

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

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

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy Production Co LP (6137)	Contact Stephen Richards, Devon Completions Foreman
Address PO BOX 250, Artesia, NM 88211	Telephone No. (575) 252-3717
Facility Name: Trionyx Frac Pond (Completing wells on the Arabian 30-19 Fed Com 1H)	Facility Type Oil

Surface Owner: State	Mineral Owner: State	API No. 30-025-43176
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LOCATION OF RELEASE

Unit Letter P	Section 2	Township 25S	Range 31E	Feet from the	North/South Line	Feet from the	East/West Line	County EDDY
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Latitude 32.154386 N Longitude 103.740605 W NAD83

NATURE OF RELEASE

Type of Release: Treated Produced Water	Volume of Release: 50 bbls	Volume Recovered: 40 bbls
Source of Release: Lay Flat Transfer Line	Date and Hour of Occurrence: 10/24/2017 @ 2:14 PM MST	Date and Hour of Discovery: 10/24/2017 @ 2:14 PM MST
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD: Olivia Yu	<div style="border: 1px solid black; padding: 5px; text-align: center;"> RECEIVED <i>By Olivia Yu at 9:23 am, Nov 17, 2017</i> </div>
By Whom? Mike Shoemaker, EHS Professional	Date and Hour: OCD: 10/25/17 @ 7:24 PM MST	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. NA	
If a Watercourse was Impacted, Describe Fully.* NA		


Describe Cause of Problem and Remedial Action Taken.*

A contract company was pigging the layflat line from the Arabian 30-19 Fed Com 1H to the Trionyx pond. They had completed the line from the location to their booster pump, after rigging up to pig from the booster pump to the Trionyx pond there was some air in the line which caused the line to come out of the pond and allowed fluid to be release to the ground from the line. The contract company shut down operations and notified Devon personnel. Approximately 50bbls of produced water ran off the side of the pond onto the Trionxy facility. A vacuum truck was dispatched and recovered 40 bbls of produced water.

Describe Area Affected and Cleanup Action Taken.*

The spill affected approximately 25,000 square feet running South from the release point. Approximately 50 barrels of treated produced water was spilled and approximately 40 barrels were recovered. A remediation contractor will be contacted to assist with the delineation and remediation efforts.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: <i>Denise Menoud</i>	OIL CONSERVATION DIVISION	
Printed Name: Denise Menoud	Approved by Environmental Specialist: 	
Title: Admin Field Support	Approval Date: 11/17/2017	Expiration Date:
E-mail Address: denise.menoud@dvn.com	Conditions of Approval: see attached directive	Attached <input checked="" type="checkbox"/>
Date: 10/30/2017 Phone: (575)746-5544		

* Attach Additional Sheets If Necessary

1RP-4867

nOY1732133962

pOY1732135037

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _11/6/2017_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4867_ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs__ on or before _12/17/2017_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us



Trionyx Pond Spill 10.2



This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map.

WGS_1984_Web_Mercator_Auxiliary_Sphere
Prepared by: Menoud
Map is current as of: 30-Oct-2017



Miles

0 0.01 0.02 0.04 1:1,779

Incident ID	NOY1732133962
District RP	1RP-4867
Facility ID	30-025-43176
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?	<u>348</u> (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

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

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Incident ID	NOY1732133962
District RP	1RP-4867
Facility ID	30-025-43176
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: Brandon Sinclair

Title: Environmental Project Manager

Signature: _____

Date: 2-22-2021

email: bsinclair@talonlpe.com

Telephone: 575-746-8768

OCD Only

Received by: _____

Date: _____

Incident ID	NOY1732133962
District RP	1RP-4867
Facility ID	30-025-43176
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: Brandon Sinclair

Title: Environmental Project Manager

Signature: _____

Date: 2-22-2021

email: bsinclair@talonlpe.com

Telephone: 575-746-8768

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: _____

talonlpe.com • 866.742.0742



Remediation and Closure Report

Arabian 30 19 Federal Com #001H Trionyx Frac Pond
Lea County, NM
API# 30-025-43176, NOY1732133962 (1RP-4867)

Prepared For:

Devon Energy Production Company
6488 Seven Rivers Highway
Artesia, New Mexico 88210

Prepared By:

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

February 17, 2021

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

Mr. Mike Bratcher
NMOCD District 1
1220 South St. Francis Dr.
Santa Fe, NM 87505

Subject: **Remediation and Closure Report**
Arabian 30 19 Federal Com #001H Trionyx Frac Pond
Lea County, NM
API# 30-025-43176, NOY1732133962 (1RP-4867)

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 results of our site characterization, remediation activities and closure request are contained herein.

