BGS.
2. The area surrounding hand auger location HA-15 will be excavated to 8-feet BGS.
3. The impacted soil near HA-16 will be excavated to 4-feet BGS.
4. The area adjacent to HA-17 will be excavated to a depth of 8-feet BGS.
5. The area in the vicinity of sidewall sample SW-3 will be excavated an additional 2-feet to the north. Sidewall sample SW-3A located 2-feet to the north of the current open excavation will serve as the final excavation boundary confirmation sample.
6. The excavation sidewall near sample SW-7 will be excavated an additional 2-feet northward. Sidewall sample SW-7A, located 2-feet north of the open excavation, will provide excavation boundary confirmation.

7. The sidewall of the open excavation adjacent to SW-9 will be excavated an additional 2-feet to the north. Analytical data from SW-9A located 2-feet to the north is below NMOCD clean up criteria for this project.
8. The impacted area in the vicinity of SW-10 will be excavated 2-feet to the south. Sidewall sample SW-10A is located 2-feet south of the current excavation and will serve as the excavation boundary sample.
9. The area near soil sample location S-4 will be vertically excavated to 8-feet deep. SW-15 and SW-16 samples will provide north and south sidewall confirmation sample analysis respectively.
10. The excavation side wall near sample SW-11 will be excavated 2-feet northward. Sidewall sample SW-11A, 2-feet north, confirms the northern excavation boundary in this area.
11. The sidewall of the excavation will be advanced 4-feet to the south at sidewall sample SW-12. Soil sample SW-12B is located 4-feet to the south and indicates analytical results below laboratory method detection limits.
12. Sample point SP-15 is located to the south of the source of release for both referenced incidents (1RP-5269, NRM2004431707) and is shown on Figure 1, Figure 2 and Figure 3 (Appendix I). The side wall of the excavation in this area will be advanced an additional 2-feet to the south. Side wall sample SW-15A is located 2-feet to the south of SW-15 and provides resulting analytical data below NMOCD clean up criteria.
13. Sample point SP-16 is located immediately west of the release source as show on the attached site plans. The impacted soil in this area will be removed to a depth of 4-feet BGS where laboratory results indicate all analytes tested were below method detection limits.
14. Boring location B-1, located at the source of both releases, indicated the deepest vertical impacts relating to the first release, 1RP-5269. Additional vertical delineation beyond 16-feet deep was requested at this sample location by NMOCD. Following the second release and initial remedial actions related to incident NRM2004431707, additional samples were collected by Talon on April 2, 2020. Analytical data from sample B-1 at 4-feet (current depth of open excavation) indicate that the impacts from the second release had been mitigated. Analytical results from B-1 at 16', 18' and 20' deep are below NMOCD clean up criteria as shown in Data Table 2. Therefore, based on these results and the analytical data presented in the Assessment and Remediation Report, January 25, 2019, by Talon/LPE, the impacted area in this location will be excavated to a depth of 16-feet deep. Post-excavation proposed confirmation sample locations

are presented on a separate site map in **Appendix I**.

15. Additional vertical delineation samples beyond 6-feet deep at sample point SP-4 were requested by NMOCD (1RP-5269) on December 17, 2019. On December 19, 2019, Talon collected samples from 8-feet to 14-feet BGS at this sample location. Analytical results do not dictate the need to excavate impacted soil at SP-4 beyond 8-feet deep (Data Table 1).
16. Upon completion of approved remedial actions, the excavated areas will be backfilled with like, locally obtained soil from a local material pit.
17. The backfilled and disturbed areas will be contoured to match the surrounding terrain and seeded with BLM #2 seed mix for sandy soils utilizing a mechanized Culti-Pack seed drill.

Closure

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-746-8768.

Respectfully submitted,

TALON/LPE

David J. Adkins
District Manager

Appendix I Site Maps
Appendix II Groundwater, Soil, Karst, FEMA Data
Appendix III NMOCD Correspondence, C-141
Appendix IV Photographic Documentation
Appendix V Laboratory Reports