

talonlpe.com • 866.742.0742



Remediation and Closure Report

Stratojet 31 State Com #007H
API# 30-025-43792, 1RP-5146, 1RP-5278
Talon Project # 700778.135.01

Prepared For:

COG Operating LLC
600 West Illinois Avenue
Midland, Texas 79701

Prepared By:

TALON/LPE
408 West Texas Avenue
Artesia, New Mexico 88210

November, 2019

Mr. Rose-Coss
NMOCD District 1
1625 N. French Drive
Hobbs, NM 88240

Subject: **Remediation and Closure Report**
Stratojet 31 State Com #007H
API# 30-025-43792, 1RP-5146, 1RP-5278

Dear Mr. Rose-Coss,

COG Operating LLC (COG) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above-referenced location. The results of our site characterization and remedial activities completed to date are contained herein.

Site Information

The Stratojet 31 State Com #007H is located approximately twenty-five (25) miles southwest of Hobbs, New Mexico. The legal location for this release is Unit Letter N, Section 31, Township 20 South and Range 35 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.52456 North and -103.49931 West. A site plan 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 Kimbrough gravelly loam, dry, 0 to 3 percent slopes. The local surface and shallow geology is lower Pliocene to middle Miocene in age and is comprised of eolian and alluvial deposits and petrocalcic soils. Drainage courses in this area are typically dry.

The New Mexico Office of the State Engineer web site indicates that the shallowest depth to groundwater is 55' below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data.

Site Characterization

Pursuant to Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29 of the New Mexico Administrative Code (NMAC), 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.

Approximate Depth to Groundwater	55 Feet/BGS
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 200 feet of any lakebed, sinkhole or playa lake
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet from an occupied permanent residence, school, hospital, institution or church
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 1000 feet of any fresh water well or spring
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within incorporated municipal boundaries or within a defined Municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet of a wetland
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within the area overlying a subsurface mine
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within an unstable area
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within a 100-year floodplain

As this site does not meet any of the above criteria, it need not be treated as if it occurred in an area with less than 50-foot depth to groundwater. Therefore the closure criteria for this site are as follows:

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 CI B	10,000 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 Description

According to the C-141 as it was filed with the NMOCD: On August 4, 2018, 10 barrels (bbls) of crude oil, and 7 bbls of produced water leaked from the union off of the pump tee, of which 7 bbls of crude and 3 bbls of produced water respectively were recovered. The C-141 was received by the NMOCD on August 06, 2018 and issued Remediation Permit No. 1RP-5146.

According to the C-141 as it was filed with the NMOCD: On November 5, 2018 the housing on the back pressure valve was washed out, releasing 8 bbls of crude oil (5 of which were recovered) and 2 bbls of produced water (1 bbl was recovered). The C-141 received by the NMOCD on December 18, 2018 and issued Remediation Permit No. 1RP-5278.

Site Assessment

The initial site assessment was performed by HRL Compliance solutions on August 27, 2018. A second assessment was conducted on December 20, 2018 by TRC following the second incident (1RP-2578). A copy of each report can be found in [Appendix VI](#).

Following the remediation plans outlined in each report, on October 14, 2019, Talon began mobilizing personnel and equipment in order to commence remediation activities. On October 18, 2019, Talon personnel retrieved grab samples for the purpose of soil delineation. Based on the subsequent analytics, further excavation and sampling was performed on October 31, 2019. In addition, 9 samples were obtained near the perimeter of the excavation and tested utilizing a photo-ionization detector (PID). Results from our sampling events are presented in the following data table. A complete laboratory report can be found in [Appendix IV](#).

Sample ID	Depth (ft.)	Date	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	PID (ppm)
Closure Criteria 19.15.29.12 NMAC			DRO + GRO combined = 1000 mg/kg			2500 mg/kg	
SW-1	0.5	10/18/2019	ND	12.5	ND	12.5	-
SW-2	0.5	10/18/2019	ND	ND	ND	ND	-
SW-3	0.5	10/18/2019	ND	ND	ND	ND	-
SW-4	0.5	10/18/2019	ND	14.1	ND	14.1	-
SW-5	0.5	10/18/2019	ND	31.3	ND	31.3	-
SW-6	2.5	10/18/2019	32.2	1730	384	2146.2	-
SW-10	2.5	10/18/2019	ND	ND	ND	ND	-
SW-11	2.5	10/18/2019	30.6	2520	522	3072.6	-
S-1	0.5	10/18/2019	ND	12.5	ND	12.5	-
S-2	0.5	10/18/2019	ND	ND	ND	ND	-
S-3	0.5	10/18/2019	ND	206	41.4	247.4	-
S-4	0.5	10/18/2019	ND	ND	ND	ND	-
S-5	0.5	10/18/2019	ND	104	20.8	124.8	-
S-6	0.5	10/18/2019	ND	442	115	557.0	-
S-7	0.5	10/18/2019	ND	512	115	627.0	-
S-8	0.5	10/18/2019	ND	2260	559	2819.0	-
S-10	2.5	10/18/2019	ND	95.2	21.7	116.9	-
S-11	2.5	10/18/2019	ND	320	47.1	367.1	-
S-12	2.5	10/18/2019	ND	604	149	753.0	-
S-13	2.5	10/18/2019	ND	1570	1170	2740.0	-
S-14	2.5	10/18/2019	ND	ND	ND	ND	-
SW-7	2.5	10/21/2019	ND	104	41.7	145.7	-
SW-8	2.5	10/21/2019	ND	85.3	ND	85.3	-
S-9	0.5	10/21/2019	32.6	2260	339	2631.6	-
SW-9	2.5	10/21/2019	ND	ND	ND	ND	-
S-15	2.5	10/21/2019	ND	285	ND	285.0	-
S-16	2.5	10/21/2019	ND	92	ND	92.0	-
SW-6A	3	10/31/2019	ND	28.7	ND	28.7	-
S-13A	3	10/31/2019	ND	20.4	ND	20.4	-
SW-11A	3	10/31/2019	ND	498	49.5	547.5	-
S-8A	1	10/31/2019	ND	ND	ND	ND	-
S-9A	1	10/31/2019	ND	24.5	ND	24.5	-
P-1	0	10/31/2019	-	-	-	-	0
P-2	0	10/31/2019	-	-	-	-	0

Sample ID	Depth (ft.)	Date	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	PID (ppm)
P-3	0	10/31/2019	-	-	-	-	0
Closure Criteria 19.15.29.12 NMAC			DRO + GRO combined = 1000 mg/kg			2500 mg/kg	
P-4	0	10/31/2019	-	-	-	-	0
P-5	0	10/31/2019	-	-	-	-	0
P-6	0	10/31/2019	-	-	-	-	0
P-7	0	10/31/2019	-	-	-	-	0
P-8	0	10/31/2019	-	-	-	-	0
P-9	0	10/31/2019	-	-	-	-	0

“-“= Analyte Not Tested

ND=Not Detected

SW=Sidewall

P=PID Reading

Remedial Actions Performed

- The impacted area in the vicinity of sample points S-1 through S-7 was excavated to a total depth of 0.5-feet BGS. Excavation areas with their respective depths are illustrated on the attached site plan [Appendix II](#).
- The area near sample points S-8A and S-9A was excavated to 1.0-foot BGS.
- The region surrounding sample points S-10, S-12, S-14, S-15 and S-16 was removed to a depth of 2.5-feet.
- The section of the excavation which includes S-13A was removed to a depth of 3.0-feet.
- All of the excavated material was hauled to Lea Land, LLC, a NMOCD approved solid waste disposal facility.
- The excavated area was backfilled with new caliche, machine compacted and contoured to match the surrounding location.
- The Final C-141s formally documenting the remedial actions is attached in [Appendix III](#).

Closure

On behalf of COG, based on this assessment, we request that no further actions be required. Furthermore, that closure of the regulatory files in association with these incidents is 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

Brandon Sinclair
Environmental Scientist

Rebecca Pons
Project Manager

David J. Adkins
District Manager

Attachments:

- Appendix I Site Plan
- Appendix II Soil Survey, Groundwater Data & FEMA Flood Map
- Appendix III Final C-141
- Appendix IV Photographic Documentation
- Appendix V External Remediation Proposals
- Appendix VI Laboratory Data



APPENDIX I

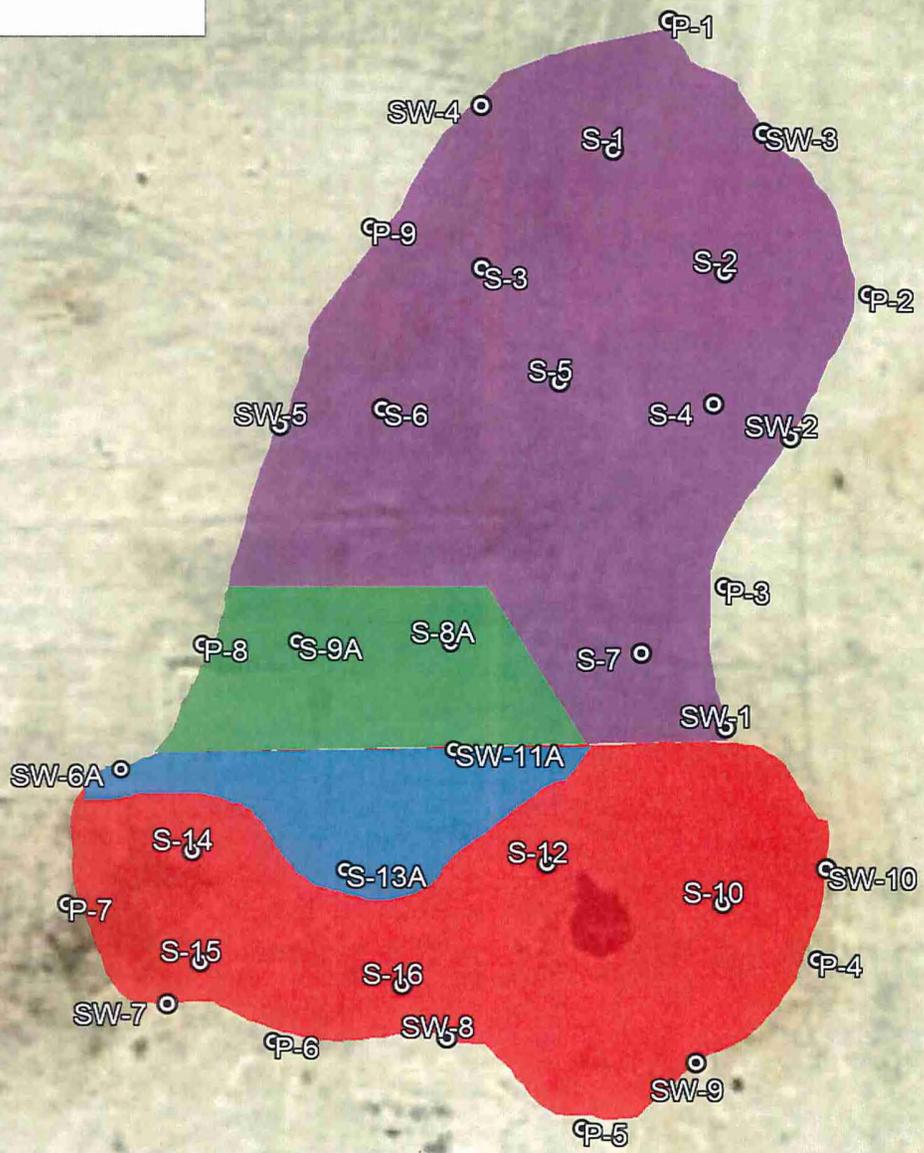
SITE MAPS

Stratojet 31 State Com #007H

COG Operating LLC
Lea County, NM
API # 30-025-43792
Excavation Map

Legend

-  0.5' Excavation
-  1' Excavation
-  2.5' Excavation
-  3' Excavation
-  Soil Sample



