

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 total dissolved solids (TDS) 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

Incident ID	NRM2014240786
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: <u>Kendra DeHoyos</u> Date: _____ email: _____ Telephone: _____
<u>OCD Only</u> Received by: <u>Ramona Marcus</u> Date: <u>5/21/2020</u>

Spill Volume(Bbls) Calculator		
<i>Inputs in blue , Outputs in red</i>		
Contaminated Soil measurement		
Length(Ft)	Width(Ft)	Depth(Ft)
<u>0</u>	<u>0.000</u>	<u>0.083</u>
Cubic Feet of Soil Impacted		<u>87.150</u>
Barrels of Soil Impacted		<u>15.53</u>
Soil Type		Clay/Sand
Barrels of Oil Assuming 100% Saturation		<u>2.33</u>
Saturation	Fluid present with shovel/backhoe	
Estimated Barrels of Oil Released		<u>2.33</u>
Free Standing Fluid Only		
Length(Ft)	Width(Ft)	Depth(Ft)
<u>0</u>	<u>0.000</u>	<u>0.083</u>
Standing fluid		<u>8.857</u>
Total fluids spilled		<u>11.187</u>

Instructions
1. Input spill area measurements in feet, if less than one foot use converter below.
2. Select a soil type from the drop down menu.
3. Select a saturation level from the drop down menu.
(For data gathering instructions see appendix tab)

Inches to Feet Converter		
	Inches	Feet
Length		0.000
Width		0.000
Height		0.000

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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	180 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

State of New Mexico
Oil Conservation Division

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Incident ID	NRM2014240786
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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.

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: Wesley Mathews Title: EHS Professional

Signature: Wesley Mathews Date: _____

email: Wesley.Mathews@dvn.com Telephone: 575-578-6195

OCD Only

Received by: Ramona Marcus Date: 5/21/2020

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Remediation Plan

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

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

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

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

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

Printed Name: Wesley Mathews Title: EHS Professional

Signature: Wesley Mathews Date: _____

email: Wesley.Mathews@dvn.com Telephone: 575-578-6195

OCD Only

Received by: Ramona Marcus Date: 5/21/2020

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

Incident ID	NRM2014240786
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Application ID	

Closure

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

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

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

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

Printed Name: Wesley Mathews Title: EHS Professional

Signature: Wesley Mathews Date: _____

email: Wesley.Mathews@dvn.com Telephone: 575-578-6195

OCD Only

Received by: Ramona Marcus Date: 5/21/2020

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: _____

NRM2014240786



talonlpe.com • 866.742.0742



Remediation and Closure Report

Arcturus 18 Federal #2H
Eddy County, NM
API # 30-015-38390

Prepared For:

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

Prepared By:

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

March 31, 2020

Mr. Jim Amos
Bureau of Land Management
620 East Green Street
Carlsbad, NM 88220

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

Subject: **Remediation and Closure Report**
Arcturus 18 Federal #2H
Eddy County, NM
API # 30-015-38390

Dear Mr. Amos & Mr. Bratcher,

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

Site Information

The Arcturus 18 Federal #2H is located approximately twenty-five (25) miles northeast of Carlsbad, New Mexico. The legal location for this release is Unit Letter H, Section 18, Township 19 South and Range 31 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.6631493 North and -103.9011417 West. A Site Map is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Maljamar and palomas fine sand, 0 to 3 percent slopes. See [Appendix II](#) for the referenced soil survey. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is eloian and piedmont deposits, Holocene to middle Pleistocene in age. Drainage courses in this area are well drained.

Ground Water and Site Characterization

The New Mexico Office of the State Engineer Database indicates the nearest reported depth to groundwater is 180-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater depth. This site is not located within a high potential Karst area.

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

Approximate Depth to Groundwater	180 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 a 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 freshwater well or spring |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978 |
| <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 |

Because the release did not occur in any of these areas and the depth to groundwater is greater than 100-feet, based upon the site characterization for this project the clean up criteria is as follows:

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

Incident Description

On January 6, 2020, broken bolts on the polish rod caused a stuffing box release. Approximately 0.16 barrels (bbls) of crude oil and 11.027 bbls of produced water were released onto the well pad. All fluids remained on location. A vac truck subsequently recovered 10 bbls of fluids. Site maps are presented in [Appendix I](#).

Talon mobilized personnel and equipment to begin site assessment and remediation activities. Based upon the results of our sampling results, only the impacted area in the vicinity of sample location S-6 was excavated utilizing a backhoe. Confirmation samples were collected from the sidewalls of the excavation to ensure that the NMOCD clean up criteria levels had been achieved.

Soil Sampling

2-19-20 Soil Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	CI mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			2500 mg/kg	20,000 mg/kg
S-1	2/19/2020	0-1'	ND	ND	ND	ND	ND	ND	490
		1-2' R	ND	ND	ND	ND	ND	ND	ND
S-2		0-1'	ND	ND	ND	350	240	590	2000
		2'	ND	ND	ND	ND	ND	ND	840
		3'	ND	ND	ND	ND	ND	ND	980
S-3		0-1'	ND	ND	ND	17	ND	17	140
		2'	ND	ND	ND	ND	ND	ND	ND
		3' R	ND	ND	ND	ND	ND	ND	ND
S-4		0-1'	ND	ND	ND	26	ND	26	2500
		2'	ND	ND	ND	ND	ND	ND	72
		3'	ND	ND	ND	ND	ND	ND	120
		4'	ND	ND	ND	ND	ND	ND	150
S-5		0-1'	ND	ND	ND	ND	ND	ND	ND
		2'	ND	ND	ND	ND	ND	ND	65
		3'	ND	ND	ND	ND	ND	ND	110
		4'	ND	ND	ND	ND	ND	ND	120
S-6		0-1'	ND	ND	ND	3500	13000	16500	ND
		2'	ND	ND	ND	ND	ND	ND	63
		3' R	ND	ND	ND	ND	ND	ND	80
S-7		0-1'	ND	ND	ND	17	ND	17	74
		2'	ND	ND	ND	ND	ND	ND	ND
		3'	ND	ND	ND	ND	ND	ND	ND
		4'	ND	ND	ND	ND	ND	ND	61
S-8		0-1'	ND	ND	ND	ND	ND	ND	ND
		2'	ND	ND	ND	ND	ND	ND	ND
		3'	ND	ND	ND	ND	ND	ND	ND
		4'	ND	ND	ND	ND	ND	ND	ND
S-9		0-1'	ND	ND	ND	290	210	500	120
		2'	ND	ND	ND	ND	ND	ND	530
		3' R	ND	ND	ND	ND	ND	ND	950
S-10		0-1'	ND	ND	ND	37	56	93	2600
		2'	ND	ND	ND	ND	ND	ND	150
		3' R	ND	ND	ND	ND	ND	ND	220
S-11		0-1'	ND	ND	ND	140	110	250	260
		2'	ND	ND	ND	ND	ND	ND	ND
		3'	ND	ND	ND	ND	ND	ND	ND
		4'	ND	ND	ND	ND	ND	ND	ND
S-12		0-1'	ND	ND	ND	110	87	197	180
		2'	ND	ND	ND	ND	ND	ND	ND
		3'	ND	ND	ND	ND	ND	ND	ND
		4'	ND	ND	ND	ND	ND	ND	ND
BG		0'	ND	ND	ND	ND	ND	ND	ND

ND-Analyte Not Detected

3-20-20 Confirmation Soil Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			2500 mg/kg
S-6 A Composite	3/20/2020	1'	--	--	ND	530	370	900

ND-Analyte Not Detected, -- Analyte Not Tested

See [Appendix V](#) for the complete report of laboratory results.

Remedial Actions

- The impacted areas in the vicinity of S-6 was excavated to a depth of 1.0-foot BGSE Laboratory analytical results from confirmation sidewall composite soil samples indicated that TPH concentrations were below NMOCD Closure Criteria.
- The impacted stained area on location was surface scraped and back dragged utilizing a backhoe.
- All excavated soil was transported to Lea Land, LLC, an NMOCD approved soil waste disposal facility.
- The excavated area was backfilled with clean caliche, machine compacted and contoured to match the surrounding location.
- Final C-141 is attached in [Appendix III](#)

Closure

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

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

Respectfully submitted,

TALON/LPE



Chris Jones
Environmental Project Manager

David J. Adkins
Digitally signed by David J. Adkins
DN: cn=David J. Adkins, o=Talon/LPE, ou=District Manager, email=David.Adkins@talonlpe.com, c=US
Date: 2020.05.18 16:13:11 -0700

David J. Adkins
District Manager

Attachments:

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



APPENDIX I

SITE MAP

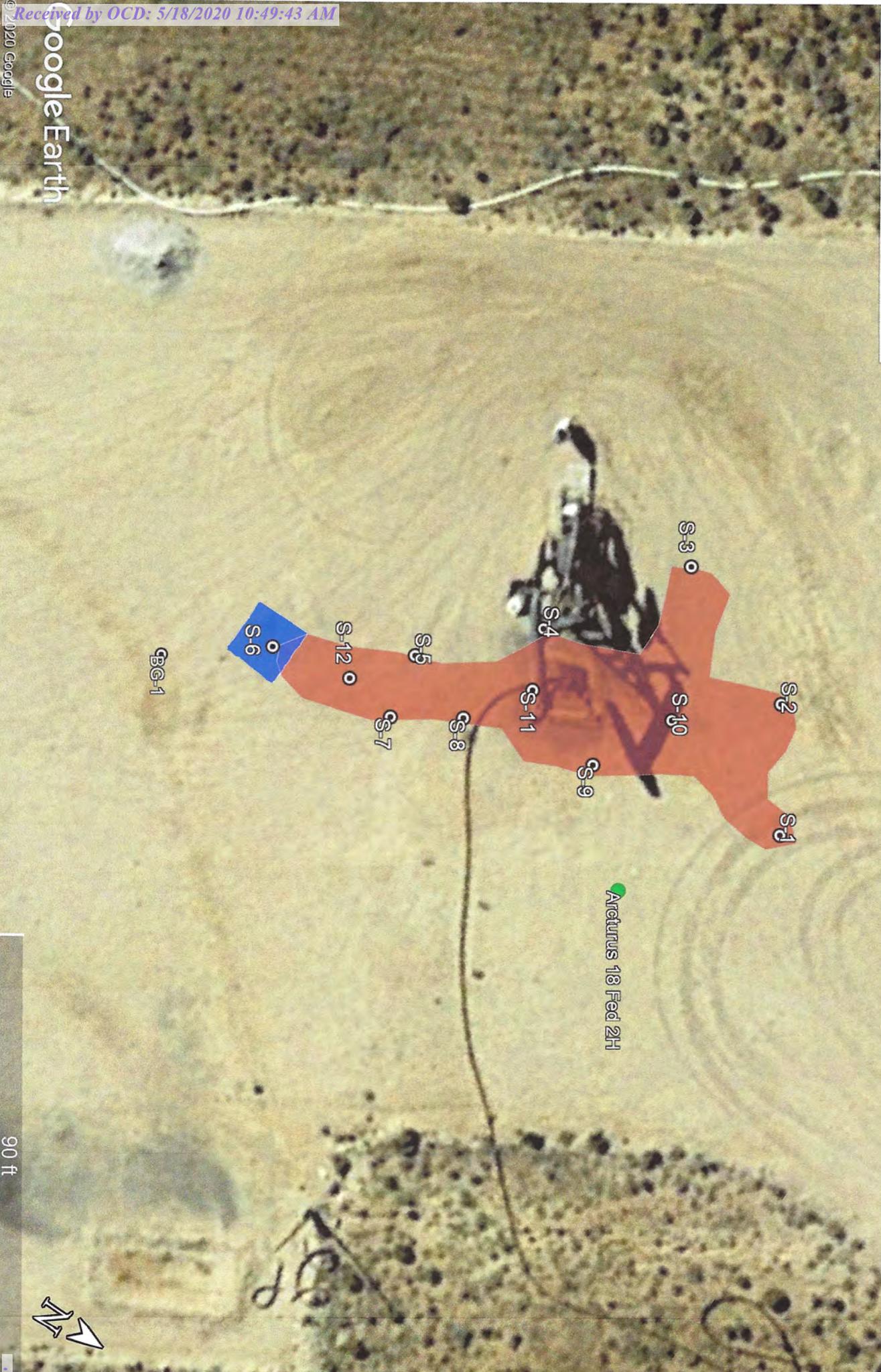
KARST MAP

TOPO MAP

LOCATION MAP

Arcturus 18 Fed #2H
Devon Energy Production Company
Eddy County, NM
API 30-015-38390
Site Map