Site Information

The Arabian 30 19 Federal Com #001H Trionyx Frac Pond is located approximately fifty-one (51) miles southwest of Hobbs, New Mexico. While the well with which this release is associated is located within Lea County, the release itself occurred 2.3 miles northwest of the location in Eddy County. The legal location for this release is Unit Letter P, Section 2, Township 25 South and Range 31 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.154251 North and -103.740418 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Berino complex soils with 0 to 3 percent slopes, eroded. See [Appendix II](#) for the referenced soil data. The local surface and shallow geology is Holocene to middle Pleistocene in age and is comprised of eolian and alluvium sand deposits. Drainage courses in this area are typically dry.

The New Mexico Office of the State Engineer web site indicates that the nearest depth to groundwater is 348' below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data.

Site Characterization

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

Approximate Depth to Groundwater		348 Feet/BGS
----------------------------------	--	--------------

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

While well data exists within a half-mile of the boundary of this release, the depth to groundwater cannot be definitively determined from it. For this reason, a boring was advanced at sample point S-1 using an air-rotary drill rig to 51' in order to exclude the presence of water at that depth. As no groundwater was encountered after a 72-hour interval, the closure criteria for this site are as follows:

Table I Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Description

On October 24, 2017, air pressure in a layflat line caused it to come out of the frac pond and spill approximately 50 barrels (bbls) of produced water onto the pad area. A vacuum truck recovered 40 bbls of fluid. The initial C-141 detailing this incident is attached in [Appendix III](#). A site map illustrating the affected area is presented in [Appendix I](#).

Site Assessment

On June 24, 2020, Talon mobilized personnel to perform a site assessment and collect soil samples. Grab soil samples were collected within and around the impacted area utilizing a hand auger. Additional sampling was performed, using direct-push sampling technology, on September 16, 2020 in order to further delineate the impacted area. To verify the presence or absence of groundwater at depths below 50-feet (and to complete vertical delineation), an air-rotary drill rig was utilized (a soil boring log is presented in [Appendix II](#)). Groundwater was not encountered at 51-feet BGS after a 72-hour interval. Results from our sampling events are presented in the following data table. Complete laboratory reports can be found in [Appendix V](#).

Table 1 : Soil Sample Analysis

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg	1,000 mg/kg			2,500 mg/kg	10,000 mg/kg
S-1	0-0.5 R	6/24/2020	ND	ND	ND	ND	ND	-	10000
	1-2	9/16/2020	NT	NT	NT	NT	NT	-	204
	2-3	9/16/2020	NT	NT	NT	NT	NT	-	928
	3-4	9/16/2020	NT	NT	NT	NT	NT	-	1910
	6	11/18/2020	NT	NT	NT	NT	NT	-	700
	8	11/18/2020	NT	NT	NT	NT	NT	-	410
	10	11/18/2020	NT	NT	NT	NT	NT	-	130
S-2	0-0.5 R	6/24/2020	ND	ND	ND	ND	ND	-	1370
	1-2	9/16/2020	NT	NT	NT	NT	NT	-	911
	2-3	9/16/2020	NT	NT	NT	NT	NT	-	281
	3-4	9/16/2020	NT	NT	NT	NT	NT	-	3370
	6	11/18/2020	NT	NT	NT	NT	NT	-	880
	8	11/18/2020	NT	NT	NT	NT	NT	-	250
	10	11/18/2020	NT	NT	NT	NT	NT	-	360
S-3	0-0.5	6/24/2020	ND	ND	ND	ND	ND	-	38.9
	1	6/24/2020	ND	ND	ND	ND	ND	-	24.5
	2	6/24/2020	ND	ND	ND	ND	ND	-	232
	2.5 R	6/24/2020	ND	ND	ND	ND	ND	-	1530
	3-4	9/16/2020	NT	NT	NT	NT	NT	-	5250
	6	11/18/2020	NT	NT	NT	NT	NT	-	480
	8	11/18/2020	NT	NT	NT	NT	NT	-	160
	10	11/18/2020	NT	NT	NT	NT	NT	-	120
S-4	0-0.5 R	6/24/2020	ND	ND	ND	ND	ND	-	57.2
	1	6/24/2020	ND	ND	ND	ND	ND	-	17.6
	2	6/24/2020	ND	ND	ND	ND	ND	-	19.6
	2.5 R	6/24/2020	ND	ND	ND	ND	ND	-	67.3
	3-4	9/16/2020	NT	NT	NT	NT	NT	-	321
	6	11/18/2020	NT	NT	NT	NT	NT	-	250
	8	11/18/2020	NT	NT	NT	NT	NT	-	160
	10	11/18/2020	NT	NT	NT	NT	NT	-	120

