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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: **Enterprise Field Services, LLC**	OGRID: **151618**
Contact Name: **Thomas Long**	Contact Telephone: **505-599-2286**
Contact email:**tjlong@eprod.com**	Incident # *(assigned by OCD)*: **NCS1904355294**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.651985** Longitude **-107.671788** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Federal 13-22 #2**	Site Type **Natural Compressor Station**
Date Release Discovered: **1/10/2019**	Serial Number *(if applicable)*: **NM 113113**

Unit Letter	Section	Township	Range	County
C	**22**	**28N**	**8W**	**San Juan**

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name*: BLM)

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)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls): **15-20 bbls**	Volume Recovered (bbls): **None**
☐ Natural Gas	Volume Released (Mcf): **2.31 MCF**	Volume Recovered (Mcf): **None**
☐ Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release: On January 10, 2019, an Enterprise technician discovered a release on the Federal 13-22 #2 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. On February 5, 2019, Enterprise completed the repairs and initial remediation. The final excavation dimensions measured approximately 50 feet long by 15 feet wide ranging from approximately four (4) to 20 feet deep. Approximately 264 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. Additional remediation by excavating was not possible due the presence for permanent structures. From April 15, 2019 to April 16, 2019, a site assessment was performed utilizing a hollow stem auger drilling rig. No subsurface contamination was identified from the site assessment activities. Enterprise requests a deferment of additional remediation activities until facility/well site decommissioning. A third party closure report is included with this "Final." C-141.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>50 (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.

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Jon E. Fields Title: Director, Environmental

Signature: Jon E. Fields Date: 9/17/2020

email: jefields@eprod.com Telephone: 713-381-6684

OCD Only

Received by: Date:

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Jon E. Fields Title: Director, Environmental

Signature: Jon E. Fields Date: 9/17/2020

email: jefields@eprod.com Telephone: 713-381-6684

OCD Only

Received by: 9/22/2020 Date:

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

Signature: Date: 12/29/2020

Deferral approved, until Well P&A or untill the area is cleared of equipment which ever comes first. Release to remain open until closure submitted.

Federal 13-22 #2 Well Tie Pipeline Release Revised Closure Report

Unit Letter C, Section 22, Township 28 North, Range 8 West
Rio Arriba County, New Mexico

August 20, 2020

Prepared for:
Enterprise Field Services, LLC
614 Reilly Avenue
Farmington, New Mexico 87401

Prepared by:
Rule Engineering, LLC
501 Airport Drive, Suite 205
Farmington, New Mexico 87401

Rule Engineering, LLC
Solutions to Regulations for Industry

Enterprise Field Services, LLC
Federal 13-22 #2 Well Tie Pipeline
Release Revised Closure Report

Prepared for:

Enterprise Field Services, LLC
614 Reilly Avenue
Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC
501 Airport Drive, Suite 205
Farmington, New Mexico 87401

Heather M. Woods

Heather M. Woods, P.G., Area Manager

August 20, 2020

Table of Contents

Tables

Figures

Appendices

1.0 Introduction

The Enterprise Field Services, LLC (Enterprise) Federal 13-22 #2 well pipeline release site is located in Unit Letter C, Section 22, Township 28 North, Range 8 West, in Rio Arriba County, New Mexico. The release was discovered on January 10, 2019, and the line was immediately isolated and depressurized.

A topographic map of the location reproduced from the United States Geological Society quadrangle map of the area is included as Figure 1 and an aerial site map is included as Figure 2.

2.0 Release Summary

Site Name	Federal 13-22 #2 Well Tie Pipeline Release		
Site Location Description	Unit Letter C, Section 22, Township 28 North, Range 8 West (N36.65200, W107.67178)		
Land Jurisdiction	Bureau of Land Management (BLM)		
Discovery Date	January 10, 2019		
Release Source	Corrosion of well tie pipeline		
Substance(s) Released	Natural gas and pipeline liquids		
Contractor	West States Energy Contractor	***Remedial Excavation Dimensions***	50 feet by 15 feet by 4 feet in depth (north) and 20 feet in depth (south)
Volume of Soil Transported for Disposal/Remediation	Approximately 264 cubic yards	***Disposal Facility***	Envirotech Landfarm (Permit #: NM-01-0011)

3.0 Remediation Standards Determination

The remediation standards for the release location are determined per 19.15.29 of the New Mexico Authority Code (NMAC) and are determined by depth to groundwater with a concentration of less than 10,000 milligrams per kilogram (mg/kg) total dissolved solids (TDS) and several factors outlined in 19.15.29.12(4)(e) NMAC.

Depth to groundwater at the site is anticipated to be greater than 100 feet below grade surface (bgs) based on the local well records and the area's geology and geomorphology. Supporting documents for this determination are included in Appendix A. These supporting documents were submitted to the New Mexico Energy, Minerals, and Natural Resources Department Oil Conservation Division (NMOCD) District 3 office for concurrence with the determination prior to confirmation sampling. Concurrence was granted by Mr. Cory Smith, Environmental Specialist, via email on January 15, 2019. A copy of this correspondence is included in Appendix B.

Rule

Closure criterial for the soils impacted at the release location are determined by the *"greater than 100 feet"* category of Table 1, 19.15.29.12 NMAC, which are as follows: 20,000 milligrams per kilogram (mg/kg) chloride per United States Environmental Protection Agency (USEPA) Method 300.0 or SM 4500-Cl B; 2,500 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), diesel range organics (DRO), and mineral range organics (MRO) per USEPA Method 8015M; 1,000 mg/kg TPH as GRO and DRO per USEPA Method 8015M; 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX) per USEPA Method 8021B or 8260B; and 10 mg/kg benzene per USEPA Method 8021B or 8260B.

4.0 Field Activities

On January 24, 2019, Enterprise began repair and remediation at the location which included the replacement of approximately 40 feet of well tie pipeline. West States Energy Contractor provided heavy equipment operation and repair support. Rule Engineering, LLC (Rule) personnel provided excavation guidance and collected confirmation samples from the resultant excavation.

Excavation

Confirmation samples (SC-1 through SC-7) were collected from the excavation on January 29, 2019. Based on laboratory results, additional excavation of the southern portion of the base was performed extending that portion of the base to a depth of approximately 12 feet into hard sandstone where confirmation samples SC-9 through SC-11 were collected on January 31, 2019. Additionally, a sample from a stockpile (SC-8) was collected on the same day.

Laboratory results indicated that the southern base exceeded remediation standards and was advanced to a depth of approximately 20 feet into the hard sandstone. Having reached the limits of the equipment, sample TP-1 was collected from the base of the excavation. Due to the limits of the excavator, hardness of the rock, and proximity to other onsite equipment, it was determined that continued assessment of the site would be performed utilizing a drill rig to advance soil borings and the excavation was backfilled with clean, imported soil. The stockpile that had been sampled as SC-8 was removed to the landfarm with the remainder of the excavation spoils. Approximately 264 cubic yards of hydrocarbon impacted soils were removed from the remedial portion of the excavation measuring approximately 50 feet by 15 feet and 4 feet in depth in the north half of the excavation and up to 20 feet in depth in the southern half.

A depiction of the excavation with sample locations is included as Figure 2. A copy of the executed C-138 Solid Waste Acceptance Form is included in Appendix C.

Continued Assessment

On March 15 and 16, 2019, Rule advanced five soil borings, SB-1 through SB-5, in the area of the prior excavation for the collection of soil samples utilizing a hollow-stem auger drill rig. The soil boring locations were hydro-excavated to approximately five feet bgs to ensure no underground facilities would be damaged during drilling. Sampling was

performed using split spoon samplers at approximately 2.5-foot intervals to the total depths ranging from 22.5 feet to 30.5 feet bgs.

A depiction of the soil boring locations relative to the prior excavation location is included as Figure 3 and soil boring logs are included in Appendix D.

5.0 Confirmation Soil Sampling

Rule collected confirmation soil samples (SC-1 through SC-11) from the sidewalls and bases of the remedial excavation and from the onsite stockpile on January 29 and 31, 2019. Each confirmation soil sample is a representative composite comprised of five equivalent aliquots of soil collected from the sampled area.

Samples were also collected from the soil borings (SB-1 through SB-5). A portion of each sample was field screened for volatile organic compounds (VOCs). Field screening for VOC vapors was conducted with a photoionization detector (PID). Before beginning field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas. Laboratory samples were collected from the intervals exhibiting the highest VOC concentrations and from the deepest interval sampled.

Soil samples collected for laboratory analysis were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. All samples were analyzed for BTEX per USEPA Method 8021B, TPH (GRO/DRO/MRO) per USEPA 8015M/D, and chlorides per USEPA Method 300.0, as appropriate.

A depiction of the excavation extents with sample locations is included as Figure 2 and a depiction of the soil boring locations relative to the excavation extents is included as Figure 3. Summaries of the laboratory results for excavation confirmation samples is included as Table 1 and soil borings is included as Table 2. A photograph log of the confirmation sampling areas is included in Appendix E.

6.0 Laboratory Analytical Results

Confirmation samples SC-1, SC-8, and SC-9 were removed by excavation and transported to the landfarm for remediation/disposal, and therefore not included in the following discussion. Laboratory analytical results for the excavation confirmation samples indicate that samples SC-3 through SC-7 and TP-1 exhibit benzene, total BTEX, TPH, and chloride concentrations below the remediation standards. However, samples SC-2, SC-10, and SC-11 (southern base area) exhibit benzene, total BTEX, and/or TPH concentrations in excess of the remediation standards.

Additionally, laboratory analytical results for the samples collected from soil borings SB-1 through SB-5 indicate that benzene, total BTEX, and TPH are below the remediation standards, having established that chlorides were below remediation standards during excavation confirmation sampling.

Method detection limits for these constituents are below the remediation standards for all the constituents.

Laboratory analytical results are summarized in Tables 1 and 2, sample locations are illustrated on Figures 2 and 3, and the analytical laboratory reports are included in Appendix F.

7.0 Conclusions

Hydrocarbon impacted soils associated with the Federal 13-22 #2 release have been excavated and transported to an approved landfarm for disposal/remediation as site conditions will allow. A small volume of residual impacted rock may be present in the southern portion of the remediation excavation area as indicated by laboratory analytical results for confirmation samples SC-2, SC-10, and SC-11. Laboratory analytical results show that chloride is below remediation standards for the excavation. To delineate the potential volume of residual BTEX and TPH impact, soil boring SB-1 was advanced as near as possible to the release location without endangering the buried pipeline, and SB-2 though SB-5 were advanced near the perimeter of the prior excavation. Laboratory analytical results for the samples collected from the soil borings report benzene, total BTEX, and TPH concentrations below the closure criteria set forth for the release indicating a minimal volume of residual impacted material may be present. Approximate calculated volumes of residual impacted material is 23 yards on the northwest side of the excavation in the area between sample SC-10 and soil boring SB-4 and 75 cubic yards on the southeast side of the excavation in the area between soil borings SC-2 and SC-11 and soil boring SB-2. Due to the presence of permanent structures in the area of residual impact, a request for deferment of additional remediation until facility/well site decommissioning is recommended.

8.0 Closure and Limitations

This report has been prepared for the exclusive use of Enterprise and is subject to the terms, conditions, and limitations stated in Rule's report and Service Agreement with Enterprise. All work has been performed in accordance with generally accepted professional environmental consulting practices. No other warranty is expressed or implied.

Tables

Table 1. Summary of Excavation Confirmation Laboratory Analytical Results
Enterprise Field Services
Federal 13-22 #2 Well Tie Pipeline Release
Rio Arriba County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Sample Location	Laboratory Analytical Results								
				Benzene (mg/kg)	Toluene (mg/kg)	Ethylben-zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)	TPH as MRO (mg/kg)	Chloride (mg/kg)
Remediation Standard*				**10**	**NE**	**NE**	**NE**	**50**	**1,000 as GRO+DRO / 2,500 Total**			**20,000**
Removed by Excavation												
SC-1	1/29/2019	5	South Base	<0.88	27	9.7	130	**167**	**2,000**	**740**	<48	<60
SC-8	1/31/2019	--	Stockpile	**14**	210	44	400	**668**	**9,800**	**220**	<47	--
SC-9	1/31/2019	10 - 12	South Base	**23**	310	64	560	**960**	**15,000**	**290**	<48	--
Excavation Confirmation Samples												
SC-2	1/29/2019	0 - 5	East Wall - South	1.3	42	11	140	**194**	**2,100**	**280**	<48	<60
SC-3	1/29/2019	0 - 5	West Wall - South	<0.13	1.6	0.91	13	16	170	92	<48	<60
SC-4	1/29/2019	0 - 5	South Wall	<0.11	<0.21	<0.21	0.46	0.46	<21	15	<48	<60
SC-5	1/29/2019	4	North Base	<0.019	0.082	<0.039	0.23	0.31	<3.9	<9.8	<49	<60
SC-6	1/29/2019	0 - 4	East Wall - North	<0.022	<0.044	<0.044	<0.087	ND	<4.4	<9.9	<49	<60
SC-7	1/29/2019	0 - 4	West Wall - North	<0.023	<0.046	<0.046	<0.092	ND	<4.6	24	<47	<60
SC-10	1/31/2019	6 - 12	West Wall - Mid/South	**13**	200	42	380	**635**	**8,800**	**210**	<47	--
SC-11	1/31/2019	6 - 12	East Wall - Mid/South	3.7	71	19	190	**284**	**4,600**	**330**	<49	--
TP-1	2/5/2019	20	South Base	<0.048	1.2	0.66	7.3	9.2	110	<9.8	<49	--

Notes:
ft bgs - feet below grade surface
mg/kg - milligrams per kilogram
NE - not established
ND - not detected above laboratory reporting limits
TPH - total petroleum hydrocarbons
GRO - gasoline range organics
DRO - diesel range organics
MRO - mineral oil range organics
*Per Table 1 of 19.15.29.12 NMAC, based on category *"greater than 100 feet" depth* to groundwater