Google Earth



Legend

- 1' excavation
- Impacted Area
- Sample

Arcturus 18 Fed 2H

90 ft



Arcturus 18 Fed #2H
 Devon Energy Production Company
 Eddy County, NM
 API 30-015-38390
 Karst Map

Google Earth

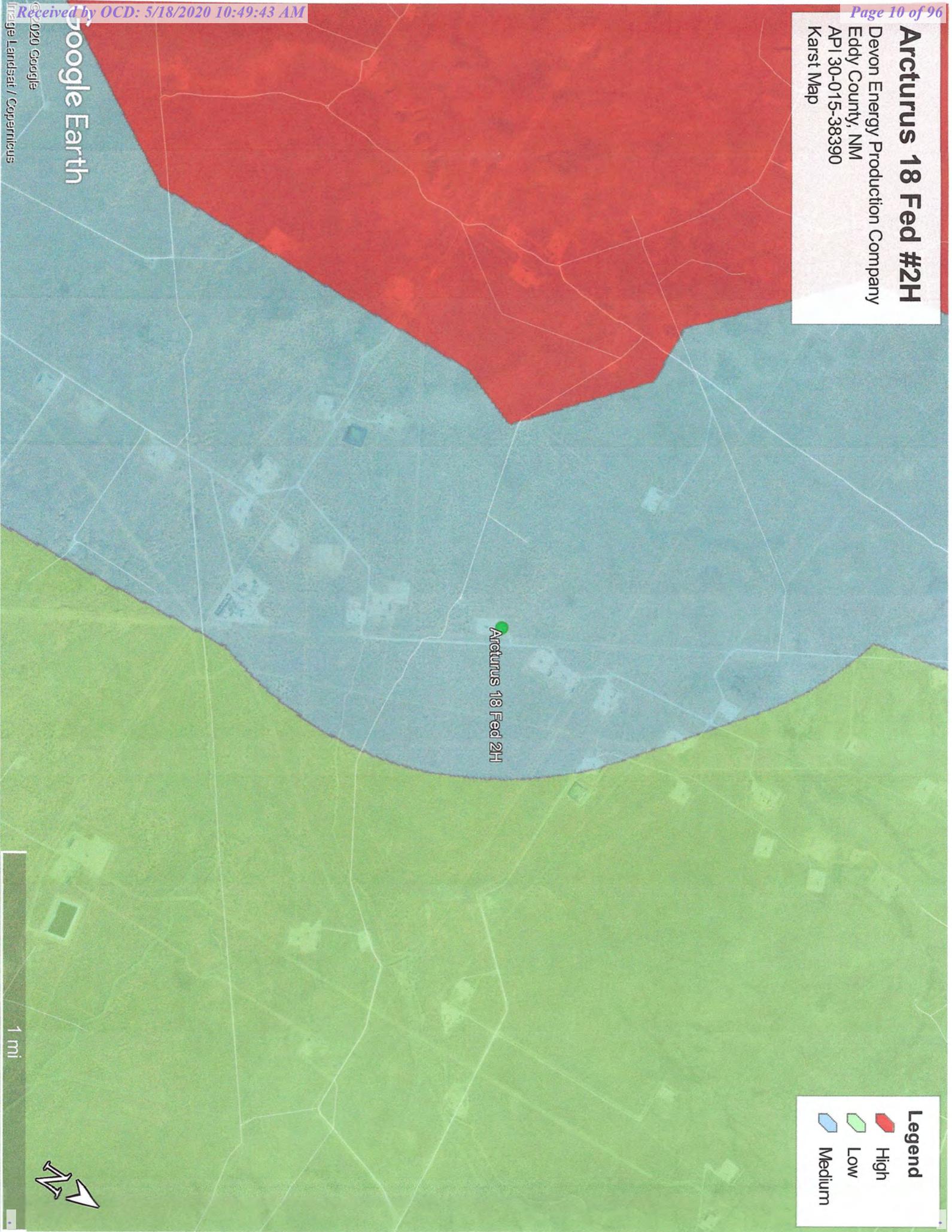
© 2020 Google
Image Landsat / Copernicus

Arcturus 18 Fed 2H

Legend

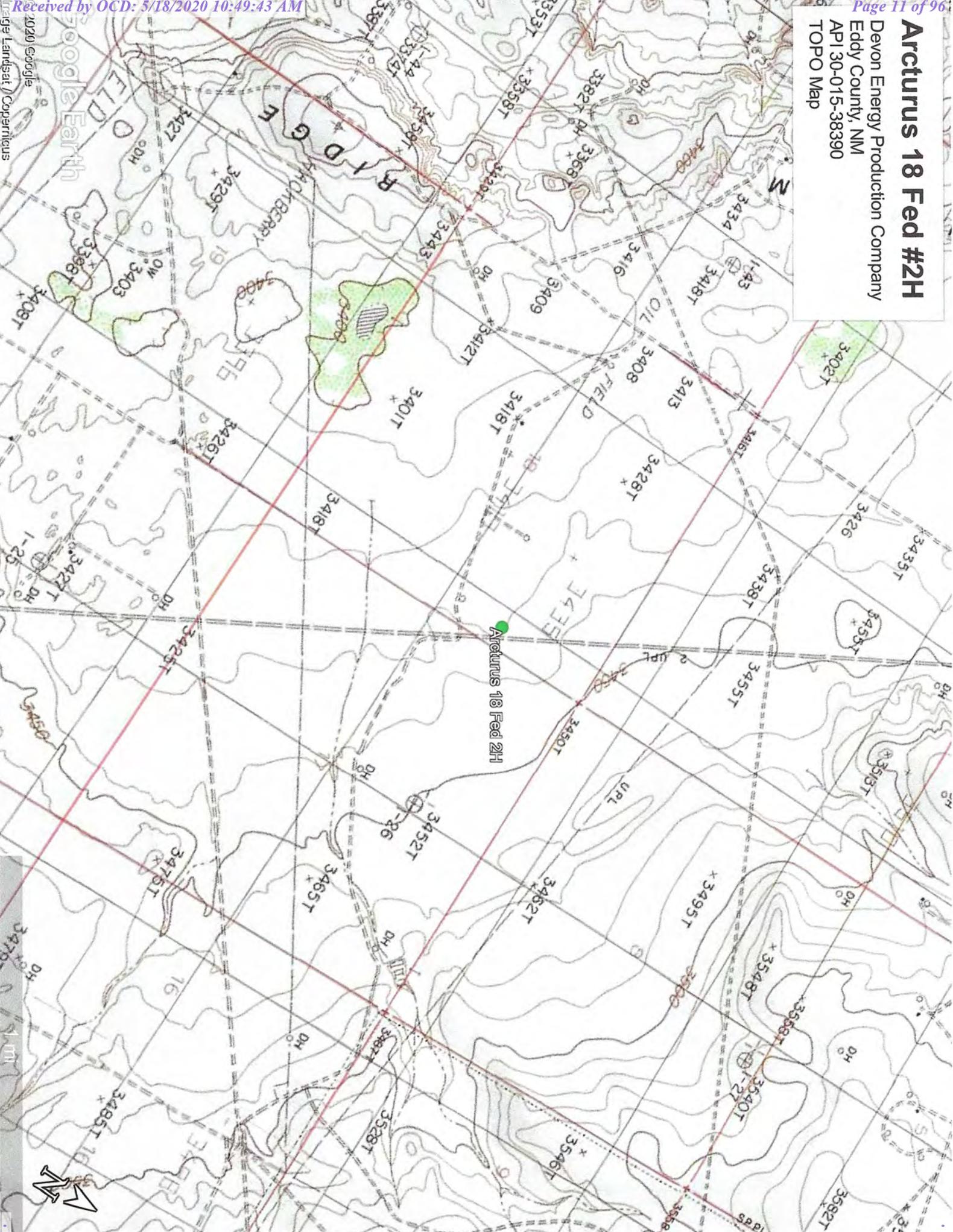
- High
- Low
- Medium

1 mi



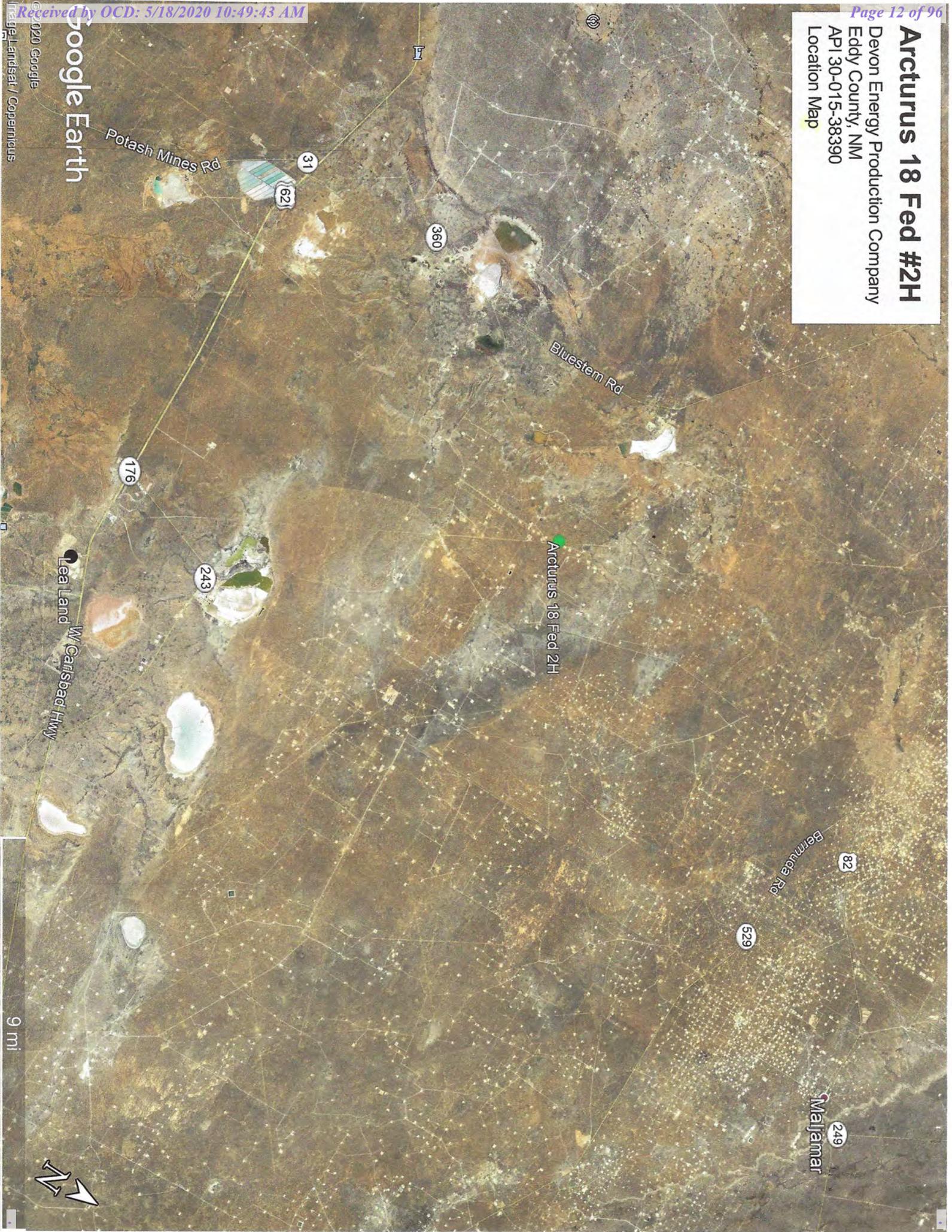
Arcturus 18 Fed #2H
Devon Energy Production Company
Eddy County, NM
API 30-015-38390
TOPO Map

