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TALON LPE

Remediation and Closure Report

Vega 29 Federal #002H
API # 30-015-39864
*2RP-5484
Talon Project #700794.289.01

Prepared For:

Devon Energy Production Company
6488 Seven Rivers Hwy
Artesia, NM 88210

Prepared By:

TALON/LPE
408 W. Texas Avenue
Artesia, New Mexico 88210

Februarary 25, 2020

Mr. Mike Bratcher
NMOCD District 2
811 S. 1st Street
Artesia, NM 88210

Subject: **Remediation and Closure Report**
Vega 29 Federal #002H
API # 30-015-39864 *2RP-5484

Dear Mr. Bratcher,

Devon Energy Production Company (Devon Energy) contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above-referenced location. The incident descriptions, soil sampling results, remedial actions, and closure requests are presented herein.

Site Information

The Vega 29 is located approximately twenty-six (26) miles northeast of Carlsbad, New Mexico. The legal location for this release is Unit Letter B, Section 29, Township 19 South and Range 31 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.6382713 North and -103.8903656 West. A Site Map is presented in Appendix I.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Berino loamy fine sand, 0 to 3 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Holocene to middle Pleistocene in age and is comprised of eolian and piedmont deposits. Drainage courses in this area are well-drained.

Ground Water and Site Ranking

The New Mexico Office of the State Engineer Database indicates the nearest reported depth to groundwater is 140-feet below ground surface (BGS). See Appendix II for the referenced groundwater depth. This site is located within a low potential Karst area.

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

Approximate Depth to Groundwater	140 Feet/BGS

☐Yes ☒No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
☐Yes ☒No	Within 200 feet of any lakebed, sinkhole or a playa lake
☐Yes ☒No	Within 300 feet from an occupied permanent residence, school, hospital, institution or church
☐Yes ☒No	Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes
☐Yes ☒No	Within 1000 feet of any freshwater well or spring
☐Yes ☒No	Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
☐Yes ☒No	Within 300 feet of a wetland
☐Yes ☒No	Within the area overlying a subsurface mine
☐Yes ☒No	Within an unstable area
☐Yes ☒No	Within a 100-year floodplain

Table I
Closure Criteria for Soils Impacted by a Release

Depth below horizontal extents of release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
>100 feet	Total Chlorides***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Descriptions

On May 31, 2019, a release occurred due to the failure of a transfer pump shut off, causing the water tank to overflow. The spill area remained on location and inside the berm of the battery. The release volume was calculated to be 280 barrels (bbls) of produced water. Vac trucks were dispatched to the site to recover the spilled fluids and were able to recover 280 bbls. A site map is presented in Appendix I. The initial C-141 is attached in Appendix III.

Talon mobilized personnel and equipment to the site to begin assessment and remediation activities. The impacted area was excavated utilizing a backhoe and roustabout services.

Soil Sampling

6-3-19 Background Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			2500 mg/kg	20,000 mg/kg
S-4 (North)	6/3/2019	0-1	ND	ND	ND	ND	ND	ND	336
S-2 (South)	6/3/2019	0-1	ND	ND	ND	ND	ND	ND	32
S-3 (East)	6/3/2019	0-1	ND	ND	ND	ND	ND	ND	208
S-1 (West)	6/3/2019	0-1	ND	ND	ND	ND	ND	ND	288

ND-Analyte Not Detected

7-24-19 Spill Zone Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			2500 mg/kg	20,000 mg/kg
S-5	7/24/2019	0	ND	ND	ND	11	ND	11	8100
		1	ND	ND	ND	ND	ND	ND	12000
		2	ND	ND	ND	ND	ND	ND	3600
S-6	7/24/2019	0	ND	ND	ND	ND	ND	ND	9200
		1	ND	ND	ND	ND	ND	ND	2600
		2	ND	ND	ND	ND	ND	ND	2800
S-7	7/24/2019	0	ND	ND	ND	ND	ND	ND	**27000**
S-8	7/24/2019	0	ND	ND	ND	19	64	83	78

ND-Analyte Not Detected

On December 11, 2019, Talon personnel returned to the site to take confirmation samples from the bottom and sidewalls of the excavation in the area of S-7, which are represented in S-10, SW-2, SW-3, SW-6 and SW-7, to ensure that all environmental impacts had been addressed and were below NMOCD Closure Criteria 19.15.29.12 D NMAC.

12-11-19 Confirmation Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			20,000 mg/kg
SW-1	12/11/2019	0.5	ND
SW-2	12/11/2019	1	ND
SW-3	12/11/2019	1	320
SW-4	12/11/2019	1	3900
SW-5	12/11/2019	1	2100
SW-6	12/11/2019	1	110
SW-7	12/11/2019	1	170
S-9	12/11/2019	Composite	110
S-10	12/11/2019	Composite	280
S-11	12/11/2019	Composite	580
S-12	12/11/2019	Composite	7400
S-13	12/11/2019	Composite	14000

ND-Analyte Not Detected

See Appendix V for the complete report of laboratory results.

Remedial Actions

- The impacted area in the vicinity of S-7 was excavated to a depth of 1.0-foot below ground surface (BGS) with laboratory analytical results from confirmation bottom and sidewall soil samples indicating that Chloride concentrations were below NMOCD Closure Criteria 19.15.29.12 D NMAC.
- The stained area on location was scraped up, removing the staining.
- All contaminated soil was transported to Lea Land, LLC, an NMOCD approved soil waste disposal facility.
- The excavated area was backfilled with clean caliche, machine compacted and contoured to match the surrounding location.
- Final C-141 is attached in Appendix IV

Closure

Based on this site characterization and analytical results, we request that no further actions be required and that closure with regard to the attached incident be granted.

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

Respectfully submitted,

TALON/LPE

Chris Jones
Project Manager

Attachments:

Appendix I	Site Map, Karst Map, TOPO Map & Locator Map
Appendix II	Groundwater Data, FEMA Flood Zone, Soil Survey
Appendix III	Initial and Final C-141's
Appendix IV	Photographic Documentation
Appendix V	Laboratory Results