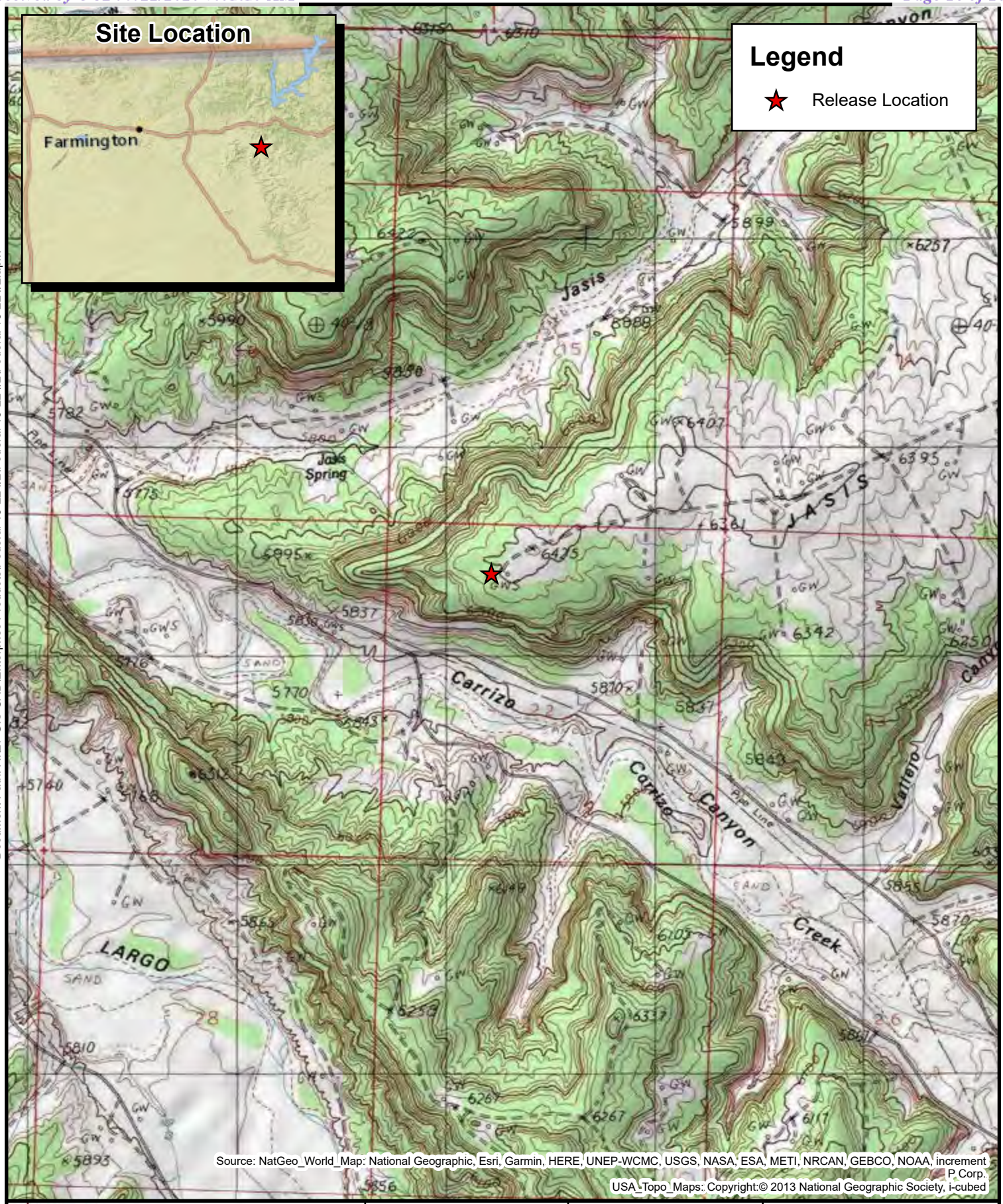
Rule Engineering, LLC
Solutions to Regulations for Industry

Table 2. Summary of Soil Boring Laboratory Analytical Results
Enterprise Field Services
Federal 13-22 #2 Well Tie Pipeline Release
Rio Arriba County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Field Screening	Laboratory Analytical Results							
			VOCs by PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben-zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)	TPH as MRO (mg/kg)
Remediation Standard*			--	10	NE	NE	NE	50	1,000 as GRO+DRO / 2,500 Total		
SB-1	4/16/2019	20	1,322	<0.24	5.5	2.7	29	37	520	27	<49
		22.5	1,709	<0.050	0.11	<0.099	0.89	1.00	41	<9.6	<48
		25	596	--	--	--	--	--	--	--	--
		30	183	<0.024	<0.048	<0.048	<0.096	ND	<4.8	18	<49
SB-2	4/16/2019	7.5	147	--	--	--	--	--	--	--	--
		10	292	<0.024	<0.047	<0.047	<0.095	ND	<4.7	10	<46
		12.5	104	--	--	--	--	--	--	--	--
		15	162	<0.024	<0.048	<0.048	<0.095	ND	<4.8	<9.8	<49
		17.5	119	--	--	--	--	--	--	--	--
		20	13.3	--	--	--	--	--	--	--	--
		25	36.2	<0.024	<0.048	<0.048	<0.095	ND	<4.8	<10	<50
SB-3	4/16/2019	7.5	64.1	--	--	--	--	--	--	--	--
		10	172	--	--	--	--	--	--	--	--
		12.5	371	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.7	<49
		15	137	--	--	--	--	--	--	--	--
		17.5	125	--	--	--	--	--	--	--	--
		20	156	<0.024	<0.047	<0.047	<0.095	ND	<4.7	<9.8	<49
		25	77.8	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<9.6	<48
SB-4	4/15/2019	7.5	59.2	--	--	--	--	--	--	--	--
		10	25.5	--	--	--	--	--	--	--	--
		12.5	274	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.5	<47
		15	73.2	--	--	--	--	--	--	--	--
		17.5	131	--	--	--	--	--	--	--	--
		20	148	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.1	<46
		25	108	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.7	<48
SB-5	4/15/2019	7.5	26.4	--	--	--	--	--	--	--	--
		10	94.3	--	--	--	--	--	--	--	--
		15	167	--	--	--	--	--	--	--	--
		17.5	252	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.8	<49
		20	160	--	--	--	--	--	--	--	--
		22.5	216	--	--	--	--	--	--	--	--
		25	303	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.6	<48
		30	32.2	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<9.5	<47

Notes:
ft bgs - feet below grade surface
mg/kg - milligrams per kilogram
NE - not established
ND - not detected above laboratory reporting limits
BTEX - total benzene, toluene, ethylbenzene, and xylenes
VOC - volitile organic compounds
PID - photoionization detector
ppm - parts per million
TPH - total petroleum hydrocarbons
GRO - gasoline range organics
DRO - diesel range organics
MRO - mineral oil range organics
*Per Table 1 of 19.15.29.12 NMAC, based on category *"greater than 100 feet" depth* to groundwater

Figures



Rule Engineering, LLC
Solutions to Regulations for Industry

0 1,000 2,000 4,000 Feet

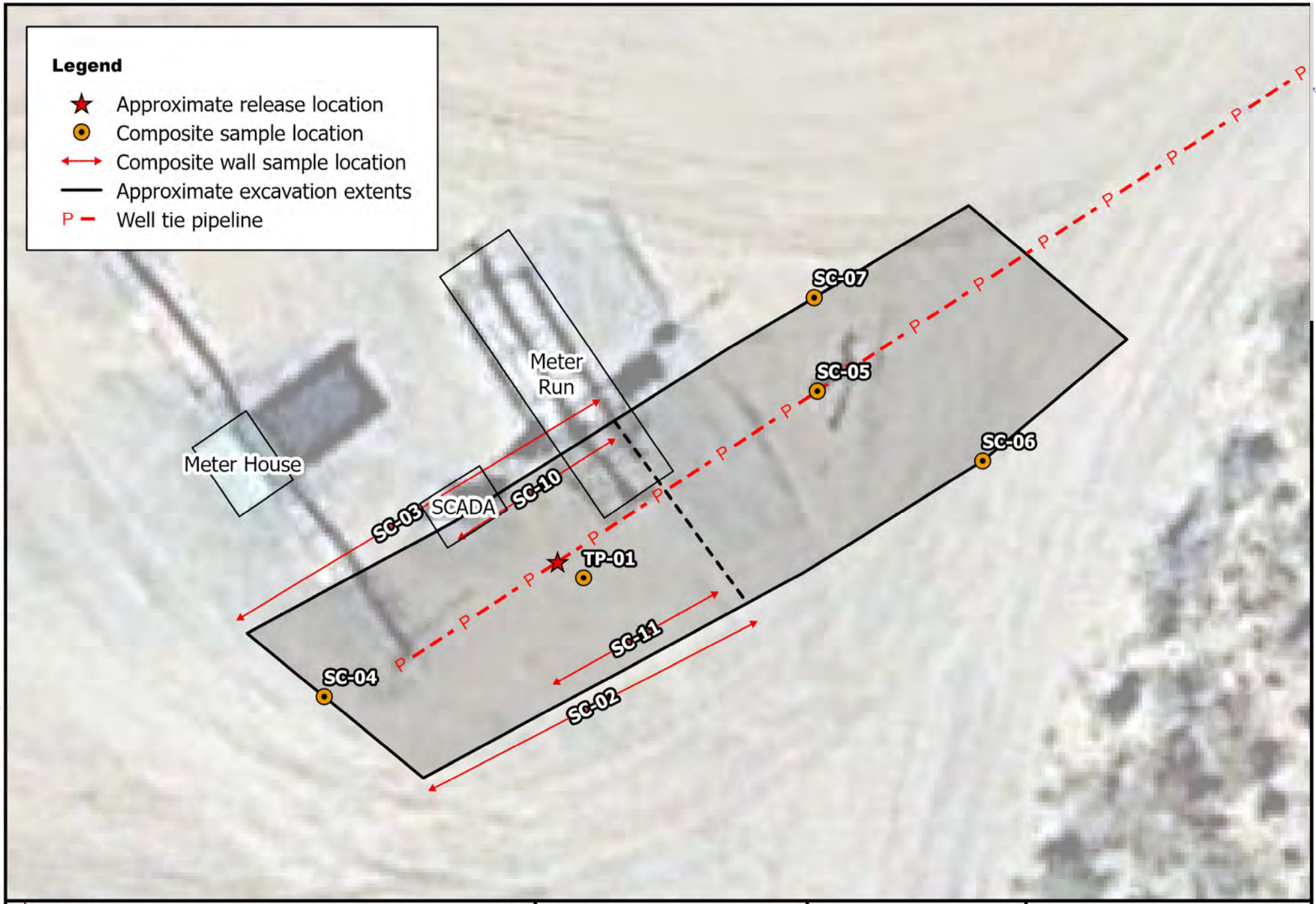
Cutter Canyon Quadrangle
1:24,000

Enterprise Products

C-22-T28N-R8W
N36.65200, W107.67178
Rio Arriba County, NM

Figure 1
Topographic Site Map
Federal 13-22 #2

Document Path: R:\27 GIS CAD\Enterprise Products\Federal 13-22 #2\Federal 13-22 #2\Federal 13-22 #2.aprx



Rule Engineering, LLC
Solutions to Regulations for Industry

0 7.5 15 30 Feet

N

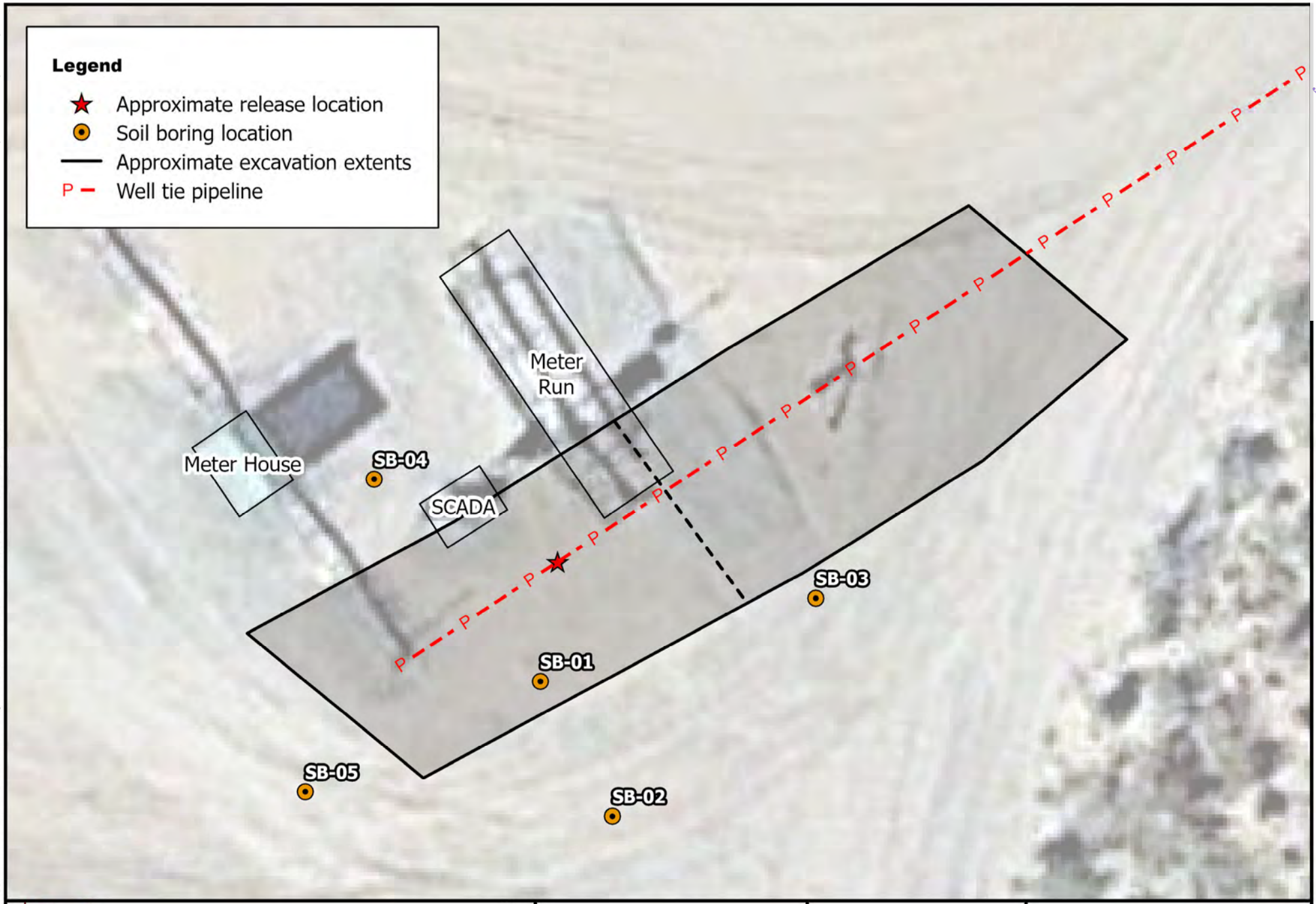
Enterprise Products

C-22-T28N-R8W
N36.65200, W107.67178
Rio Arriba County, NM

Figure 2
Excavation Sample Location Map
Federal 13-22 #2

Document Path: R:\27 GIS CAD\Enterprise Products\Enterprise Products.aprx

Date: 8/19/2020



Rule Engineering, LLC
Solutions to Regulations for Industry

0 7.5 15 30 Feet

N

Enterprise Products

C-22-T28N-R8W
N36.65200, W107.67178
Rio Arriba County, NM

Figure 3
Soil Boring Location Map
Federal 13-22 #2

Document Path: R:\27 GIS CAD\Enterprise Products\Enterprise Products.aprx

Date: 8/19/2020

Appendix A

Closure Criteria Determination Documents

Federal 13-22 #2 Well Tie Hydrogeologic Information

Depth to groundwater is anticipated to be greater than 100 feet below ground surface. This is based on the depth to groundwater of 480 feet reported for registered water well SJ 02283, located approximately 1.5 miles to the northeast and about 50 feet lower in elevation. Additionally, the Carrizo Wash located approximately 1,550 feet south of the release location is approximately 610 feet below the site in elevation.