© 2020 Google
Image Landsat / Copernicus



Arcturus 18 Fed #2H
Devon Energy Production Company
Eddy County, NM
API 30-015-38390
Location Map

Google Earth
© 2020 Google
Imagery Landsat / Copernicus



Arcturus 18 Fed 2H

Potash Mines Rd

Bluestem Rd

Bermuda Rd

Lea Land W Carlsbad Hwy

9 mi





APPENDIX II

GROUNDWATER DATA

SOIL SURVEY

FEMA FLOOD ZONE



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

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

(R=POD has been replaced,
O=orphaned,

C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	WaterColumn
CP 00873 POD1		CP	LE	1	1	19	19S	31E			601772	3613147*	1839	340	180	160

Average Depth to Water: 180 feet

Minimum Depth: 180 feet

Maximum Depth: 180 feet

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 603042.587

Northing (Y): 3614477.364

Radius: 2000

*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.

2/25/20 9:46 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Map Unit Description: Berino loamy fine sand, 0 to 3 percent slopes—Eddy Area, New Mexico

Eddy Area, New Mexico

BA—Berino loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w42
Elevation: 2,000 to 5,700 feet
Mean annual precipitation: 6 to 14 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 180 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Berino and similar soils: 99 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berino

Setting

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

Typical profile

H1 - 0 to 12 inches: loamy fine sand
H2 - 12 to 58 inches: sandy clay loam
H3 - 58 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat):
 Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Salinity, maximum in profile: Very slightly saline to slightly saline
 (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B

Map Unit Description: Berino loamy fine sand, 0 to 3 percent slopes---Eddy Area, New Mexico

Ecological site: Loamy (R042XC007NM)

Hydric soil rating: No

Minor Components

Pajarito

Percent of map unit: 1 percent

Ecological site: Loamy Sand (R042XC003NM)

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 15, Sep 15, 2019

National Flood Hazard Layer FIRMette



24°02.48'N



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

32°39'32.19"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 A₁, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AP
- 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 draining areas of less than one square mile Zone:
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes, Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS

- NO SCREEN
- Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone

GENERAL STRUCTURES

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

OTHER FEATURES

- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 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 **1/23/2020 at 1:29:26 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.

103°53'45.38"W



APPENDIX III

FINAL C-141

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

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Chris Jones

Title: Project Manager

Signature: 

Date: 4-2-20

email: cjones@talonlpe.com

Telephone: 575-748-8768

OCD Only

Received by: _____

Date: _____

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: Chris Jones

Title: Project Manager

Signature: 

Date: 4-2-20

email: cjones@talonlpe.com

Telephone: 575-748-8768

OCD Only

Received by: _____

Date: _____

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

Closure Approved by: _____

Date: _____

Printed Name: _____

Title: _____



APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

Photographic Documentation



Photographic Documentation





APPENDIX V

LABORATORY DATA



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

March 02, 2020

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

RE: Arcturus 18 FED 2H

OrderNo.: 2002915

Dear Chris Jones:

Hall Environmental Analysis Laboratory received 42 sample(s) on 2/22/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-1 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 8:00:00 AM

Lab ID: 2002915-001

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	490	60		mg/Kg	20	2/25/2020 10:06:09 PM	50663
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/26/2020 10:00:39 AM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 10:00:39 AM	50641
Surr: DNOP	127	55.1-146		%Rec	1	2/26/2020 10:00:39 AM	50641
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2020 10:39:09 PM	50628
Surr: BFB	83.3	66.6-105		%Rec	1	2/25/2020 10:39:09 PM	50628
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.025		mg/Kg	1	2/25/2020 10:39:09 PM	50628
Toluene	ND	0.049		mg/Kg	1	2/25/2020 10:39:09 PM	50628
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2020 10:39:09 PM	50628
Xylenes, Total	ND	0.099		mg/Kg	1	2/25/2020 10:39:09 PM	50628
Surr: 4-Bromofluorobenzene	92.3	80-120		%Rec	1	2/25/2020 10:39:09 PM	50628

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

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

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-1 2' R

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 8:05:00 AM

Lab ID: 2002915-002

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/25/2020 11:07:53 PM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/26/2020 11:10:47 AM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 11:10:47 AM	50641
Surr: DNOP	96.8	55.1-146		%Rec	1	2/26/2020 11:10:47 AM	50641
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2020 11:48:27 PM	50628
Surr: BFB	82.7	66.6-105		%Rec	1	2/25/2020 11:48:27 PM	50628
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/25/2020 11:48:27 PM	50628
Toluene	ND	0.049		mg/Kg	1	2/25/2020 11:48:27 PM	50628
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2020 11:48:27 PM	50628
Xylenes, Total	ND	0.099		mg/Kg	1	2/25/2020 11:48:27 PM	50628
Surr: 4-Bromofluorobenzene	92.4	80-120		%Rec	1	2/25/2020 11:48:27 PM	50628

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

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

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-2 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 8:15:00 AM

Lab ID: 2002915-003

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	2000	60		mg/Kg	20	2/25/2020 11:20:14 PM	50663
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	350	9.5		mg/Kg	1	2/27/2020 7:08:16 PM	50641
Motor Oil Range Organics (MRO)	240	47		mg/Kg	1	2/27/2020 7:08:16 PM	50641
Surr: DNOP	148	55.1-146	S	%Rec	1	2/27/2020 7:08:16 PM	50641
							Analyst: BRM
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 12:11:35 AM	50628
Surr: BFB	79.9	66.6-105		%Rec	1	2/26/2020 12:11:35 AM	50628
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.023		mg/Kg	1	2/26/2020 12:11:35 AM	50628
Toluene	ND	0.047		mg/Kg	1	2/26/2020 12:11:35 AM	50628
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 12:11:35 AM	50628
Xylenes, Total	ND	0.093		mg/Kg	1	2/26/2020 12:11:35 AM	50628
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	2/26/2020 12:11:35 AM	50628

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Analytical Report
 Lab Order 2002915
 Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia **Client Sample ID:** S-2 2'
Project: Arcturus 18 FED 2H **Collection Date:** 2/19/2020 8:20:00 AM
Lab ID: 2002915-004 **Matrix:** SOIL **Received Date:** 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	840	60		mg/Kg	20	2/25/2020 11:32:34 PM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/26/2020 11:57:44 AM	50641
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2020 11:57:44 AM	50641
Surr: DNOP	96.8	55.1-146		%Rec	1	2/26/2020 11:57:44 AM	50641
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/26/2020 12:34:37 AM	50628
Surr: BFB	82.0	66.6-105		%Rec	1	2/26/2020 12:34:37 AM	50628
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/26/2020 12:34:37 AM	50628
Toluene	ND	0.050		mg/Kg	1	2/26/2020 12:34:37 AM	50628
Ethylbenzene	ND	0.050		mg/Kg	1	2/26/2020 12:34:37 AM	50628
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 12:34:37 AM	50628
Surr: 4-Bromofluorobenzene	91.7	80-120		%Rec	1	2/26/2020 12:34:37 AM	50628

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

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

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-2 3'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 8:25:00 AM

Lab ID: 2002915-005

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	980	60		mg/Kg	20	2/25/2020 11:44:55 PM	50663
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/26/2020 12:21:12 PM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 12:21:12 PM	50641
Surr: DNOP	134	55.1-146		%Rec	1	2/26/2020 12:21:12 PM	50641
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 12:57:40 AM	50628
Surr: BFB	79.7	66.6-105		%Rec	1	2/26/2020 12:57:40 AM	50628
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 12:57:40 AM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 12:57:40 AM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 12:57:40 AM	50628
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 12:57:40 AM	50628
Surr: 4-Bromofluorobenzene	89.8	80-120		%Rec	1	2/26/2020 12:57:40 AM	50628

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-3 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 8:35:00 AM

Lab ID: 2002915-006

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	140	60		mg/Kg	20	2/25/2020 11:57:15 PM	50663
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	17	9.5		mg/Kg	1	2/26/2020 12:44:37 PM	50641
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2020 12:44:37 PM	50641
Surr: DNOP	141	55.1-146		%Rec	1	2/26/2020 12:44:37 PM	50641
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 1:20:40 AM	50628
Surr: BFB	78.7	66.6-105		%Rec	1	2/26/2020 1:20:40 AM	50628
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 1:20:40 AM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 1:20:40 AM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 1:20:40 AM	50628
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 1:20:40 AM	50628
Surr: 4-Bromofluorobenzene	88.3	80-120		%Rec	1	2/26/2020 1:20:40 AM	50628

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

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

Analytical Report
 Lab Order 2002915
 Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia **Client Sample ID:** S-3 2'
Project: Arcturus 18 FED 2H **Collection Date:** 2/19/2020 8:40:00 AM
Lab ID: 2002915-007 **Matrix:** SOIL **Received Date:** 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/26/2020 12:09:36 AM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/26/2020 1:08:09 PM	50641
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2020 1:08:09 PM	50641
Surr: DNOP	96.6	55.1-146		%Rec	1	2/26/2020 1:08:09 PM	50641
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 1:43:40 AM	50628
Surr: BFB	81.8	66.6-105		%Rec	1	2/26/2020 1:43:40 AM	50628
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/26/2020 1:43:40 AM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 1:43:40 AM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 1:43:40 AM	50628
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 1:43:40 AM	50628
Surr: 4-Bromofluorobenzene	91.9	80-120		%Rec	1	2/26/2020 1:43:40 AM	50628

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

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

Analytical Report
 Lab Order 2002915
 Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-008
Matrix: SOIL
Client Sample ID: S-3 3' R
Collection Date: 2/19/2020 8:45:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	ND	60		mg/Kg	20	2/26/2020 12:21:56 AM	50663
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/26/2020 1:31:40 PM	50641
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2020 1:31:40 PM	50641
Surr: DNOP	96.4	55.1-146		%Rec	1	2/26/2020 1:31:40 PM	50641
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 2:06:39 AM	50628
Surr: BFB	80.7	66.6-105		%Rec	1	2/26/2020 2:06:39 AM	50628
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 2:06:39 AM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 2:06:39 AM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 2:06:39 AM	50628
Xylenes, Total	ND	0.095		mg/Kg	1	2/26/2020 2:06:39 AM	50628
Surr: 4-Bromofluorobenzene	91.0	80-120		%Rec	1	2/26/2020 2:06:39 AM	50628