Google Earth

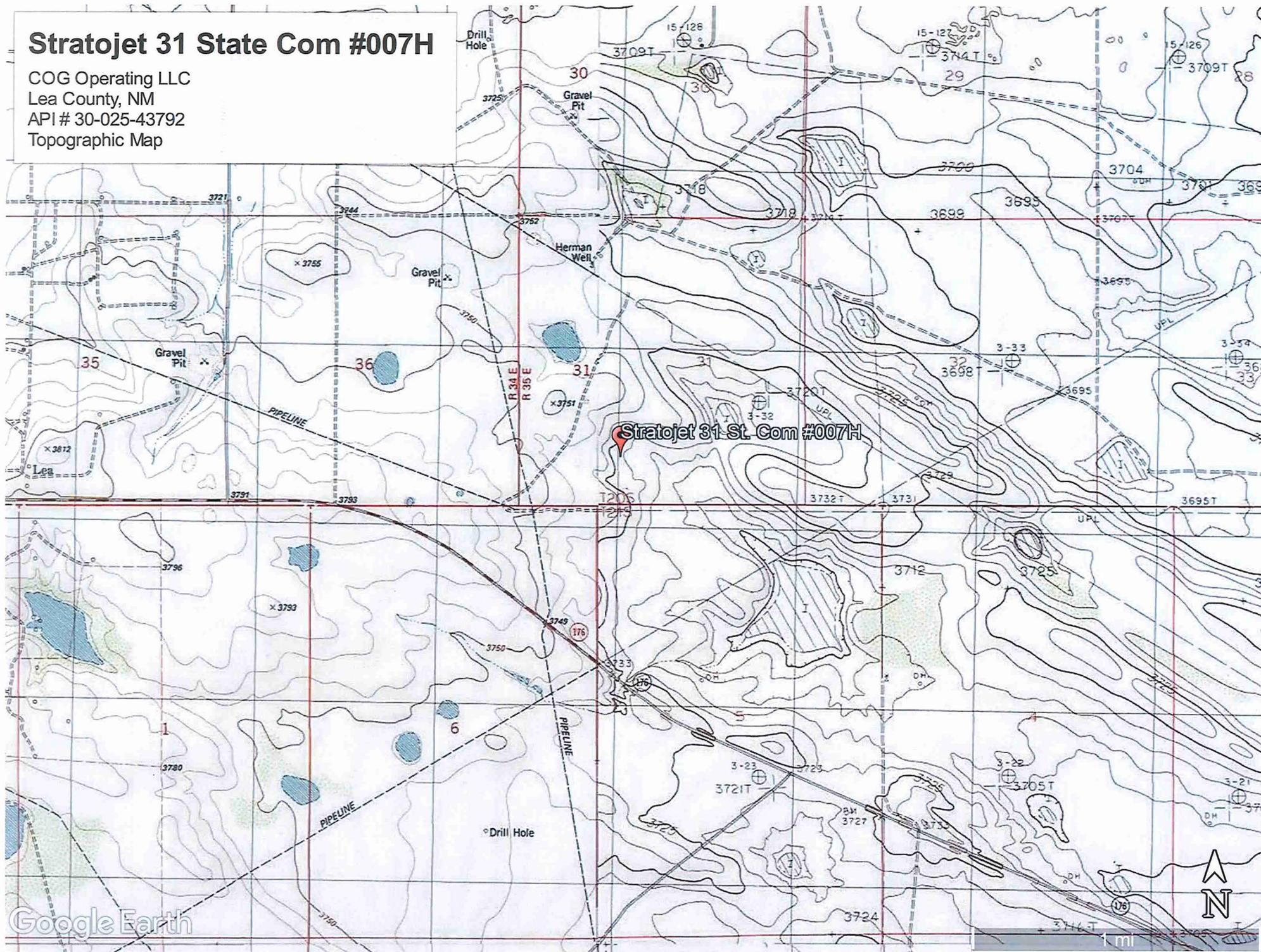
© 2013 Google



80 ft

Stratojet 31 State Com #007H

COG Operating LLC
Lea County, NM
API # 30-025-43792
Topographic Map



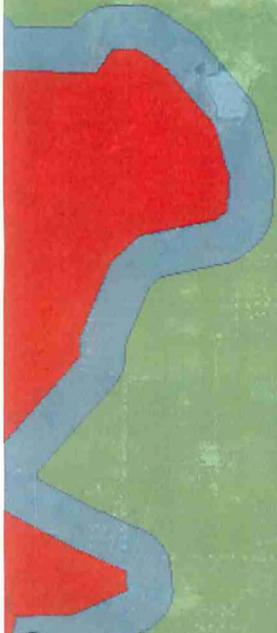
Stratojet 31 State Com #007H

COG Operating LLC
Lea County, NM
API # 30-025-43792
Karst Map

Legend

-  High
-  Low
-  Medium

 Stratojet 31 St. Com #007H



Google Earth

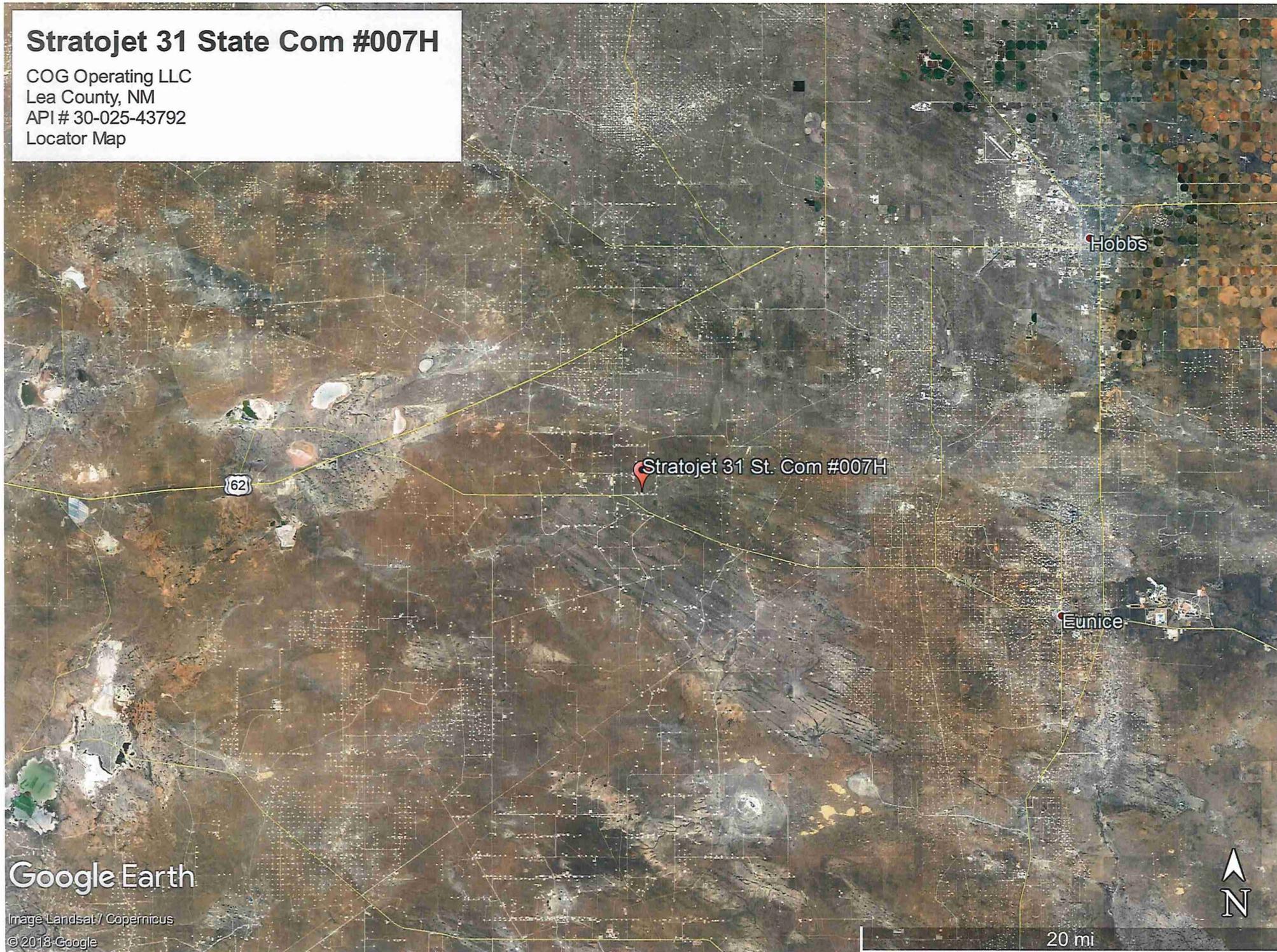
Irrage Landsat / Copernicus



10 mi

Stratojet 31 State Com #007H

COG Operating LLC
Lea County, NM
API # 30-025-43792
Locator Map



Google Earth

Image Landsat / Copernicus

© 2013 Google

20 mi



APPENDIX II

SOIL SURVEY

GROUNDWATER DATA

FEMA FLOOD MAP

Map Unit Description: Kimbrough gravelly loam, dry, 0 to 3 percent slopes---Lea County, New Mexico

Lea County, New Mexico

KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw43
Elevation: 2,500 to 4,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough, dry, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough, Dry

Setting

Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam
Bw - 3 to 10 inches: loam
Bkkm1 - 10 to 16 inches: cemented material
Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 95 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s

Map Unit Description: Kimbrough gravelly loam, dry, 0 to 3 percent slopes---Lea County, New Mexico

Hydrologic Soil Group: D
Ecological site: Very Shallow 12-17" PZ (R077DY049TX)
Hydric soil rating: No

Minor Components

Eunice

Percent of map unit: 10 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: Very Shallow 12-17" PZ (R077DY049TX)
Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent
Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: Very Shallow 12-17" PZ (R077DY049TX)
Hydric soil rating: No

Kenhill

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Clay Loam 12-17" PZ (R077DY038TX)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 16, Sep 15, 2019



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	POD Sub-Code	basin	County	Q	Q	Q	4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP 00611	CP	LE		2	1	06	21S	34E			639838	3598306*	1700	118	112	6
CP 00791	CP	LE		4	2	4	06	21S	34E		640754	3597413*	2181	85	55	30
CP 01334 POD1	CP	LE		1	2	4	35	20S	34E		638402	3599879	2573	1253	733	520
CP 01335 POD1	CP	LE		4	1	4	35	20S	34E		638205	3599736	2758	1307	735	572
CP 00489	CP	LE					04	21S	34E		643274	3597749*	2954	125	95	30

Average Depth to Water: **346 feet**
 Minimum Depth: **55 feet**
 Maximum Depth: **735 feet**

Record Count:5

UTMNAD83 Radius Search (in meters):

Easting (X): 640959.26

Northing (Y): 3599585.13

Radius: 3000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

11/7/19 2:54 PM

WATER COLUMN/ AVERAGE DEPTH TO
WATER

National Flood Hazard Layer FIRMette



32°31'44.09"N



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 drainage areas of less than one square mile (Zone J)
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 C) |
| GENERAL STRUCTURES | Channel, Culvert, or Storm Sewer
Levee, Dike, or Floodwall |
| OTHER FEATURES | 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 |
- 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 **11/7/2019 at 4:44:50 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.



USGS The National Map: Orthoimagery. Data refreshed April, 2019.

Zone D

Designation on National Flood Insurance Program maps used for areas where there are possible, but undetermined, flood hazards. In areas designated as Zone D, no analysis of flood hazards has been conducted. Mandatory flood insurance purchase requirements do not apply, but coverage is available. The flood insurance rates for properties in Zone D are commensurate with the uncertainty of the flood risk.

Zone V

The flood insurance rate zone that corresponds to the 100-year coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no Base Flood Elevations are shown within this zone. Mandatory flood insurance purchase requirements apply.

Zone VE

The flood insurance rate zone that corresponds to the 100-year coastal floodplains that have additional hazards associated with storm waves. Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

Zone B, C, and X

Zones B, C, and X are the flood insurance rate zones that correspond to areas outside the 100-year floodplains, areas of 100-year sheet flow flooding where average depths are less than 1 foot, areas of 100-year stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 100-year flood by levees. No Base Flood Elevations or depths are shown within this zone.



APPENDIX III

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	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

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

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Form C-141

State of New Mexico
Oil Conservation Division

Page 2

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. <input type="checkbox"/> Field data <input type="checkbox"/> Data table of soil contaminant concentration data <input type="checkbox"/> Depth to water determination <input type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release <input type="checkbox"/> Boring or excavation logs <input type="checkbox"/> Photographs including date and GIS information <input type="checkbox"/> Topographic/Aerial maps <input type="checkbox"/> 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

State of New Mexico
Oil Conservation Division

Page 4

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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Form C-141

State of New Mexico
Oil Conservation Division

Page 5

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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

Form C-141

State of New Mexico
Oil Conservation Division

Page 6

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

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: _____

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	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

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

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Form C-141

State of New Mexico
Oil Conservation Division

Page 2

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. <input type="checkbox"/> Field data <input type="checkbox"/> Data table of soil contaminant concentration data <input type="checkbox"/> Depth to water determination <input type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release <input type="checkbox"/> Boring or excavation logs <input type="checkbox"/> Photographs including date and GIS information <input type="checkbox"/> Topographic/Aerial maps <input type="checkbox"/> 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

State of New Mexico
Oil Conservation Division

Page 4

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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Form C-141

State of New Mexico
Oil Conservation Division

Page 5

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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

- Approved
 Approved with Attached Conditions of Approval
 Denied
 Deferral Approved