The Jasis Spring is located approximately 0.5 mile to the northwest of the location.

The nearest significant watercourse is the Carrizo Wash located approximately 1,550 feet south of the location.

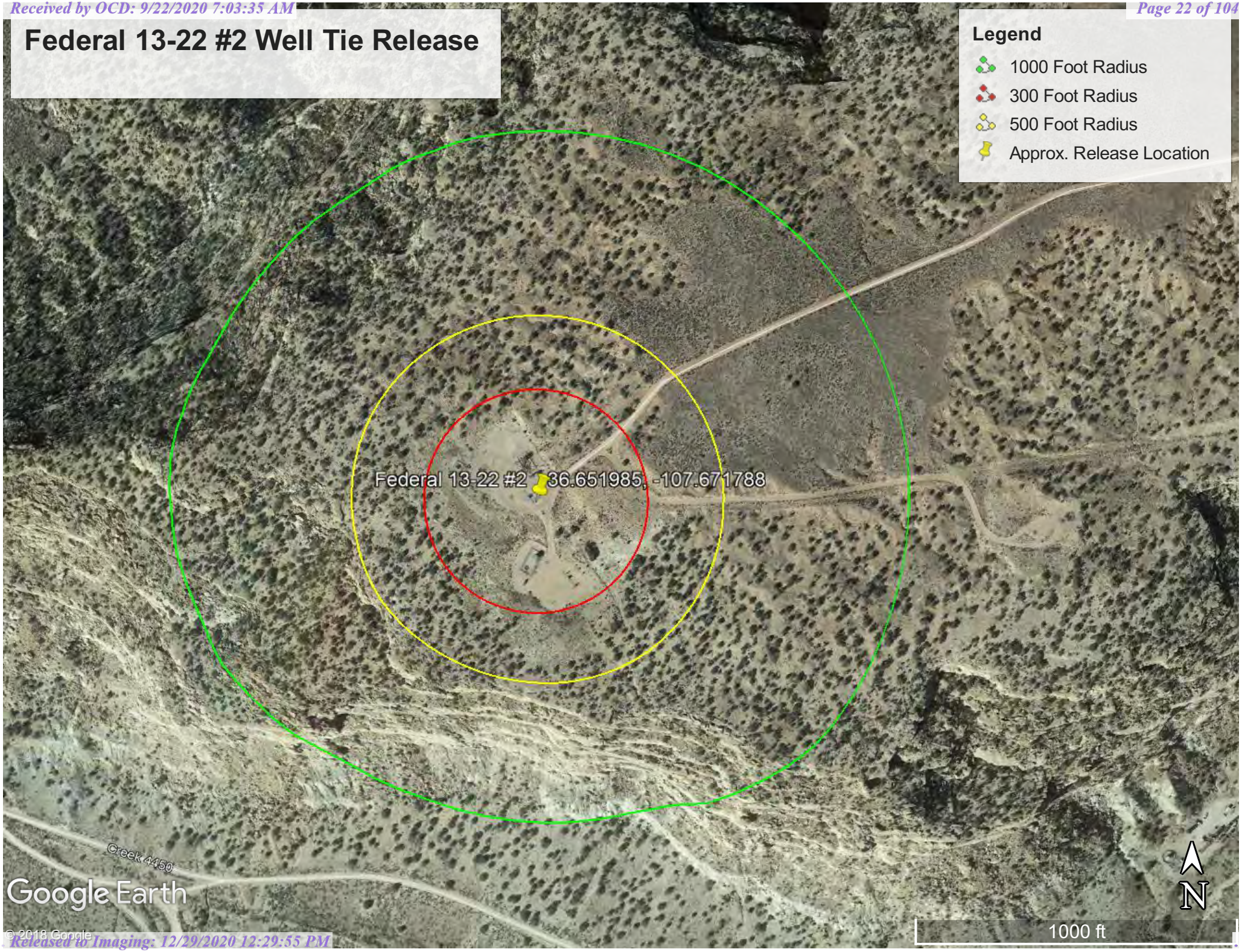
There are no water wells registered within 0.5 mile of the location.

The site is not within 300 feet of a wetland and is not within a 100-year floodplain.

The site is underlain by the Tertiary San Jose Formation which does have karst features.

Figure 1. Topographic Map

Federal 13-22 #2 Well Tie Release



New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 261169.68 **Northing (Y):** 4059594.58 **Radius:** 805

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	SJ 02283	1	2	4	14	28N	08W	263604	4060474*

Driller License: 809 **Driller Company:** CHIVERS BRYCE J.

Driller Name: CHIVERA DRILLING CO.

Drill Start Date:	06/07/1990	**Drill Finish Date:**	06/10/1990	**Plug Date:**	
Log File Date:	06/25/1990	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	5 GPM
Casing Size:		**Depth Well:**	540 feet	**Depth Water:**	480 feet

Water Bearing Stratifications:	Top	Bottom	Description
	510	512	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	510	530

***UTM location was derived from PLSS - see Help**

National Flood Hazard Layer FIRMette

FEMA

36°39'21.58"N

107°40'37.16"W

107°39'59.71"W

36°38'52.71"N

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

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

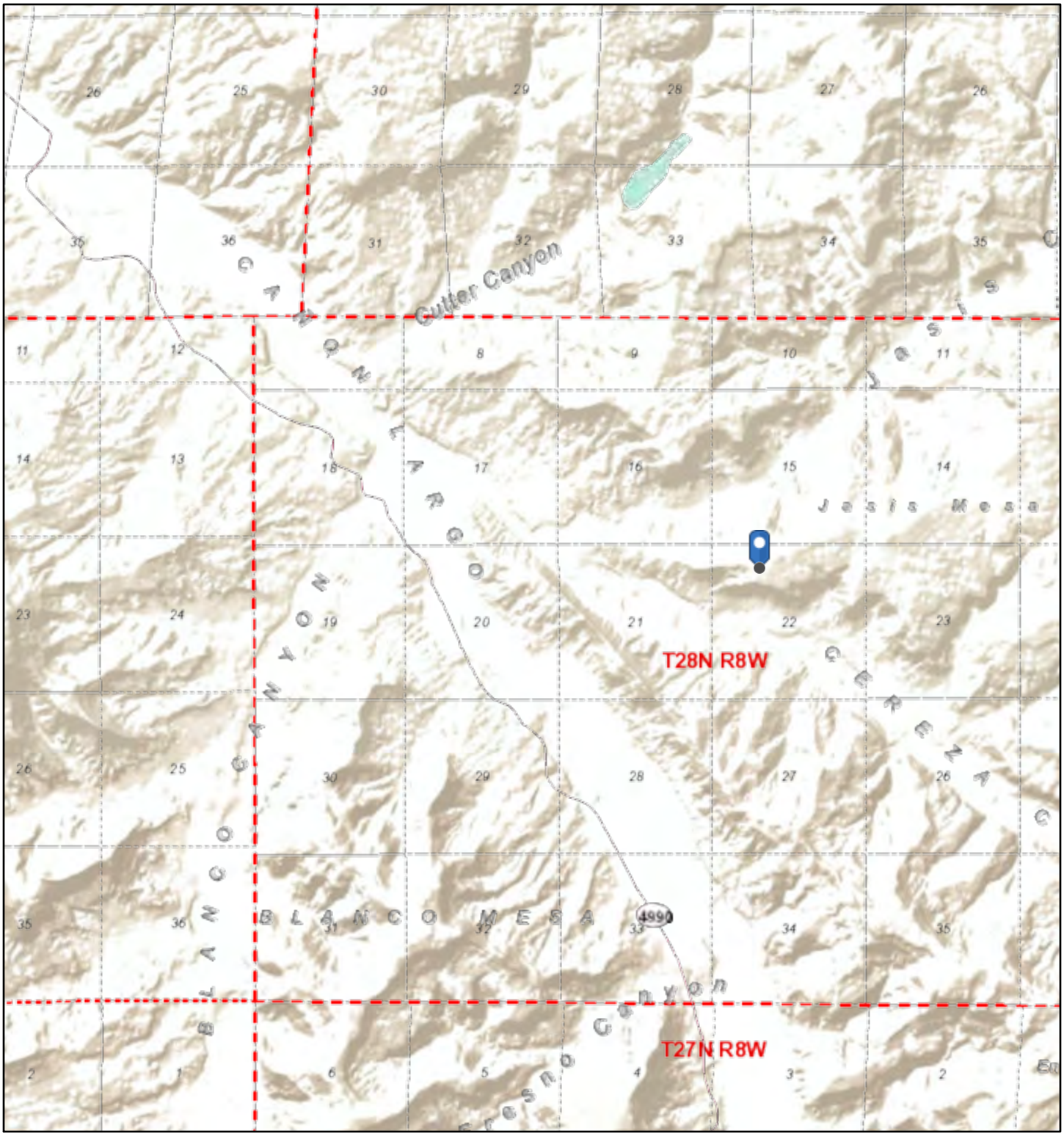
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/14/2019 at 5:59:27 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Active Mines in New Mexico



1/14/2019, 4:02:55 PM

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

Bureau of Land Management Geographic Coordinate Database, Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

EMNRD MMD GIS Coordinator

New Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795)

Appendix B

NMOCD Correspondence

Heather Woods

From: Long, Thomas <tjlong@eprod.com>
Sent: Tuesday, January 15, 2019 8:20 AM
To: Heather Woods
Subject: FW: [EXT] RE: Federal 13-22#2 - UL C Section 22 T28N R8W; 36.651985, -107.671788

FYI

Tom Long
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Tuesday, January 15, 2019 8:18 AM
To: Long, Thomas <tjlong@eprod.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; 'l1thomas@blm.gov' <l1thomas@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: [EXT] RE: Federal 13-22#2 - UL C Section 22 T28N R8W; 36.651985, -107.671788

Tom,

I would concur based on the data Enterprise provided it appears the closure standards Enterprise determined is correct.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Long, Thomas <tjlong@eprod.com>
Sent: Tuesday, January 15, 2019 7:58 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; 'l1thomas@blm.gov' <l1thomas@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXT] RE: Federal 13-22#2 - UL C Section 22 T28N R8W; 36.651985, -107.671788

Cory,

In the event that this release become reportable, please find the attached siting criteria package. Do you concur that this release site would fall under the Tier III remediation standards (Benzene = 10 ppm, BTEX = 50 ppm, TPH = 2,500 ppm, GRO+DRO = 1,000 ppm and Chloride = 20,000 ppm) where groundwater is greater than 100 feet below ground surface? Please let me know your thoughts.

Sincerely,

Tom Long
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Friday, January 11, 2019 7:40 AM
To: Long, Thomas <tjlong@eprod.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; 'l1thomas@blm.gov' <l1thomas@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: Federal 13-22#2 - UL C Section 22 T28N R8W; 36.651985, -107.671788

Tom,

Thank you for the notification, please respond to the release per 19.15.29.8 NMAC. If the release is reportable please let us know as soon as possible.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Long, Thomas <tjlong@eprod.com>
Sent: Thursday, January 10, 2019 2:53 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; 'l1thomas@blm.gov' <l1thomas@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXT] Federal 13-22#2 - UL C Section 22 T28N R8W; 36.651985, -107.671788

Cory/Whitney,

This email is a courtesy notification that Enterprise had a release of natural gas and natural gas liquids on the Federal 13-22#2 pipeline today. The pipeline was isolated, depressurized, locked out and tagged out. An area of approximately two feet in diameter was impacted by the released fluids. Enterprise has not yet determined this release reportable per NMOCD regulation. The release is located at UL C Section 22 T28N R8W; 36.651985, -107.671788. I will keep you informed as to the reporting status and the field work. If you have any questions, please call or email.

Sincerely,

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401

505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

Appendix C

Executed C-138 Soil Waste Acceptance Form

cDistrict 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 97057-0989

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

Form C-138
Revised August 1, 2011

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
2. Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401

Invoice Information:
AFE: N40090
PM: Miles Moore
Pay Key: RB21200

3. **Originating Site:**
Federal 13-22#2

4. **Location of Material (Street Address, City, State or ULSTR):**
UL C Section 22 T28N R8W; 36.651985, -107.671788

Jan./Feb, 2019

4. **Source and Description of Waste:** Hydrocarbon/Methanol impacted soil from remediation activities associated with a natural gas meter tube release.
5. Estimated Volume 20 (yd³) bbls Known Volume (to be entered by the operator at the end of the haul) 264 (yd³) bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Thomas Long (Thomas Long) representative or authorized agent for Enterprise Field Services, LLC do hereby
PRINT & SIGN NAME COMPANY NAME
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, (Thomas Long) 1-14-19, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to
Generator Signature
complete the required testing/sign the Generator Waste Testing Certification.

I, Greg Crabtree, representative for Envirotech, Inc. do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

6. **Transporter: TBD** Prado Farms, West States

OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011**
Address of Facility: **Hilltop, NM**

Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree TITLE: Envir. Manager DATE: 1/25/19

SIGNATURE: (Greg Crabtree) TELEPHONE NO.: 505-632-0615

Appendix D

Photograph Log

Photograph Log
Federal 13-22 #2 Well Tie Pipeline Release
Enterprise Field Services, LLC

Photograph #1	
Client: Enterprise	
Site Name: Federal 13-22 #2 Well Tie Pipeline Release	
Date Photo Taken: January 29, 2019	
Release Location: N36.65200, W107.67178 C-22-28N-8W Rio Arriba County, NM	
Photo Taken by: Heather Woods	Description: Facing north, view of the excavation extents, repaired pipeline, and confirmation sampling areas on January 29, 2019.