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-4 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 8:55:00 AM

Lab ID: 2002915-009

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	2500	150		mg/Kg	50	2/27/2020 2:04:04 PM	50663
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	26	9.0		mg/Kg	1	2/28/2020 8:52:55 AM	50641
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/28/2020 8:52:55 AM	50641
Surr: DNOP	91.9	55.1-146		%Rec	1	2/28/2020 8:52:55 AM	50641
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/26/2020 2:29:38 AM	50628
Surr: BFB	80.5	66.6-105		%Rec	1	2/26/2020 2:29:38 AM	50628
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.025		mg/Kg	1	2/26/2020 2:29:38 AM	50628
Toluene	ND	0.050		mg/Kg	1	2/26/2020 2:29:38 AM	50628
Ethylbenzene	ND	0.050		mg/Kg	1	2/26/2020 2:29:38 AM	50628
Xylenes, Total	ND	0.10		mg/Kg	1	2/26/2020 2:29:38 AM	50628
Surr: 4-Bromofluorobenzene	91.1	80-120		%Rec	1	2/26/2020 2:29:38 AM	50628

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 2002915
 Date Reported: 3/2/2020

CLIENT: Talon Artesia **Client Sample ID:** S-4 2'
Project: Arcturus 18 FED 2H **Collection Date:** 2/19/2020 9:05:00 AM
Lab ID: 2002915-010 **Matrix:** SOIL **Received Date:** 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	72	60		mg/Kg	20	2/26/2020 1:11:19 AM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/26/2020 2:18:50 PM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 2:18:50 PM	50641
Surr: DNOP	119	55.1-146		%Rec	1	2/26/2020 2:18:50 PM	50641
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 3:15:31 AM	50628
Surr: BFB	77.4	66.6-105		%Rec	1	2/26/2020 3:15:31 AM	50628
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 3:15:31 AM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 3:15:31 AM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 3:15:31 AM	50628
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 3:15:31 AM	50628
Surr: 4-Bromofluorobenzene	87.1	80-120		%Rec	1	2/26/2020 3:15:31 AM	50628

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-4 3'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 9:10:00 AM

Lab ID: 2002915-011

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	120	60		mg/Kg	20	2/26/2020 1:23:39 AM	50663
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/26/2020 2:42:21 PM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 2:42:21 PM	50641
Surr: DNOP	98.0	55.1-146		%Rec	1	2/26/2020 2:42:21 PM	50641
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 3:38:23 AM	50628
Surr: BFB	80.7	66.6-105		%Rec	1	2/26/2020 3:38:23 AM	50628
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 3:38:23 AM	50628
Toluene	ND	0.049		mg/Kg	1	2/26/2020 3:38:23 AM	50628
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 3:38:23 AM	50628
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 3:38:23 AM	50628
Surr: 4-Bromofluorobenzene	91.2	80-120		%Rec	1	2/26/2020 3:38:23 AM	50628

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-4 4'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 9:15:00 AM

Lab ID: 2002915-012

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	150	60		mg/Kg	20	2/26/2020 1:36:00 AM	50663
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/26/2020 3:05:52 PM	50641
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/26/2020 3:05:52 PM	50641
Surr: DNOP	99.7	55.1-146		%Rec	1	2/26/2020 3:05:52 PM	50641
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 4:01:17 AM	50628
Surr: BFB	78.5	66.6-105		%Rec	1	2/26/2020 4:01:17 AM	50628
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 4:01:17 AM	50628
Toluene	ND	0.047		mg/Kg	1	2/26/2020 4:01:17 AM	50628
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 4:01:17 AM	50628
Xylenes, Total	ND	0.095		mg/Kg	1	2/26/2020 4:01:17 AM	50628
Surr: 4-Bromofluorobenzene	89.0	80-120		%Rec	1	2/26/2020 4:01:17 AM	50628

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-5 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 9:25:00 AM

Lab ID: 2002915-013

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	ND	60		mg/Kg	20	2/26/2020 1:48:21 AM	50663
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/26/2020 3:29:31 PM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 3:29:31 PM	50641
Surr: DNOP	126	55.1-146		%Rec	1	2/26/2020 3:29:31 PM	50641
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/26/2020 4:24:11 AM	50628
Surr: BFB	78.6	66.6-105		%Rec	1	2/26/2020 4:24:11 AM	50628
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.023		mg/Kg	1	2/26/2020 4:24:11 AM	50628
Toluene	ND	0.046		mg/Kg	1	2/26/2020 4:24:11 AM	50628
Ethylbenzene	ND	0.046		mg/Kg	1	2/26/2020 4:24:11 AM	50628
Xylenes, Total	ND	0.092		mg/Kg	1	2/26/2020 4:24:11 AM	50628
Surr: 4-Bromofluorobenzene	88.4	80-120		%Rec	1	2/26/2020 4:24:11 AM	50628
							Analyst: NSB

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-5 2'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 9:30:00 AM

Lab ID: 2002915-014

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	65	60		mg/Kg	20	2/26/2020 11:42:43 AM	50687
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/26/2020 3:53:05 PM	50641
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2020 3:53:05 PM	50641
Surr: DNOP	93.8	55.1-146		%Rec	1	2/26/2020 3:53:05 PM	50641
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 4:47:03 AM	50628
Surr: BFB	79.7	66.6-105		%Rec	1	2/26/2020 4:47:03 AM	50628
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.023		mg/Kg	1	2/26/2020 4:47:03 AM	50628
Toluene	ND	0.047		mg/Kg	1	2/26/2020 4:47:03 AM	50628
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 4:47:03 AM	50628
Xylenes, Total	ND	0.093		mg/Kg	1	2/26/2020 4:47:03 AM	50628
Surr: 4-Bromofluorobenzene	91.1	80-120		%Rec	1	2/26/2020 4:47:03 AM	50628

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-5 3'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 9:35:00 AM

Lab ID: 2002915-015

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	110	60		mg/Kg	20	2/26/2020 12:19:46 PM	50687
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/26/2020 4:40:18 PM	50641
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/26/2020 4:40:18 PM	50641
Surr: DNOP	94.6	55.1-146		%Rec	1	2/26/2020 4:40:18 PM	50641
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/26/2020 1:44:35 PM	50628
Surr: BFB	80.9	66.6-105		%Rec	1	2/26/2020 1:44:35 PM	50628
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.023		mg/Kg	1	2/26/2020 1:44:35 PM	50628
Toluene	ND	0.046		mg/Kg	1	2/26/2020 1:44:35 PM	50628
Ethylbenzene	ND	0.046		mg/Kg	1	2/26/2020 1:44:35 PM	50628
Xylenes, Total	ND	0.093		mg/Kg	1	2/26/2020 1:44:35 PM	50628
Surr: 4-Bromofluorobenzene	90.6	80-120		%Rec	1	2/26/2020 1:44:35 PM	50628

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-5 4'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 9:40:00 AM

Lab ID: 2002915-016

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	120	60		mg/Kg	20	2/26/2020 12:32:08 PM	50687
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/26/2020 5:03:58 PM	50641
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2020 5:03:58 PM	50641
Surr: DNOP	88.7	55.1-146		%Rec	1	2/26/2020 5:03:58 PM	50641
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 2:08:00 PM	50628
Surr: BFB	85.0	66.6-105		%Rec	1	2/26/2020 2:08:00 PM	50628
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 2:08:00 PM	50628
Toluene	ND	0.049		mg/Kg	1	2/26/2020 2:08:00 PM	50628
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 2:08:00 PM	50628
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 2:08:00 PM	50628
Surr: 4-Bromofluorobenzene	94.4	80-120		%Rec	1	2/26/2020 2:08:00 PM	50628
Analyst: NSB							

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-6 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 9:50:00 AM

Lab ID: 2002915-017

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	ND	60		mg/Kg	20	2/26/2020 12:44:29 PM	50687
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	3500	940		mg/Kg	100	2/27/2020 7:30:12 PM	50641
Motor Oil Range Organics (MRO)	13000	4700		mg/Kg	100	2/27/2020 7:30:12 PM	50641
Surr: DNOP	0	55.1-146	S	%Rec	100	2/27/2020 7:30:12 PM	50641
							Analyst: BRM
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 2:31:29 PM	50628
Surr: BFB	79.3	66.6-105		%Rec	1	2/26/2020 2:31:29 PM	50628
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 2:31:29 PM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 2:31:29 PM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 2:31:29 PM	50628
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 2:31:29 PM	50628
Surr: 4-Bromofluorobenzene	88.2	80-120		%Rec	1	2/26/2020 2:31:29 PM	50628

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 2002915
 Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-6 2'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 9:55:00 AM

Lab ID: 2002915-018

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	63	60		mg/Kg	20	2/26/2020 1:21:31 PM	50687
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/27/2020 7:52:04 PM	50641
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/27/2020 7:52:04 PM	50641
Surr: DNOP	94.6	55.1-146		%Rec	1	2/27/2020 7:52:04 PM	50641
Analyst: BRM							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 2:54:59 PM	50628
Surr: BFB	82.2	66.6-105		%Rec	1	2/26/2020 2:54:59 PM	50628
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 2:54:59 PM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 2:54:59 PM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 2:54:59 PM	50628
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 2:54:59 PM	50628
Surr: 4-Bromofluorobenzene	89.2	80-120		%Rec	1	2/26/2020 2:54:59 PM	50628
Analyst: NSB							

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-6 3' R

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 10:00:00 AM

Lab ID: 2002915-019

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	80	60		mg/Kg	20	2/26/2020 1:33:52 PM	50687
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/26/2020 6:14:26 PM	50641
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2020 6:14:26 PM	50641
Surr: DNOP	96.2	55.1-146		%Rec	1	2/26/2020 6:14:26 PM	50641
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 3:18:11 PM	50628
Surr: BFB	85.8	66.6-105		%Rec	1	2/26/2020 3:18:11 PM	50628
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 3:18:11 PM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 3:18:11 PM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 3:18:11 PM	50628
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 3:18:11 PM	50628
Surr: 4-Bromofluorobenzene	95.9	80-120		%Rec	1	2/26/2020 3:18:11 PM	50628

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix.