Signature: _____ Date: _____

Form C-141

State of New Mexico
Oil Conservation Division

Page 6

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

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: _____

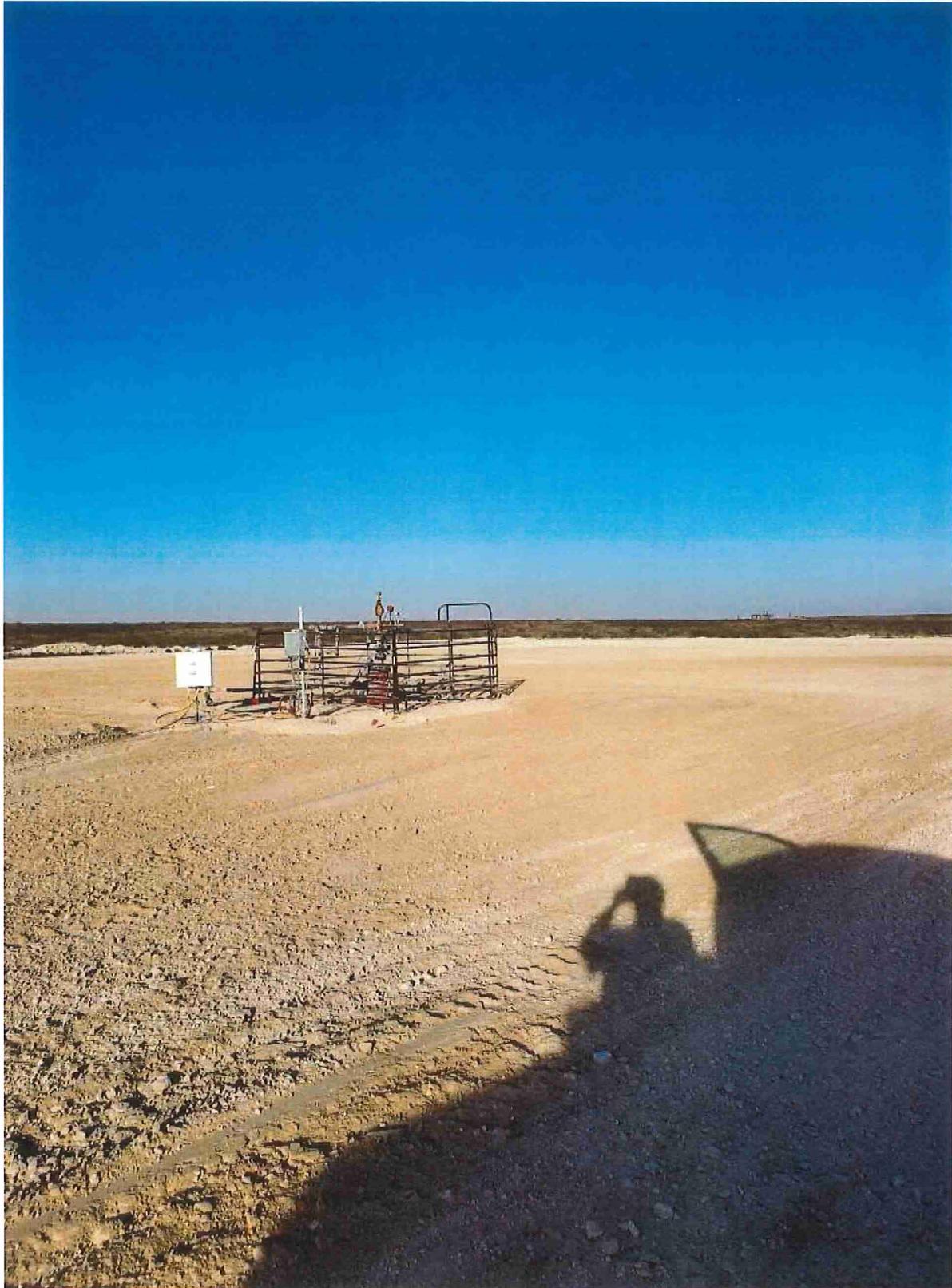
Printed Name: _____ Title: _____

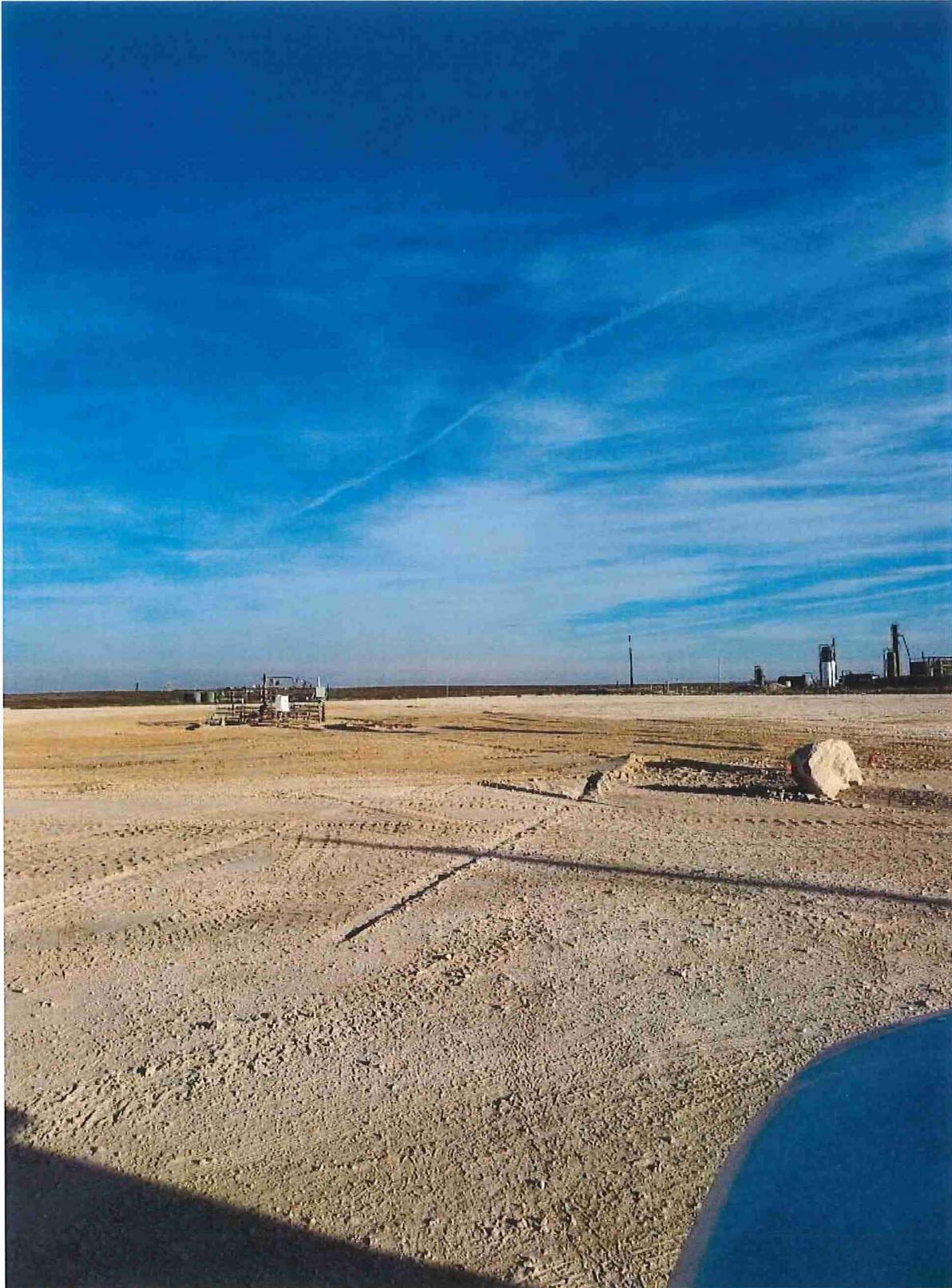


APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

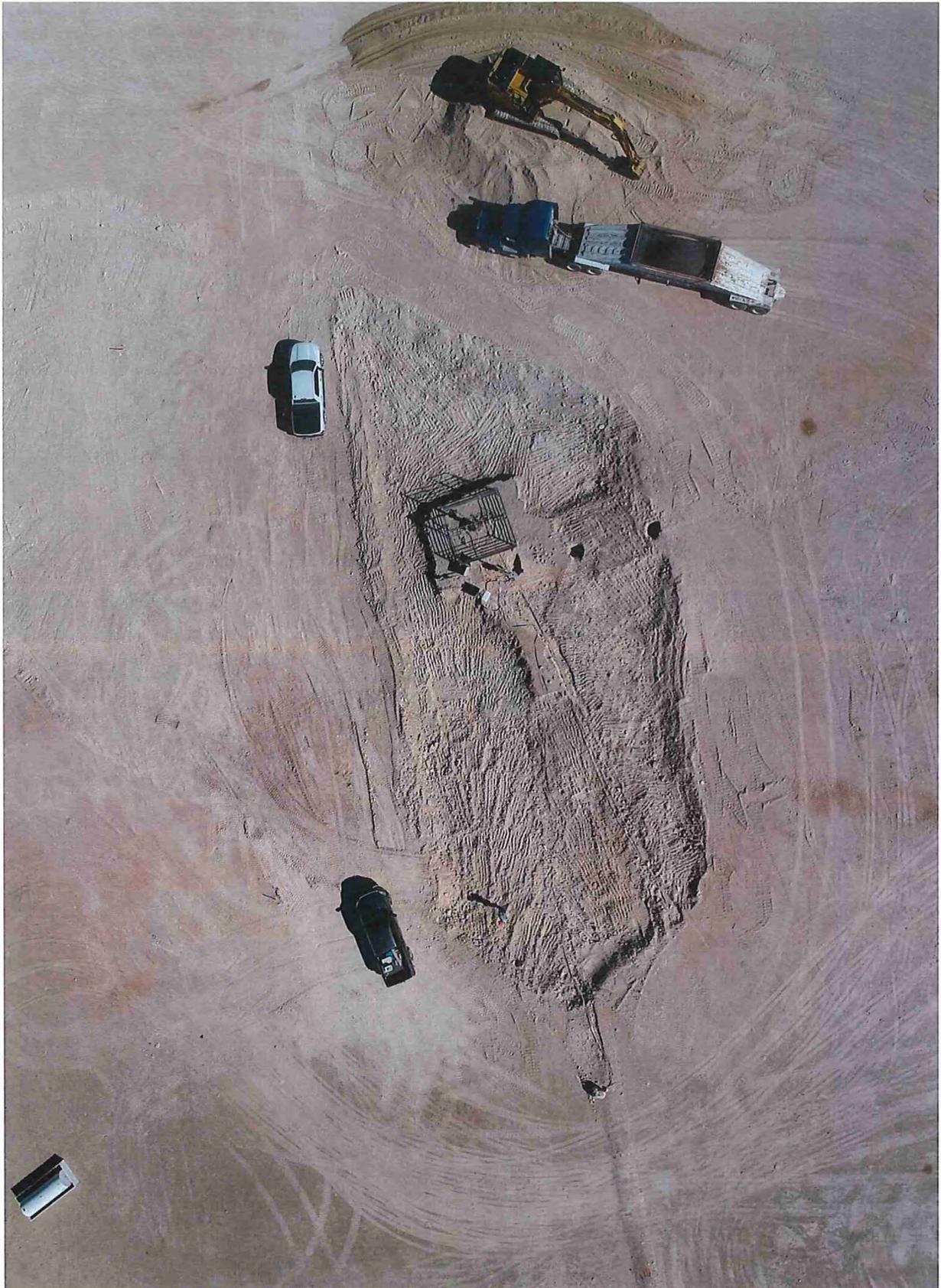
Pre-excavation photographs





Aerial photographs of excavation





Post-excavation photographs

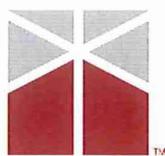






APPENDIX V

EXTERNAL REMEDIATION PROPOSALS



HRL
COMPLIANCE
SOLUTIONS

P.O. Box 1708 • Artesia, NM 88211
www.hrlcomp.com

1RP-5146

SUBJECT: SOIL REMEDIATION PLAN FOR THE INCIDENT AT THE Stratojet 31 State Com 007H, LEA COUNTY, NEW MEXICO

On behalf of COG Operating, LLC, HRL Compliance Solutions, Inc (HRL) has prepared this remediation plan that describes the assessment, characterization, and proposed remediation for a release associated with the Stratojet 31 State Com 007H. The site is in Unit N, SECTION 31, TOWNSHIP 20S, RANGE 35E, NMPM, Lea County, New Mexico, on State land.

Site Assessment/Characterization

An assessment of surrounding water well information identifies over 10 water wells within a 3-mile buffer. Depth to water at this site is estimated to be greater than 100 feet at the location. This information is illustrated in Attachment A.

There are no features of concern identified within proximity of the site. There is no flowing watercourse or significant watercourse within 300 feet of this location. There is no lakebed, sinkhole, or playa lake within 200 feet for this location. This location is not within 300 feet of an occupied permanent residence, school, hospital, institution, or church. This location is not within 500 feet for a spring or domestic freshwater well. This facility is not within incorporated municipal boundaries or within a defined municipal freshwater well field. This is illustrated in Attachment B.

An assessment of wetlands and springs was performed using USGS National Water Information System and re-verified utilizing a 7.5-minute topographical map. There are no wetlands within 300 feet of this location. There are no springs within 1000 feet of this location. This map is in Attachment B.

This facility is not within a 100-year floodplain as per FEMA, Flood Hazard Zone D. A portion of the FEMA map is in Attachment B.

This location is not located in an area identified in an unstable karst geology area. An area map generated with data from the USGS showing geologic units and structural features is in Attachment B.

Upon receiving clearance from the underground utility locate (811) on August 27, 2018, HRL field personnel assessed the impacted area. Samples were collected on 8/27/2018 to characterize the extent of impacts and calculate a volume of soil to be excavated for disposal with a backhoe. All samples were collected and analyzed at a National Environmental Laboratory Accreditation Program (NELAP) laboratory and in accordance with NMOCD soil sampling procedures. The samples were submitted to Hall Laboratories for analyses including chlorides by Method 300.0, volatile organics (BTEX) by Method 8021B, and MRO, DRO, and GRO by EPA Method 8015B. Sample locations are depicted in Attachment C. All laboratory results are summarized in Table 1 with raw analytical reports included in Attachment D.

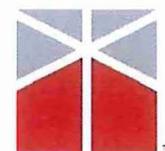
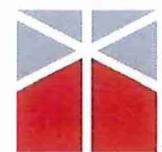


Table 1: Analytical Results Summary

Stratojet 31 State Com 007H								
Sample ID	Date	Chloride mg/Kg	Benzene mg/Kg	BTEX mg/Kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	TPH mg/Kg
S1- Surface	8/28/2018	4,500	ND	ND	52	5800	2300	8152
S1-1'	8/28/2018	5,400	ND	ND	ND	65	ND	65
S1-2'	8/28/2018	1,800	ND	ND	ND	19	ND	19
S1-3'	8/28/2018	910	-	-	-	-	-	-
S2 Surface	8/28/2018	310	ND	28.4	1100	15000	4400	20500
S2-1'	8/28/2018	560	ND	0.72	68	1200	440	1708
S2-2'	8/28/2018	520	ND	2.88	180	4200	1500	5880
S3 Surface	8/28/2018	1,800	ND	ND	ND	1300	640	1940
S3-1'	8/28/2018	1,300	ND	ND	ND	ND	ND	ND
S3-2'	8/28/2018	600	ND	ND	ND	14	ND	14
S4 Surface	8/28/2018	290	ND	ND	ND	15	ND	15
S4-1'	8/28/2018	71	ND	ND	ND	ND	ND	ND
S4-2'	8/28/2018	75	ND	ND	ND	ND	ND	ND
S4-3'	8/28/2018	2,600	-	-	-	-	-	-
S5 Surface	8/28/2018	320	2.5	145.5	2900	12000	3600	18500
S5-1'	8/28/2018	2,800	ND	14	350	1100	390	1840
S5-2'	8/28/2018	2,100	ND	0.302	120	1300	670	2090
S5-3'	8/28/2018	2,000	-	-	-	-	-	-
EAST	8/28/2018	99	ND	ND	ND	ND	ND	ND
WEST	8/28/2018	900	ND	ND	ND	120	81	201
NORTH	8/28/2018	430	ND	ND	ND	ND	ND	ND
SOUTH	8/28/2018	66	ND	ND	ND	21	100	121



Closure Criteria Assessment

Closure Criteria		
Depth to Ground Water	Constituent	Limit
>100 feet	Chloride	20,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

Remediation Plan

The areas around SP1 and SP3 will be excavated to approximately 1-foot depth. The areas around SP2 and SP5 will be excavated to an approximate depth of 2 foot or to refusal. During the delineation, progression wasn't possible beyond 2 feet at either location. The areas and excavated yardages may be adjusted during the excavation depending on field screenings. The total estimated volume of material to be removed is 407. A five-point composite sample will be collected from the bottom of each excavation area and four side wall samples will be collected from the total excavation.

Concho is requesting a deferment of some areas of soil removal. Per 19.15.29.12.C(2), if the contamination is in areas immediately under or around production equipment such as production tanks, wellheads and pipelines were remediation could cause a major facility deconstruction, the remediation may be deferred with approval until the equipment is removed.

The area of contamination is around the wellhead with known electric lines running through the contamination area. Concho will remove what contamination can be safely removed and leave some in place in protect equipment and electric lines.

Remediation is scheduled to begin within 90 days of approval of this remediation plan.

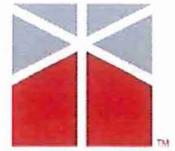
Restoration, Reclamation, and Revegetation

All impacted areas are within an active production pad. The area will be stabilized to prevent erosion.

If there are any questions regarding this report, please contact Jennifer Knowlton at 505-238-3588.