Photograph #2	
Client: Enterprise	
Site Name: Federal 13-22 #2 Well Tie Pipeline Release	
Date Photo Taken: January 29, 2019	
Release Location: N36.65200, W107.67178 C-22-28N-8W Rio Arriba County, NM	
Photo Taken by: Heather Woods	Description: Facing south, view of the excavation extents, repaired pipeline, and confirmation sampling areas on January 29, 2019.

Photograph Log
Federal 13-22 #2 Well Tie Pipeline Release
Enterprise Field Services, LLC

Photograph #3	
Client: Enterprise	
Site Name: Federal 13-22 #2 Well Tie Pipeline Release	
Date Photo Taken: January 31, 2019	
Release Location: N36.65200, W107.67178 C-22-28N-8W Rio Arriba County, NM	
Photo Taken by: Heather Woods	Description: Facing south, view of the excavation extents and confirmation sampling areas on January 31, 2019.

Photograph #4	
Client: Enterprise	
Site Name: Federal 13-22 #2 Well Tie Pipeline Release	
Date Photo Taken: February 5, 2019	
Release Location: N36.65200, W107.67178 C-22-28N-8W Rio Arriba County, NM	
Photo Taken by: Heather Woods	Description: Facing north, view of the final excavation extents in the sample area TP-1. The base is approximately 20 feet below ground surface.

Appendix E

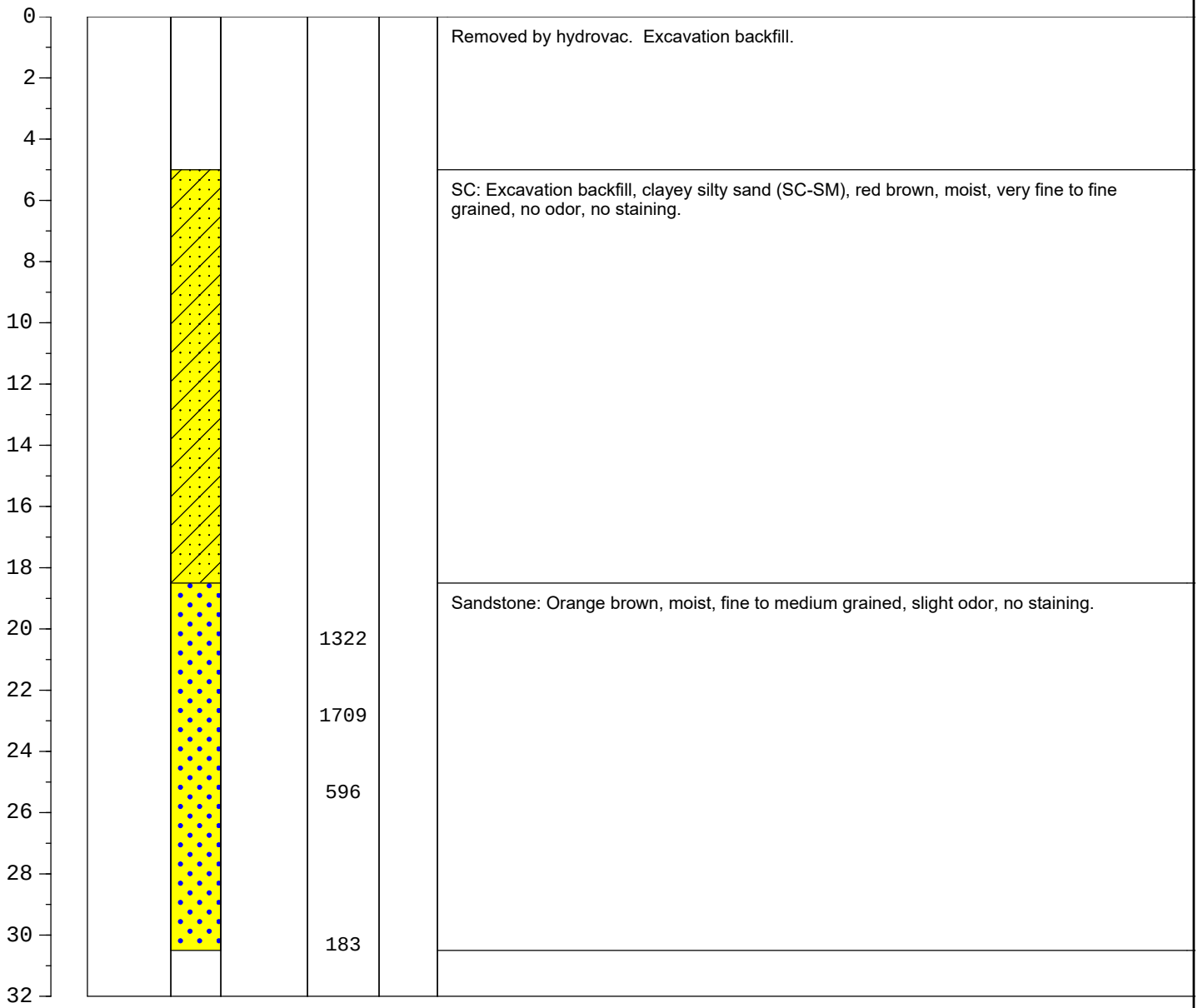
Soil Boring Logs

Kule Engineering, LLC
Solutions to Regulations for Industry

BOREHOLE NO.: SB-01

CLIENT:	Enterprise Products	PROJECT #:	368.038	NORTHING:	4059590.95
DRILLING CO.:	HRL Compliance Solutions	LOGGED BY:	H. Woods	EASTING:	261169.58
DATE DRILLED:	4/16/19	DRILLER:	K. Padilla	SURFACE ELEV:	NA ft
LOCATION:	Federal 13-22 #2	DRILLING METHOD:	HSA	CASING ELEV:	NA ft
SCREEN DIAM:	NA in	SCREEN:	NA ft	SLOT SIZE:	NA in
CASING DIAM:	NA in	CAS LENGTH:	NA ft	TYPE:	NA
BORING DEPTH:	30.5 ft	WELL DEPTH:	30.5 ft	BORING DIAM:	7.25 in
WELL TYPE:	NA	SAMPLING METHOD:	Splitspoon	DEPTH TO GW:	NA ft

DEPTH (ft BGS)	WELL LOG	SOIL LOG	BLOWS / ft.	PID ppm	% REC	SOIL DESCRIPTION
0–4						Removed by hydrovac. Excavation backfill.
4–18						SC: Excavation backfill, clayey silty sand (SC-SM), red brown, moist, very fine to fine grained, no odor, no staining.
18–20						Sandstone: Orange brown, moist, fine to medium grained, slight odor, no staining.
20				1322		
22				1709		
24–26				596		
30				183		



NOTES: Boring only

Kule Engineering, LLC
Solutions to Regulations for Industry

BOREHOLE NO.: SB-02

CLIENT:	Enterprise Products	PROJECT #:	368.038	NORTHING:	4059588.73
DRILLING CO.:	HRL Compliance Solutions	LOGGED BY:	H. Woods	EASTING:	261169.51
DATE DRILLED:	4/16/19	DRILLER:	K. Padilla	SURFACE ELEV:	NA ft
LOCATION:	Federal 13-22 #2	DRILLING METHOD:	HSA	CASING ELEV:	NA ft
SCREEN DIAM:	NA in	SCREEN:	NA ft	SLOT SIZE:	NA in
CASING DIAM:	NA in	CAS LENGTH:	NA ft	TYPE:	NA
BORING DEPTH:	25.5 ft	WELL DEPTH:	25.5 ft	BORING DIAM:	7.25 in
WELL TYPE:	NA	SAMPLING METHOD:	Splitspoon	DEPTH TO GW:	NA ft

DEPTH (ft BGS)	WELL LOG	SOIL LOG	BLOWS / ft.	PID ppm	% REC	SOIL DESCRIPTION
0						Removed by hydrovac.
2						
4						
6						Sandstone: light tan, slightly moist, very fine grained, slight odor, no staining.
8				147		
10				292		
12				104		
14				162		Sandstone: Orange brown, slightly moist, very fine to fine grained, slight odor, no staining.
16						
18				119		
20				13.3		
22						
24						
26				36.2		

NOTES: Boring only

Kule Engineering, LLC
Solutions to Regulations for Industry

BOREHOLE NO.: SB-03

CLIENT:	Enterprise Products	PROJECT #:	368.038	NORTHING:	4059592.92
DRILLING CO.:	HRL Compliance Solutions	LOGGED BY:	H. Woods	EASTING:	261178.58
DATE DRILLED:	4/16/19	DRILLER:	K. Padilla	SURFACE ELEV:	NA ft
LOCATION:	Federal 13-22 #2	DRILLING METHOD:	HSA	CASING ELEV:	NA ft
SCREEN DIAM:	NA in	SCREEN:	NA ft	SLOT SIZE:	NA in
CASING DIAM:	NA in	CAS LENGTH:	NA ft	TYPE:	NA
BORING DEPTH:	25.5 ft	WELL DEPTH:	25.5 ft	BORING DIAM:	7.25 in
WELL TYPE:	NA	SAMPLING METHOD:	Splitspoon	DEPTH TO GW:	NA ft

DEPTH (ft BGS)	WELL LOG	SOIL LOG	BLOWS / ft.	PID ppm	% REC	SOIL DESCRIPTION
0						Removed by hydrovac.
6						Sandstone: light tan, slightly moist, very fine grained, no odor, no staining.
8				61.4		
10				172		
12				371		
14				137		
16				125		
18				156		
20						Sandstone: Orange brown, slightly moist, very fine to fine grained, no odor, no staining.
22				77.8		
24						
26						

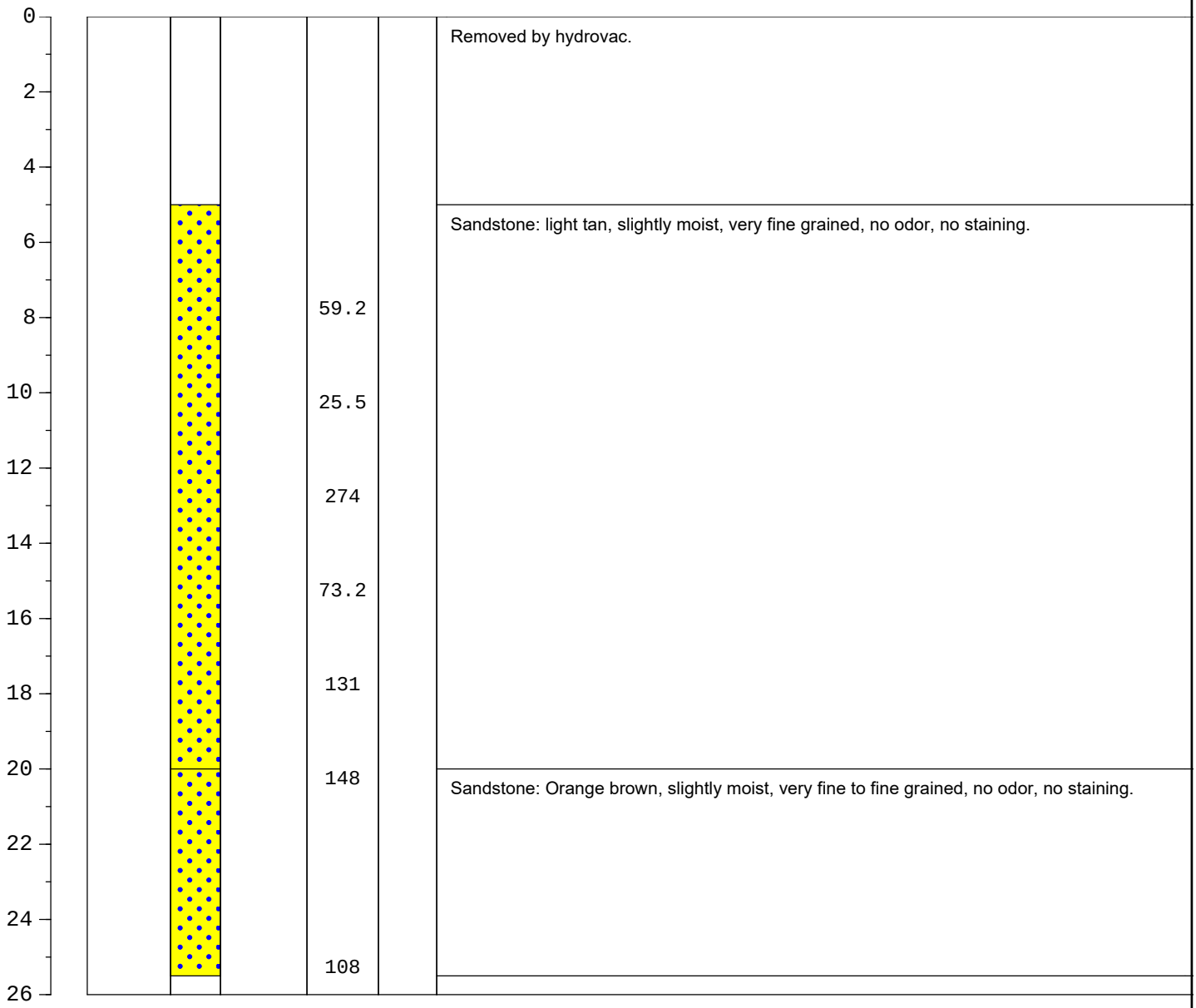
NOTES: Boring only

Kule Engineering, LLC
Solutions to Regulations for Industry

BOREHOLE NO.: SB-04

CLIENT:	Enterprise Products	PROJECT #:	368.038	NORTHING:	4059596.50
DRILLING CO.:	HRL Compliance Solutions	LOGGED BY:	H. Woods	EASTING:	261169.73
DATE DRILLED:	4/15/19	DRILLER:	K. Padilla	SURFACE ELEV:	NA ft
LOCATION:	Federal 13-22 #2	DRILLING METHOD:	HSA	CASING ELEV:	NA ft
SCREEN DIAM:	NA in	SCREEN:	NA ft	SLOT SIZE:	NA in
CASING DIAM:	NA in	CAS LENGTH:	NA ft	TYPE:	NA
BORING DEPTH:	25.5 ft	WELL DEPTH:	25.5 ft	BORING DIAM:	7.25 in
WELL TYPE:	NA	SAMPLING METHOD:	Splitspoon	DEPTH TO GW:	NA ft

DEPTH (ft BGS)	WELL LOG	SOIL LOG	BLOWS / ft.	PID ppm	% REC	SOIL DESCRIPTION
0–5.5						Removed by hydrovac.
5.5–20				59.2 25.5 274 73.2 131 148		Sandstone: light tan, slightly moist, very fine grained, no odor, no staining.
20–25.5				108		Sandstone: Orange brown, slightly moist, very fine to fine grained, no odor, no staining.