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-7 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 10:10:00 AM

Lab ID: 2002915-020

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	74	60		mg/Kg	20	2/26/2020 1:46:13 PM	50687
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	17	9.5		mg/Kg	1	2/26/2020 6:37:50 PM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 6:37:50 PM	50641
Surr: DNOP	135	55.1-146		%Rec	1	2/26/2020 6:37:50 PM	50641
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 3:41:45 PM	50630
Surr: BFB	78.7	66.6-105		%Rec	1	2/26/2020 3:41:45 PM	50630
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.025		mg/Kg	1	2/26/2020 3:41:45 PM	50630
Toluene	ND	0.049		mg/Kg	1	2/26/2020 3:41:45 PM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 3:41:45 PM	50630
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 3:41:45 PM	50630
Surr: 4-Bromofluorobenzene	87.0	80-120		%Rec	1	2/26/2020 3:41:45 PM	50630

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-7 2'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 10:15:00 AM

Lab ID: 2002915-021

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	ND	60		mg/Kg	20	2/26/2020 2:23:15 PM	50687
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/26/2020 7:47:46 PM	50642
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/26/2020 7:47:46 PM	50642
Surr: DNOP	95.0	55.1-146		%Rec	1	2/26/2020 7:47:46 PM	50642
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/26/2020 4:52:07 PM	50630
Surr: BFB	83.9	66.6-105		%Rec	1	2/26/2020 4:52:07 PM	50630
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.025		mg/Kg	1	2/26/2020 4:52:07 PM	50630
Toluene	ND	0.050		mg/Kg	1	2/26/2020 4:52:07 PM	50630
Ethylbenzene	ND	0.050		mg/Kg	1	2/26/2020 4:52:07 PM	50630
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 4:52:07 PM	50630
Surr: 4-Bromofluorobenzene	92.9	80-120		%Rec	1	2/26/2020 4:52:07 PM	50630

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-7 3'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 10:20:00 AM

Lab ID: 2002915-022

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	ND	60		mg/Kg	20	2/26/2020 2:35:36 PM	50687
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/26/2020 8:57:30 PM	50642
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2020 8:57:30 PM	50642
Surr: DNOP	93.3	55.1-146		%Rec	1	2/26/2020 8:57:30 PM	50642
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 6:01:50 PM	50630
Surr: BFB	82.4	66.6-105		%Rec	1	2/26/2020 6:01:50 PM	50630
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 6:01:50 PM	50630
Toluene	ND	0.048		mg/Kg	1	2/26/2020 6:01:50 PM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 6:01:50 PM	50630
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 6:01:50 PM	50630
Surr: 4-Bromofluorobenzene	91.9	80-120		%Rec	1	2/26/2020 6:01:50 PM	50630

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-7 4'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 10:25:00 AM

Lab ID: 2002915-023

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	61	60		mg/Kg	20	2/26/2020 2:47:57 PM	50687
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/26/2020 9:20:42 PM	50642
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/26/2020 9:20:42 PM	50642
Surr: DNOP	97.1	55.1-146		%Rec	1	2/26/2020 9:20:42 PM	50642
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 7:35:19 PM	50630
Surr: BFB	78.2	66.6-105		%Rec	1	2/26/2020 7:35:19 PM	50630
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.023		mg/Kg	1	2/26/2020 7:35:19 PM	50630
Toluene	ND	0.047		mg/Kg	1	2/26/2020 7:35:19 PM	50630
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 7:35:19 PM	50630
Xylenes, Total	ND	0.094		mg/Kg	1	2/26/2020 7:35:19 PM	50630
Surr: 4-Bromofluorobenzene	86.8	80-120		%Rec	1	2/26/2020 7:35:19 PM	50630

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-8 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 10:35:00 AM

Lab ID: 2002915-024

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	ND	60		mg/Kg	20	2/26/2020 3:00:18 PM	Analyst: JMT 50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/26/2020 9:43:55 PM	Analyst: CLP 50642
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/26/2020 9:43:55 PM	50642
Surr: DNOP	125	55.1-146		%Rec	1	2/26/2020 9:43:55 PM	50642
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/26/2020 7:58:40 PM	Analyst: NSB 50630
Surr: BFB	78.7	66.6-105		%Rec	1	2/26/2020 7:58:40 PM	50630
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.025		mg/Kg	1	2/26/2020 7:58:40 PM	Analyst: NSB 50630
Toluene	ND	0.050		mg/Kg	1	2/26/2020 7:58:40 PM	50630
Ethylbenzene	ND	0.050		mg/Kg	1	2/26/2020 7:58:40 PM	50630
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 7:58:40 PM	50630
Surr: 4-Bromofluorobenzene	87.6	80-120		%Rec	1	2/26/2020 7:58:40 PM	50630

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-8 2'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 10:40:00 AM

Lab ID: 2002915-025

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	ND	60		mg/Kg	20	2/26/2020 3:12:39 PM	50687
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/26/2020 10:07:05 PM	50642
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/26/2020 10:07:05 PM	50642
Surr: DNOP	95.8	55.1-146		%Rec	1	2/26/2020 10:07:05 PM	50642
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 8:22:04 PM	50630
Surr: BFB	81.2	66.6-105		%Rec	1	2/26/2020 8:22:04 PM	50630
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.023		mg/Kg	1	2/26/2020 8:22:04 PM	50630
Toluene	ND	0.047		mg/Kg	1	2/26/2020 8:22:04 PM	50630
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 8:22:04 PM	50630
Xylenes, Total	ND	0.094		mg/Kg	1	2/26/2020 8:22:04 PM	50630
Surr: 4-Bromofluorobenzene	90.7	80-120		%Rec	1	2/26/2020 8:22:04 PM	50630

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 2002915
 Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-8 3'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 10:45:00 AM

Lab ID: 2002915-026

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	ND	60		mg/Kg	20	2/26/2020 3:49:40 PM	50687
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/26/2020 10:53:26 PM	50642
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2020 10:53:26 PM	50642
Surr: DNOP	96.3	55.1-146		%Rec	1	2/26/2020 10:53:26 PM	50642
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 8:45:27 PM	50630
Surr: BFB	78.7	66.6-105		%Rec	1	2/26/2020 8:45:27 PM	50630
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.025		mg/Kg	1	2/26/2020 8:45:27 PM	50630
Toluene	ND	0.049		mg/Kg	1	2/26/2020 8:45:27 PM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 8:45:27 PM	50630
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 8:45:27 PM	50630
Surr: 4-Bromofluorobenzene	87.5	80-120		%Rec	1	2/26/2020 8:45:27 PM	50630

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-8 4'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 10:50:00 AM

Lab ID: 2002915-027

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	ND	60		mg/Kg	20	2/26/2020 4:02:02 PM	50687
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/26/2020 11:16:38 PM	50642
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2020 11:16:38 PM	50642
Surr: DNOP	99.0	55.1-146		%Rec	1	2/26/2020 11:16:38 PM	50642
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 9:08:48 PM	50630
Surr: BFB	79.3	66.6-105		%Rec	1	2/26/2020 9:08:48 PM	50630
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.025		mg/Kg	1	2/26/2020 9:08:48 PM	50630
Toluene	ND	0.049		mg/Kg	1	2/26/2020 9:08:48 PM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 9:08:48 PM	50630
Xylenes, Total	ND	0.098		mg/Kg	1	2/26/2020 9:08:48 PM	50630
Surr: 4-Bromofluorobenzene	88.8	80-120		%Rec	1	2/26/2020 9:08:48 PM	50630

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 2002915
 Date Reported: 3/2/2020

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-028
Matrix: SOIL
Client Sample ID: S-9 0-1'
Collection Date: 2/19/2020 10:55:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	120	60		mg/Kg	20	2/26/2020 4:14:23 PM	50687
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	290	9.3		mg/Kg	1	2/27/2020 8:14:02 PM	50642
Motor Oil Range Organics (MRO)	210	47		mg/Kg	1	2/27/2020 8:14:02 PM	50642
Surr: DNOP	127	55.1-146		%Rec	1	2/27/2020 8:14:02 PM	50642
Analyst: BRM							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 9:32:07 PM	50630
Surr: BFB	79.8	66.6-105		%Rec	1	2/26/2020 9:32:07 PM	50630
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 9:32:07 PM	50630
Toluene	ND	0.048		mg/Kg	1	2/26/2020 9:32:07 PM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 9:32:07 PM	50630
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 9:32:07 PM	50630
Surr: 4-Bromofluorobenzene	89.5	80-120		%Rec	1	2/26/2020 9:32:07 PM	50630

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-9 2'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 11:00:00 AM

Lab ID: 2002915-029

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	530	60		mg/Kg	20	2/26/2020 4:26:44 PM	50687
Analyst: JMT							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/27/2020 12:02:56 AM	50642
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/27/2020 12:02:56 AM	50642
Surr: DNOP	96.7	55.1-146		%Rec	1	2/27/2020 12:02:56 AM	50642
Analyst: CLP							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 9:55:23 PM	50630
Surr: BFB	79.3	66.6-105		%Rec	1	2/26/2020 9:55:23 PM	50630
Analyst: NSB							
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 9:55:23 PM	50630
Toluene	ND	0.049		mg/Kg	1	2/26/2020 9:55:23 PM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 9:55:23 PM	50630
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 9:55:23 PM	50630
Surr: 4-Bromofluorobenzene	89.1	80-120		%Rec	1	2/26/2020 9:55:23 PM	50630

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-9 3' R

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 11:05:00 AM

Lab ID: 2002915-030

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	950	60		mg/Kg	20	2/26/2020 4:39:05 PM	50687
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/27/2020 12:26:02 AM	50642
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/27/2020 12:26:02 AM	50642
Surr: DNOP	97.0	55.1-146		%Rec	1	2/27/2020 12:26:02 AM	50642
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 10:18:39 PM	50630
Surr: BFB	76.8	66.6-105		%Rec	1	2/26/2020 10:18:39 PM	50630
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.025		mg/Kg	1	2/26/2020 10:18:39 PM	50630
Toluene	ND	0.049		mg/Kg	1	2/26/2020 10:18:39 PM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 10:18:39 PM	50630
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 10:18:39 PM	50630
Surr: 4-Bromofluorobenzene	86.5	80-120		%Rec	1	2/26/2020 10:18:39 PM	50630

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

CLIENT: Talon Artesia

Client Sample ID: S-10 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 11:15:00 AM

Lab ID: 2002915-031

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							
Chloride	2600	150		mg/Kg	50	2/27/2020 2:16:25 PM	50687
							Analyst: JMT
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	37	9.9		mg/Kg	1	2/27/2020 12:49:08 AM	50642
Motor Oil Range Organics (MRO)	56	49		mg/Kg	1	2/27/2020 12:49:08 AM	50642
Surr: DNOP	115	55.1-146		%Rec	1	2/27/2020 12:49:08 AM	50642
							Analyst: CLP
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 10:41:54 PM	50630
Surr: BFB	80.1	66.6-105		%Rec	1	2/26/2020 10:41:54 PM	50630
							Analyst: NSB
EPA METHOD 8021B: VOLATILES							
Benzene	ND	0.024		mg/Kg	1	2/26/2020 10:41:54 PM	50630
Toluene	ND	0.048		mg/Kg	1	2/26/2020 10:41:54 PM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 10:41:54 PM	50630
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 10:41:54 PM	50630
Surr: 4-Bromofluorobenzene	90.7	80-120		%Rec	1	2/26/2020 10:41:54 PM	50630
							Analyst: NSB

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Analytical Report

Lab Order **2002915**

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-10 2'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 11:20:00 AM

Lab ID: 2002915-032

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	150	60		mg/Kg	20	2/26/2020 5:28:28 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/27/2020 1:12:21 AM	50642
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2020 1:12:21 AM	50642
Surr: DNOP	101	55.1-146		%Rec	1	2/27/2020 1:12:21 AM	50642
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 11:05:10 PM	50630
Surr: BFB	79.1	66.6-105		%Rec	1	2/26/2020 11:05:10 PM	50630
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	2/26/2020 11:05:10 PM	50630
Toluene	ND	0.047		mg/Kg	1	2/26/2020 11:05:10 PM	50630
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 11:05:10 PM	50630
Xylenes, Total	ND	0.094		mg/Kg	1	2/26/2020 11:05:10 PM	50630
Surr: 4-Bromofluorobenzene	88.2	80-120		%Rec	1	2/26/2020 11:05:10 PM	50630