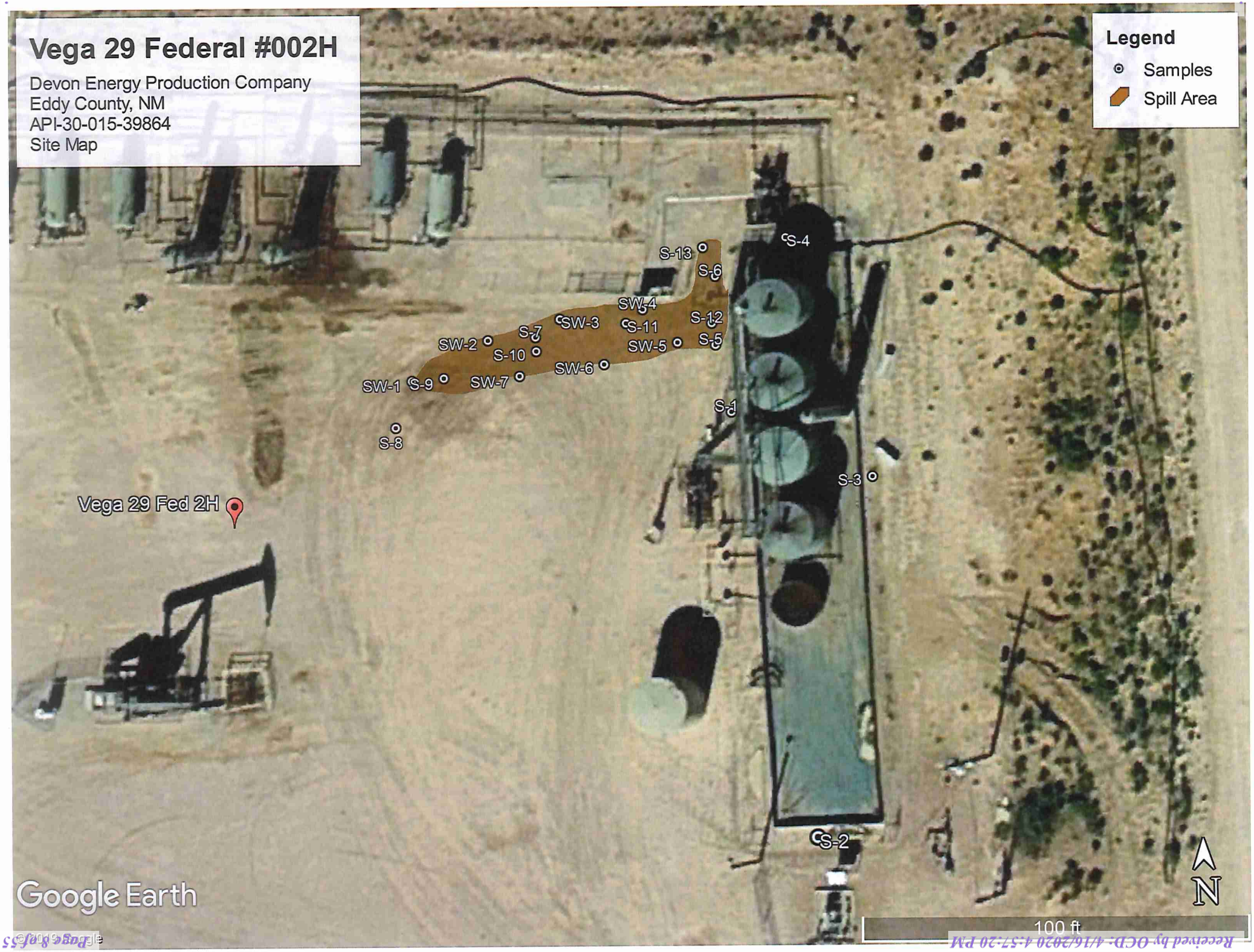
APPENDIX I

SITE MAP

KARST MAP

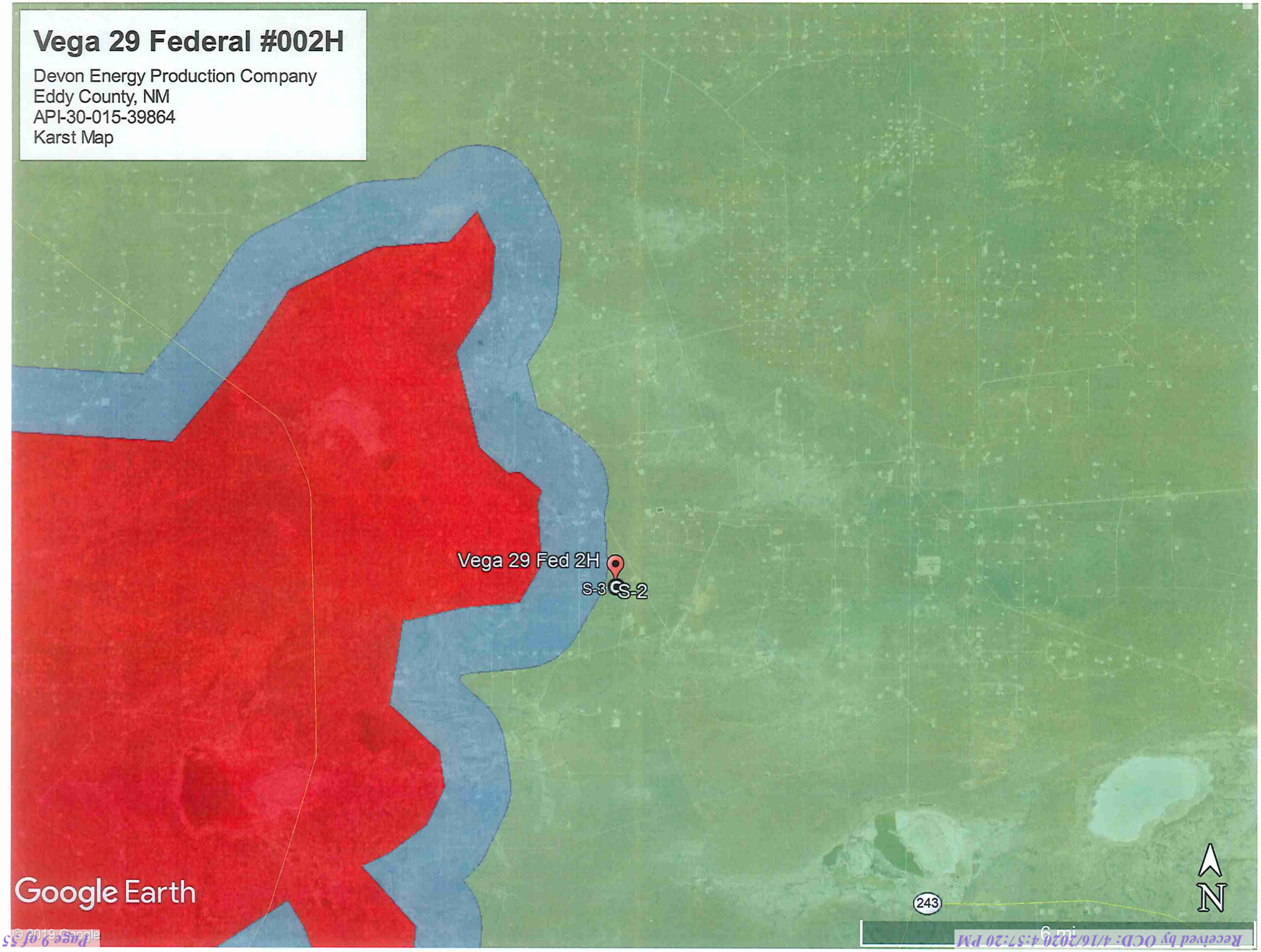
TOPO MAP

LOCATOR MAP



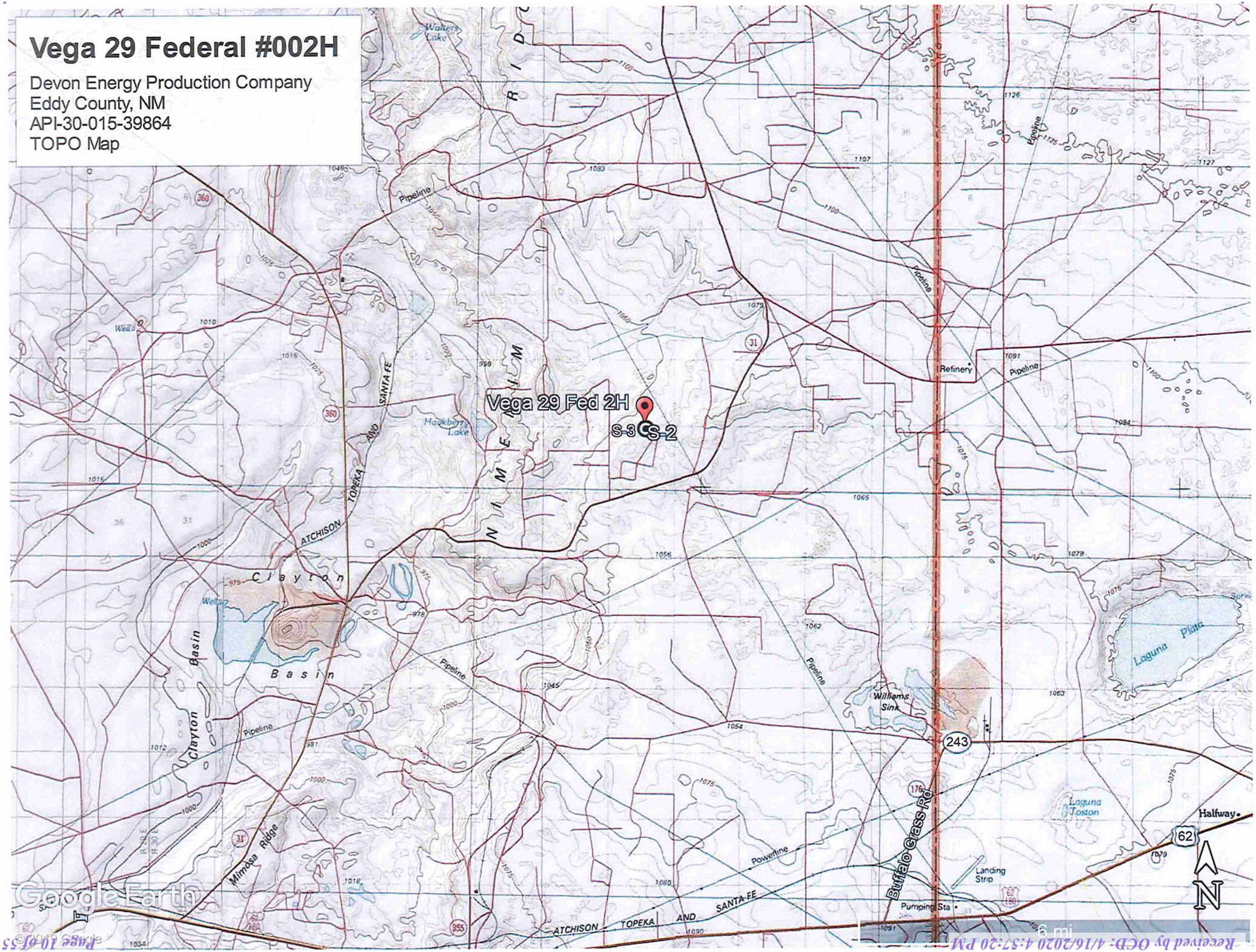
Vega 29 Federal #002H

Devon Energy Production Company
Eddy County, NM
API-30-015-39864
Karst Map



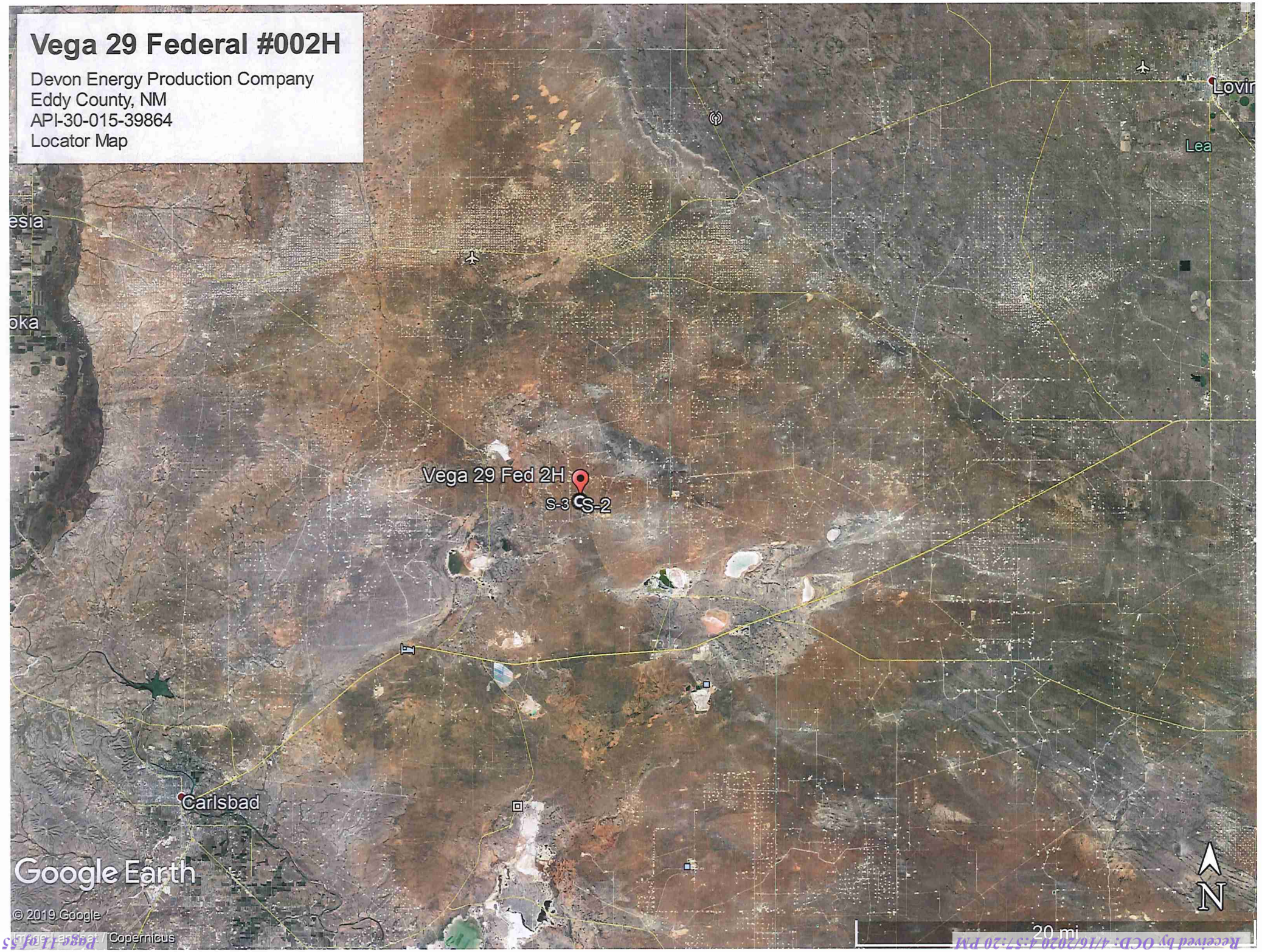
Vega 29 Federal #002H

Devon Energy Production Company
Eddy County, NM
API-30-015-39864
TOPO Map



Vega 29 Federal #002H

Devon Energy Production Company
Eddy County, NM
API-30-015-39864
Locator Map



APPENDIX II

GROUNDWATER DATA

SOIL SURVEY

FEMA FLOOD ZONE

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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00725 POD1		CP	ED	1	3	3	28	19S	31E	604906	3610473*	1502	231		
CP 00722 POD1		CP	LE	4	3	3	28	19S	31E	605106	3610273*	1780	200		
CP 00723 POD1		CP	ED	2	1	1	33	19S	31E	605111	3610071*	1952	139		
CP 00722 POD3		CP	LE	2	4	1	33	19S	31E	605519	3609673*	2509	220	140	80
CP 00873 POD1		CP	LE		1	1	19	19S	31E	601772	3613147*	2710	340	180	160