Submitted by:
HRL Compliance Solutions, Inc

Jennifer Knowlton
Regional Manager - Permian



Attachments:

Attachment A: NMOSE Depth to Water Map and Report

Attachment B: Site Location Map

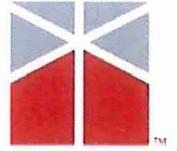
Wetlands Map

Floodplain Map

Karst Area Map

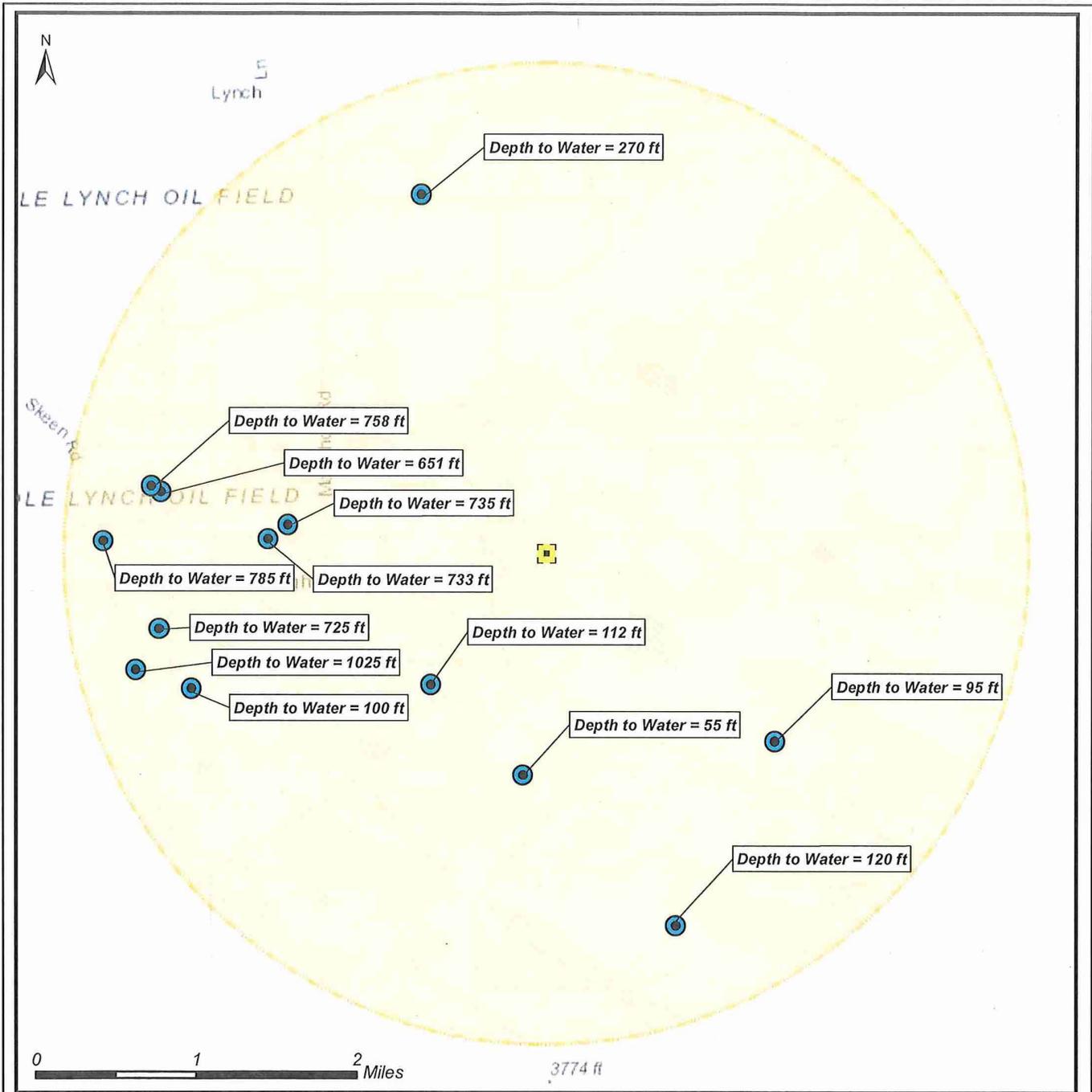
Attachment C: Sample Location Map

Attachment D: Laboratory Analytical Reports



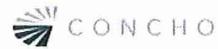
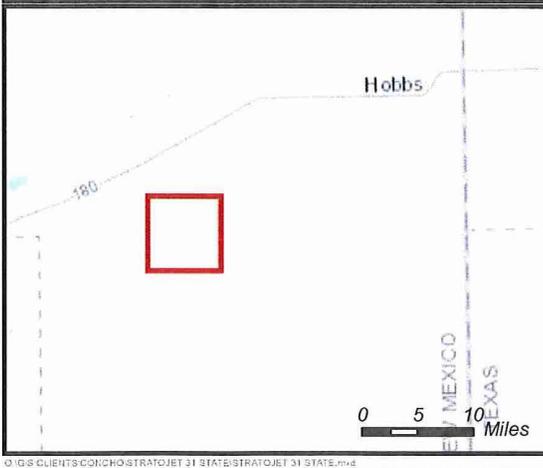
Attachment A:

NMOSE Depth to Water Map and Report



0 1 2 Miles

3774 ft



Site Location Map
STRATOJET 31 STATE COM 007H
 32.524537 -103.499301
 Section 31, Township 20 South, Range 35 East

Legend

- Water Well
- Stratojet 31 State COM 007H
- 3 Mile Buffer

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HCSL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantee as to the quality or accuracy of the underlying data.



Author: K. Fox
 Revision: 0
 Date: 9/26/2018



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	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00611	CP	LE		2	1	06	21S	34E		639838	3598306*	1635	118	112	6
CP 00791	CP	LE		4	2	06	21S	34E		640754	3597413*	2107	85	55	30
CP 01334 POD1	CP	LE		1	2	35	20S	34E		638402	3599879	2567	1253	733	520
CP 01335 POD1	CP	LE		4	1	35	20S	34E		638205	3599736	2746	1307	735	572
CP 00489	CP	LE				04	21S	34E		643274	3597749*	2922	125	95	30
CP 01204 POD1	CP	LE		3	1	25	20S	34E		638755	3602250	3505	370		
CP 00579	CP	LE		2	2	02	21S	33E		637438	3598269*	3718	125	100	25
CP 00665	CP	LE		1	4	24	20S	34E		639740	3603128*	3811	698	270	428
CP 00498	CP	LE		2	4	08	21S	34E		642287	3595932*	3823	145	120	25
CP 00803 POD1	CP	LE		3	2	02	21S	33E		637337	3598168*	3848	1100		
CP 00804 POD1	CP	LE		3	2	02	21S	33E		637337	3598168*	3848	170		
CP 01288 POD1	CP	LE		4	4	34	20S	34E		637134	3600204	3871	1255	758	497
CP 01290 POD1	CP	LE		3	1	02	21S	33E		637114	3598855	3885	1250	725	525
CP 00796 POD1	CP	LE		2	2	02	21S	33E		637548	3597564*	3913	102		
CP 01316 POD1	CP	LE		3	2	02	21S	33E		637432	3597709	3946	1370		
CP 01289 POD1	CP	LE		4	4	34	20S	34E		637037	3600261	3977	1222	651	571
CP 00802 POD1	CP	LE		3	3	02	21S	33E		637001	3598672	4030	1154		
CP 00797 POD1	CP	LE		1	2	02	21S	33E		637348	3597564*	4088	110		
CP 01317 POD1	CP	LE		1	3	02	21S	33E		636884	3598450	4195	1250	1025	225
CP 00799 POD1	CP	LE		4	3	34	20S	34E		636666	3599364*	4279	100		
CP 01352 POD1	CP	LE		3	1	34	20S	34E		636559	3599716	4388	1270	785	485

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Average Depth to Water: 474 feet

Minimum Depth: 55 feet

Maximum Depth: 1025 feet

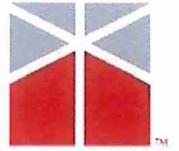
Record Count: 21

UTMNA83 Radius Search (in meters):

Easting (X): 640942.98

Northing (Y): 3599511.63

Radius: 4828



Attachment B:

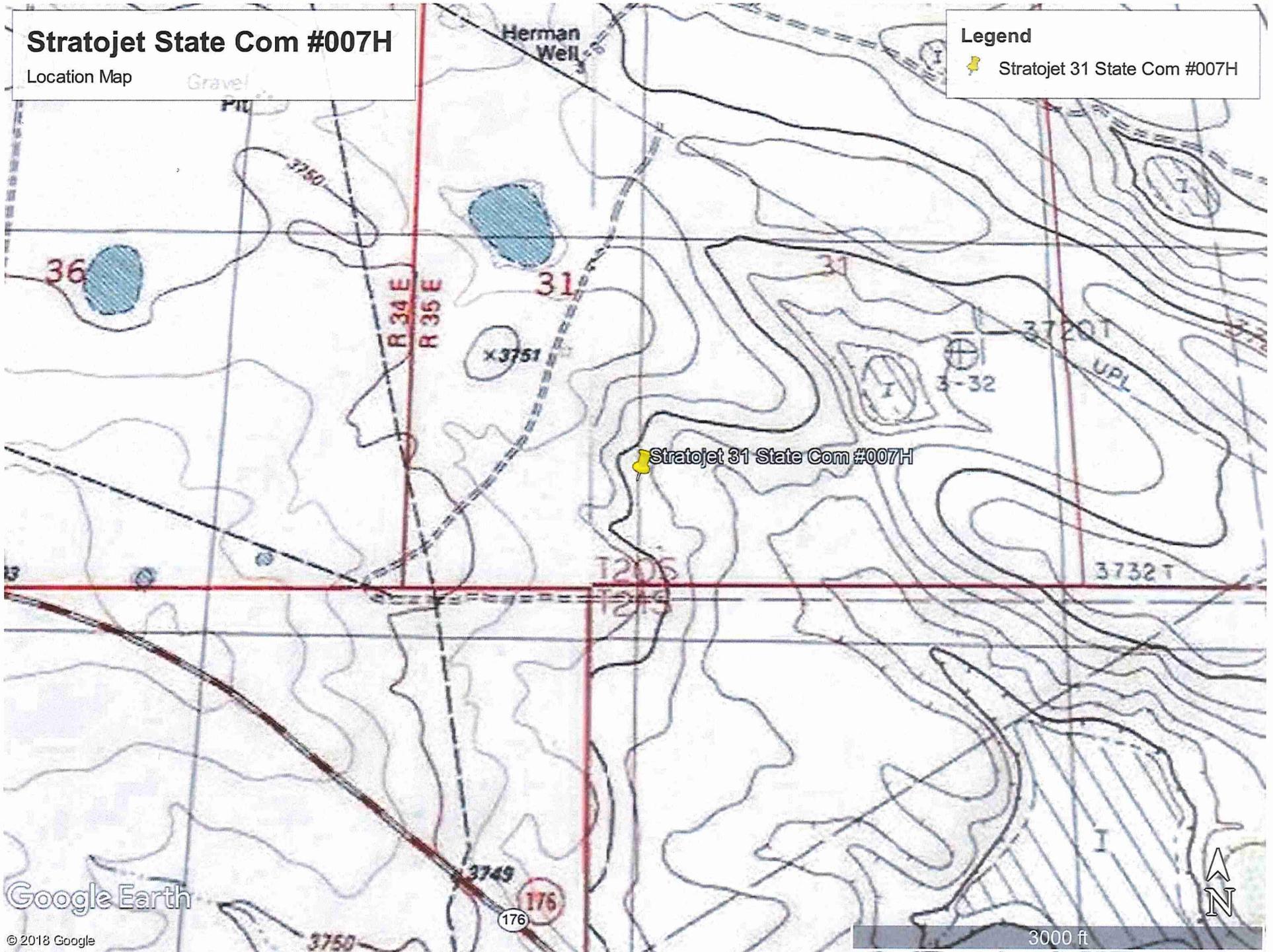
- Site Location Map**
- Wetlands Map**
- Floodplain Map**
- Karst Area Map**