NOTES: Boring only

Kule Engineering, LLC
Solutions to Regulations for Industry

BOREHOLE NO.: SB-05

CLIENT:	Enterprise Products	PROJECT #:	368.038	NORTHING:	4059588.73
DRILLING CO.:	HRL Compliance Solutions	LOGGED BY:	H. Woods	EASTING:	261169.51
DATE DRILLED:	4/15/19	DRILLER:	K. Padilla	SURFACE ELEV:	NA ft
LOCATION:	Federal 13-22 #2	DRILLING METHOD:	HSA	CASING ELEV:	NA ft
SCREEN DIAM:	NA in	SCREEN:	NA ft	SLOT SIZE:	NA in
CASING DIAM:	NA in	CAS LENGTH:	NA ft	TYPE:	NA
BORING DEPTH:	30.5 ft	WELL DEPTH:	30.5 ft	BORING DIAM:	7.25 in
WELL TYPE:	NA	SAMPLING METHOD:	Splitspoon	DEPTH TO GW:	NA ft

DEPTH (ft BGS)	WELL LOG	SOIL LOG	BLOWS / ft.	PID ppm	% REC	SOIL DESCRIPTION
0						Removed by hydrovac.
2						
4						
6						Sandstone: light tan, slightly moist, very fine grained, no odor, no staining.
8				26.4		
10				94.3		
12						
14						
16				167		
18				252		
20				160		Sandstone: Orange brown, slightly moist, very fine to fine grained, no odor, no staining.
22				216		
24						
26				303		
28						
30				32.2		
32						

NOTES: Boring only

Appendix F

Analytical Laboratory Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 01, 2019

Heather Woods

Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 325-1055
FAX

RE: Enterprise Federal 13 22 2 OrderNo.: 1901B10

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 7 sample(s) on 1/30/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1901B10**
Date Reported: **2/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-1
Project: Enterprise Federal 13 22 2
Collection Date: 1/29/2019 10:40:00 AM
Lab ID: 1901B10-001 **Matrix:** SOIL **Received Date:** 1/30/2019 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	1/30/2019 12:22:56 PM	42885
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	740	9.6		mg/Kg	1	1/30/2019 10:15:24 AM	42884
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/30/2019 10:15:24 AM	42884
Surr: DNOP	96.4	50.6-138		%Rec	1	1/30/2019 10:15:24 AM	42884
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	2000	180		mg/Kg	50	1/30/2019 11:35:09 AM	42861
Surr: BFB	304	73.8-119	S	%Rec	50	1/30/2019 11:35:09 AM	42861
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.88		mg/Kg	50	1/30/2019 11:35:09 AM	42861
Toluene	27	1.8		mg/Kg	50	1/30/2019 11:35:09 AM	42861
Ethylbenzene	9.7	1.8		mg/Kg	50	1/30/2019 11:35:09 AM	42861
Xylenes, Total	130	3.5		mg/Kg	50	1/30/2019 11:35:09 AM	42861
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	50	1/30/2019 11:35:09 AM	42861

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1901B10**
Date Reported: **2/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-2
Project: Enterprise Federal 13 22 2
Collection Date: 1/29/2019 10:47:00 AM
Lab ID: 1901B10-002 **Matrix:** SOIL **Received Date:** 1/30/2019 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	1/30/2019 12:35:21 PM	42885
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	280	9.7		mg/Kg	1	1/30/2019 10:39:52 AM	42884
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/30/2019 10:39:52 AM	42884
Surr: DNOP	97.4	50.6-138		%Rec	1	1/30/2019 10:39:52 AM	42884
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	2100	220		mg/Kg	50	1/30/2019 11:58:41 AM	42861
Surr: BFB	222	73.8-119	S	%Rec	50	1/30/2019 11:58:41 AM	42861
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	1.3	1.1		mg/Kg	50	1/30/2019 11:58:41 AM	42861
Toluene	42	2.2		mg/Kg	50	1/30/2019 11:58:41 AM	42861
Ethylbenzene	11	2.2		mg/Kg	50	1/30/2019 11:58:41 AM	42861
Xylenes, Total	140	4.4		mg/Kg	50	1/30/2019 11:58:41 AM	42861
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	50	1/30/2019 11:58:41 AM	42861

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1901B10**
Date Reported: **2/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-3
Project: Enterprise Federal 13 22 2
Collection Date: 1/29/2019 10:53:00 AM
Lab ID: 1901B10-003 **Matrix:** SOIL **Received Date:** 1/30/2019 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	1/30/2019 12:47:45 PM	42885
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	92	9.6		mg/Kg	1	1/30/2019 11:03:58 AM	42884
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/30/2019 11:03:58 AM	42884
Surr: DNOP	99.2	50.6-138		%Rec	1	1/30/2019 11:03:58 AM	42884
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	170	25		mg/Kg	5	1/30/2019 12:22:11 PM	42861
Surr: BFB	262	73.8-119	S	%Rec	5	1/30/2019 12:22:11 PM	42861
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.13		mg/Kg	5	1/30/2019 12:22:11 PM	42861
Toluene	1.6	0.25		mg/Kg	5	1/30/2019 12:22:11 PM	42861
Ethylbenzene	0.91	0.25		mg/Kg	5	1/30/2019 12:22:11 PM	42861
Xylenes, Total	13	0.51		mg/Kg	5	1/30/2019 12:22:11 PM	42861
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	5	1/30/2019 12:22:11 PM	42861

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1901B10**
Date Reported: **2/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-4
Project: Enterprise Federal 13 22 2
Collection Date: 1/29/2019 11:00:00 AM
Lab ID: 1901B10-004 **Matrix:** SOIL
Received Date: 1/30/2019 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	1/30/2019 1:00:11 PM	42885
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	15	9.7		mg/Kg	1	1/30/2019 11:28:19 AM	42884
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/30/2019 11:28:19 AM	42884
Surr: DNOP	96.6	50.6-138		%Rec	1	1/30/2019 11:28:19 AM	42884
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	21		mg/Kg	5	1/30/2019 9:37:50 AM	42861
Surr: BFB	109	73.8-119		%Rec	5	1/30/2019 9:37:50 AM	42861
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.11		mg/Kg	5	1/30/2019 9:37:50 AM	42861
Toluene	ND	0.21		mg/Kg	5	1/30/2019 9:37:50 AM	42861
Ethylbenzene	ND	0.21		mg/Kg	5	1/30/2019 9:37:50 AM	42861
Xylenes, Total	0.46	0.43		mg/Kg	5	1/30/2019 9:37:50 AM	42861
Surr: 4-Bromofluorobenzene	93.8	80-120		%Rec	5	1/30/2019 9:37:50 AM	42861

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1901B10**
Date Reported: **2/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-5
Project: Enterprise Federal 13 22 2
Collection Date: 1/29/2019 11:06:00 AM
Lab ID: 1901B10-005 **Matrix:** SOIL **Received Date:** 1/30/2019 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	1/30/2019 1:12:36 PM	42885
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/30/2019 11:52:24 AM	42884
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/30/2019 11:52:24 AM	42884
Surr: DNOP	98.2	50.6-138		%Rec	1	1/30/2019 11:52:24 AM	42884
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	1/30/2019 10:24:52 AM	42861
Surr: BFB	102	73.8-119		%Rec	1	1/30/2019 10:24:52 AM	42861
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	1/30/2019 10:24:52 AM	42861
Toluene	0.082	0.039		mg/Kg	1	1/30/2019 10:24:52 AM	42861
Ethylbenzene	ND	0.039		mg/Kg	1	1/30/2019 10:24:52 AM	42861
Xylenes, Total	0.23	0.078		mg/Kg	1	1/30/2019 10:24:52 AM	42861
Surr: 4-Bromofluorobenzene	94.6	80-120		%Rec	1	1/30/2019 10:24:52 AM	42861

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1901B10**
Date Reported: **2/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-6
Project: Enterprise Federal 13 22 2
Collection Date: 1/29/2019 11:12:00 AM
Lab ID: 1901B10-006 **Matrix:** SOIL
Received Date: 1/30/2019 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	1/30/2019 1:25:00 PM	42885
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/30/2019 12:16:38 PM	42884
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/30/2019 12:16:38 PM	42884
Surr: DNOP	98.0	50.6-138		%Rec	1	1/30/2019 12:16:38 PM	42884
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	1/30/2019 10:48:09 AM	42861
Surr: BFB	99.2	73.8-119		%Rec	1	1/30/2019 10:48:09 AM	42861
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	1/30/2019 10:48:09 AM	42861
Toluene	ND	0.044		mg/Kg	1	1/30/2019 10:48:09 AM	42861
Ethylbenzene	ND	0.044		mg/Kg	1	1/30/2019 10:48:09 AM	42861
Xylenes, Total	ND	0.087		mg/Kg	1	1/30/2019 10:48:09 AM	42861
Surr: 4-Bromofluorobenzene	90.4	80-120		%Rec	1	1/30/2019 10:48:09 AM	42861

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1901B10**
Date Reported: **2/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-7
Project: Enterprise Federal 13 22 2
Collection Date: 1/29/2019 11:19:00 AM
Lab ID: 1901B10-007 **Matrix:** SOIL **Received Date:** 1/30/2019 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	1/30/2019 1:37:24 PM	42885
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	24	9.3		mg/Kg	1	1/30/2019 12:40:50 PM	42884
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/30/2019 12:40:50 PM	42884
Surr: DNOP	96.9	50.6-138		%Rec	1	1/30/2019 12:40:50 PM	42884
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/30/2019 11:11:37 AM	42861
Surr: BFB	96.8	73.8-119		%Rec	1	1/30/2019 11:11:37 AM	42861
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	1/30/2019 11:11:37 AM	42861
Toluene	ND	0.046		mg/Kg	1	1/30/2019 11:11:37 AM	42861
Ethylbenzene	ND	0.046		mg/Kg	1	1/30/2019 11:11:37 AM	42861
Xylenes, Total	ND	0.092		mg/Kg	1	1/30/2019 11:11:37 AM	42861
Surr: 4-Bromofluorobenzene	90.9	80-120		%Rec	1	1/30/2019 11:11:37 AM	42861

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1901B10**
01-Feb-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13 22 2

Sample ID	**MB-42885**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**42885**	RunNo:	**57374**					
Prep Date:	**1/30/2019**	Analysis Date:	**1/30/2019**	SeqNo:	**1919631**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-42885**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**42885**	RunNo:	**57374**					
Prep Date:	**1/30/2019**	Analysis Date:	**1/30/2019**	SeqNo:	**1919632**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1901B10**
01-Feb-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13 22 2

Sample ID	**LCS-42884**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**42884**		RunNo:	**57338**				
Prep Date:	**1/30/2019**	Analysis Date:	**1/30/2019**		SeqNo:	**1918537**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.3	63.9	124			
Surr: DNOP	4.5		5.000		90.6	50.6	138			

Sample ID	**MB-42884**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**42884**		RunNo:	**57338**				
Prep Date:	**1/30/2019**	Analysis Date:	**1/30/2019**		SeqNo:	**1918538**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.8	50.6	138			

Sample ID	**1901B10-007AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**SC-7**	Batch ID:	**42884**		RunNo:	**57338**				
Prep Date:	**1/30/2019**	Analysis Date:	**1/30/2019**		SeqNo:	**1919485**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	9.7	48.40	23.63	76.7	53.5	126			
Surr: DNOP	4.6		4.840		94.6	50.6	138			

Sample ID	**1901B10-007AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**SC-7**	Batch ID:	**42884**		RunNo:	**57338**				
Prep Date:	**1/30/2019**	Analysis Date:	**1/30/2019**		SeqNo:	**1919486**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	9.6	48.12	23.63	78.4	53.5	126	0.999	21.7	
Surr: DNOP	4.6		4.812		96.3	50.6	138	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1901B10**
01-Feb-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13 22 2

Sample ID	**MB-42861**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**42861**	RunNo:	**57349**					
Prep Date:	**1/29/2019**	Analysis Date:	**1/30/2019**	SeqNo:	**1919324**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.8	73.8	119			

Sample ID	**LCS-42861**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**42861**	RunNo:	**57349**					
Prep Date:	**1/29/2019**	Analysis Date:	**1/30/2019**	SeqNo:	**1919325**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	80.1	123			
Surr: BFB	1100		1000		110	73.8	119			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1901B10**

01-Feb-19

Client: Rule Engineering LLC

Project: Enterprise Federal 13 22 2

Sample ID	**MB-42861**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**
Client ID:	**PBS**	Batch ID:	**42861**	RunNo:	**57349**
Prep Date:	**1/29/2019**	Analysis Date:	**1/30/2019**	SeqNo:	**1919358** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		94.4	80	120			

Sample ID	**LCS-42861**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**
Client ID:	**LCSS**	Batch ID:	**42861**	RunNo:	**57349**
Prep Date:	**1/29/2019**	Analysis Date:	**1/30/2019**	SeqNo:	**1919359** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.6	80	120			
Toluene	0.99	0.050	1.000	0	98.8	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: RULE ENGINEERING LL Work Order Number: 1901B10 RcptNo: 1

Received By: Desiree Dominguez 1/30/2019 8:00:00 AM DD

Completed By: Desiree Dominguez 1/30/2019 8:08:48 AM DD

Reviewed By: ENM 1/30/19

LB IO 1/30/19

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	IO 01/30/19
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

Chain-of-Custody Record

Client: Rule Engineering

Mailing Address: 501 Airport Dr, Ste 205
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

QA/QC Package: tjlong@eprod.com

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name: Enterprise Federal 13-22 # 2

Project #:

Project Manager: Heather Woods

Sampler: Heather Woods

On Ice: ☒ Yes ☐ No

# of Coolers:

Cooler Temp(including CF): 2.8°c

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1901B10	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4 300.0	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/29/19	1040	Soil	SC-1	(1) 4oz Glass	Non	-001	X	X					X			
1/29/19	1047	Soil	SC-2			-002	X	X					X			
1/29/19	1053	Soil	SC-3			-003	X	X					X			
1/29/19	1100	Soil	SC-4			-004	X	X					X			
1/29/19	1106	Soil	SC-5			-005	X	X					X			
1/29/19	1112	Soil	SC-6			-006	X	X					X			
1/29/19	1119	Soil	SC-7			-007	X	X					X			