Average Depth to Water: **160 feet**

Minimum Depth: **140 feet**

Maximum Depth: **180 feet**

Record Count: 5

UTMNAD83 Radius Search (in meters):

Easting (X): 604081.954 **Northing (Y):** 3611729.86 **Radius:** 3000

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

12/17/19 7:48 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Eddy Area, New Mexico

KM—Kermit-Berino fine sands, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w4q
Elevation: 3,100 to 4,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 50 percent
Berino and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit

Setting

Landform: Plains, alluvial fans
Landform position (three-dimensional): Talf, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 7 inches: fine sand
H2 - 7 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: Deep Sand (R042XC005NM)
Hydric soil rating: No

Description of Berino

Setting

Landform: Fan piedmonts, plains
Landform position (three-dimensional): Riser
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 17 inches: fine sand
H2 - 17 to 50 inches: fine sandy loam
H3 - 50 to 58 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: Loamy Sand (R042XC003NM)
Hydric soil rating: No

Minor Components

Active dune land

Percent of map unit: 15 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 15, Sep 15, 2019

National Flood Hazard Layer FIRMette

FEMA

32°38'32.92"N

103°53'6.59"W

32°38'2.63"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, Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile *Zone*
- 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*

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

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 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 represe 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 1/8/2020 at 4:41:40 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.

APPENDIX III

INITIAL C-141

&

FINAL C-141

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	2RP-5484
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Devon Energy Production Company	OGRID 6137
Contact Name Amanda T. Davis	Contact Telephone 575-748-0176
Contact email amanda.davis@dvn.com	Incident # *(assigned by OCD)*
Contact mailing address 6488 Seven Rivers HWY	

Location of Release Source

Latitude 32.6382713 Longitude -103.8903656
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Vega 29 Federal #002H	Site Type Oil
Date Release Discovered 5/31/2019	API# *(if applicable)* 30-015-39864

Unit Letter	Section	Township	Range	County
B	29	19S	31E	Eddy

Surface Owner: ☐ State ■ Federal ☐ Tribal ☐ Private (*Name:* _____)

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) 280	Volume Recovered (bbls) 280
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: This release occurred due to the failure of a pump to shut off and caused the water tank to overflow. Spill area in lined containment 127'x27'x6". Spill outside of containment 72'x9'x1/8". All fluid remained on location.

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State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? This is considered a major release because it is over 25 BBLS.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Email notification sent to Debhorah Mckinne, Crystal Weaver, Robert Hamlet, Victoria Venegas, Mike Bratcher and Jim Griswold from Amanda Davis on 6/1/19.

Initial Response

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

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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

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

Printed Name: Kendra DeHoyos Title: EHS Associate

Signature: Kendra DeHoyos Date: 6/4/2019

email: kendra.dehoyos@dvn.com Telephone: 575-748-3371

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	140 (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.

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Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5484
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: Chris Jones

Title: Project Manager

Signature: _____

Date: 2-25-20

email: cjones@talonlpe.com

Telephone: 575-748-8768

OCD Only

Received by: _____

Date: _____

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

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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: Chris Jones — Title: Project Manager

Signature: _____ Date: 2-25-20

email: cjones@talonlpe.com — Telephone: 575-748-8768

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5484
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Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Chris Jones Title: Project Manager