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

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

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-10 3' R

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 11:25:00 AM

Lab ID: 2002915-033

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	220	60		mg/Kg	20	2/26/2020 5:40:50 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	2/27/2020 1:35:33 AM	50642
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	2/27/2020 1:35:33 AM	50642
Surr: DNOP	125	55.1-146		%Rec	1	2/27/2020 1:35:33 AM	50642
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/27/2020 12:14:36 AM	50630
Surr: BFB	78.3	66.6-105		%Rec	1	2/27/2020 12:14:36 AM	50630
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/27/2020 12:14:36 AM	50630
Toluene	ND	0.048		mg/Kg	1	2/27/2020 12:14:36 AM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/27/2020 12:14:36 AM	50630
Xylenes, Total	ND	0.095		mg/Kg	1	2/27/2020 12:14:36 AM	50630
Surr: 4-Bromofluorobenzene	88.0	80-120		%Rec	1	2/27/2020 12:14:36 AM	50630

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

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B
D	Sample Diluted Due to Matrix	E
H	Holding times for preparation or analysis exceeded	J
ND	Not Detected at the Reporting Limit	P
PQL	Practical Quantitative Limit	RL
S	% Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2002915**

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-11 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 11:50:00 AM

Lab ID: 2002915-034

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	260	60		mg/Kg	20	2/26/2020 6:17:52 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	140	9.2		mg/Kg	1	2/27/2020 1:58:37 AM	50642
Motor Oil Range Organics (MRO)	110	46		mg/Kg	1	2/27/2020 1:58:37 AM	50642
Surr: DNOP	115	55.1-146		%Rec	1	2/27/2020 1:58:37 AM	50642
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/27/2020 12:37:46 AM	50630
Surr: BFB	79.1	66.6-105		%Rec	1	2/27/2020 12:37:46 AM	50630
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	2/27/2020 12:37:46 AM	50630
Toluene	ND	0.046		mg/Kg	1	2/27/2020 12:37:46 AM	50630
Ethylbenzene	ND	0.046		mg/Kg	1	2/27/2020 12:37:46 AM	50630
Xylenes, Total	ND	0.093		mg/Kg	1	2/27/2020 12:37:46 AM	50630
Surr: 4-Bromofluorobenzene	88.9	80-120		%Rec	1	2/27/2020 12:37:46 AM	50630

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

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

Analytical Report

Lab Order **2002915**

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-11 2'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 11:55:00 AM

Lab ID: 2002915-035

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/26/2020 6:30:13 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/27/2020 2:21:48 AM	50642
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2020 2:21:48 AM	50642
Surr: DNOP	100	55.1-146		%Rec	1	2/27/2020 2:21:48 AM	50642
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/27/2020 1:00:58 AM	50630
Surr: BFB	81.0	66.6-105		%Rec	1	2/27/2020 1:00:58 AM	50630
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/27/2020 1:00:58 AM	50630
Toluene	ND	0.050		mg/Kg	1	2/27/2020 1:00:58 AM	50630
Ethylbenzene	ND	0.050		mg/Kg	1	2/27/2020 1:00:58 AM	50630
Xylenes, Total	ND	0.10		mg/Kg	1	2/27/2020 1:00:58 AM	50630
Surr: 4-Bromofluorobenzene	91.7	80-120		%Rec	1	2/27/2020 1:00:58 AM	50630

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

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

Analytical Report

Lab Order **2002915**

Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-11 3'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 12:00:00 PM

Lab ID: 2002915-036

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/26/2020 6:42:33 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	2/27/2020 2:44:53 AM	50642
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2020 2:44:53 AM	50642
Surr: DNOP	101	55.1-146		%Rec	1	2/27/2020 2:44:53 AM	50642
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/27/2020 1:24:06 AM	50630
Surr: BFB	76.9	66.6-105		%Rec	1	2/27/2020 1:24:06 AM	50630
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/27/2020 1:24:06 AM	50630
Toluene	ND	0.049		mg/Kg	1	2/27/2020 1:24:06 AM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/27/2020 1:24:06 AM	50630
Xylenes, Total	ND	0.098		mg/Kg	1	2/27/2020 1:24:06 AM	50630
Surr: 4-Bromofluorobenzene	86.6	80-120		%Rec	1	2/27/2020 1:24:06 AM	50630

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

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

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-11 4'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 12:05:00 PM

Lab ID: 2002915-037

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/26/2020 6:54:54 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/27/2020 3:08:02 AM	50642
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/27/2020 3:08:02 AM	50642
Surr: DNOP	94.3	55.1-146		%Rec	1	2/27/2020 3:08:02 AM	50642
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/27/2020 1:47:10 AM	50630
Surr: BFB	76.8	66.6-105		%Rec	1	2/27/2020 1:47:10 AM	50630
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/27/2020 1:47:10 AM	50630
Toluene	ND	0.048		mg/Kg	1	2/27/2020 1:47:10 AM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/27/2020 1:47:10 AM	50630
Xylenes, Total	ND	0.096		mg/Kg	1	2/27/2020 1:47:10 AM	50630
Surr: 4-Bromofluorobenzene	87.0	80-120		%Rec	1	2/27/2020 1:47:10 AM	50630

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

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

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-12 0-1'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 1:00:00 PM

Lab ID: 2002915-038

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	180	60		mg/Kg	20	2/26/2020 7:07:14 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	110	8.8		mg/Kg	1	2/27/2020 8:57:36 PM	50642
Motor Oil Range Organics (MRO)	87	44		mg/Kg	1	2/27/2020 8:57:36 PM	50642
Surr: DNOP	111	55.1-146		%Rec	1	2/27/2020 8:57:36 PM	50642
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/27/2020 2:10:15 AM	50630
Surr: BFB	76.0	66.6-105		%Rec	1	2/27/2020 2:10:15 AM	50630
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/27/2020 2:10:15 AM	50630
Toluene	ND	0.048		mg/Kg	1	2/27/2020 2:10:15 AM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/27/2020 2:10:15 AM	50630
Xylenes, Total	ND	0.095		mg/Kg	1	2/27/2020 2:10:15 AM	50630
Surr: 4-Bromofluorobenzene	85.7	80-120		%Rec	1	2/27/2020 2:10:15 AM	50630

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

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

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-12 2'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 1:05:00 PM

Lab ID: 2002915-039

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/26/2020 7:19:36 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/27/2020 3:54:15 AM	50642
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2020 3:54:15 AM	50642
Surr: DNOP	95.8	55.1-146		%Rec	1	2/27/2020 3:54:15 AM	50642
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/27/2020 2:33:20 AM	50630
Surr: BFB	76.8	66.6-105		%Rec	1	2/27/2020 2:33:20 AM	50630
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/27/2020 2:33:20 AM	50630
Toluene	ND	0.048		mg/Kg	1	2/27/2020 2:33:20 AM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/27/2020 2:33:20 AM	50630
Xylenes, Total	ND	0.096		mg/Kg	1	2/27/2020 2:33:20 AM	50630
Surr: 4-Bromofluorobenzene	86.0	80-120		%Rec	1	2/27/2020 2:33:20 AM	50630

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

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

Analytical Report

Lab Order **2002915**

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-12 3'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 1:10:00 PM

Lab ID: 2002915-040

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/26/2020 7:31:58 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/27/2020 4:17:26 AM	50642
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/27/2020 4:17:26 AM	50642
Surr: DNOP	99.3	55.1-146		%Rec	1	2/27/2020 4:17:26 AM	50642
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/27/2020 10:10:03 AM	50631
Surr: BFB	79.9	66.6-105		%Rec	1	2/27/2020 10:10:03 AM	50631
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/27/2020 10:10:03 AM	50631
Toluene	ND	0.049		mg/Kg	1	2/27/2020 10:10:03 AM	50631
Ethylbenzene	ND	0.049		mg/Kg	1	2/27/2020 10:10:03 AM	50631
Xylenes, Total	ND	0.099		mg/Kg	1	2/27/2020 10:10:03 AM	50631
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	2/27/2020 10:10:03 AM	50631

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Analytical Report

Lab Order 2002915

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-12 4'

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 1:15:00 PM

Lab ID: 2002915-041

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/26/2020 7:44:18 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/26/2020 3:38:28 PM	50643
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/26/2020 3:38:28 PM	50643
Surr: DNOP	99.6	55.1-146		%Rec	1	2/26/2020 3:38:28 PM	50643
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/27/2020 11:20:33 AM	50631
Surr: BFB	82.4	66.6-105		%Rec	1	2/27/2020 11:20:33 AM	50631
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/27/2020 11:20:33 AM	50631
Toluene	ND	0.047		mg/Kg	1	2/27/2020 11:20:33 AM	50631
Ethylbenzene	ND	0.047		mg/Kg	1	2/27/2020 11:20:33 AM	50631
Xylenes, Total	ND	0.095		mg/Kg	1	2/27/2020 11:20:33 AM	50631
Surr: 4-Bromofluorobenzene	91.8	80-120		%Rec	1	2/27/2020 11:20:33 AM	50631

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

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

Analytical Report

Lab Order **2002915**

Date Reported: 3/2/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: BG

Project: Arcturus 18 FED 2H

Collection Date: 2/19/2020 1:45:00 PM

Lab ID: 2002915-042

Matrix: SOIL

Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/26/2020 7:56:39 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/26/2020 4:00:38 PM	50643
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 4:00:38 PM	50643
Surr: DNOP	141	55.1-146		%Rec	1	2/26/2020 4:00:38 PM	50643
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/27/2020 12:31:05 PM	50631
Surr: BFB	80.1	66.6-105		%Rec	1	2/27/2020 12:31:05 PM	50631
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/27/2020 12:31:05 PM	50631
Toluene	ND	0.049		mg/Kg	1	2/27/2020 12:31:05 PM	50631
Ethylbenzene	ND	0.049		mg/Kg	1	2/27/2020 12:31:05 PM	50631
Xylenes, Total	ND	0.097		mg/Kg	1	2/27/2020 12:31:05 PM	50631
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	2/27/2020 12:31:05 PM	50631

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: MB-50663	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 50663	RunNo: 66788								
Prep Date: 2/25/2020	Analysis Date: 2/25/2020	SeqNo: 2297154	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-50663	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 50663	RunNo: 66788								
Prep Date: 2/25/2020	Analysis Date: 2/25/2020	SeqNo: 2297155	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.2	90	110			

Sample ID: MB-50687	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 50687	RunNo: 66815								
Prep Date: 2/26/2020	Analysis Date: 2/26/2020	SeqNo: 2298438	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-50687	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 50687	RunNo: 66815								
Prep Date: 2/26/2020	Analysis Date: 2/26/2020	SeqNo: 2298439	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.9	90	110			

Sample ID: 2002915-014AMS	SampType: ms	TestCode: EPA Method 300.0: Anions								
Client ID: S-5 2'	Batch ID: 50687	RunNo: 66815								
Prep Date: 2/26/2020	Analysis Date: 2/26/2020	SeqNo: 2298443	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	91	60	30.00	65.04	87.4	50.4	161			

Sample ID: 2002915-014AMSD	SampType: msd	TestCode: EPA Method 300.0: Anions								
Client ID: S-5 2'	Batch ID: 50687	RunNo: 66815								
Prep Date: 2/26/2020	Analysis Date: 2/26/2020	SeqNo: 2298444	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	91	61	30.00	65.04	86.3	50.4	161	0.361	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: MB-50702	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 50702	RunNo: 66815								
Prep Date: 2/26/2020	Analysis Date: 2/26/2020	SeqNo: 2298468	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-50702	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 50702	RunNo: 66815								
Prep Date: 2/26/2020	Analysis Date: 2/26/2020	SeqNo: 2298469	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.8	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: LCS-50681	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 50681	RunNo: 66803								
Prep Date: 2/26/2020	Analysis Date: 2/26/2020	SeqNo: 2297105	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.3	55.1		146		

Sample ID: MB-50681	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 50681	RunNo: 66803								
Prep Date: 2/26/2020	Analysis Date: 2/26/2020	SeqNo: 2297106	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		99.1	55.1		146		