Stratojet State Com #007H

Location Map

Legend

 Stratojet 31 State Com #007H



Google Earth

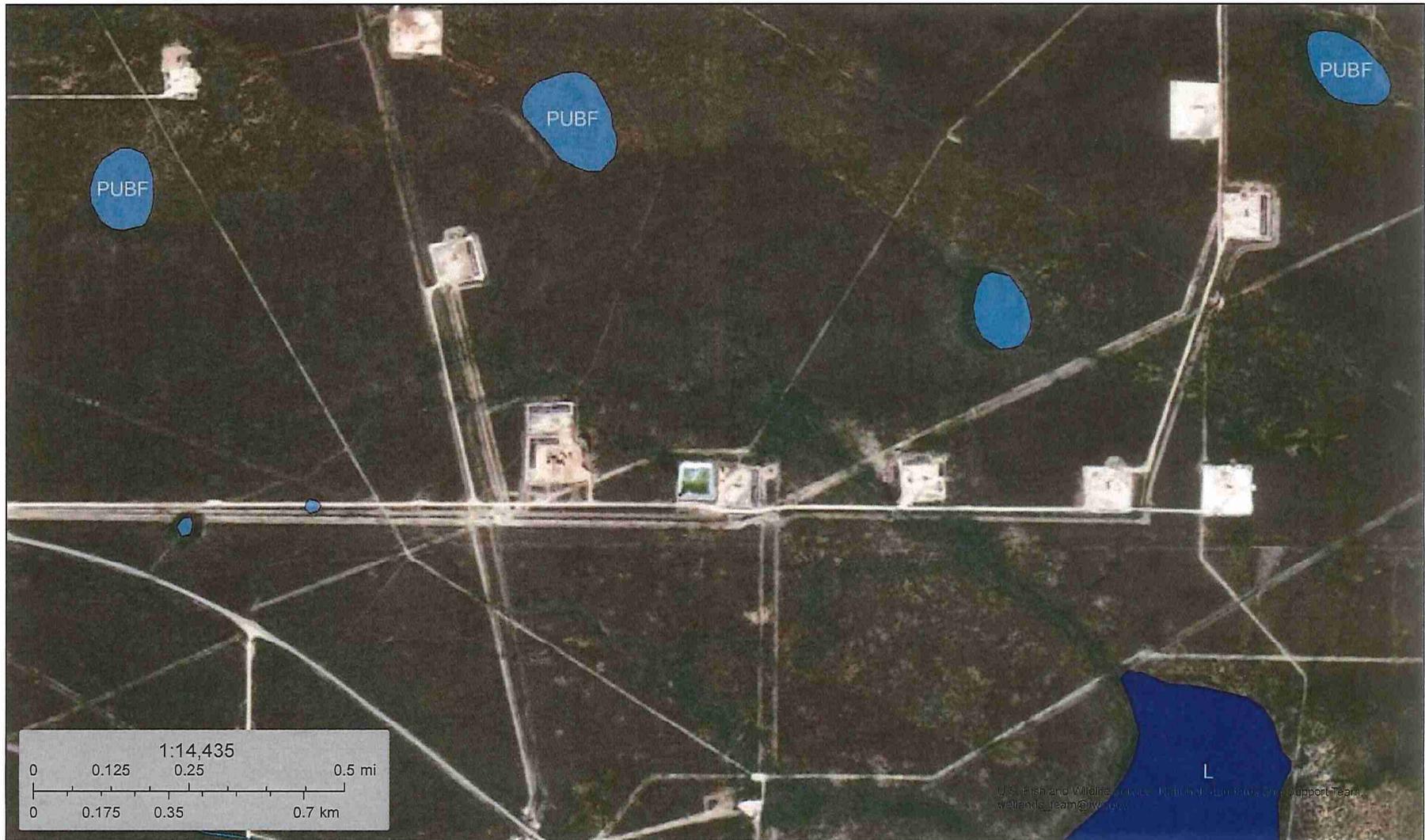
© 2018 Google

3000 ft



U.S. Fish and Wildlife Service
National Wetlands Inventory

Stratojet 31 State Com #007H

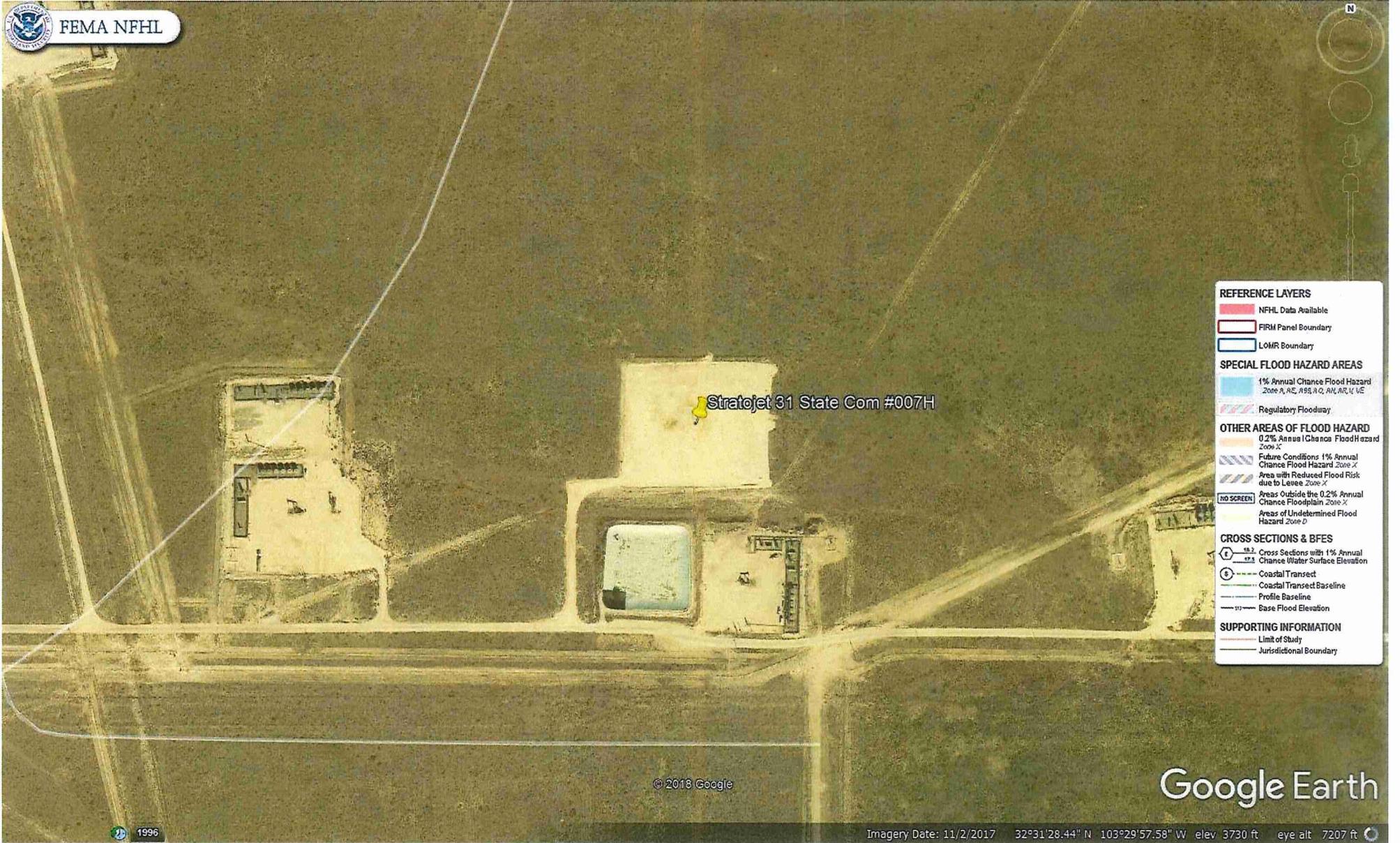


September 25, 2018

Wetlands

- | | | |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland |  Lake |
|  Estuarine and Marine Wetland |  Freshwater Forested/Shrub Wetland |  Other |
| |  Freshwater Pond |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

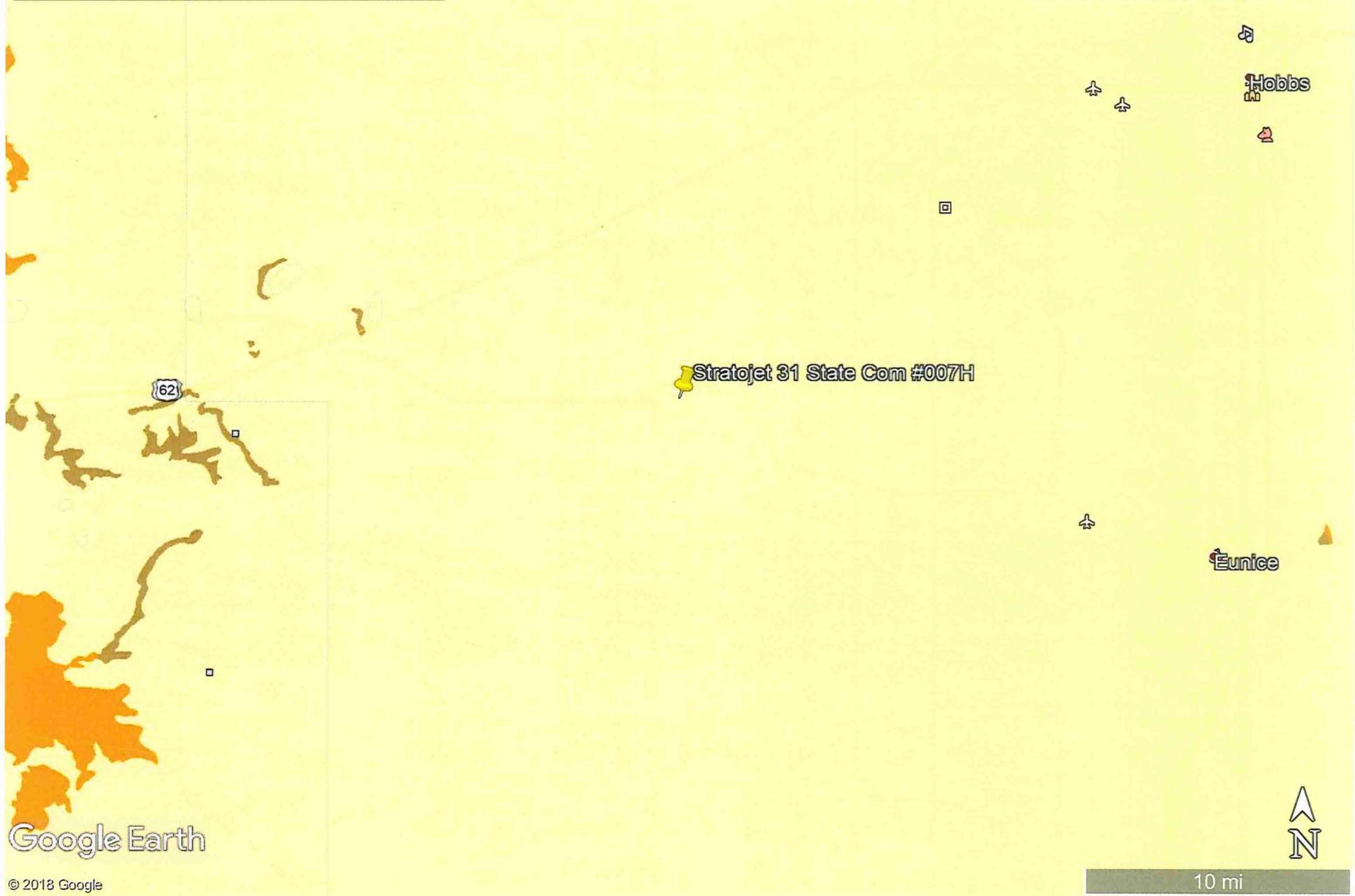


Stratojet State Com #007H

Karst Map

Legend

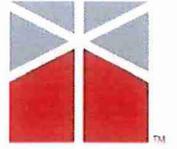
 Stratojet 31 State Com #007H



Google Earth

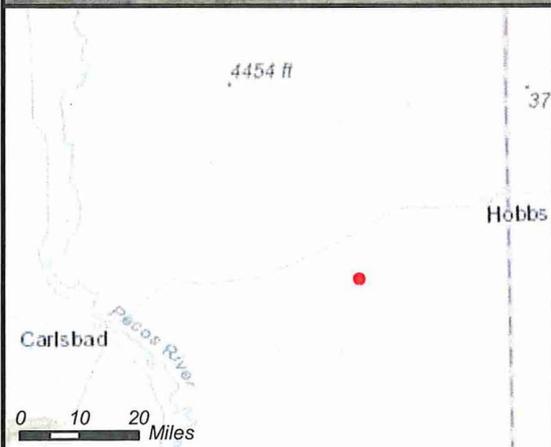
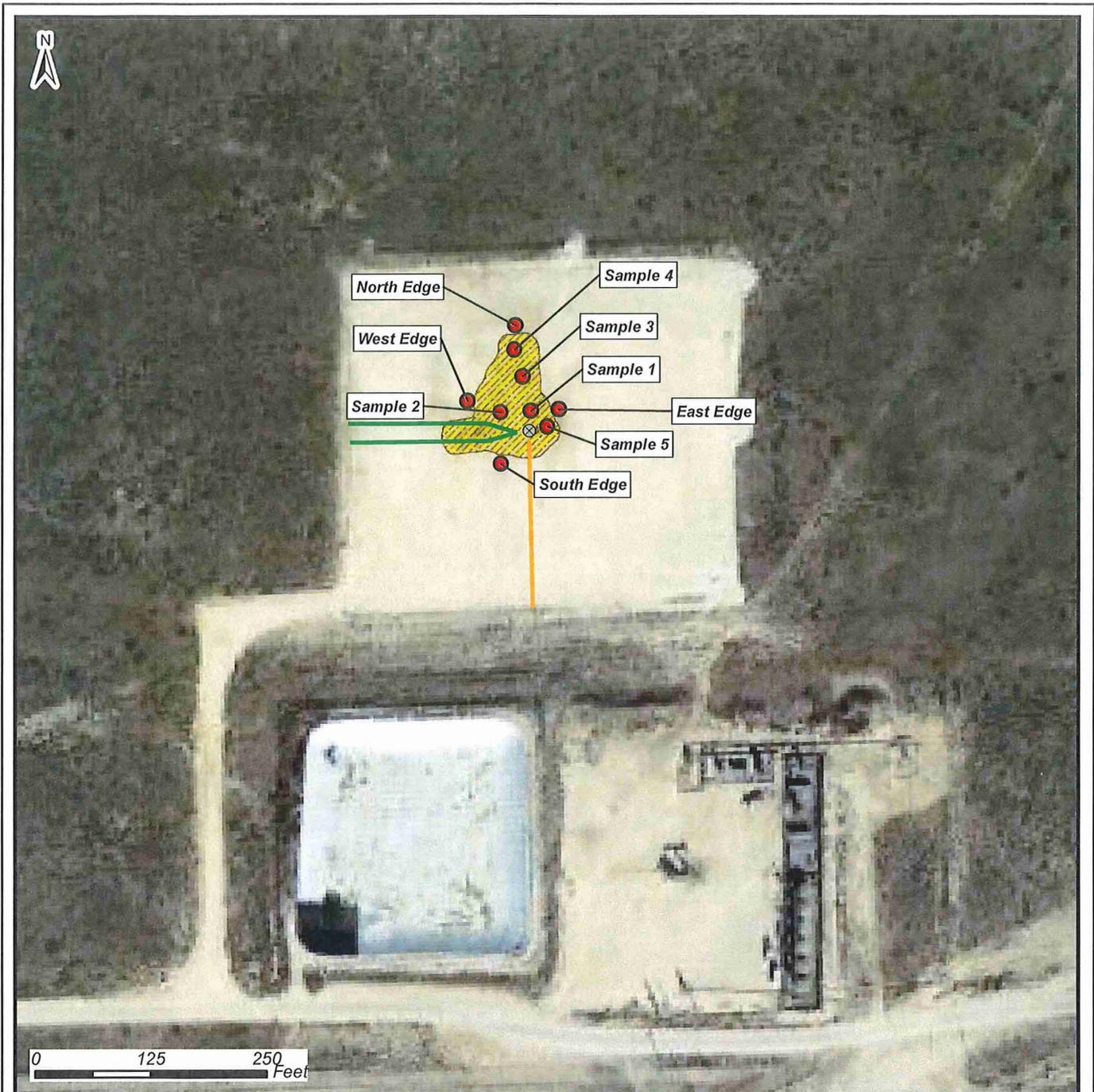
© 2018 Google

10 mi



Attachment C:

Sample Location Map



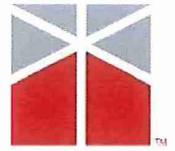

Sample Location Map
 Stratojet 31 State Com #007H
 32.524537 -103.499301
 Section 31, Township 20 South, Range 35 East

Mapped Features		
	Sample Locations	 Electric Lines
	Wellhead	 Impacted Area
		 Flowline

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



Author: A. Asay
Revision: 0
Date: 9/6/2018



Attachment D:
Laboratory Analytical Reports



10 Desta Drive Suite 150E
 Midland, TX 79705
 432.520.7720 PHONE
 432.520.7701 FAX
 www.trcsolutions.com

February 1, 2019

"District 1"

Mike Bratcher
 New Mexico Energy, Minerals and Natural Resources Department
 Oil Conservation Division, District 2
 811 S. First Street
 Artesia, NM 88210

Ryan Mann
 Hobbs Field Office
 New Mexico State Land Office
 2827 North Dal Paso Street, Suite 117
 Hobbs, NM 88240

Re: **Site Assessment Summary and Proposed Remediation Plan**
Stratojet 31 State Com #007H
 API No. 30-025-43792
 GPS: Latitude 32.52454 Longitude -103.49931
 UL "N", Sec. 31, T20S, R35E
 Lea County, NM
 NMOCD Ref. No. 1RP-5146, 1RP-5278

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG), has prepared this *Site Assessment Summary and Deferral Request* for the Release Site known as the Stratojet 31 State Com #007H. Details of the Release are summarized below:

RELEASE DETAILS			
Type of Release:	Crude Oil and Produced Water	Volume of Release:	18 bbls, 9 bbls
		Volume Recovered:	10 bbls, 6 bbls
Source of Release:	Wellhead	Date of Release:	8/4/2018, 11/5/18
Was Immediate Notice Given?	No	If, YES, to Whom?	Not Applicable
Was a Watercourse Reached?	No	If YES, Volume Impacting the Watercourse:	N/A
Surface Owner:	Private: S&S Inc.	Mineral Owner:	State

Two separate releases occurred on this location. The first release (1RP-5146), was attributed to a leak in the union off of the pump tee and resulted in the release of approximately 10 bbls of crude oil and 7 bbls of produced water. The second release (1RP-5278), was attributed to sand causing the housing on the back pressure valve to be washed out, resulting in the release of approximately 8 bbls of crude oil and 2 bbls of produced water. Both releases were contained within the boundaries of the production pad and impacted approximately 10,000 square feet and 9,400 square feet respectfully. During initial response activities, a vacuum truck was dispatched to remove all freestanding fluids. *The initial C-141 for the release date 11/05/18 (1RP-5278) contained incorrect information which has been updated.*

Topographical and Aerial Maps are provided as Attachments #1 and #2. A Copy of the Initial Release Notification and Corrective Action (NMOCD Form C-141) is provided as Attachment #8.