Signature: _____ Date: 2-25-20

email: cjones@talonlpe.com Telephone: 575-748-8768

OCD Only

Received by: _____ Date: _____

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

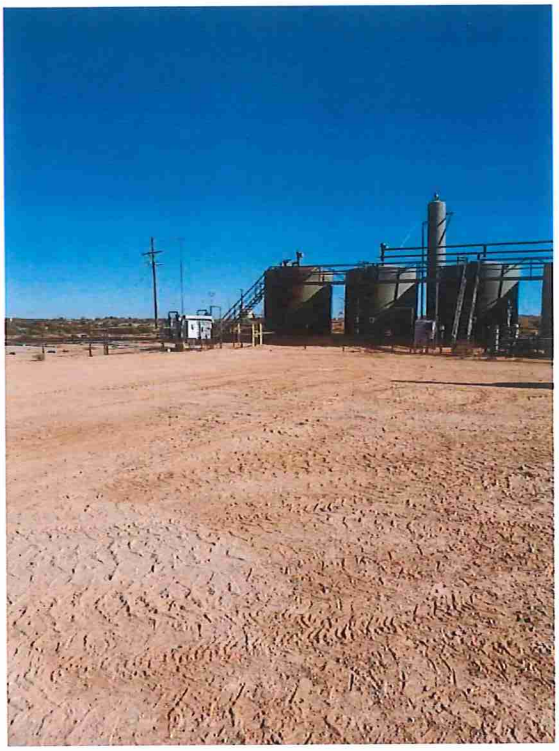
Closure Approved by: _____ Date: _____

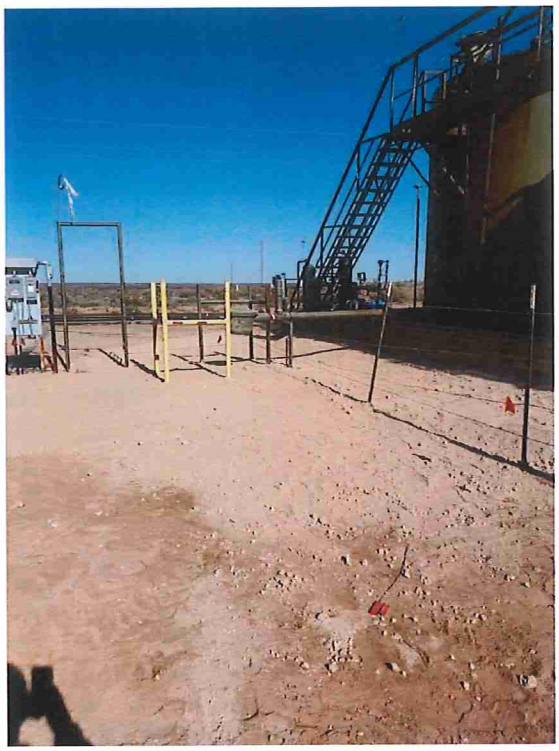
Printed Name: _____ Title: _____

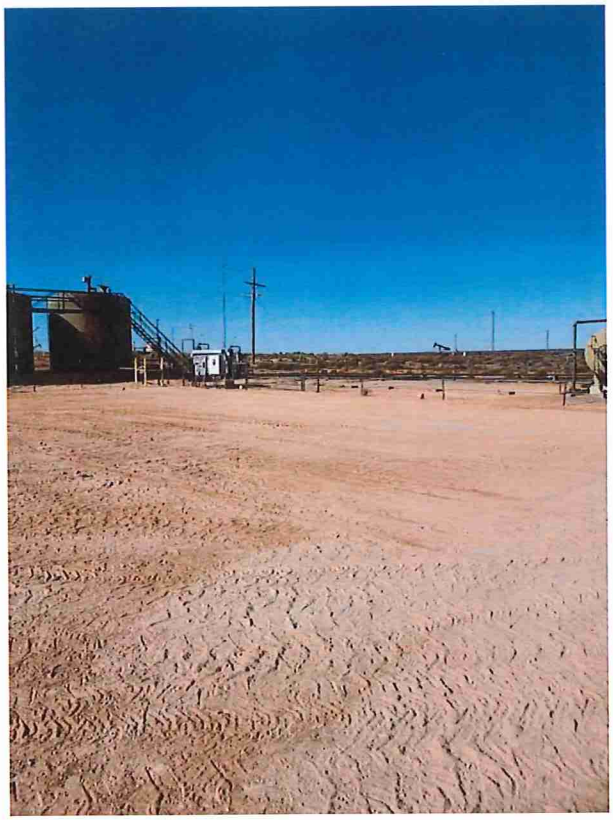
APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

Completed Project







APPENDIX V

LABORATORY DATA

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 11, 2019

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: VEGA 29 FED 2H

Enclosed are the results of analyses for samples received by the laboratory on 06/04/19 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TALON LPE
CHRIS JONES
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/04/2019	Sampling Date:	06/03/2019
Reported:	06/11/2019	Sampling Type:	Soil
Project Name:	VEGA 29 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	700794.289.01	Sample Received By:	Tamara Oldaker
Project Location:	DEVON- EDDY COUNTY		

Sample ID: NORTH 0-1' (H901960-01) S-4

BTEX 8021B mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2019	ND	2.26	113	2.00	0.855	
Toluene*	<0.050	0.050	06/08/2019	ND	2.24	112	2.00	0.690	
Ethylbenzene*	<0.050	0.050	06/08/2019	ND	2.10	105	2.00	3.24	
Total Xylenes*	<0.150	0.150	06/08/2019	ND	6.34	106	6.00	3.36	
Total BTEX	<0.300	0.300	06/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL *105 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	06/06/2019	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2019	ND	233	116	200	1.97	
DRO >C10-C28*	<10.0	10.0	06/06/2019	ND	213	106	200	2.48	
EXT DRO >C28-C36	<10.0	10.0	06/06/2019	ND					

Surrogate: 1-Chlorooctane *98.6 %* *41-142*

Surrogate: 1-Chlorooctadecane *96.8 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TALON LPE
CHRIS JONES
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/04/2019	Sampling Date:	06/03/2019
Reported:	06/11/2019	Sampling Type:	Soil
Project Name:	VEGA 29 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	700794.289.01	Sample Received By:	Tamara Oldaker
Project Location:	DEVON- EDDY COUNTY		

Sample ID: SOUTH 0-1' (H901960-02) S-2

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2019	ND	2.26	113	2.00	0.855	
Toluene*	<0.050	0.050	06/08/2019	ND	2.24	112	2.00	0.690	
Ethylbenzene*	<0.050	0.050	06/08/2019	ND	2.10	105	2.00	3.24	
Total Xylenes*	<0.150	0.150	06/08/2019	ND	6.34	106	6.00	3.36	
Total BTEX	<0.300	0.300	06/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL *105 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/06/2019	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2019	ND	233	116	200	1.97	
DRO >C10-C28*	<10.0	10.0	06/06/2019	ND	213	106	200	2.48	
EXT DRO >C28-C36	<10.0	10.0	06/06/2019	ND					

Surrogate: 1-Chlorooctane *97.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *96.1 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TALON LPE
CHRIS JONES
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/04/2019	Sampling Date:	06/03/2019
Reported:	06/11/2019	Sampling Type:	Soil
Project Name:	VEGA 29 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	700794.289.01	Sample Received By:	Tamara Oldaker
Project Location:	DEVON- EDDY COUNTY		

Sample ID: EAST 0-1' (H901960-03) S-3

BTEX 8021B mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2019	ND	2.26	113	2.00	0.855	
Toluene*	<0.050	0.050	06/08/2019	ND	2.24	112	2.00	0.690	
Ethylbenzene*	<0.050	0.050	06/08/2019	ND	2.10	105	2.00	3.24	
Total Xylenes*	<0.150	0.150	06/08/2019	ND	6.34	106	6.00	3.36	
Total BTEX	<0.300	0.300	06/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL *104 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	06/06/2019	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2019	ND	233	116	200	1.97	
DRO >C10-C28*	<10.0	10.0	06/06/2019	ND	213	106	200	2.48	
EXT DRO >C28-C36	<10.0	10.0	06/06/2019	ND					

Surrogate: 1-Chlorooctane *96.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *95.6 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TALON LPE
CHRIS JONES
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/04/2019	Sampling Date:	06/03/2019
Reported:	06/11/2019	Sampling Type:	Soil
Project Name:	VEGA 29 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	700794.289.01	Sample Received By:	Tamara Oldaker
Project Location:	DEVON- EDDY COUNTY		

Sample ID: WEST 0-1' (H901960-04) S-1

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2019	ND	2.26	113	2.00	0.855	
Toluene*	<0.050	0.050	06/08/2019	ND	2.24	112	2.00	0.690	
Ethylbenzene*	<0.050	0.050	06/08/2019	ND	2.10	105	2.00	3.24	
Total Xylenes*	<0.150	0.150	06/08/2019	ND	6.34	106	6.00	3.36	
Total BTEX	<0.300	0.300	06/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL 105 % 73.3-129

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**288**	16.0	06/06/2019	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2019	ND	233	116	200	1.97	
DRO >C10-C28*	<10.0	10.0	06/06/2019	ND	213	106	200	2.48	
EXT DRO >C28-C36	<10.0	10.0	06/06/2019	ND					

Surrogate: 1-Chlorooctane 99.7 % 41-142

Surrogate: 1-Chlorooctadecane 98.8 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Talon LPE	BILL TO
Project Manager: Chris Jones	P.O. #: 700794.289.01
Address: 408 W Texas Ave	Company: Talon LPE
City: Artesia State: NM Zip: 88210	Attn: David Adkins
Phone #: 575-746-8768 Fax #:	Address:
Project #: 700794.289.01 Project Owner: Devon	City:
Project Name: Vega 29 Fed 2H	State: Zip:
Project Location: Eddy County	Phone #:
Sampler Name: Brandon Sinclair	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TPH EXT	BTEX	Total Chlorides
H901960																	
1	North 0-1'	G				✓					✓		6/3/19	1300	✓	✓	✓
2	South 0-1'													1315			
3	East 0-1'													1330			
4	West 0-1'													1345			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 6-4-19	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 15:15		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 1.9° #197