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1/29/19	1640	Heather M. Woods			1/29/19	1640
1/29/19	1740			Courier	1/30/19	8:00

Remarks: Direct Bill to Enterprise
Attn: Tom Long
Non-AFE: N40090

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 04, 2019

Heather Woods

Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 325-1055
FAX

RE: Enterprise Federal 13-22 2 OrderNo.: 1902001

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 4 sample(s) on 2/1/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1902001**
Date Reported: **2/4/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-8
Project: Enterprise Federal 13-22 2
Collection Date: 1/31/2019 2:05:00 PM
Lab ID: 1902001-001 **Matrix:** SOIL **Received Date:** 2/1/2019 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	220	9.3		mg/Kg	1	2/1/2019 10:27:06 AM	42931
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/1/2019 10:27:06 AM	42931
Surr: DNOP	95.6	50.6-138		%Rec	1	2/1/2019 10:27:06 AM	42931
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	9800	180		mg/Kg	50	2/1/2019 9:33:34 AM	G57420
Surr: BFB	434	73.8-119	S	%Rec	50	2/1/2019 9:33:34 AM	G57420
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	14	0.90		mg/Kg	50	2/1/2019 9:33:34 AM	B57420
Toluene	210	7.2		mg/Kg	200	2/1/2019 2:51:29 PM	B57420
Ethylbenzene	44	1.8		mg/Kg	50	2/1/2019 9:33:34 AM	B57420
Xylenes, Total	400	3.6		mg/Kg	50	2/1/2019 9:33:34 AM	B57420
Surr: 4-Bromofluorobenzene	132	80-120	S	%Rec	50	2/1/2019 9:33:34 AM	B57420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1902001**
Date Reported: **2/4/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC- 9
Project: Enterprise Federal 13-22 2
Collection Date: 1/31/2019 2:10:00 PM
Lab ID: 1902001-002 **Matrix:** SOIL **Received Date:** 2/1/2019 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	290	9.6		mg/Kg	1	2/1/2019 10:49:08 AM	42931
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/1/2019 10:49:08 AM	42931
Surr: DNOP	102	50.6-138		%Rec	1	2/1/2019 10:49:08 AM	42931
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	15000	230		mg/Kg	50	2/1/2019 9:56:22 AM	G57420
Surr: BFB	486	73.8-119	S	%Rec	50	2/1/2019 9:56:22 AM	G57420
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	26	1.1		mg/Kg	50	2/1/2019 9:56:22 AM	B57420
Toluene	310	9.0		mg/Kg	200	2/1/2019 3:14:08 PM	B57420
Ethylbenzene	64	2.3		mg/Kg	50	2/1/2019 9:56:22 AM	B57420
Xylenes, Total	560	18		mg/Kg	200	2/1/2019 3:14:08 PM	B57420
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	200	2/1/2019 3:14:08 PM	B57420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1902001**
Date Reported: **2/4/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-10
Project: Enterprise Federal 13-22 2
Collection Date: 1/31/2019 2:15:00 PM
Lab ID: 1902001-003 **Matrix:** SOIL **Received Date:** 2/1/2019 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	210	9.3		mg/Kg	1	2/1/2019 11:11:11 AM	42931
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/1/2019 11:11:11 AM	42931
Surr: DNOP	104	50.6-138		%Rec	1	2/1/2019 11:11:11 AM	42931
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	8800	200		mg/Kg	50	2/1/2019 10:19:08 AM	G57420
Surr: BFB	381	73.8-119	S	%Rec	50	2/1/2019 10:19:08 AM	G57420
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	13	1.0		mg/Kg	50	2/1/2019 10:19:08 AM	B57420
Toluene	200	8.0		mg/Kg	200	2/1/2019 5:08:10 PM	B57420
Ethylbenzene	42	2.0		mg/Kg	50	2/1/2019 10:19:08 AM	B57420
Xylenes, Total	380	4.0		mg/Kg	50	2/1/2019 10:19:08 AM	B57420
Surr: 4-Bromofluorobenzene	127	80-120	S	%Rec	50	2/1/2019 10:19:08 AM	B57420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1902001**
Date Reported: **2/4/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-11
Project: Enterprise Federal 13-22 2
Collection Date: 1/31/2019 2:20:00 PM
Lab ID: 1902001-004 **Matrix:** SOIL **Received Date:** 2/1/2019 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	330	9.9		mg/Kg	1	2/1/2019 11:33:07 AM	42931
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/1/2019 11:33:07 AM	42931
Surr: DNOP	102	50.6-138		%Rec	1	2/1/2019 11:33:07 AM	42931
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	4600	85		mg/Kg	20	2/1/2019 10:41:56 AM	G57420
Surr: BFB	1010	73.8-119	S	%Rec	20	2/1/2019 10:41:56 AM	G57420
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	3.7	0.42		mg/Kg	20	2/1/2019 10:41:56 AM	B57420
Toluene	71	0.85		mg/Kg	20	2/1/2019 10:41:56 AM	B57420
Ethylbenzene	19	0.85		mg/Kg	20	2/1/2019 10:41:56 AM	B57420
Xylenes, Total	190	1.7		mg/Kg	20	2/1/2019 10:41:56 AM	B57420
Surr: 4-Bromofluorobenzene	152	80-120	S	%Rec	20	2/1/2019 10:41:56 AM	B57420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902001**

04-Feb-19

Client: Rule Engineering LLC

Project: Enterprise Federal 13-22 2

Sample ID	**LCS-42931**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID:	**42931**		RunNo:	**57413**					
Prep Date:	**2/1/2019**	Analysis Date:	**2/1/2019**		SeqNo:	**1920947**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	51	10	50.00	0	103	63.9	124				
Surr: DNOP	4.6		5.000		91.1	50.6	138				

Sample ID	**MB-42931**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID:	**42931**		RunNo:	**57413**					
Prep Date:	**2/1/2019**	Analysis Date:	**2/1/2019**		SeqNo:	**1920948**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	9.4		10.00		94.0	50.6	138				

Sample ID	**1902001-004AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**SC-11**	Batch ID:	**42931**		RunNo:	**57413**					
Prep Date:	**2/1/2019**	Analysis Date:	**2/1/2019**		SeqNo:	**1921007**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	350	9.9	49.36	330.8	32.4	53.5	126			S	
Surr: DNOP	4.9		4.936		99.1	50.6	138				

Sample ID	**1902001-004AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**SC-11**	Batch ID:	**42931**		RunNo:	**57413**					
Prep Date:	**2/1/2019**	Analysis Date:	**2/1/2019**		SeqNo:	**1921008**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	340	9.8	48.78	330.8	19.9	53.5	126	1.84	21.7	S	
Surr: DNOP	4.8		4.878		98.8	50.6	138	0	0		

Sample ID	**LCS-42920**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID:	**42920**		RunNo:	**57413**					
Prep Date:	**1/31/2019**	Analysis Date:	**2/1/2019**		SeqNo:	**1921491**	Units:	**%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	5.4		5.000		107	50.6	138				

Sample ID	**MB-42920**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID:	**42920**		RunNo:	**57413**					
Prep Date:	**1/31/2019**	Analysis Date:	**2/1/2019**		SeqNo:	**1921492**	Units:	**%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1902001**
04-Feb-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13-22 2

Sample ID	**MB-42920**	SampType:	**MBLK**	TestCode:	**EPA Method 8015M/D: Diesel Range Organics**
Client ID:	**PBS**	Batch ID:	**42920**	RunNo:	**57413**
Prep Date:	**1/31/2019**	Analysis Date:	**2/1/2019**	SeqNo:	**1921492** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		121	50.6	138			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902001**

04-Feb-19

Client: Rule Engineering LLC

Project: Enterprise Federal 13-22 2

Sample ID	**RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**G57420**	RunNo:	**57420**					
Prep Date:		Analysis Date:	**2/1/2019**	SeqNo:	**1921164**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.1	73.8	119			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**G57420**	RunNo:	**57420**					
Prep Date:		Analysis Date:	**2/1/2019**	SeqNo:	**1921165**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	80.1	123			
Surr: BFB	1100		1000		112	73.8	119			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902001**

04-Feb-19

Client: Rule Engineering LLC

Project: Enterprise Federal 13-22 2

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B57420**	RunNo: **57420**
Prep Date:	Analysis Date: **2/1/2019**	SeqNo: **1921178** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B57420**	RunNo: **57420**
Prep Date:	Analysis Date: **2/1/2019**	SeqNo: **1921179** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.8	80	120			
Toluene	0.94	0.050	1.000	0	94.0	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.5	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.0	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: RULE ENGINEERING LL Work Order Number: 1902001 RcptNo: 1

Received By: **Anne Thorne** 2/1/2019 7:55:00 AM Anne Thorne

Completed By: **Anne Thorne** 2/1/2019 8:09:14 AM Anne Thorne

Reviewed By: ENM 2/1/19

Labeled by: AT 02/01/19

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Courier		

Log In

3.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
6.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9.	VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10.	Were any sample containers received broken?	Yes ☐	No ☑	
11.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13.	Is it clear what analyses were requested?	Yes ☑	No ☐	
14.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Rule Engineering

Mailing Address: 501 Airport Dr. Ste 205
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name:
Enterprise Federal 13-22 #2

Project #:

Project Manager:
Heather Woods

Sampler: Heather Woods

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1902001	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/31/19	1405	Soil	SC-8	(1) 4oz Glass	Non	001	X	X								
1/31/19	1410	Soil	SC-9	1	1	002	X	X								
1/31/19	1415	Soil	SC-10	1	1	003	X	X								
1/31/19	1420	Soil	SC-11	1	1	004	X	X								

YES HL

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1/31/19	1710	Heather M. Woods			1/31/19	1710
1/31/19	1812				02/01/19	0705

Remarks:
Direct Bill to Enterprise
C/O Tom Long
Non-AFE: N40090

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 08, 2019

Heather Woods

Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 325-1055
FAX

RE: Enterprise Federal 13-22 2 OrderNo.: 1902168

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/6/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1902168**
Date Reported: **2/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: TP-1@20
Project: Enterprise Federal 13-22 2
Collection Date: 2/5/2019 1:30:00 PM
Lab ID: 1902168-001 **Matrix:** SOIL **Received Date:** 2/6/2019 8:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/7/2019 3:31:26 PM	43011
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2019 3:31:26 PM	43011
Surr: DNOP	116	50.6-138		%Rec	1	2/7/2019 3:31:26 PM	43011
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	110	9.6		mg/Kg	2	2/7/2019 1:08:02 PM	42999
Surr: BFB	321	73.8-119	S	%Rec	2	2/7/2019 1:08:02 PM	42999
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	2	2/7/2019 1:08:02 PM	42999
Toluene	1.2	0.096		mg/Kg	2	2/7/2019 1:08:02 PM	42999
Ethylbenzene	0.66	0.096		mg/Kg	2	2/7/2019 1:08:02 PM	42999
Xylenes, Total	7.3	0.19		mg/Kg	2	2/7/2019 1:08:02 PM	42999
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	2	2/7/2019 1:08:02 PM	42999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902168**

08-Feb-19

Client: Rule Engineering LLC

Project: Enterprise Federal 13-22 2

Sample ID	**MB-42999**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**42999**	RunNo:	**57556**					
Prep Date:	**2/6/2019**	Analysis Date:	**2/7/2019**	SeqNo:	**1925138**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		98.1	73.8	119			

Sample ID	**LCS-42999**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**42999**	RunNo:	**57556**					
Prep Date:	**2/6/2019**	Analysis Date:	**2/7/2019**	SeqNo:	**1925139**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	80.1	123			
Surr: BFB	1100		1000		114	73.8	119			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1902168**
08-Feb-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13-22 2

Sample ID	**MB-42999**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**42999**	RunNo:	**57556**					
Prep Date:	**2/6/2019**	Analysis Date:	**2/7/2019**	SeqNo:	**1925161**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		97.7	80	120			

Sample ID	**LCS-42999**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**42999**	RunNo:	**57556**					
Prep Date:	**2/6/2019**	Analysis Date:	**2/7/2019**	SeqNo:	**1925162**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.1	80	120			
Toluene	0.94	0.050	1.000	0	94.1	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **RULE ENGINEERING LL** Work Order Number: **1902168** RcptNo: **1**

Received By: **Desiree Dominguez** **2/6/2019 8:18:00 AM** DD

Completed By: **Isaiah Ortiz** **2/6/2019 8:48:39 AM** I-Ox

Reviewed By: IO 2/6/19

LB. DAD 2/6/19

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: DAD 2/6/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record

Client: Rule Engineering

Mailing Address: 501 Airport Dr, Ste 205
Farmington, NM 87401

Phone #: (505)716-2787

email or Fax#: hwoods@ruleengineering.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name:
Enterprise Federal 13-22 #2

Project #:

Project Manager:
Heather Woods

Sampler: Heather Woods

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.7°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMBs (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
2/05/19	my as per Heather					1902168												
~~1/15/19~~	1330	Soil	TP-1@20'	(1) 4oz Glass	Non	-001	X		X									

NES HW

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/5/19	1541	Heather M. Woods	Chant Ware	2/5/19	1541
2/5/19	1752	Chant Ware	Courier	2/6/19	8:18

Remarks:
Direct Bill to Enterprise
C/O: Tom Long
Non-AFE: N40090

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 26, 2019

Heather Woods
Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 325-1055
FAX

RE: Enterprise Federal 13-22 #2 OrderNo.: 1904839

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 9 sample(s) on 4/17/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1904839**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-1 @ 20
Project: Enterprise Federal 13-22 #2
Collection Date: 4/16/2019 11:13:00 AM
Lab ID: 1904839-001 **Matrix:** SOIL **Received Date:** 4/17/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	27	9.9		mg/Kg	1	4/23/2019 6:17:53 PM	44446
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/23/2019 6:17:53 PM	44446
Surr: DNOP	97.0	70-130		%Rec	1	4/23/2019 6:17:53 PM	44446
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	520	48		mg/Kg	10	4/19/2019 6:04:12 PM	44392
Surr: BFB	221	73.8-119	S	%Rec	10	4/19/2019 6:04:12 PM	44392
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.24		mg/Kg	10	4/19/2019 6:04:12 PM	44392
Toluene	5.5	0.48		mg/Kg	10	4/19/2019 6:04:12 PM	44392
Ethylbenzene	2.7	0.48		mg/Kg	10	4/19/2019 6:04:12 PM	44392
Xylenes, Total	29	0.96		mg/Kg	10	4/19/2019 6:04:12 PM	44392
Surr: 4-Bromofluorobenzene	96.8	80-120		%Rec	10	4/19/2019 6:04:12 PM	44392