Sample ID: MB-50641	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 50641	RunNo: 66801								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297210	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	13		10.00		129	55.1		146		

Sample ID: LCS-50641	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 50641	RunNo: 66801								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297211	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	50.00	0	116	70	130			
Surr: DNOP	6.0		5.000		120	55.1		146		

Sample ID: LCS-50643	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 50643	RunNo: 66803								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297433	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	70	130			
Surr: DNOP	5.3		5.000		106	55.1		146		

Sample ID: MB-50643	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 50643	RunNo: 66803								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297434	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: MB-50643	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 50643	RunNo: 66803								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297434	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		120	55.1	146			

Sample ID: 2002915-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-1 0-1'	Batch ID: 50641	RunNo: 66801								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297592	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	9.4	46.86	0	132	47.4	136			
Surr: DNOP	6.9		4.686		147	55.1	146			S

Sample ID: 2002915-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-1 0-1'	Batch ID: 50641	RunNo: 66801								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297593	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.6	47.98	0	112	47.4	136	14.7	43.4	
Surr: DNOP	5.6		4.798		117	55.1	146	0	0	

Sample ID: 2002915-021AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-7 2'	Batch ID: 50642	RunNo: 66801								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2299249	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.5	47.39	0	93.9	47.4	136			
Surr: DNOP	4.5		4.739		95.1	55.1	146			

Sample ID: 2002915-021AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-7 2'	Batch ID: 50642	RunNo: 66801								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2299250	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	8.8	44.13	0	93.5	47.4	136	7.55	43.4	
Surr: DNOP	4.2		4.413		95.1	55.1	146	0	0	

Sample ID: MB-50642	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 50642	RunNo: 66801								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2299275	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: MB-50642	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 50642	RunNo: 66801								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2299275	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		113	55.1	146			

Sample ID: LCS-50642	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 50642	RunNo: 66801								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2299276	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	70	130			
Surr: DNOP	5.4		5.000		109	55.1	146			

Sample ID: LCS-50685	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 50685	RunNo: 66879								
Prep Date: 2/26/2020	Analysis Date: 2/27/2020	SeqNo: 2299849	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		101	55.1	146			

Sample ID: MB-50685	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 50685	RunNo: 66879								
Prep Date: 2/26/2020	Analysis Date: 2/27/2020	SeqNo: 2299850	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		115	55.1	146			

Sample ID: MB-50766	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 50766	RunNo: 66883								
Prep Date: 2/28/2020	Analysis Date: 2/28/2020	SeqNo: 2302390	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		86.6	55.1	146			

Sample ID: LCS-50766	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 50766	RunNo: 66883								
Prep Date: 2/28/2020	Analysis Date: 2/28/2020	SeqNo: 2302393	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		85.0	55.1	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: mb-50628	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 50628	RunNo: 66771								
Prep Date: 2/24/2020	Analysis Date: 2/25/2020	SeqNo: 2296862	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.0	66.6	105			

Sample ID: lcs-50628	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 50628	RunNo: 66771								
Prep Date: 2/24/2020	Analysis Date: 2/25/2020	SeqNo: 2296863	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	80	120			
Surr: BFB	960		1000		96.2	66.6	105			

Sample ID: MB-50657	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 50657	RunNo: 66806								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297867	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		85.2	66.6	105			

Sample ID: lcs-50657	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 50657	RunNo: 66806								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297868	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		91.2	66.6	105			

Sample ID: mb-50630	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 50630	RunNo: 66806								
Prep Date: 2/24/2020	Analysis Date: 2/26/2020	SeqNo: 2297873	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		81.6	66.6	105			

Sample ID: lcs-50630	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 50630	RunNo: 66806								
Prep Date: 2/24/2020	Analysis Date: 2/26/2020	SeqNo: 2297874	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.6	80	120			
Surr: BFB	920		1000		91.9	66.6	105			

Qualifiers:

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: 2002915-020ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: S-7 0-1'	Batch ID: 50630	RunNo: 66806								
Prep Date: 2/24/2020	Analysis Date: 2/26/2020	SeqNo: 2297876	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.6	22.98	0	93.6	69.1	142			
Surr: BFB	830		919.1		89.8	66.6	105			

Sample ID: 2002915-020amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: S-7 0-1'	Batch ID: 50630	RunNo: 66806								
Prep Date: 2/24/2020	Analysis Date: 2/26/2020	SeqNo: 2297877	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	23.99	0	89.6	69.1	142	0.00484	20	
Surr: BFB	860		959.7		89.2	66.6	105	0	0	

Sample ID: mb-50631	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 50631	RunNo: 66878								
Prep Date: 2/24/2020	Analysis Date: 2/27/2020	SeqNo: 2299731	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		82.5	66.6	105			

Sample ID: lcs-50631	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 50631	RunNo: 66878								
Prep Date: 2/24/2020	Analysis Date: 2/27/2020	SeqNo: 2299732	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.6	80	120			
Surr: BFB	940		1000		93.9	66.6	105			

Sample ID: 2002915-040ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: S-12 3'	Batch ID: 50631	RunNo: 66878								
Prep Date: 2/24/2020	Analysis Date: 2/27/2020	SeqNo: 2299734	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.7	23.70	0	88.0	69.1	142			
Surr: BFB	850		947.9		89.5	66.6	105			

Sample ID: 2002915-040amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: S-12 3'	Batch ID: 50631	RunNo: 66878								
Prep Date: 2/24/2020	Analysis Date: 2/27/2020	SeqNo: 2299735	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: 2002915-040amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: S-12 3'	Batch ID: 50631	RunNo: 66878								
Prep Date: 2/24/2020	Analysis Date: 2/27/2020	SeqNo: 2299735	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.6	23.21	0	90.7	69.1	142	0.891	20	
Surr: BFB	830		928.5		89.5	66.6	105	0	0	

Qualifiers:

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: mb-50628	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 50628	RunNo: 66771								
Prep Date: 2/24/2020	Analysis Date: 2/25/2020	SeqNo: 2296910	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.7	80	120			

Sample ID: LCS-50628	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 50628	RunNo: 66771								
Prep Date: 2/24/2020	Analysis Date: 2/25/2020	SeqNo: 2296911	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.3	80	120			
Toluene	0.97	0.050	1.000	0	97.4	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.1	80	120			

Sample ID: 2002915-001ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: S-1 0-1'	Batch ID: 50628	RunNo: 66771								
Prep Date: 2/24/2020	Analysis Date: 2/25/2020	SeqNo: 2296914	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.024	0.9443	0	98.1	78.5	119			
Toluene	0.98	0.047	0.9443	0.01451	102	75.7	123			
Ethylbenzene	1.0	0.047	0.9443	0	107	74.3	126			
Xylenes, Total	3.0	0.094	2.833	0.02231	107	72.9	130			
Surr: 4-Bromofluorobenzene	0.87		0.9443		92.2	80	120			

Sample ID: 2002915-001amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: S-1 0-1'	Batch ID: 50628	RunNo: 66771								
Prep Date: 2/24/2020	Analysis Date: 2/25/2020	SeqNo: 2296915	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.024	0.9785	0	101	78.5	119	6.22	20	
Toluene	1.0	0.049	0.9785	0.01451	106	75.7	123	6.93	20	
Ethylbenzene	1.1	0.049	0.9785	0	110	74.3	126	5.89	20	
Xylenes, Total	3.3	0.098	2.935	0.02231	110	72.9	130	6.94	20	
Surr: 4-Bromofluorobenzene	0.90		0.9785		91.6	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: MB-50657	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 50657	RunNo: 66806								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297906	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95		1.000		95.2	80	120			

Sample ID: LCS-50657	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 50657	RunNo: 66806								
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2297907	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Sample ID: mb-50630	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 50630	RunNo: 66806								
Prep Date: 2/24/2020	Analysis Date: 2/26/2020	SeqNo: 2297912	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		90.2	80	120			

Sample ID: LCS-50630	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 50630	RunNo: 66806								
Prep Date: 2/24/2020	Analysis Date: 2/26/2020	SeqNo: 2297913	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.9	80	120			
Toluene	0.94	0.050	1.000	0	93.7	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.6	80	120			
Surr: 4-Bromofluorobenzene	0.91		1.000		91.0	80	120			

Sample ID: 2002915-021ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: S-7 2'	Batch ID: 50630	RunNo: 66806								
Prep Date: 2/24/2020	Analysis Date: 2/26/2020	SeqNo: 2297916	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	0.9862	0	89.3	78.5	119			
Toluene	0.92	0.049	0.9862	0.01417	91.6	75.7	123			
Ethylbenzene	0.94	0.049	0.9862	0	95.4	74.3	126			
Xylenes, Total	2.9	0.099	2.959	0.02220	96.3	72.9	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Sample ID: 2002915-021ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: S-7 2'	Batch ID: 50630	RunNo: 66806								
Prep Date: 2/24/2020	Analysis Date: 2/26/2020	SeqNo: 2297916	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		0.9862		92.8	80	120			

Sample ID: 2002915-021amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: S-7 2'	Batch ID: 50630	RunNo: 66806								
Prep Date: 2/24/2020	Analysis Date: 2/26/2020	SeqNo: 2297917	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	0.9901	0	90.0	78.5	119	1.13	20	
Toluene	0.93	0.050	0.9901	0.01417	92.4	75.7	123	1.34	20	
Ethylbenzene	0.97	0.050	0.9901	0	97.9	74.3	126	2.94	20	
Xylenes, Total	2.9	0.099	2.970	0.02220	98.2	72.9	130	2.32	20	
Surr: 4-Bromofluorobenzene	0.91		0.9901		91.7	80	120	0	0	

Sample ID: mb-50631	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 50631	RunNo: 66878								
Prep Date: 2/24/2020	Analysis Date: 2/27/2020	SeqNo: 2299780	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.2	80	120			

Sample ID: LCS-50631	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 50631	RunNo: 66878								
Prep Date: 2/24/2020	Analysis Date: 2/27/2020	SeqNo: 2299781	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.6	80	120			
Toluene	0.93	0.050	1.000	0	93.0	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.8	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.5	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	120			

Sample ID: 2002915-041ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: S-12 4'	Batch ID: 50631	RunNo: 66878								
Prep Date: 2/24/2020	Analysis Date: 2/27/2020	SeqNo: 2299784	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2002915

02-Mar-20

Client: Talon Artesia
Project: Arcturus 18 FED 2H

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: 2002915-041ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: S-12 4'	Batch ID: 50631		RunNo: 66878							
Prep Date: 2/24/2020	Analysis Date: 2/27/2020		SeqNo: 2299784 Units: mg/Kg							
Benzene	0.84	0.024	0.9452	0.01815	86.6	78.5	119			
Toluene	0.89	0.047	0.9452	0.01654	92.8	75.7	123			
Ethylbenzene	0.92	0.047	0.9452	0	97.4	74.3	126			
Xylenes, Total	2.8	0.095	2.836	0.02174	98.8	72.9	130			
Surr: 4-Bromofluorobenzene	0.89		0.9452		94.6	80	120			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: 2002915-041amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: S-12 4'	Batch ID: 50631		RunNo: 66878							
Prep Date: 2/24/2020	Analysis Date: 2/27/2020		SeqNo: 2299785 Units: mg/Kg							
Benzene	0.78	0.023	0.9302	0.01815	82.3	78.5	119	6.50	20	
Toluene	0.85	0.047	0.9302	0.01654	89.3	75.7	123	5.36	20	
Ethylbenzene	0.88	0.047	0.9302	0	94.2	74.3	126	4.93	20	
Xylenes, Total	2.7	0.093	2.791	0.02174	95.3	72.9	130	5.12	20	
Surr: 4-Bromofluorobenzene	0.85		0.9302		91.7	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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