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) TO

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

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

August 02, 2019

Chris Jones
Talon Artesia
408 West Texas Ave
Artesia, NM 88210
TEL:
FAX

RE: Vega 29 Fed 2H

OrderNo.: 1907E23

Dear Chris Jones:

Hall Environmental Analysis Laboratory received 8 sample(s) on 7/27/2019 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1907E23**
Date Reported: **8/2/2019**

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab ID: 1907E23-001 **Matrix:** SOIL

Client Sample ID: S-5 0'
Collection Date: 7/24/2019 4:15:00 PM
Received Date: 7/27/2019 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	8100	300		mg/Kg	100	8/1/2019 6:48:14 PM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	11	9.8		mg/Kg	1	7/30/2019 5:41:50 PM	46464
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/30/2019 5:41:50 PM	46464
Surr: DNOP	96.5	70-130		%Rec	1	7/30/2019 5:41:50 PM	46464
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/31/2019 9:38:36 AM	46447
Surr: BFB	112	73.8-119		%Rec	1	7/31/2019 9:38:36 AM	46447
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	7/31/2019 9:38:36 AM	46447
Toluene	ND	0.050		mg/Kg	1	7/31/2019 9:38:36 AM	46447
Ethylbenzene	ND	0.050		mg/Kg	1	7/31/2019 9:38:36 AM	46447
Xylenes, Total	ND	0.099		mg/Kg	1	7/31/2019 9:38:36 AM	46447
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	7/31/2019 9:38:36 AM	46447

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

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

Analytical Report
Lab Order **1907E23**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab ID: 1907E23-002 **Matrix:** SOIL

Client Sample ID: S-5 1'
Collection Date: 7/24/2019 4:20:00 PM
Received Date: 7/27/2019 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: **CAS**
Chloride	12000	600		mg/Kg	200	8/1/2019 7:00:39 PM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: **TOM**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/30/2019 6:49:10 PM	46464
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/30/2019 6:49:10 PM	46464
Surr: DNOP	97.9	70-130		%Rec	1	7/30/2019 6:49:10 PM	46464
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/31/2019 10:46:34 AM	46447
Surr: BFB	109	73.8-119		%Rec	1	7/31/2019 10:46:34 AM	46447
EPA METHOD 8021B: VOLATILES							Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	7/31/2019 10:46:34 AM	46447
Toluene	ND	0.049		mg/Kg	1	7/31/2019 10:46:34 AM	46447
Ethylbenzene	ND	0.049		mg/Kg	1	7/31/2019 10:46:34 AM	46447
Xylenes, Total	ND	0.098		mg/Kg	1	7/31/2019 10:46:34 AM	46447
Surr: 4-Bromofluorobenzene	96.5	80-120		%Rec	1	7/31/2019 10:46:34 AM	46447

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

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, Inc.

Analytical Report
Lab Order **1907E23**
Date Reported: **8/2/2019**

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab ID: 1907E23-003 **Matrix:** SOIL

Client Sample ID: S-5 2'
Collection Date: 7/24/2019 4:25:00 PM
Received Date: 7/27/2019 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	3600	150		mg/Kg	50	8/1/2019 7:13:03 PM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/30/2019 7:11:41 PM	46464
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/30/2019 7:11:41 PM	46464
Surr: DNOP	96.7	70-130		%Rec	1	7/30/2019 7:11:41 PM	46464
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/31/2019 11:54:41 AM	46447
Surr: BFB	109	73.8-119		%Rec	1	7/31/2019 11:54:41 AM	46447
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	7/31/2019 11:54:41 AM	46447
Toluene	ND	0.048		mg/Kg	1	7/31/2019 11:54:41 AM	46447
Ethylbenzene	ND	0.048		mg/Kg	1	7/31/2019 11:54:41 AM	46447
Xylenes, Total	ND	0.096		mg/Kg	1	7/31/2019 11:54:41 AM	46447
Surr: 4-Bromofluorobenzene	95.0	80-120		%Rec	1	7/31/2019 11:54:41 AM	46447

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

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

Analytical Report
Lab Order **1907E23**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab ID: 1907E23-004 **Matrix:** SOIL

Client Sample ID: S-6 0'
Collection Date: 7/24/2019 4:40:00 PM
Received Date: 7/27/2019 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	9200	300		mg/Kg	100	8/1/2019 7:25:28 PM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	7/30/2019 7:34:05 PM	46464
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/30/2019 7:34:05 PM	46464
Surr: DNOP	96.3	70-130		%Rec	1	7/30/2019 7:34:05 PM	46464
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/31/2019 12:17:24 PM	46447
Surr: BFB	114	73.8-119		%Rec	1	7/31/2019 12:17:24 PM	46447
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	7/31/2019 12:17:24 PM	46447
Toluene	ND	0.047		mg/Kg	1	7/31/2019 12:17:24 PM	46447
Ethylbenzene	ND	0.047		mg/Kg	1	7/31/2019 12:17:24 PM	46447
Xylenes, Total	ND	0.095		mg/Kg	1	7/31/2019 12:17:24 PM	46447
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	7/31/2019 12:17:24 PM	46447

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

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, Inc.

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab ID: 1907E23-005 **Matrix:** SOIL

Client Sample ID: S-6 1'
Collection Date: 7/24/2019 4:45:00 PM
Received Date: 7/27/2019 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	2600	150		mg/Kg	50	8/1/2019 7:37:53 PM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	7/30/2019 7:56:37 PM	46464
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	7/30/2019 7:56:37 PM	46464
Surr: DNOP	96.9	70-130		%Rec	1	7/30/2019 7:56:37 PM	46464
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/31/2019 12:40:07 PM	46447
Surr: BFB	116	73.8-119		%Rec	1	7/31/2019 12:40:07 PM	46447
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	7/31/2019 12:40:07 PM	46447
Toluene	ND	0.046		mg/Kg	1	7/31/2019 12:40:07 PM	46447
Ethylbenzene	ND	0.046		mg/Kg	1	7/31/2019 12:40:07 PM	46447
Xylenes, Total	ND	0.092		mg/Kg	1	7/31/2019 12:40:07 PM	46447
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	7/31/2019 12:40:07 PM	46447

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

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, Inc.

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab ID: 1907E23-006 **Matrix:** SOIL

Client Sample ID: S-6 2'
Collection Date: 7/24/2019 4:50:00 PM
Received Date: 7/27/2019 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	2800	150		mg/Kg	50	8/1/2019 7:50:18 PM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	7/30/2019 8:18:59 PM	46464
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	7/30/2019 8:18:59 PM	46464
Surr: DNOP	99.6	70-130		%Rec	1	7/30/2019 8:18:59 PM	46464
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/31/2019 1:02:52 PM	46447
Surr: BFB	106	73.8-119		%Rec	1	7/31/2019 1:02:52 PM	46447
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	7/31/2019 1:02:52 PM	46447
Toluene	ND	0.047		mg/Kg	1	7/31/2019 1:02:52 PM	46447
Ethylbenzene	ND	0.047		mg/Kg	1	7/31/2019 1:02:52 PM	46447
Xylenes, Total	ND	0.094		mg/Kg	1	7/31/2019 1:02:52 PM	46447
Surr: 4-Bromofluorobenzene	89.8	80-120		%Rec	1	7/31/2019 1:02:52 PM	46447

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

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, Inc.