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1904839**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-1 @ 22.5
Project: Enterprise Federal 13-22 #2
Collection Date: 4/16/2019 11:23:00 AM
Lab ID: 1904839-002 **Matrix:** SOIL **Received Date:** 4/17/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/23/2019 6:42:21 PM	44446
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/23/2019 6:42:21 PM	44446
Surr: DNOP	86.9	70-130		%Rec	1	4/23/2019 6:42:21 PM	44446
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	41	9.9		mg/Kg	2	4/19/2019 6:27:29 PM	44392
Surr: BFB	131	73.8-119	S	%Rec	2	4/19/2019 6:27:29 PM	44392
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	2	4/19/2019 6:27:29 PM	44392
Toluene	0.11	0.099		mg/Kg	2	4/19/2019 6:27:29 PM	44392
Ethylbenzene	ND	0.099		mg/Kg	2	4/19/2019 6:27:29 PM	44392
Xylenes, Total	0.89	0.20		mg/Kg	2	4/19/2019 6:27:29 PM	44392
Surr: 4-Bromofluorobenzene	91.4	80-120		%Rec	2	4/19/2019 6:27:29 PM	44392

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1904839**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-1 @ 30
Project: Enterprise Federal 13-22 #2
Collection Date: 4/16/2019 11:43:00 AM
Lab ID: 1904839-003 **Matrix:** SOIL **Received Date:** 4/17/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	18	9.8		mg/Kg	1	4/23/2019 7:06:40 PM	44446
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/23/2019 7:06:40 PM	44446
Surr: DNOP	91.0	70-130		%Rec	1	4/23/2019 7:06:40 PM	44446
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/19/2019 9:35:38 PM	44413
Surr: BFB	86.8	73.8-119		%Rec	1	4/19/2019 9:35:38 PM	44413
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/19/2019 9:35:38 PM	44413
Toluene	ND	0.048		mg/Kg	1	4/19/2019 9:35:38 PM	44413
Ethylbenzene	ND	0.048		mg/Kg	1	4/19/2019 9:35:38 PM	44413
Xylenes, Total	ND	0.096		mg/Kg	1	4/19/2019 9:35:38 PM	44413
Surr: 4-Bromofluorobenzene	86.2	80-120		%Rec	1	4/19/2019 9:35:38 PM	44413

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1904839**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-2 @ 10
Project: Enterprise Federal 13-22 #2
Collection Date: 4/16/2019 9:45:00 AM
Lab ID: 1904839-004 **Matrix:** SOIL **Received Date:** 4/17/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	10	9.3		mg/Kg	1	4/23/2019 7:31:01 PM	44446
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/23/2019 7:31:01 PM	44446
Surr: DNOP	99.5	70-130		%Rec	1	4/23/2019 7:31:01 PM	44446
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/19/2019 10:46:15 PM	44413
Surr: BFB	87.6	73.8-119		%Rec	1	4/19/2019 10:46:15 PM	44413
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/19/2019 10:46:15 PM	44413
Toluene	ND	0.047		mg/Kg	1	4/19/2019 10:46:15 PM	44413
Ethylbenzene	ND	0.047		mg/Kg	1	4/19/2019 10:46:15 PM	44413
Xylenes, Total	ND	0.095		mg/Kg	1	4/19/2019 10:46:15 PM	44413
Surr: 4-Bromofluorobenzene	88.1	80-120		%Rec	1	4/19/2019 10:46:15 PM	44413

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1904839**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-2 @ 15
Project: Enterprise Federal 13-22 #2
Collection Date: 4/16/2019 9:58:00 AM
Lab ID: 1904839-005 **Matrix:** SOIL **Received Date:** 4/17/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/23/2019 7:55:23 PM	44446
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/23/2019 7:55:23 PM	44446
Surr: DNOP	91.8	70-130		%Rec	1	4/23/2019 7:55:23 PM	44446
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/19/2019 11:56:32 PM	44413
Surr: BFB	87.0	73.8-119		%Rec	1	4/19/2019 11:56:32 PM	44413
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/19/2019 11:56:32 PM	44413
Toluene	ND	0.048		mg/Kg	1	4/19/2019 11:56:32 PM	44413
Ethylbenzene	ND	0.048		mg/Kg	1	4/19/2019 11:56:32 PM	44413
Xylenes, Total	ND	0.095		mg/Kg	1	4/19/2019 11:56:32 PM	44413
Surr: 4-Bromofluorobenzene	87.2	80-120		%Rec	1	4/19/2019 11:56:32 PM	44413

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1904839**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-2 @ 25
Project: Enterprise Federal 13-22 #2
Collection Date: 4/16/2019 10:20:00 AM
Lab ID: 1904839-006 **Matrix:** SOIL **Received Date:** 4/17/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/23/2019 8:19:46 PM	44446
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/23/2019 8:19:46 PM	44446
Surr: DNOP	91.4	70-130		%Rec	1	4/23/2019 8:19:46 PM	44446
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/20/2019 12:20:06 AM	44413
Surr: BFB	87.4	73.8-119		%Rec	1	4/20/2019 12:20:06 AM	44413
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/20/2019 12:20:06 AM	44413
Toluene	ND	0.048		mg/Kg	1	4/20/2019 12:20:06 AM	44413
Ethylbenzene	ND	0.048		mg/Kg	1	4/20/2019 12:20:06 AM	44413
Xylenes, Total	ND	0.095		mg/Kg	1	4/20/2019 12:20:06 AM	44413
Surr: 4-Bromofluorobenzene	86.4	80-120		%Rec	1	4/20/2019 12:20:06 AM	44413

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1904839**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-3 @ 12.5
Project: Enterprise Federal 13-22 #2
Collection Date: 4/16/2019 12:47:00 PM
Lab ID: 1904839-007 **Matrix:** SOIL **Received Date:** 4/17/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/23/2019 8:44:00 PM	44446
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/23/2019 8:44:00 PM	44446
Surr: DNOP	89.0	70-130		%Rec	1	4/23/2019 8:44:00 PM	44446
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/20/2019 12:43:43 AM	44413
Surr: BFB	87.9	73.8-119		%Rec	1	4/20/2019 12:43:43 AM	44413
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/20/2019 12:43:43 AM	44413
Toluene	ND	0.050		mg/Kg	1	4/20/2019 12:43:43 AM	44413
Ethylbenzene	ND	0.050		mg/Kg	1	4/20/2019 12:43:43 AM	44413
Xylenes, Total	ND	0.10		mg/Kg	1	4/20/2019 12:43:43 AM	44413
Surr: 4-Bromofluorobenzene	88.3	80-120		%Rec	1	4/20/2019 12:43:43 AM	44413

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1904839**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-3 @ 20
Project: Enterprise Federal 13-22 #2
Collection Date: 4/16/2019 1:08:00 PM
Lab ID: 1904839-008 **Matrix:** SOIL **Received Date:** 4/17/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/23/2019 9:08:19 PM	44446
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/23/2019 9:08:19 PM	44446
Surr: DNOP	94.2	70-130		%Rec	1	4/23/2019 9:08:19 PM	44446
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/20/2019 1:07:11 AM	44413
Surr: BFB	86.2	73.8-119		%Rec	1	4/20/2019 1:07:11 AM	44413
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/20/2019 1:07:11 AM	44413
Toluene	ND	0.047		mg/Kg	1	4/20/2019 1:07:11 AM	44413
Ethylbenzene	ND	0.047		mg/Kg	1	4/20/2019 1:07:11 AM	44413
Xylenes, Total	ND	0.095		mg/Kg	1	4/20/2019 1:07:11 AM	44413
Surr: 4-Bromofluorobenzene	86.0	80-120		%Rec	1	4/20/2019 1:07:11 AM	44413

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1904839**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-3 @ 25
Project: Enterprise Federal 13-22 #2
Collection Date: 4/16/2019 1:19:00 PM
Lab ID: 1904839-009 **Matrix:** SOIL **Received Date:** 4/17/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/23/2019 9:32:31 PM	44446
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/23/2019 9:32:31 PM	44446
Surr: DNOP	89.5	70-130		%Rec	1	4/23/2019 9:32:31 PM	44446
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/20/2019 1:30:42 AM	44413
Surr: BFB	85.8	73.8-119		%Rec	1	4/20/2019 1:30:42 AM	44413
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	4/20/2019 1:30:42 AM	44413
Toluene	ND	0.047		mg/Kg	1	4/20/2019 1:30:42 AM	44413
Ethylbenzene	ND	0.047		mg/Kg	1	4/20/2019 1:30:42 AM	44413
Xylenes, Total	ND	0.093		mg/Kg	1	4/20/2019 1:30:42 AM	44413
Surr: 4-Bromofluorobenzene	85.8	80-120		%Rec	1	4/20/2019 1:30:42 AM	44413

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904839**
26-Apr-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13-22 #2

Sample ID: **MB-44446**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **44446**	RunNo: **59340**
Prep Date: **4/19/2019**	Analysis Date: **4/23/2019**	SeqNo: **1998807** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		90.4	70	130			

Sample ID: **LCS-44446**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **44446**	RunNo: **59340**
Prep Date: **4/19/2019**	Analysis Date: **4/23/2019**	SeqNo: **1998808** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	95.0	63.9	124			
Surr: DNOP	4.4		5.000		87.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904839**
26-Apr-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13-22 #2

Sample ID: **MB-44392**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **44392**	RunNo: **59305**
Prep Date: **4/17/2019**	Analysis Date: **4/19/2019**	SeqNo: **1996962** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		88.2	73.8	119			

Sample ID: **LCS-44392**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **44392**	RunNo: **59305**
Prep Date: **4/17/2019**	Analysis Date: **4/19/2019**	SeqNo: **1996963** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.2	80.1	123			
Surr: BFB	990		1000		99.3	73.8	119			

Sample ID: **MB-44413**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **44413**	RunNo: **59305**
Prep Date: **4/18/2019**	Analysis Date: **4/19/2019**	SeqNo: **1996985** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.4	73.8	119			

Sample ID: **LCS-44413**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **44413**	RunNo: **59305**
Prep Date: **4/18/2019**	Analysis Date: **4/19/2019**	SeqNo: **1996986** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.6	80.1	123			
Surr: BFB	980		1000		97.8	73.8	119			

Sample ID: **1904839-003AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SB-1 @ 30**	Batch ID: **44413**	RunNo: **59305**
Prep Date: **4/18/2019**	Analysis Date: **4/19/2019**	SeqNo: **1996990** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	24.02	0	97.1	69.1	142			
Surr: BFB	920		960.6		96.3	73.8	119			

Sample ID: **1904839-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SB-1 @ 30**	Batch ID: **44413**	RunNo: **59305**
Prep Date: **4/18/2019**	Analysis Date: **4/19/2019**	SeqNo: **1996991** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904839**
26-Apr-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13-22 #2

Sample ID: **1904839-003AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SB-1 @ 30** Batch ID: **44413** RunNo: **59305**
Prep Date: **4/18/2019** Analysis Date: **4/19/2019** SeqNo: **1996991** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.56	0	97.8	69.1	142	2.89	20	
Surr: BFB	970		982.3		98.9	73.8	119	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904839**
26-Apr-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13-22 #2

Sample ID: **MB-44392**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **44392**	RunNo: **59305**
Prep Date: **4/17/2019**	Analysis Date: **4/19/2019**	SeqNo: **1997004** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.88		1.000		88.4	80	120			

Sample ID: **LCS-44392**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **44392**	RunNo: **59305**
Prep Date: **4/17/2019**	Analysis Date: **4/19/2019**	SeqNo: **1997005** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.6	80	120			
Toluene	0.96	0.050	1.000	0	95.8	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.8	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.4	80	120			
Surr: 4-Bromofluorobenzene	0.90		1.000		89.6	80	120			

Sample ID: **MB-44413**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **44413**	RunNo: **59305**
Prep Date: **4/18/2019**	Analysis Date: **4/19/2019**	SeqNo: **1997021** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.86		1.000		86.1	80	120			

Sample ID: **LCS-44413**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **44413**	RunNo: **59305**
Prep Date: **4/18/2019**	Analysis Date: **4/19/2019**	SeqNo: **1997022** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.0	80	120			
Toluene	0.94	0.050	1.000	0	94.0	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.2	80	120			
Surr: 4-Bromofluorobenzene	0.86		1.000		86.2	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904839**
26-Apr-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13-22 #2

Sample ID: **1904839-004AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SB-2 @ 10** Batch ID: **44413** RunNo: **59305**
Prep Date: **4/18/2019** Analysis Date: **4/19/2019** SeqNo: **1997027** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.023	0.9372	0	89.3	63.9	127			
Toluene	0.89	0.047	0.9372	0.01206	94.1	69.9	131			
Ethylbenzene	0.89	0.047	0.9372	0	95.5	71	132			
Xylenes, Total	2.7	0.094	2.812	0.01462	96.3	71.8	131			
Surr: 4-Bromofluorobenzene	0.83		0.9372		88.2	80	120			

Sample ID: **1904839-004AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SB-2 @ 10** Batch ID: **44413** RunNo: **59305**
Prep Date: **4/18/2019** Analysis Date: **4/19/2019** SeqNo: **1997028** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.023	0.9390	0	90.0	63.9	127	0.946	20	
Toluene	0.90	0.047	0.9390	0.01206	94.9	69.9	131	0.960	20	
Ethylbenzene	0.91	0.047	0.9390	0	97.0	71	132	1.78	20	
Xylenes, Total	2.8	0.094	2.817	0.01462	97.8	71.8	131	1.73	20	
Surr: 4-Bromofluorobenzene	0.83		0.9390		88.6	80	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **RULE ENGINEERING LL** Work Order Number: **1904839** RcptNo: 1

Received By: **Victoria Zellar** **4/17/2019 8:30:00 AM** Victoria Zellar

Completed By: **Erin Melendrez** **4/17/2019 8:45:40 AM**

Reviewed By: ENM 4/17/19

LB: DAD 4/17/19

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: DAD 4/17/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good	Yes			

Chain-of-Custody Record

Client: Rule Engineering

Mailing Address: 501 Airport Dr, Ste 205
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
Enterprise Federal 13-22 #2