REGULATORY FRAMEWORK

Surface impacts from unauthorized releases of crude oil, gases, produced water, condensate or other oil field waste which occur during normal oilfield operations are generally regulated by the New Mexico Oil Conservation Division (NMOCD) in accordance with 19.15.29 of the New Mexico Administrative Code (NMAC). 19.15.29 NMAC establishes reporting, site assessment/characterization, remediation, closure, variance and enforcement procedures. Table I of 19.15.29.12 NMAC determines the closure criteria for soils impacted by a release based on the depth to groundwater and the following site characteristics:

Site Characteristics		
Approximate Depth to Groundwater	50 - 75'	
Within 300 ft. of any continuously flowing or significant watercourse?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Within 200 ft. of any lakebed, sinkhole, or playa lake?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Within 300 ft. of an occupied permanent residence, school, hospital, or institution?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Within 500 ft. of a spring or private, domestic fresh water well?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Within 1,000 ft. of any fresh water well?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Within the incorporated municipal boundaries or within a municipal well field?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Within 300 ft. of a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Within the area overlying a subsurface mine?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Within an unstable area?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Within a 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

A search of a groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) was conducted to determine the average depth to groundwater within a one (1) Mile radius of the Release Site and identify any registered water wells within a 1/2 Mile of the Release Site. If none were identified, the approximate depth to groundwater was extrapolated from a Depth to Groundwater Map utilized by the NMOCD. Depth to groundwater information is provided as Attachment #4.

Based on the approximate depth to groundwater and site characteristics, the NMOCD Closure Criteria are as follows:

Table I Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
51-100 feet	Chloride***	EPA 300.0	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	TPH (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

INITIAL SITE ASSESSMENT & REMEDIAL ACTIVITIES BACKGROUND

On August 27, 2018, an initial site assessment was conducted at the Site by a previous COG environmental contractor. During the initial site assessment, five (5) soil investigation trenches (S1, S2, S3, S4, and S5) were advanced in an effort to determine the vertical extent of soil impact. During the advancement of the investigation trenches, eighteen (18) soil samples were collected and submitted to the laboratory for analysis of BTEX, TPH and/or chloride concentrations. Additional, four (4) investigative soil sample locations (East, West, North, and South) were advanced in an effort to determine the horizontal extent of soil impacts. During the advancement of the investigation trenches, four (4) soil samples were collected and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Upon completion of the initial site assessment, a Soil Remediation Plan (Deferral), detailing field activities and laboratory analytical results from delineation soil samples was prepared and submitted to the NMOCD and NMSLO; the remediation workplan (deferral) was subsequently denied, as delineation of TPH was not achieved at soil sample locations S2 and S5. For additional information regarding the initial site assessment and associated regulatory correspondence, please reference HRL's REMEDIATION WORK PLAN (Deferral) and NMOCD & NMSLO Correspondence, which are provided as Attachments #9 and #10.

On **December 20, 2018**, a second site investigation was conducted by TRC. During the site investigation, additional soil samples from the previous release were collected from the area represented by S2 and S5 in an effort to achieve vertical delineation. Additionally, two (2) soil sample locations (S6 and S7) were advanced in an effort to determine the extent of soil impacts from the Release which occurred on November 5, 2018 (1RP-5278). The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. A table summarizing laboratory analytical results from soil samples collected during the above stated activities is provided below:

Concentrations of BTEX, TPH and/or Chloride in Soil											
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					E 300
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ ,C ₂₈ (mg/kg)	ORO/MRO C ₂₈ -C ₃₅ (mg/kg)	TPH C ₆ -C ₃₅ (mg/kg)	Chloride (mg/kg)
S1 - Surface	8/28/18	Surface	In-Situ	ND	1.1	52	5,800	5,852	2,300	8,152	4,500
S1 - 1'	8/28/18	1'	In-Situ	ND	ND	ND	65	65	ND	65	5,400
S1 - 2'	8/28/18	2'	In-Situ	ND	ND	ND	19	19	ND	19	1,800
S1 - 3'	8/28/18	3'	In-Situ	-	-	-	-	-	-	-	910
S2 Surface	8/28/18	Surface	In-Situ	ND	28.4	1,100	15,000	16,100	4,400	20,500	310
S2 - 1'	8/28/18	1'	In-Situ	ND	0.72	68	1,200	1,268	440	1,708	560
S2 - 2'	8/28/18	2'	In-Situ	ND	2.88	180	4,200	4,380	1,500	5,880	520
S2-B @ 3'	12/20/18	3'	In-Situ	<0.050	<0.300	<10.0	62.0	62.0	<10.0	62.0	3,520
S2-B @ 4'	12/20/18	4'	In-Situ	<0.050	<0.300	<10.0	18.9	18.9	<10.0	18.9	2,080
S2-B @ 5'	12/20/18	5'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	336
S3 - Surface	8/28/18	Surface	In-Situ	ND	ND	ND	1,300	1,300	640	1,940	1,800
S3 - 1'	8/28/18	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	1,300
S3 - 2'	8/28/18	2'	In-Situ	ND	ND	ND	14	14	ND	14	600
S4 - Surface	8/28/18	Surface	In-Situ	ND	ND	ND	15	15	ND	15	290
S4 - 1'	8/28/18	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	71
S4 - 2'	8/28/18	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	75
S4 - 3'	8/28/18	3'	In-Situ	-	-	-	-	-	-	-	2,600
S5 - Surface	8/28/18	Surface	In-Situ	2.5	145.5	2,900	12,000	14,900	3,600	18,500	320
S5 - 1'	8/28/18	1'	In-Situ	ND	14	350	1,100	1,450	390	1,840	2,800
S5 - 2'	8/28/18	2'	In-Situ	ND	0.302	120	1,300	1,420	670	2,090	2,100
S5 - 3'	8/28/18	3'	In-Situ	-	-	-	-	-	-	-	2,000
S5-B @ 3'	12/20/18	3'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,360
S5-B @ 4'	12/20/18	4'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	688
S6 @ Surface	12/20/18	Surface	In-Situ	<0.050	4.78	201	11,900	12,101	2,070	14,171	7,280
S6 @ 1'	12/20/18	1'	In-Situ	<0.050	<0.300	<10.0	156	156	80.0	236	6,700
S6 @ 2'	12/20/18	2'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,400
S6 @ 3'	12/20/18	3'	In-Situ	<0.050	<0.300	<10.0	124	124	16.5	140.5	1,470
S7 @ Surface	12/20/18	Surface	In-Situ	<0.050	<0.300	<10.0	29.4	29.4	12.0	41.4	672
S7 @ 1'	12/20/18	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
East	8/28/18	Surface	In-Situ	ND	ND	ND	ND	ND	ND	ND	99
West	8/28/18	Surface	In-Situ	ND	ND	ND	ND	ND	ND	ND	900
South	8/28/18	Surface	In-Situ	ND	ND	ND	120	120	81	201	67
North	8/28/18	Surface	In-Situ	ND	ND	ND	ND	ND	ND	ND	430
NMOCD Closure Criteria				10	50	-	-	1,000	-	2,500	10,000

Field Data, if applicable, is provided as Attachment #5. Laboratory analytical reports are provided as Attachment #6. A "Site & Sample Location Map" is provided as Attachment #3.

REMEDIATION PLAN

Based on laboratory analytical results, site characteristics, and field observations made during the Site assessments, COG proposes the following alternative remediation activities designed to advance the Release Site toward an NMOCD and BLM approved closure:

- Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Closure Criteria in the areas characterized by soil samples S1, S3, and S6 to a depth of 6" or until laboratory analytical results from confirmation soil samples indicate that TPH concentrations are below NMOCD Closure Criteria.
- Excavate impacted soil affected above the NMOCD Closure Criteria in the areas characterized by soil samples S2 and S5 to a depth of 2.5' - 3' or until laboratory analytical results from confirmation soil samples indicate that TPH concentrations are below NMOCD Closure Criteria.
- The sidewalls of the excavation will be advanced until laboratory analytical results from confirmation soil samples indicate that TPH concentrations are below NMOCD Closure Criteria.
- Excavated soil will be temporarily stockpiled on-site, atop a poly liner, pending transportation under manifest to a NMOCD-approved facility.
- Upon receiving favorable laboratory analytical results from confirmation soil samples (below the NMOCD Closure Criteria) excavated areas will be backfilled with locally sourced, non-impacted "like" material, at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control,

ALTERNATIVE SAMPLING PLAN

Upon completion of excavation activities, excavation confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than 200 linear feet. Representative five-point composite excavation soil samples will be collected from the base of the excavated areas representing no more than 625 SqFt. Additional "discrete" confirmation soil samples will be collected from wet or visibly stained areas inferred to have been affected by the Release, as necessary.

TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

Remediation activities are expected to be completed within 90 days of receiving necessary approval(s) of this Site Assessment Summary and Proposed Remediation Plan. Based on laboratory analytical results, site characteristics, and field observations made during the initial site investigation, it is estimated approximately 1,200 cubic yards of soil has been affected above the NMOCD Closure Criteria.

RESTORATION, RECLAMATION AND RE-VEGETATION

Areas affected by the Release and associated remediation activities will be substantially restored to the condition which existed prior to the release to the maximum extent practicable. Excavated areas will be backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Final restoration, reclamation and re-vegetation will be conducted in accordance with applicable regulatory agencies.

If you have any questions, or if additional information is required, please feel free to contact Becky Haskell or either of the undersigned by phone or email.

Respectfully,

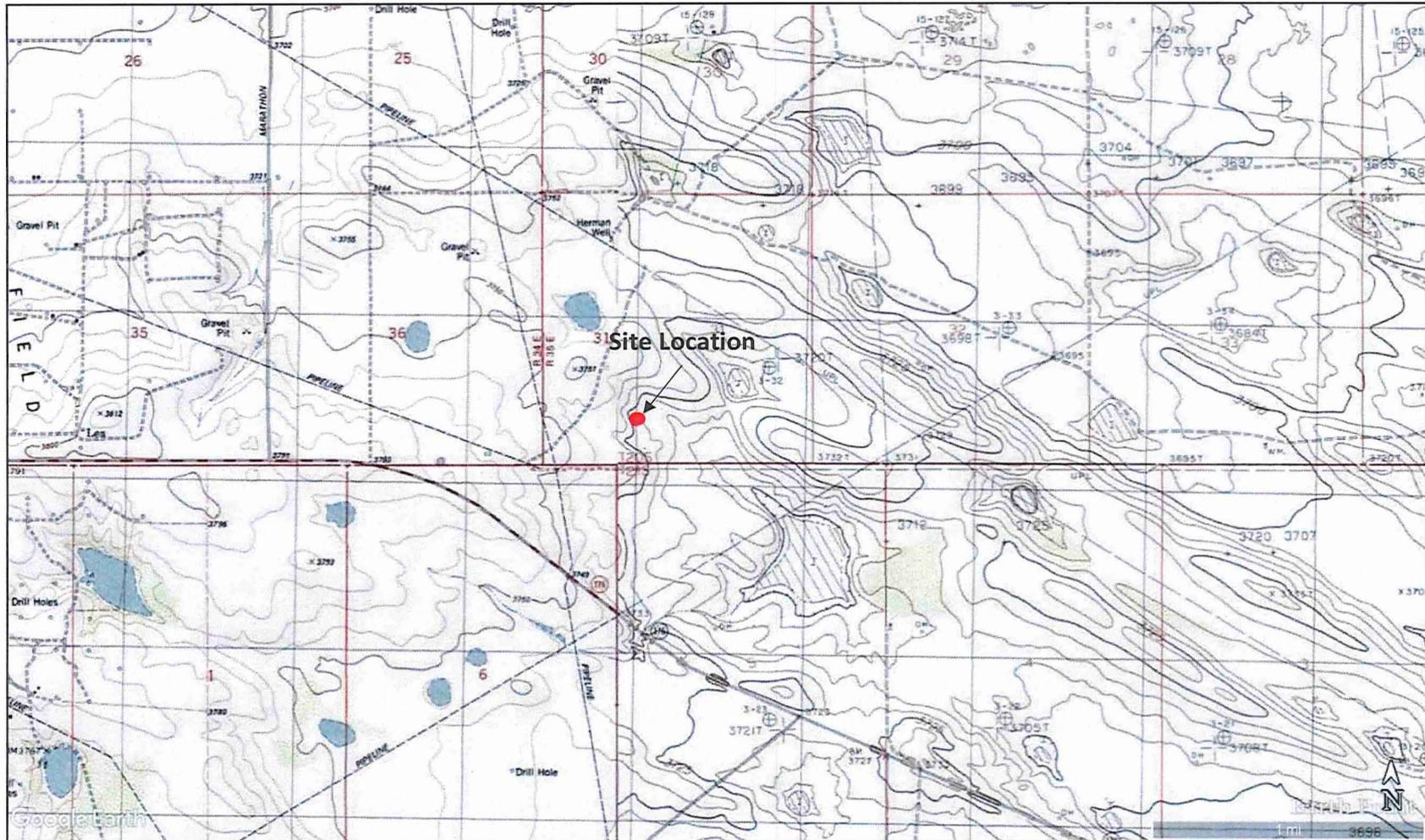


Brian Cooper
TRC Environmental Corp.



Curt Stanley
TRC Environmental Corp.

Attachments:	Attachment #1-	Figure 1 - Topographical Map
	Attachment #2-	Figure 2 - Aerial Map
	Attachment #3-	Figure 3 - Site & Sample Location Map
	Attachment #4-	Depth to Groundwater Information
	Attachment #5	Field Data
	Attachment #6-	Laboratory Analytical Reports
	Attachment #7-	Soil Profile
	Attachment #8-	Release Notification and Corrective Action (FORM C-141)
	Attachment #9-	ASI's <i>REMEDIATION WORK PLAN</i>
	Attachment #10-	NMOCD & BLM Correspondence



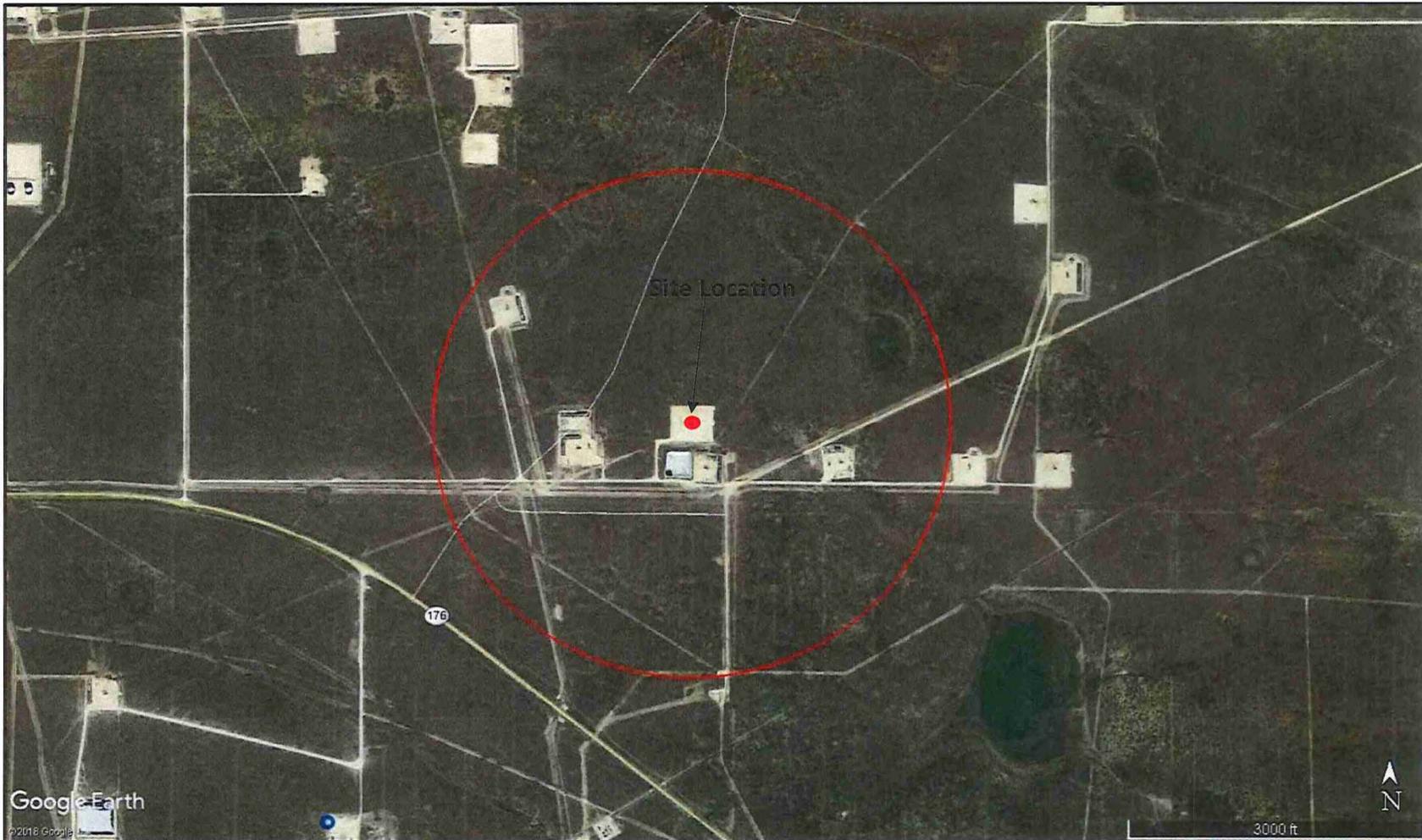
LEGEND:

	Site Location
---	---------------

Figure 1
 Topographical Map
 COG Operating, LLC
 Stratojet 31 State Com #007H
 Lea County, NM

Drafted by: BC Checked by: CS
Draft: January 31, 2019
GPS: 32.52454 -103.49931
UL "N", Sec. 31, T20S, R35E
TRC Proj. No: 323229





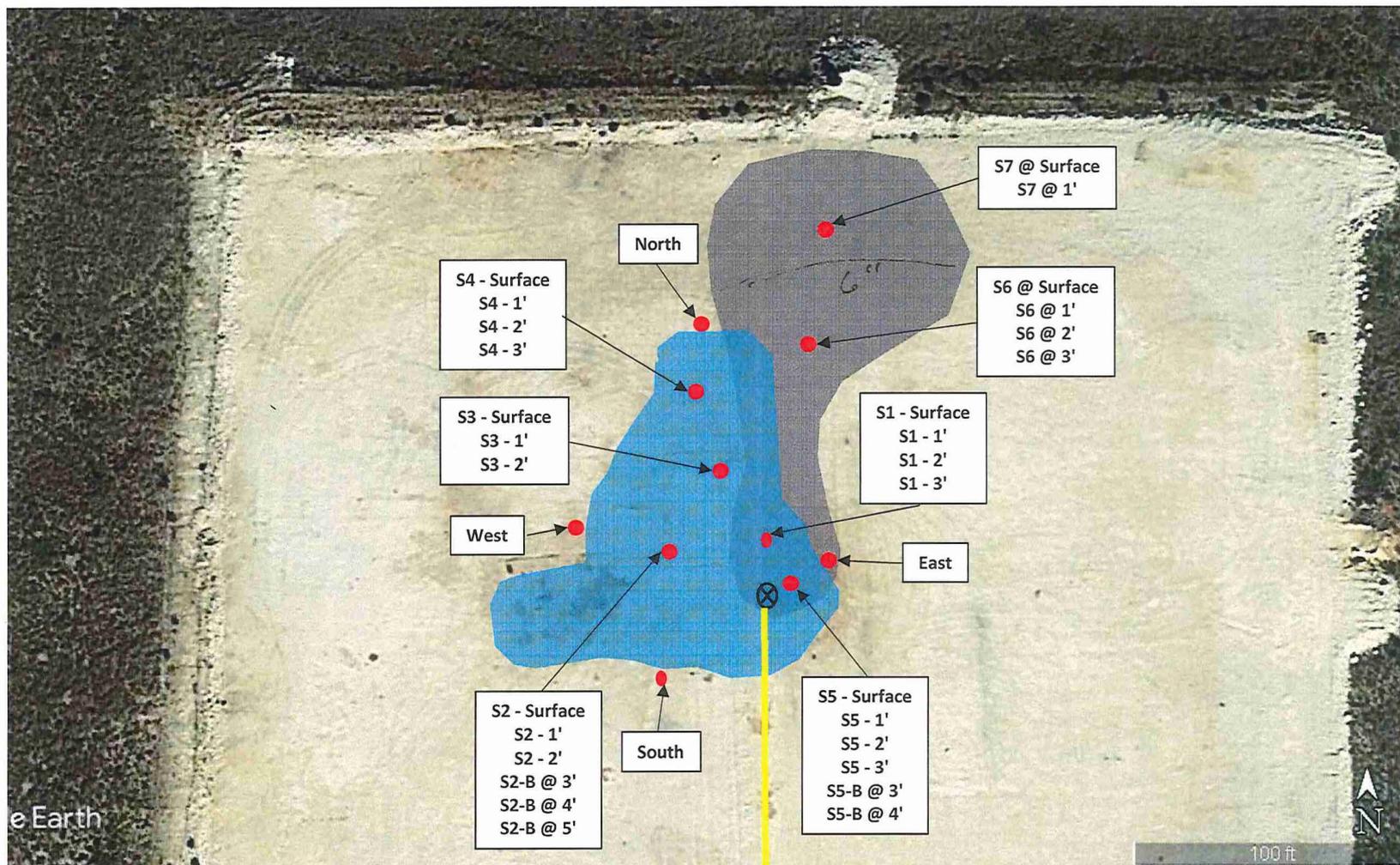
LEGEND:

	Site Location		Non-Industrial Building
	Fresh Water Well		Municipal Well Field
	100-Year Floodplain		Subsurface Mine
	High/Critical Karst		1/2 Mile Radius

Figure 2
 Aerial Map
 COG Operating, LLC
 Stratojet 31 State Com #007H
 Lea County, NM

Drafted by: BC Checked by: CS	
Draft: January 31, 2019	
GPS:	32.52454 -103.49931
UL "N", Sec. 31, T20S, R35E	
TRC Proj. No:	323229





LEGEND:

	Inferred Release Margins (8/04/18)
	Inferred Release Margins (11/05/18)
	Sample Point Location
	Wellhead
	Underground Pipeline

Figure 3
 Site & Sample Location Map
 COG Operating, LLC
 Stratojet 31 State Com #007H
 Lea County, NM

Drafted by: BC Checked by: CS	
Draft: January 31, 2019	
GPS:	32.52454 -103.49931
UL "N", Sec. 31, T20S, R35E	
TRC Proj. No:	323229

1" = 60'

1/7/2019

nmwrrs.ose.state.nm.us/nmwrrs/ReportProxy?queryData=%7B"report"%3A"waterColumn"%2C%0A"BasinDiv"%3A"true"%2C%0A"Basin"...



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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 640943

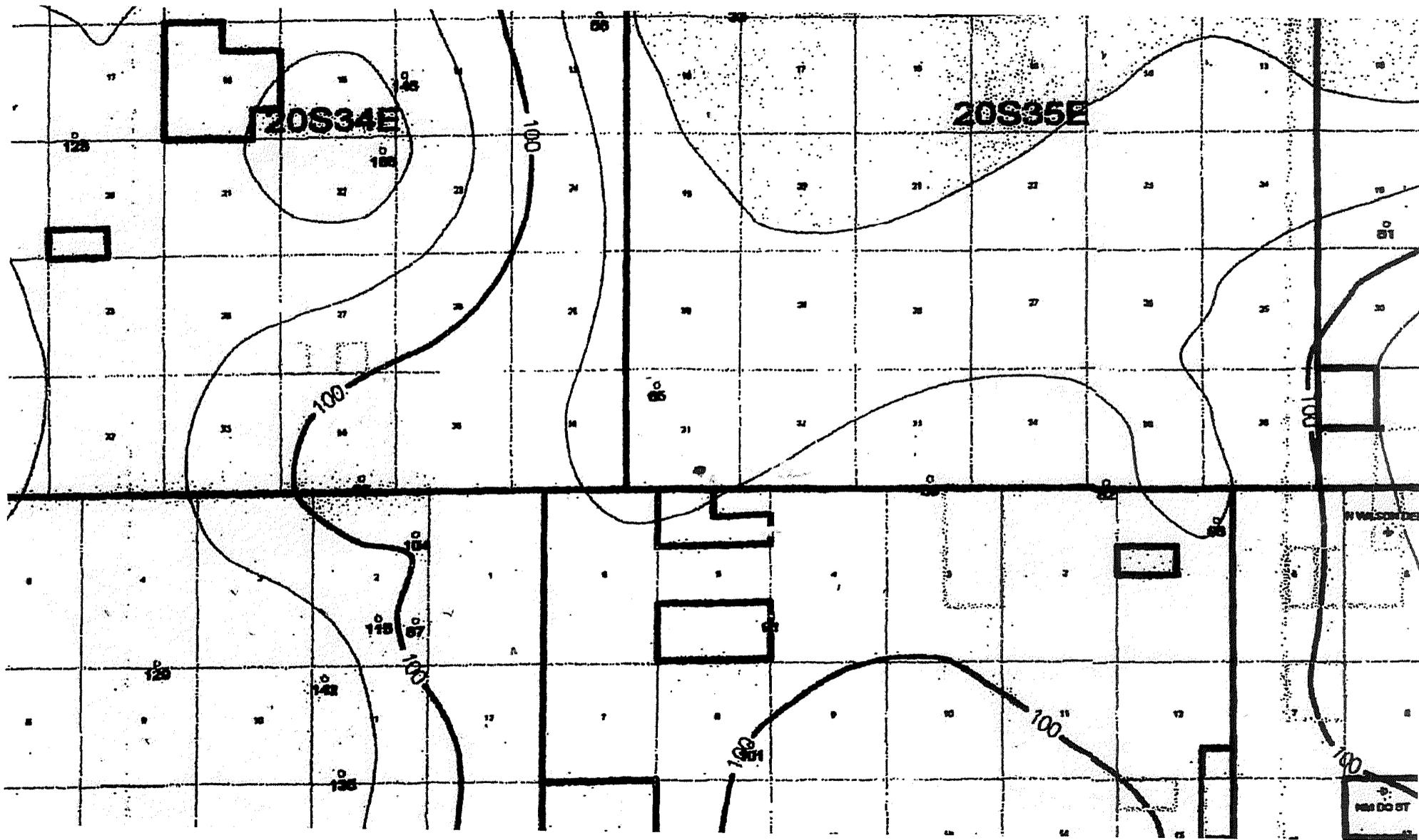
Northing (Y): 3599572

Radius: 1610

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

1/7/19 10:41 AM

WATER COLUMN/ AVERAGE
DEPTH TO WATER





APPENDIX VI

LABORATORY DATA



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

October 29, 2019

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: STRATOJET 31 ST. COM #007H

Enclosed are the results of analyses for samples received by the laboratory on 10/23/19 12:20.

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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW - 1 0.5'	H903617-01	Soil	18-Oct-19 10:20	23-Oct-19 12:20
SW - 2 0.5'	H903617-02	Soil	18-Oct-19 10:25	23-Oct-19 12:20
SW - 3 0.5'	H903617-03	Soil	18-Oct-19 10:30	23-Oct-19 12:20
SW - 4 0.5'	H903617-04	Soil	18-Oct-19 10:35	23-Oct-19 12:20
SW - 5 0.5'	H903617-05	Soil	18-Oct-19 10:40	23-Oct-19 12:20
SW - 6 2.5'	H903617-06	Soil	18-Oct-19 10:45	23-Oct-19 12:20
SW - 10 2.5'	H903617-07	Soil	18-Oct-19 10:50	23-Oct-19 12:20
SW - 11 2.5'	H903617-08	Soil	18-Oct-19 10:55	23-Oct-19 12:20
S - 1 0.5'	H903617-09	Soil	18-Oct-19 11:00	23-Oct-19 12:20
S - 2 0.5'	H903617-10	Soil	18-Oct-19 11:05	23-Oct-19 12:20
S - 3 0.5'	H903617-11	Soil	18-Oct-19 11:10	23-Oct-19 12:20
S - 4 0.5'	H903617-12	Soil	18-Oct-19 11:15	23-Oct-19 12:20
S - 5 0.5'	H903617-13	Soil	18-Oct-19 11:20	23-Oct-19 12:20
S - 6 0.5'	H903617-14	Soil	18-Oct-19 11:25	23-Oct-19 12:20
S - 7 0.5'	H903617-15	Soil	18-Oct-19 11:30	23-Oct-19 12:20
S - 8 0.5'	H903617-16	Soil	18-Oct-19 11:35	23-Oct-19 12:20
S - 10 2.5'	H903617-17	Soil	18-Oct-19 11:40	23-Oct-19 12:20
S - 11 2.5'	H903617-18	Soil	18-Oct-19 11:45	23-Oct-19 12:20
S - 12 2.5'	H903617-19	Soil	18-Oct-19 11:50	23-Oct-19 12:20
S - 13 2.5'	H903617-20	Soil	18-Oct-19 11:55	23-Oct-19 12:20
S - 14 2.5'	H903617-21	Soil	18-Oct-19 12:00	23-Oct-19 12:20
SW - 7 2.5'	H903617-22	Soil	21-Oct-19 13:45	23-Oct-19 12:20
SW - 8 2.5'	H903617-23	Soil	21-Oct-19 13:50	23-Oct-19 12:20
S - 9 0.5'	H903617-24	Soil	21-Oct-19 13:55	23-Oct-19 12:20
SW - 9 2.5'	H903617-25	Soil	21-Oct-19 14:00	23-Oct-19 12:20
S - 15 2.5'	H903617-26	Soil	21-Oct-19 14:05	23-Oct-19 12:20
S - 16 2.5'	H903617-27	Soil	21-Oct-19 14:10	23-Oct-19 12:20

Cardinal Laboratories

* = Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

Client revised the sample ID on sample -24. This is the revised report and will replace the one sent on 10/28/19.