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab ID: 1907E23-007 **Matrix:** SOIL

Client Sample ID: S-7 0'
Collection Date: 7/24/2019 5:00:00 PM
Received Date: 7/27/2019 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	27000	1500		mg/Kg	500	8/1/2019 8:02:42 PM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/30/2019 8:41:23 PM	46464
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/30/2019 8:41:23 PM	46464
Surr: DNOP	95.9	70-130		%Rec	1	7/30/2019 8:41:23 PM	46464
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/31/2019 1:25:40 PM	46447
Surr: BFB	112	73.8-119		%Rec	1	7/31/2019 1:25:40 PM	46447
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	7/31/2019 1:25:40 PM	46447
Toluene	ND	0.047		mg/Kg	1	7/31/2019 1:25:40 PM	46447
Ethylbenzene	ND	0.047		mg/Kg	1	7/31/2019 1:25:40 PM	46447
Xylenes, Total	ND	0.094		mg/Kg	1	7/31/2019 1:25:40 PM	46447
Surr: 4-Bromofluorobenzene	97.0	80-120		%Rec	1	7/31/2019 1:25:40 PM	46447

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

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, Inc.

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab ID: 1907E23-008 **Matrix:** SOIL

Client Sample ID: S-8 0'
Collection Date: 7/24/2019 5:10:00 PM
Received Date: 7/27/2019 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	78	60		mg/Kg	20	8/1/2019 12:20:16 AM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	19	9.4		mg/Kg	1	7/30/2019 9:25:59 PM	46464
Motor Oil Range Organics (MRO)	64	47		mg/Kg	1	7/30/2019 9:25:59 PM	46464
Surr: DNOP	96.1	70-130		%Rec	1	7/30/2019 9:25:59 PM	46464
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/31/2019 1:48:27 PM	46447
Surr: BFB	108	73.8-119		%Rec	1	7/31/2019 1:48:27 PM	46447
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	7/31/2019 1:48:27 PM	46447
Toluene	ND	0.046		mg/Kg	1	7/31/2019 1:48:27 PM	46447
Ethylbenzene	ND	0.046		mg/Kg	1	7/31/2019 1:48:27 PM	46447
Xylenes, Total	ND	0.092		mg/Kg	1	7/31/2019 1:48:27 PM	46447
Surr: 4-Bromofluorobenzene	90.4	80-120		%Rec	1	7/31/2019 1:48:27 PM	46447

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

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#: **1907E23**

02-Aug-19

Client: Talon Artesia

Project: Vega 29 Fed 2H

Sample ID: **MB-46523**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **46523**	RunNo: **61780**							
Prep Date: **7/31/2019**	Analysis Date: **7/31/2019**	SeqNo: **2095372**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-46523**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **46523**	RunNo: **61780**							
Prep Date: **7/31/2019**	Analysis Date: **7/31/2019**	SeqNo: **2095374**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	90	110			

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#: 1907E23

02-Aug-19

Client: Talon Artesia

Project: Vega 29 Fed 2H

Sample ID: **1907E23-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-5 0'** Batch ID: **46464** RunNo: **61704**

Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093478** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	9.9	49.55	11.34	87.4	57	142			
Surr: DNOP	4.8		4.955		95.9	70	130			

Sample ID: **1907E23-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-5 0'** Batch ID: **46464** RunNo: **61704**

Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093479** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.7	48.40	11.34	82.4	57	142	6.49	20	
Surr: DNOP	4.6		4.840		94.8	70	130	0	0	

Sample ID: **LCS-46464** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **46464** RunNo: **61704**

Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093499** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.2	63.9	124			
Surr: DNOP	4.2		5.000		84.6	70	130			

Sample ID: **MB-46464** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **46464** RunNo: **61704**

Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093500** 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	8.9		10.00		89.0	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#: 1907E23

02-Aug-19

Client: Talon Artesia

Project: Vega 29 Fed 2H

Sample ID: **1907E23-002AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **S-5 1'** Batch ID: **46447** RunNo: **61812**

Prep Date: **7/29/2019** Analysis Date: **7/31/2019** SeqNo: **2095446** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.7	23.54	0	108	69.1	142			
Surr: BFB	1200		941.6		125	73.8	119			S

Sample ID: **1907E23-002AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **S-5 1'** Batch ID: **46447** RunNo: **61812**

Prep Date: **7/29/2019** Analysis Date: **7/31/2019** SeqNo: **2095447** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.7	23.67	0	105	69.1	142	2.62	20	
Surr: BFB	1200		947.0		123	73.8	119	0	0	S

Sample ID: **LCS-46447** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **46447** RunNo: **61812**

Prep Date: **7/29/2019** Analysis Date: **7/31/2019** SeqNo: **2095478** 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	102	80.1	123			
Surr: BFB	1300		1000		125	73.8	119			S

Sample ID: **MB-46447** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **46447** RunNo: **61812**

Prep Date: **7/29/2019** Analysis Date: **7/31/2019** SeqNo: **2095481** 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	1100		1000		106	73.8	119			

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#: 1907E23

02-Aug-19

Client: Talon Artesia

Project: Vega 29 Fed 2H

Sample ID: **1907E23-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-5 0'** Batch ID: **46447** RunNo: **61812**

Prep Date: **7/29/2019** Analysis Date: **7/31/2019** SeqNo: **2095640** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9515	0	95.9	63.9	127			
Toluene	0.95	0.048	0.9515	0.01382	97.9	69.9	131			
Ethylbenzene	0.93	0.048	0.9515	0.01949	95.9	71	132			
Xylenes, Total	2.7	0.095	2.854	0.06629	93.2	71.8	131			
Surr: 4-Bromofluorobenzene	0.98		0.9515		103	80	120			

Sample ID: **1907E23-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-5 0'** Batch ID: **46447** RunNo: **61812**

Prep Date: **7/29/2019** Analysis Date: **7/31/2019** SeqNo: **2095641** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.023	0.9346	0	95.4	63.9	127	2.33	20	
Toluene	0.91	0.047	0.9346	0.01382	96.3	69.9	131	3.44	20	
Ethylbenzene	0.91	0.047	0.9346	0.01949	95.1	71	132	2.49	20	
Xylenes, Total	2.7	0.093	2.804	0.06629	92.7	71.8	131	2.30	20	
Surr: 4-Bromofluorobenzene	0.94		0.9346		101	80	120	0	0	

Sample ID: **LCS-46447** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **46447** RunNo: **61812**

Prep Date: **7/29/2019** Analysis Date: **7/31/2019** SeqNo: **2095673** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.6	80	120			
Toluene	1.0	0.050	1.000	0	99.9	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.6	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.2	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID: **MB-46447** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **46447** RunNo: **61812**

Prep Date: **7/29/2019** Analysis Date: **7/31/2019** SeqNo: **2095675** 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	0.93		1.000		93.5	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