Project #:

Project Manager:
Heather Woods

Sampler: Heather Woods
On Ice: ☒ Yes ☐ No
# of Coolers: 1 (CF=0.2)
Cooler Temp(including CF): 3.1°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1904839	BTEX / MTBE / TMBs (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/16/19	1113	Soil	SB-1@20	(1) 4oz Glass	Non	-001	X	X								
4/16/19	1123	Soil	SB-1@22.5	(1) 4oz Glass	Non	-002	X	X								
4/16/19	1143	Soil	SB-1@30	(1) 4oz Glass	Non	-003	X	X								
4/16/19	0945	Soil	SB-2@10	(1) 4oz Glass	Non	-004	X	X								
4/16/19	0950	Soil	SB-2@15	(1) 4oz Glass	Non	-005	X	X								
4/16/19	1020	Soil	SB-2@25	(1) 4oz Glass	Non	-006	X	X								
4/16/19	1247	Soil	SB-3@12.5	(1) 4oz Glass	Non	-007	X	X								
4/16/19	1308	Soil	SB-3@20	(1) 4oz Glass	Non	-008	X	X								
4/16/19	1319	Soil	SB-3@25	(1) 4oz Glass	Non	-009	X	X								
			NFS HW													

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/16/19	1741	Heath M. Woods	Chris Walla		4/16/19	1741
4/16/19	1806	Chris Walla		Courier VVZ 4/17/19	4/17/19	0830

Remarks:
Direct Bill to Enterprise

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 19, 2019

Heather Woods
Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 325-1055
FAX

RE: Enterprise Federal 13-22 2 OrderNo.: 1904756

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 6 sample(s) on 4/16/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1904756**
Date Reported: **4/19/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-4 @12.5'
Project: Enterprise Federal 13-22 2
Collection Date: 4/15/2019 2:49:00 PM
Lab ID: 1904756-001 **Matrix:** SOIL **Received Date:** 4/16/2019 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/17/2019 9:06:52 PM	44365
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/17/2019 9:06:52 PM	44365
Surr: DNOP	96.9	70-130		%Rec	1	4/17/2019 9:06:52 PM	44365
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/17/2019 5:05:29 PM	44350
Surr: BFB	88.7	73.8-119		%Rec	1	4/17/2019 5:05:29 PM	44350
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/17/2019 5:05:29 PM	44350
Toluene	ND	0.048		mg/Kg	1	4/17/2019 5:05:29 PM	44350
Ethylbenzene	ND	0.048		mg/Kg	1	4/17/2019 5:05:29 PM	44350
Xylenes, Total	ND	0.097		mg/Kg	1	4/17/2019 5:05:29 PM	44350
Surr: 4-Bromofluorobenzene	88.2	80-120		%Rec	1	4/17/2019 5:05:29 PM	44350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Analytical Report
Lab Order **1904756**
Date Reported: **4/19/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-4@20'
Project: Enterprise Federal 13-22 2
Collection Date: 4/15/2019 3:15:00 PM
Lab ID: 1904756-002 **Matrix:** SOIL **Received Date:** 4/16/2019 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/17/2019 9:30:46 PM	44365
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/17/2019 9:30:46 PM	44365
Surr: DNOP	99.6	70-130		%Rec	1	4/17/2019 9:30:46 PM	44365
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/17/2019 5:28:54 PM	44350
Surr: BFB	92.0	73.8-119		%Rec	1	4/17/2019 5:28:54 PM	44350
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/17/2019 5:28:54 PM	44350
Toluene	ND	0.050		mg/Kg	1	4/17/2019 5:28:54 PM	44350
Ethylbenzene	ND	0.050		mg/Kg	1	4/17/2019 5:28:54 PM	44350
Xylenes, Total	ND	0.10		mg/Kg	1	4/17/2019 5:28:54 PM	44350
Surr: 4-Bromofluorobenzene	90.7	80-120		%Rec	1	4/17/2019 5:28:54 PM	44350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

Analytical Report
Lab Order **1904756**
Date Reported: **4/19/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-4@25'
Project: Enterprise Federal 13-22 2
Collection Date: 4/15/2019 3:25:00 PM
Lab ID: 1904756-003 **Matrix:** SOIL **Received Date:** 4/16/2019 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/17/2019 5:28:40 PM	44375
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/17/2019 5:28:40 PM	44375
Surr: DNOP	101	70-130		%Rec	1	4/17/2019 5:28:40 PM	44375
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/17/2019 5:52:23 PM	44350
Surr: BFB	88.3	73.8-119		%Rec	1	4/17/2019 5:52:23 PM	44350
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/17/2019 5:52:23 PM	44350
Toluene	ND	0.050		mg/Kg	1	4/17/2019 5:52:23 PM	44350
Ethylbenzene	ND	0.050		mg/Kg	1	4/17/2019 5:52:23 PM	44350
Xylenes, Total	ND	0.099		mg/Kg	1	4/17/2019 5:52:23 PM	44350
Surr: 4-Bromofluorobenzene	87.6	80-120		%Rec	1	4/17/2019 5:52:23 PM	44350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

Analytical Report
Lab Order **1904756**
Date Reported: **4/19/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-5@17.5'
Project: Enterprise Federal 13-22 2
Collection Date: 4/15/2019 12:45:00 PM
Lab ID: 1904756-004 **Matrix:** SOIL **Received Date:** 4/16/2019 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/17/2019 6:34:57 PM	44375
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/17/2019 6:34:57 PM	44375
Surr: DNOP	92.7	70-130		%Rec	1	4/17/2019 6:34:57 PM	44375
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/17/2019 7:02:56 PM	44350
Surr: BFB	92.3	73.8-119		%Rec	1	4/17/2019 7:02:56 PM	44350
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/17/2019 7:02:56 PM	44350
Toluene	ND	0.048		mg/Kg	1	4/17/2019 7:02:56 PM	44350
Ethylbenzene	ND	0.048		mg/Kg	1	4/17/2019 7:02:56 PM	44350
Xylenes, Total	ND	0.096		mg/Kg	1	4/17/2019 7:02:56 PM	44350
Surr: 4-Bromofluorobenzene	91.6	80-120		%Rec	1	4/17/2019 7:02:56 PM	44350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Analytical Report
Lab Order **1904756**
Date Reported: **4/19/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-5@25'
Project: Enterprise Federal 13-22 2
Collection Date: 4/15/2019 1:23:00 PM
Lab ID: 1904756-005 **Matrix:** SOIL **Received Date:** 4/16/2019 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/17/2019 6:56:55 PM	44375
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/17/2019 6:56:55 PM	44375
Surr: DNOP	100	70-130		%Rec	1	4/17/2019 6:56:55 PM	44375
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/17/2019 7:26:22 PM	44350
Surr: BFB	90.0	73.8-119		%Rec	1	4/17/2019 7:26:22 PM	44350
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/17/2019 7:26:22 PM	44350
Toluene	ND	0.050		mg/Kg	1	4/17/2019 7:26:22 PM	44350
Ethylbenzene	ND	0.050		mg/Kg	1	4/17/2019 7:26:22 PM	44350
Xylenes, Total	ND	0.099		mg/Kg	1	4/17/2019 7:26:22 PM	44350
Surr: 4-Bromofluorobenzene	90.3	80-120		%Rec	1	4/17/2019 7:26:22 PM	44350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

Analytical Report
Lab Order **1904756**
Date Reported: **4/19/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SB-5@30'
Project: Enterprise Federal 13-22 2
Collection Date: 4/15/2019 1:39:00 PM
Lab ID: 1904756-006 **Matrix:** SOIL **Received Date:** 4/16/2019 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/17/2019 7:18:58 PM	44375
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/17/2019 7:18:58 PM	44375
Surr: DNOP	97.5	70-130		%Rec	1	4/17/2019 7:18:58 PM	44375
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/17/2019 7:49:54 PM	44350
Surr: BFB	90.8	73.8-119		%Rec	1	4/17/2019 7:49:54 PM	44350
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/17/2019 7:49:54 PM	44350
Toluene	ND	0.049		mg/Kg	1	4/17/2019 7:49:54 PM	44350
Ethylbenzene	ND	0.049		mg/Kg	1	4/17/2019 7:49:54 PM	44350
Xylenes, Total	ND	0.099		mg/Kg	1	4/17/2019 7:49:54 PM	44350
Surr: 4-Bromofluorobenzene	90.8	80-120		%Rec	1	4/17/2019 7:49:54 PM	44350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904756**
19-Apr-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13-22 2

Sample ID: **MB-44365**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **44365**	RunNo: **59217**							
Prep Date: **4/16/2019**	Analysis Date: **4/17/2019**	SeqNo: **1993697**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		97.6	70	130			

Sample ID: **LCS-44365**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **44365**	RunNo: **59217**							
Prep Date: **4/16/2019**	Analysis Date: **4/17/2019**	SeqNo: **1993698**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.0	63.9	124			
Surr: DNOP	4.9		5.000		98.0	70	130			

Sample ID: **LCS-44375**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **44375**	RunNo: **59198**							
Prep Date: **4/16/2019**	Analysis Date: **4/17/2019**	SeqNo: **1994878**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	63.9	124			
Surr: DNOP	4.8		5.000		96.2	70	130			

Sample ID: **MB-44375**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **44375**	RunNo: **59198**							
Prep Date: **4/16/2019**	Analysis Date: **4/17/2019**	SeqNo: **1994879**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	70	130			

Sample ID: **1904756-003AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **SB-4@25'**	Batch ID: **44375**	RunNo: **59198**							
Prep Date: **4/16/2019**	Analysis Date: **4/17/2019**	SeqNo: **1994881**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.8	48.88	2.874	105	53.5	126			
Surr: DNOP	4.8		4.888		98.9	70	130			

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904756**

19-Apr-19

Client: Rule Engineering LLC

Project: Enterprise Federal 13-22 2

Sample ID: **1904756-003AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **SB-4@25'** Batch ID: **44375** RunNo: **59198**

Prep Date: **4/16/2019** Analysis Date: **4/17/2019** SeqNo: **1994882** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.3	46.69	2.874	101	53.5	126	7.37	21.7	
Surr: DNOP	4.7		4.669		100	70	130	0	0	

Sample ID: **LCS-44417** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **44417** RunNo: **59244**

Prep Date: **4/18/2019** Analysis Date: **4/18/2019** SeqNo: **1995026** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.1	70	130			

Sample ID: **MB-44417** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **44417** RunNo: **59244**

Prep Date: **4/18/2019** Analysis Date: **4/18/2019** SeqNo: **1995028** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		96.0	70	130			

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904756**
19-Apr-19

Client: Rule Engineering LLC
Project: Enterprise Federal 13-22 2

Sample ID: **MB-44350** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **44350** RunNo: **59231**
Prep Date: **4/16/2019** Analysis Date: **4/17/2019** SeqNo: **1994106** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.3	73.8	119			

Sample ID: **LCS-44350** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **44350** RunNo: **59231**
Prep Date: **4/16/2019** Analysis Date: **4/17/2019** SeqNo: **1994107** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.7	80.1	123			
Surr: BFB	1100		1000		108	73.8	119			

Sample ID: **MB-44371** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **44371** RunNo: **59231**
Prep Date: **4/16/2019** Analysis Date: **4/17/2019** SeqNo: **1994130** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		91.2	73.8	119			

Sample ID: **LCS-44371** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **44371** RunNo: **59231**
Prep Date: **4/16/2019** Analysis Date: **4/17/2019** SeqNo: **1994131** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	73.8	119			

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904756**

19-Apr-19

Client: Rule Engineering LLC

Project: Enterprise Federal 13-22 2

Sample ID: **MB-44350** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **44350** RunNo: **59231**

Prep Date: **4/16/2019** Analysis Date: **4/17/2019** SeqNo: **1994155** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.88		1.000		87.7	80	120			

Sample ID: **LCS-44350** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **44350** RunNo: **59231**

Prep Date: **4/16/2019** Analysis Date: **4/17/2019** SeqNo: **1994156** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.3	80	120			
Toluene	0.95	0.050	1.000	0	95.3	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.5	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		92.5	80	120			

Sample ID: **MB-44371** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **44371** RunNo: **59231**

Prep Date: **4/16/2019** Analysis Date: **4/17/2019** SeqNo: **1994173** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		91.0	80	120			

Sample ID: **LCS-44371** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **44371** RunNo: **59231**

Prep Date: **4/16/2019** Analysis Date: **4/17/2019** SeqNo: **1994174** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		91.3	80	120			

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **RULE ENGINEERING LL** Work Order Number: **1904756** RcptNo: **1**

Received By: **Desiree Dominguez** **4/16/2019 8:15:00 AM** DD

Completed By: **Leah Baca** **4/16/2019 8:46:01 AM** Leah S Baca

Reviewed By: YG 4/16/19

Labeled by DAD 4/16/19

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: DAD 4/16/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Yes			
2	3.7	Good	Yes			

Chain-of-Custody Record

Client: Rule Engineering

Mailing Address: 501 Airport Dr, Ste 205

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com tjlong@eprod.com

QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: Enterprise Federal 13-22 #2

Project #:

Project Manager: Heather Woods

Sampler: Heather Woods

On Ice: ☒ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 3.3°c, 3.7°c

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1904756	BTEX / ~~MTBE~~ / ~~TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/15/19	1449	Soil	SB-4 @ 12.5'	(1) 4oz Glass	Non	-001	X	X								
4/15/19	1515	Soil	SB-4 @ 20'	(1) 4oz Glass	Non	-002	X	X								
4/15/19	1525	Soil	SB-4 @ 25'	(1) 4oz Glass	Non	-003	X	X								
4/15/19	1245	Soil	SB-5 @ 17.5'	(1) 4oz Glass	Non	-004	X	X								
4/15/19	1323	Soil	SB-5 @ 25'	(1) 4oz Glass	Non	-005	X	X								
4/15/19	1339	Soil	SB-5 @ 30'	(1) 4oz Glass	Non	-006	X	X								

NFS HW

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4/15/19	1738	Heath M. Woods	Mista Walls		4/15/19	1738
4/15/19	1821	Mista Walls		courier	4/16/19	8:15

Remarks: Direct bill to Enterprise

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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 10296

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
ENTERPRISE FIELD SERVICES, LLC	PO Box 4324	Houston, TX77210	241602	10296	C-141

OCD Reviewer	Condition
csmith	Deferral approved, until Well P&A or until the area is cleared of equipment which ever comes first. Release to remain open until closure submitted.