Sample Log-In Check List

Client Name: **TALON ARTESIA** Work Order Number: **2002915** RcptNo: 1

Received By: **Yazmine Garduno** 2/22/2020 9:05:00 AM *Yazmine Garduno*
 Completed By: **Isaiah Ortiz** *I-Ox*
 Reviewed By: *JP 2/24/20*

Chain of Custody

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

Log In

- 3. Was an attempt made to cool the samples? Yes No NA
- 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 5. Sample(s) in proper container(s)? Yes No
- 6. Sufficient sample volume for Indicated test(s)? Yes No
- 7. Are samples (except VOA and ONG) properly preserved? Yes No
- 8. Was preservative added to bottles? Yes No NA
- 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
- 10. Were any sample containers received broken? Yes No
- 11. Does paperwork match bottle labels? Yes No
- 12. Are matrices correctly identified on Chain of Custody? Yes No
- 13. Is it clear what analyses were requested? Yes No
- 14. Were all holding times able to be met? Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: *YB 2/24/20*

Special Handling (if applicable)

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

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.2	Good				

Chain-of-Custody Record

Client: **TALON LLC**
 Mailing Address: **408 W. TEXAS AVE**
 Phone #: **575-746-8768**
 email or Fax#: _____
 QA/QC Package: Standard Level 4 (Full Validation)
 Accreditation: Az Compliance Other
 NELAC Other
 EDD (Type) _____

Turn-Around Time: _____
 Standard Rush
 Project Name: **ACTURUS 18 FED 2H**
 Project #: _____
700794.303.01
 Project Manager: **CHRIS JONES**
 Sampler: **MICHAEL COLLIER**
 On Ice: Yes No
 # of Coolers: **2** **52101-S-2**
 Cooler Temp (including CF): **2.6-0-2.6**

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
2-19-20	8:00am	SOIL	S-1 0-1'	GLASS 1	ICE/COLD	-001
	8:05am		S-1 2'R			-002
	8:15am		S-2 0-1'			-003
	8:20am		S-2 2'			-004
	8:25am		S-2 3'			-005
	8:35am		S-3 0-1'			-006
	8:40am		S-3 2'			-007
	8:45am		S-3 3'R			-008
	8:55am		S-4 0-1'			-009
	9:05am		S-4 2'			-010
	9:10am		S-4 3'			-011
2-19-20	9:15am	SOIL	S-4 4'	GLASS	ICE/COLD	-012

Relinquished by: **MH Coll.**
 Date: **2/20/20 1500**
 Relinquished by: _____
 Date: **2/21/20 8:00**
 Relinquished by: **CHRIS JONES**
 Date: **2/22/20 0905**



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

<input checked="" type="checkbox"/>	BTEX / MTBE / TMB's (8021)
<input checked="" type="checkbox"/>	TPH:8015D(GRO / DRO / MRO)
	8081 Pesticides/8082 PCB's
	EDB (Method 504.1)
	PAHs by 8310 or 8270SIMS
	RCRA 8 Metals
	Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄
	8260 (VOA)
	8270 (Semi-VOA)
	Total Coliform (Present/Absent)
<input checked="" type="checkbox"/>	Total Chlorides

Remarks:

Pg. 10F4

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

Chain-of-Custody Record

Client: TALON LPE
 Mailing Address: 408 W. TEXAS AVE
 Phone #: 515-746-8768
 email or Fax#: _____
 QA/QC Package: Standard Level 4 (Full Validation)
 Accreditation: Az Compliance
 NELAC Other
 EDD (Type) _____

Turn-Around Time: Standard Rush
 Project Name: ACTIVALS 18 FEB 2H
 Project #: _____
700794.303.01
 Project Manager: CHRIS JONES
 Sampler: MICHAEL COLLIER
 On Ice: Yes No
 # of Coolers: 2 S-110 S-1
 Cooler Temp (including CP): 26.0 26 16.2 16.2

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
2-19-20	9:15am	Soil	S-5 0-1'	GLASS 1	ICE/COLD	2007915
	9:30am		S-5 2'			-013
	9:35am		S-5 3'			-014
	9:40am		S-5 4'			-015
	9:50am		S-6 0-1'			-016
	9:55am		S-6 2'			-017
	10:00am		S-6 3'R			-018
	10:10am		S-7 0-1'			-019
	10:15am		S-7 2'			-020
	10:20am		S-7 3'			-021
	10:25am		S-7 4'			-022
2-19-20	10:35	Soil	S-8 0-1'	GLASS 1	ICE/COLD	-023
						-024

Relinquished by: MJC Date: 2/20/20 Time: 1500
 Relinquished by: [Signature] Date: 2/22/20 Time: 0900



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

Analysis Request

<input checked="" type="checkbox"/>	BTEX / MTBE / TMB's (8021)
<input checked="" type="checkbox"/>	TPH:8015D(GRO / DRO / MRO)
<input type="checkbox"/>	8081 Pesticides/8082 PCB's
<input type="checkbox"/>	EDB (Method 504.1)
<input type="checkbox"/>	PAHs by 8310 or 8270SIMS
<input type="checkbox"/>	RCRA 8 Metals
<input type="checkbox"/>	Cl, F, Br, NO ₂ , NO ₃ , PO ₄ , SO ₄
<input type="checkbox"/>	8260 (VOA)
<input type="checkbox"/>	8270 (Semi-VOA)
<input type="checkbox"/>	Total Coliform (Present/Absent)
<input checked="" type="checkbox"/>	TOTAL CHLORIDES

Remarks: Pg. 2 of 4

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

Chain-of-Custody Record

Client: TALON CFE

Turn-Around Time: Standard Rush

Project Name: ARCTURUS 1B FED 2H

Project #: 700794.303.01

Project Manager: CHRIS JONES

Sampler: MICHAEL COLLIER

On Ice: Yes No

of Coolers: 2 5.2 W 5.2 10

Cooler Temp (including CF): 2.6-0-2.6 3.1 W

Container Type and # GLASS 1

Preservative Type ICE COLD

HEAL No. 2007915

Mailing Address: 408 W. TEXAS AVE

Phone #: 515-746-8768

email or Fax#: _____

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

Accreditation: Az Compliance Other

NELAC Other

EDD (Type) _____

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
2-19-20	10:40am	SOIL	S-8 2'	GLASS 1	ICE COLD	-025
	10:45am		S-8 3'			-026
	10:50am		S-8 4'			-027
	10:55am		S-9 0-1'			-028
	11:00am		S-9 2'			-029
	11:05am		S-9 3' R			-030
	11:15am		S-10 0-1'			-031
	11:20am		S-10 2'			-032
	11:25am		S-10 3' R			-033
	11:50am		S-11 0-1'			-034
	11:55am		S-11 2'			-035
2-19-20	12:00pm	SOIL	S-11 3'	GLASS 1	ICE COLD	-036

Relinquished by: [Signature] Date: 2/20/20 1500

Relinquished by: [Signature] Date: 2/22/20 1910

Received by: [Signature] Date: 2/20/20 1500

Received by: [Signature] Date: 2/22/20 1910

Remarks: Pg. 30F4



HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMB's (8021)	<input checked="" type="checkbox"/>
TPH:8015D(GRO / DRO / MRO)	<input checked="" type="checkbox"/>
8081 Pesticides/8082 PCB's	<input type="checkbox"/>
EDB (Method 504.1)	<input type="checkbox"/>
PAHs by 8310 or 8270SIMS	<input type="checkbox"/>
RCRA 8 Metals	<input type="checkbox"/>
Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	<input type="checkbox"/>
8260 (VOA)	<input type="checkbox"/>
8270 (Semi-VOA)	<input type="checkbox"/>
Total Coliform (Present/Absent)	<input checked="" type="checkbox"/>
TOTAL CHLORIDES	<input checked="" type="checkbox"/>

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

Chain-of-Custody Record

Client: **TALON LLC**

Mailing Address: **408 W. TEXAS AVE**

Phone #: **515-746-8768**

email or Fax#: _____

QA/QC Package: Level 4 (Full Validation)

Standard Az Compliance

NELAC Other

EDD (Type) _____

Turn-Around Time: Standard Rush

Project Name: **ACTUARY 18 FEB 2H**

Project #: _____

Project Manager: **CHRIS JONES**

Sampler: **MICHAEL COLLIER**

On Ice: Yes No

of Coolers: **2** (1) = **SL**

Cooler Temp (including CP): **7.6 - 0 - 2.6**

Container Type and # **GLASS 1**

Preservative Type **ICE / COOL**

HEAL No. **ZOOZ915**

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	TOTAL CHLORIDES
2-19-20	12:05pm	SOIL	S-11 4'	GLASS 1	ICE / COOL	ZOOZ915	✓	✓									✓
	1:00pm		S-12 0-1'														
	1:05pm		S-12 2'														
	1:10pm		S-12 3'														
	1:15pm		S-12 4'														
2-19-20	1:45pm	SOIL	B6	GLASS 1	ICE / COOL		✓	✓									✓

Date: **2/20/20** Time: **1500** Relinquished by: *[Signature]* Via: **2/20/20 1500** Remarks: **PG. 4 of 4**

Date: **2/20/20** Time: **1900** Relinquished by: *[Signature]* Via: **via courier 2/20/20 5:00**

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



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

March 24, 2020

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ARCTURUS 18 FED 2H

Enclosed are the results of analyses for samples received by the laboratory on 03/23/20 14:49.

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 cursive script that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 03/23/2020
Reported: 03/24/2020
Project Name: ARCTURUS 18 FED 2H
Project Number: 700794.303.01
Project Location: DEVON - EDDY CO NM

Sampling Date: 03/20/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kelly Jacobson

Sample ID: S-6A 1' COMP (H000879-01)

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	03/23/2020	ND	196	98.1	200	0.552	
DRO >C10-C28*	530	10.0	03/23/2020	ND	198	98.9	200	0.616	
EXT DRO >C28-C36	370	10.0	03/23/2020	ND					
Surrogate: 1-Chlorooctane	87.6 %	44.3-144							
Surrogate: 1-Chlorooctadecane	77.6 %	42.2-156							

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



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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 SM4500C-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

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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: Chris Jones		P.O. #: 700794.303.01		<table border="1"> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																																																																			
Address: 408 W Texas Ave		Company: Talon LPE																																																																					
City: Artesia State: NM Zip: 88210		Attn: Chris Jones																																																																					
Phone #: 575-746-8768 Fax #:		Address:																																																																					
Project #: 700794.303.01 Project Owner: Devon Energy		City:																																																																					
Project Name: Arcturus 18 Fed 2H		State: Zip:																																																																					
Project Location: Eddy County		Phone #:																																																																					
Sampler Name: Brandon Sinclair		Fax #:																																																																					
FOR LAB USE ONLY		MATRIX		PRESERV.		SAMPLING																																																																	
Lab I.D.	Sample I.D.	(C)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME																																																									
H000879	15-6A 1' comp - C	C				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>		3-20-20	13:00																																																									

TPH EXT

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 analysis. 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 profits, 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: 3-23-20 Time: 12:00	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date: 14:49 Time:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)	Sample Condition	CHECKED BY: <i>[Signature]</i>	REMARKS: Rush	
Sampler - UPS - Bus - Other: 4.70 / #113	<input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No			

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

pg 1 of 1