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: TALON ARTESIA Work Order Number: 1907E23 RcptNo: 1

Received By: Yazmine Garduno 7/27/2019 9:07:00 AM

Completed By: Yazmine Garduno 7/27/2019 12:46:12 PM

Reviewed By: LB 7/29/19

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 7/29/19

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	5.9	Good	Yes			
2	2.5	Good	Yes			

Chain-of-Custody Record

Client: Talon LPE

Mailing Address: 408 W Texas Ave
Artesia, NM 88210

Phone #: 575-746-8768

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Vega 29 Fed 2H

Project #: 200794.289.01

Project Manager: Chris Jones

Sampler: Brandon Sinclair

On Ice: ☑ Yes ☐ No

Sample Temperature: 5.4 +0.5 CF = 5.9C

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 Request ID	Container Type and #	Preservative Type	HEAL No. 1907E23	BTEX + MTBE + TMB's (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)	Chlorides				Air Bubbles (Y or N)
7-24-19	1615	soil	S-5 0'	402 jar	ice	-001	✓		✓									✓				
	1620		S-5 1'			-002																
	1625		S-5 2'			-003																
	1640		S-6 0'			-004																
	1645		S-6 1'			-005																
	1650		S-6 2'			-006																
	1700		S-7 0'			-007																
	1710		S-8 0'			-008																

Date	Time	Relinquished by:	Received by:	Date	Time
7/26/19	11:55			7/26/19	1235
7/26/19	1900		cooler	7/27/19	0907

Remarks:
2 coolers
5.4C +0.5CF = 5.9C
2.0C +0.5CF = 2.5C

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
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Website: www.hallenvironmental.com

January 21, 2020

Chris Jones
Talon Artesia
408 West Texas Ave
Artesia, NM 88210
TEL:
FAX

RE: Vega 29 Fed 2H

OrderNo.: 1912766

Dear Chris Jones:

Hall Environmental Analysis Laboratory received 12 sample(s) on 12/14/2019 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued December 17, 2019.

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. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **1912766**
Date Reported: **1/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab Order: 1912766

Lab ID: 1912766-001
Client Sample ID: SW-1 0.5'
Collection Date: 12/11/2019 9:00:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	12/15/2019 10:34:09 AM	49348

Lab ID: 1912766-002
Client Sample ID: SW-2 1'
Collection Date: 12/11/2019 9:15:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	12/15/2019 11:11:10 AM	49348

Lab ID: 1912766-003
Client Sample ID: SW-3 1'
Collection Date: 12/11/2019 9:30:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	320	60		mg/Kg	20	12/15/2019 11:23:32 AM	49348

Lab ID: 1912766-004
Client Sample ID: SW-4 1'
Collection Date: 12/11/2019 9:45:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	3900	150		mg/Kg	50	12/16/2019 9:33:51 AM	49348

Lab ID: 1912766-005
Client Sample ID: SW-5 1'
Collection Date: 12/11/2019 10:00:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	2100	150		mg/Kg	50	12/16/2019 9:46:11 AM	49348

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

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, Inc.

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab Order: 1912766

Lab ID: 1912766-006 **Collection Date:** 12/11/2019 10:30:00 AM
Client Sample ID: SW-6 1' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	110	60		mg/Kg	20	12/15/2019 12:00:34 PM	49348

Lab ID: 1912766-007 **Collection Date:** 12/11/2019 10:45:00 AM
Client Sample ID: SW-7 1' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	170	60		mg/Kg	20	12/15/2019 12:37:37 PM	49348

Lab ID: 1912766-008 **Collection Date:** 12/11/2019 11:30:00 AM
Client Sample ID: S-9 1' Composite **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	110	60		mg/Kg	20	12/15/2019 12:49:59 PM	49348

Lab ID: 1912766-009 **Collection Date:** 12/11/2019 11:50:00 AM
Client Sample ID: S-10 1' Composite **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	280	60		mg/Kg	20	12/15/2019 1:02:19 PM	49348

Lab ID: 1912766-010 **Collection Date:** 12/11/2019 12:15:00 PM
Client Sample ID: S-11 1' Composite **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	580	60		mg/Kg	20	12/15/2019 1:14:40 PM	49348

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

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

Analytical Report
Lab Order: **1912766**
Date Reported: **1/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Vega 29 Fed 2H
Lab Order: 1912766

Lab ID: 1912766-011
Client Sample ID: S-12 1' Composite
Collection Date: 12/11/2019 12:35:00 PM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	7400	300		mg/Kg	100	12/16/2019 9:58:32 AM	49348

Lab ID: 1912766-012
Client Sample ID: S-13 1' Composite
Collection Date: 12/11/2019 12:55:00 PM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	14000	600		mg/Kg	200	12/16/2019 10:10:53 AM	49348

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

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

WO#: 1912766

Hall Environmental Analysis Laboratory, Inc.

21-Jan-20

Client: Talon Artesia
Project: Vega 29 Fed 2H

Sample ID: **MB-49348**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **49348**	RunNo: **65195**							
Prep Date: **12/15/2019**	Analysis Date: **12/15/2019**	SeqNo: **2237797**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49348**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **49348**	RunNo: **65195**							
Prep Date: **12/15/2019**	Analysis Date: **12/15/2019**	SeqNo: **2237798**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

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: TALON ARTESIA | Work Order Number: 1912766 | RcptNo: 1

Received By: Anne Thorne 12/14/2019 10:15:00 AM

Completed By: Anne Thorne 12/14/2019 10:23:52 AM

Reviewed By: 12/14

Chain of Custody

1. Is Chain of Custody sufficiently 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. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
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? 12/14/19

Checked by: AT

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	2.7	Good	Yes			

Chain-of-Custody Record

Client: Talon LPE

Mailing Address: 408 W Texas Ave
Artesia, NM 88210

Phone #: 575-746-8768

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: SAME DAY
☐ Standard ☑ ~~Rush 48 hrs~~ ST

Project Name: Vega 29 Fed 2H

Project #: 700794.289.01

Project Manager: Chris Jones

Sampler: Brandon Sinclair

On Ice: ☑ Yes ☐ No

Sample Temperature: 2,7 E 0.0 = 2,7

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 # (12/14/19 Meoh Kits)	Preservative Type	HEAL No. 1912766	BTEX + MTBE + TMB's (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)	Chlorides	Air Bubbles (Y or N)
12-11-19	0900	Soil	SW-1 0.5'	4 oz jar	ice	001	✓		✓									✓	
	0915		SW-2 1'			002													
	0930		SW-3 1'			003													
	0945		SW-4 1'			004													
	1000		SW-5 1'			005													
	1030		SW-6 1'			006													
	10:45		SW-7 1'			007													
	11:30		S-9 1' Composite			008													
	11:50		S-10 1' Composite			009													
	12:15		S-11 1' Composite			010													
	12:35		S-12 1' Composite			011													
	12:55		S-13 1' Composite			012													

Date:	Time:	Relinquished by:	Received by:	Date	Time
12-13-19	08:30	Brandon Sinclair	Christian Llano	12/13	0830
12/13	1900	Christian Llano		12/14/19	1015

Remarks:

Pg 1 of 1

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.