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW - 1 0.5'
H903617-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	12.5		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			101 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			103 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW - 2 0.5'
H903617-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			102 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			103 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW - 3 0.5'
H903617-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			100 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			101 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW - 4 0.5'
H903617-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	14.1		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			103 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			106 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW - 5 0.5'
H903617-05 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	31.3		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			105 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			108 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW - 6 2.5'
H903617-06 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

S-04

GRO C6-C10*	32.2		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	1730		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	384		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			103 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			148 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW - 10 2.5'
H903617-07 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			99.3 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			103 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW - 11 2.5'
H903617-08 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

S-04

GRO C6-C10*	30.6		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	2520		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	522		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			115 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			186 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 1 0.5'

H903617-09 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	12.5		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			102 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			104 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 2 0.5'

H903617-10 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			100 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			102 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 3 0.5'
H903617-11 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	206		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	41.4		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			97.9 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			114 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 4 0.5'
H903617-12 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			99.7 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			102 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 5 0.5'

H903617-13 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	104		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	20.8		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			96.6 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			107 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 6 0.5'
H903617-14 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	442		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	115		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			98.9 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			116 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 7 0.5'
H903617-15 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	512		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	115		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			99.7 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			119 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 8 0.5'

H903617-16 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

S-04

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	2260		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	559		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			103 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			181 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 10 2.5'
H903617-17 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	95.2		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	21.7		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			102 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			111 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 11 2.5'
H903617-18 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	320		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	47.1		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			97.2 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			112 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 12 2.5'
H903617-19 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	604		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	149		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			99.7 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			120 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 13 2.5'
H903617-20 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
DRO >C10-C28*	1570		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	1170		10.0	mg/kg	1	9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			101 %	41-142		9102411	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			113 %	37.6-147		9102411	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 14 2.5'
H903617-21 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			82.0 %	41-142		9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			82.5 %	37.6-147		9102413	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW- 7 2.5'
H903617-22 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
DRO >C10-C28*	104		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	41.7		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			83.7 %	41-142		9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			86.2 %	37.6-147		9102413	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW- 8 2.5'
H903617-23 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
DRO >C10-C28*	85.3		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			~ 84.5 %	41-142		9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			85.4 %	37.6-147		9102413	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S - 9 0.5'
H903617-24 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	32.6		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
DRO >C10-C28*	2260		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	339		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			89.1 %	41-142		9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			138 %	37.6-147		9102413	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

SW- 9 2.5'
H903617-25 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			82.8 %		41-142	9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			81.8 %		37.6-147	9102413	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 15 2.5'
H903617-26 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
DRO >C10-C28*	285		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			78.9 %	41-142		9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			88.8 %	37.6-147		9102413	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

S- 16 2.5'
H903617-27 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
DRO >C10-C28*	92.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctane			81.0 %	41-142		9102413	MS	25-Oct-19	8015B	
Surrogate: 1-Chlorooctadecane			83.3 %	37.6-147		9102413	MS	25-Oct-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE
408 W. TEXAS AVE.
ARTESIA NM, 88210

Project: STRATOJET 31 ST. COM #007H
Project Number: 700778.135.01
Project Manager: DAVID ADKINS
Fax To: (575) 745-8905

Reported:
29-Oct-19 11:04

Petroleum Hydrocarbons by GC FID - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	-------	-----	-----------	-------

Batch 9102411 - General Prep - Organics

Blank (9102411-BLK1)		Prepared: 24-Oct-19 Analyzed: 25-Oct-19								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	54.6		mg/kg	50.0		109	41-142			
Surrogate: 1-Chlorooctadecane	57.2		mg/kg	50.0		114	37.6-147			

LCS (9102411-BS1)

LCS (9102411-BS1)		Prepared: 24-Oct-19 Analyzed: 25-Oct-19								
GRO C6-C10	222	10.0	mg/kg	200		111	76.5-133			
DRO >C10-C28	220	10.0	mg/kg	200		110	72.9-138			
Total TPH C6-C28	442	10.0	mg/kg	400		110	78-132			
Surrogate: 1-Chlorooctane	60.6		mg/kg	50.0		121	41-142			
Surrogate: 1-Chlorooctadecane	60.8		mg/kg	50.0		122	37.6-147			

LCS Dup (9102411-BSD1)

LCS Dup (9102411-BSD1)		Prepared: 24-Oct-19 Analyzed: 25-Oct-19								
GRO C6-C10	217	10.0	mg/kg	200		108	76.5-133	2.49	20.6	
DRO >C10-C28	213	10.0	mg/kg	200		106	72.9-138	3.36	20.6	
Total TPH C6-C28	429	10.0	mg/kg	400		107	78-132	2.92	18	
Surrogate: 1-Chlorooctane	60.7		mg/kg	50.0		121	41-142			
Surrogate: 1-Chlorooctadecane	60.6		mg/kg	50.0		121	37.6-147			

Batch 9102413 - General Prep - Organics

Blank (9102413-BLK1)		Prepared: 24-Oct-19 Analyzed: 25-Oct-19								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	48.5		mg/kg	50.0		97.0	41-142			
Surrogate: 1-Chlorooctadecane	48.9		mg/kg	50.0		97.8	37.6-147			

Cardinal Laboratories

* = Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TALON LPE 408 W. TEXAS AVE. ARTESIA NM, 88210	Project: STRATOJET 31 ST. COM #007H Project Number: 700778.135.01 Project Manager: DAVID ADKINS Fax To: (575) 745-8905	Reported: 29-Oct-19 11:04
---	---	------------------------------

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 9102413 - General Prep - Organics

LCS (9102413-BS1)		Prepared: 24-Oct-19 Analyzed: 25-Oct-19								
GRO C6-C10	211	10.0	mg/kg	200		106	76.5-133			
DRO >C10-C28	210	10.0	mg/kg	200		105	72.9-138			
Total TPH C6-C28	421	10.0	mg/kg	400		105	78-132			
Surrogate: 1-Chlorooctane	49.4		mg/kg	50.0		98.8	41-142			
Surrogate: 1-Chlorooctadecane	49.1		mg/kg	50.0		98.1	37.6-147			

LCS Dup (9102413-BSD1)		Prepared: 24-Oct-19 Analyzed: 25-Oct-19								
GRO C6-C10	216	10.0	mg/kg	200		108	76.5-133	2.35	20.6	
DRO >C10-C28	214	10.0	mg/kg	200		107	72.9-138	2.02	20.6	
Total TPH C6-C28	430	10.0	mg/kg	400		108	78-132	2.19	18	
Surrogate: 1-Chlorooctane	53.6		mg/kg	50.0		107	41-142			
Surrogate: 1-Chlorooctadecane	49.8		mg/kg	50.0		99.7	37.6-147			

Cardinal Laboratories

*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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			ANALYSIS REQUEST											
Project Manager: DAVID ADKINS			P.O. #:														
Address: 408 W. TEXAS AVE.			Company: COL														
City: ARTESIA		State: NM		Zip: 88210								Attn: SHELDON HIRCHCOX					
Phone #: 575.746.8768		Fax #:		Address:													
Project #: 700778.135.01		Project Owner: COL			City:												
Project Name: STRATOJET 31 ST.COM 007H			State:									Zip:					
Project Location: LEA COUNTY			Phone #:														
Sampler Name: MICHAEL COLLIER			Fax #:														
FOR LAB USE ONLY																	
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS							MATRIX			PRESERV.	SAMPLING	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	TPH		
H903617																	
1 SW-1 0.5'				C	1	✓				✓			10-18-19	10:30am	✓		
2 SW-2 0.5'														10:25am			
3 SW-3 0.5'														10:30am			
4 SW-4 0.5'														10:35am			
5 SW-5 0.5'														10:40am			
6 SW-6 2.5'														10:45am			
7 SW-10 2.5'														10:50am			
8 SW-11 2.5'														10:55am			
9 S-1 0.5'														11:00am			
10 S-2 0.5'														11:05am			

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 90 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: M.H. Hill	Date: 10/23/19 Time: 11:25	Received By: Brandi Oldaker	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: Brandi Oldaker	Date: 10-23-19 Time: 12:20	Received By: Jamara Oldaker	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) 3.6c	#97	Sample Condition: Cool Intact	REMARKS:	
Sampler - LPS - Bus - Other: Corrected 4.0c		Checked By: YO		

pg. 1 of 3

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: TALON CPE		BILL TO		ANALYSIS REQUEST											
Project Manager: DAVID ADKINS		P.O. #:													
Address: 408 W. TEXAS AVE.		Company: COV													
City: ARTESIA State: NM Zip: 88210		Attn: SHELDON HITCHCOCK													
Phone #: 575.746.8768 Fax #:		Address:													
Project #: 700778.135.01 Project Owner: COV		City:													
Project Name: STRATOJET 31 S4.COM 027H		State: Zip:													
Project Location: LEA COUNTY		Phone #:													
Sampler Name: MICHAEL COLLIER		Fax #:													
FOR LAB USE ONLY															
Lab I.D.	Sample I.D.	(3)RAB OR (2)COMP.	# CONTAINERS					MATRIX			PRESERV.	SAMPLING			
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL	OTHER:	DATE	TIME	
H903617						<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			10-18-19	11:10a	<input checked="" type="checkbox"/>
11	S-3 0.5'													11:15a	
12	S-4 0.5'													11:20a	
13	S-5 0.5'													11:25a	
14	S-6 0.5'													11:30a	
15	S-7 0.5'													11:35a	
16	S-8 0.5'													11:40a	
17	S-10 2.5'													11:45a	
18	S-11 2.5'													11:50a	
19	S-12 2.5'													11:55a	
20	S-13 2.5'														

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 90 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: MHL Collier	Date: 10-23-19 Time: 11:25	Received By: Brandi Adkins	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: Brandi Adkins	Date: 10-23-19 Time: 12:20	Received By: Brandi Adkins	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) 3.6	#97	Sample Condition	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other: Corrected 4.02		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	TO	
		Yes <input type="checkbox"/> No <input type="checkbox"/>		

PG 2 OF 3

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: TALON CPE		PHLETO		ANALYSIS REQUEST											
Project Manager: DAVID ADAMS		P.O. #:													
Address: 408 W. TEXAS AVE.		Company: COL													
City: ARTESIA State: NM Zip: 88210		Attn: SHELDON HITCHCOCK													
Phone #: 575.746.8762 Fax #:		Address:													
Project #: 700778.135.01 Project Owner: COL		City:													
Project Name: STRATOJET 31 ST. COM 02TH		State: Zip:													
Project Location: LEA COUNTY		Phone #:													
Sampler Name: MICHAEL COLLIER		Fax #:													
FOR LAB USE ONLY															
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS					MATRIX			PRESERV.	SAMPLING	TPH		
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL	OTHER:		DATE	TIME
H903617						<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>				10-18-19	12:00pm
	21 S-14 2.5'	C	1												
	22 SW-7 2.5'													10-21-19	12:45
	23 SW-8 2.5'														13:50
	* 24 SW-9 0.5' S-9 0.5'														13:55
	25 SW-9 2.5'														14:00
	26 S-15 2.5'														14:05
	27 S-16 2.5'														14:10

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: <i>MHL RLB</i>	Date: 10/23/19 Time: 11:25	Received By: <i>Brandi Oldaker</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Relinquished By: <i>Brandi Oldaker</i>	Date: 10-23-19 Time: 12:20	Received By: <i>Juanita Oldaker</i>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Delivered By: (Circle One) 3.6c	#97	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) JO
Sampler - UPS - Bus - Other: Corrected	4.0c		REMARKS: * Sample ID reused as per Michael. 10/28/19 dc

Pg. 3 of 3

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



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

November 01, 2019

DAVID ADKINS
TALON LPE
408 W. TEXAS AVE.
ARTESIA, NM 88210

RE: STRATOJET 31 ST. COM #007H

Enclosed are the results of analyses for samples received by the laboratory on 10/31/19 11:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	10/31/2019	Sampling Date:	10/31/2019
Reported:	11/01/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 ST. COM #007H	Sampling Condition:	Cool & Intact
Project Number:	700778.135.01	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA COUNTY		

Sample ID: SW - 6A 3' (H903715-01)

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	10/31/2019	ND	215	108	200	1.46	
DRO >C10-C28*	28.7	10.0	10/31/2019	ND	203	102	200	5.41	
EXT DRO >C28-C36	<10.0	10.0	10/31/2019	ND					

Surrogate: 1-Chlorooctane 99.8 % 41-142
 Surrogate: 1-Chlorooctadecane 106 % 37.6-147

Sample ID: S - 13A 3' (H903715-02)

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	10/31/2019	ND	215	108	200	1.46	
DRO >C10-C28*	20.4	10.0	10/31/2019	ND	203	102	200	5.41	
EXT DRO >C28-C36	<10.0	10.0	10/31/2019	ND					

Surrogate: 1-Chlorooctane 87.6 % 41-142
 Surrogate: 1-Chlorooctadecane 101 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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 client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	10/31/2019	Sampling Date:	10/31/2019
Reported:	11/01/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 ST. COM #007H	Sampling Condition:	Cool & Intact
Project Number:	700778.135.01	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA COUNTY		

Sample ID: SW - 11A 3' (H903715-03)

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	10/31/2019	ND	215	108	200	1.46		
DRO >C10-C28*	498	10.0	10/31/2019	ND	203	102	200	5.41		
EXT DRO >C28-C36	49.5	10.0	10/31/2019	ND						

Surrogate: 1-Chlorooctane 92.9 % 41-142
 Surrogate: 1-Chlorooctadecane 112 % 37.6-147

Sample ID: S - 8A 1' (H903715-04)

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	10/31/2019	ND	215	108	200	1.46		
DRO >C10-C28*	<10.0	10.0	10/31/2019	ND	203	102	200	5.41		
EXT DRO >C28-C36	<10.0	10.0	10/31/2019	ND						

Surrogate: 1-Chlorooctane 96.8 % 41-142
 Surrogate: 1-Chlorooctadecane 104 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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 client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	10/31/2019	Sampling Date:	10/31/2019
Reported:	11/01/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 ST. COM #007H	Sampling Condition:	Cool & Intact
Project Number:	700778.135.01	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA COUNTY		

Sample ID: S - 9A 1' (H903715-05)

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	10/31/2019	ND	215	108	200	1.46	
DRO >C10-C28*	24.5	10.0	10/31/2019	ND	203	102	200	5.41	
EXT DRO >C28-C36	<10.0	10.0	10/31/2019	ND					
<hr/>									
Surrogate: 1-Chlorooctane	89.9 %	41-142							
Surrogate: 1-Chlorooctadecane	98.5 %	37.6-147							

Cardinal Laboratories

*—Accredited Analyte

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 client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

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 client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: TALON LPE		SMILE PRO		ANALYSIS REQUEST																				
Project Manager: DAVID ADKINS		P.O. #:																						
Address: 408 W. TEXAS AVE		Company: CONCHO																						
City: ARTESIA State: NM Zip: 88210		Attn: SHELDON HITCHCOCK																						
Phone #: Fax #:		Address:																						
Project #: 70019, 135.01 Project Owner: CONCHO		City:																						
Project Name: STRATOJET 31 St CON #007H		State: Zip:																						
Project Location: LEA COUNTY		Phone #:																						
Sampler Name: MICHAEL COWLER		Fax #:																						
FOR LAB USE ONLY																								
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS											MATRIX					PRESERV.	SAMPLING				
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL	OTHER:	DATE	TIME										
H903715																								
	1 SW-6A 3'		C										10-31-19	9:30am										
	2 S-13A 3'													9:35am										
	3 SW-11A 3'													9:40am										
	4 S-8A 1'													10:00am										
	5 S-9A 1'													10:05am										

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: <i>[Signature]</i>	Date: 10-31-19 Time: 11:35	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) 4.1c	#97	Sample Condition	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other: Corrected 4.5c		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TC	
			REMARKS: RUSH	

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