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg	1,000 mg/kg			2,500 mg/kg	10,000 mg/kg
S-5	0-1	9/16/2020	ND	ND	ND	ND	ND	-	153
	1-2	9/16/2020	ND	ND	ND	ND	ND	-	63.1
	2-3	9/16/2020	ND	ND	ND	ND	ND	-	23.7
	3-4	9/16/2020	ND	ND	ND	ND	ND	-	259
	6	11/19/2020	NT	NT	NT	NT	NT	-	300
	8	11/19/2020	NT	NT	NT	NT	NT	-	140
	10	11/19/2020	NT	NT	NT	NT	NT	-	120
S-6	0-1	9/16/2020	ND	ND	ND	ND	ND	-	186
	1-2	9/16/2020	ND	ND	ND	ND	ND	-	121
	2-3	9/16/2020	ND	ND	ND	ND	ND	-	327
	3-4	9/16/2020	ND	ND	ND	ND	ND	-	1030
	6	11/19/2020	NT	NT	NT	NT	NT	-	1100
	8	11/19/2020	NT	NT	NT	NT	NT	-	180
	10	11/19/2020	NT	NT	NT	NT	NT	-	170
S-7	0-1	9/16/2020	ND	ND	ND	ND	ND	-	221
	1-2	9/16/2020	ND	ND	ND	ND	ND	-	70.9
	2-3	9/16/2020	ND	ND	ND	ND	ND	-	307
	3-4	9/16/2020	ND	ND	ND	ND	ND	-	1250
	6	11/19/2020	NT	NT	NT	NT	NT	-	720
	8	11/19/2020	NT	NT	NT	NT	NT	-	560
	10	11/19/2020	NT	NT	NT	NT	NT	-	530
	12	11/19/2020	NT	NT	NT	NT	NT	-	150
S-8	0-1	9/16/2020	ND	ND	ND	ND	ND	-	155
	1-2	9/16/2020	ND	ND	ND	ND	ND	-	54
	2-3	9/16/2020	ND	ND	ND	ND	ND	-	154
	3-4	9/16/2020	ND	ND	ND	ND	ND	-	332
	6	11/19/2020	NT	NT	NT	NT	NT	-	ND
	8	11/19/2020	NT	NT	NT	NT	NT	-	ND
	10	11/19/2020	NT	NT	NT	NT	NT	-	ND

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg	1,000 mg/kg			2,500 mg/kg	10,000 mg/kg
S-9	0-1	9/16/2020	ND	ND	ND	ND	ND	-	1050
	1-2	9/16/2020	ND	ND	ND	ND	ND	-	576
	2-3	9/16/2020	ND	ND	ND	ND	ND	-	569
	3-4	9/16/2020	ND	ND	ND	ND	ND	-	1160
	6	11/19/2020	NT	NT	NT	NT	NT	-	ND
	8	11/19/2020	NT	NT	NT	NT	NT	-	ND
	10	11/19/2020	NT	NT	NT	NT	NT	-	ND
S-10	0-1	11/19/2020	ND	ND	ND	ND	ND	-	180
	2	11/19/2020	ND	ND	ND	ND	ND	-	78
	3	11/19/2020	ND	ND	ND	ND	ND	-	98
	4	11/19/2020	ND	ND	ND	ND	ND	-	130
	6	11/19/2020	ND	ND	ND	ND	ND	-	250
	8	11/19/2020	ND	ND	ND	ND	ND	-	150
	10	11/19/2020	ND	ND	ND	ND	ND	-	140
BG-1	0	11/18/2020	ND	ND	ND	ND	ND	-	100
BG-2	0	11/18/2020	ND	ND	ND	16	ND	16.0	75
BG-3	0	11/18/2020	ND	ND	ND	ND	ND	-	87
BG-4	0	11/18/2020	ND	ND	ND	ND	ND	-	89
BG-5	0	11/18/2020	ND	ND	ND	ND	ND	-	100
BG-6	0	11/18/2020	ND	ND	ND	ND	ND	-	85

ND=Analyte Not Detected

NT=Analyte Not Tested

R= Hand Auger Refusal

Conclusions and Recommendation

- As the concentration of all contaminants is below NMOCD closure criteria, and the vertical extent of the contamination has been delineated, we ask that no further action be required in regard to this incident.

Closure

Based on this assessment, we respectfully request that no further actions be required and that closure regarding this 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

Brandon Sinclair
Project Manager

David J. Adkins
Regional Manager

Attachments:

Appendix I Site Maps
Appendix II Soil Boring Log, Groundwater & Soil Data, FEMA Flood Map
Appendix III C-141 Forms
Appendix IV Photographic Documentation
Appendix V Laboratory Data



APPENDIX I

SITE MAPS

Arabian 30 19 Federal Com #001H Trionyx Frac Pond

Devon Energy Production Company
API # 30-025-43176, 1RP-4867
Lea County, NM
Site Map

Legend

○ Soil Sample



Google Earth

Arabian 30 19 Federal Com #001H Trionyx Frac Pond

Devon Energy Production Company
API # 30-025-43176, 1RP-4867
Lea County, NM
Karst Map

Legend

- High
- Low
- Medium

Trionyx Frac Pond

Google Earth

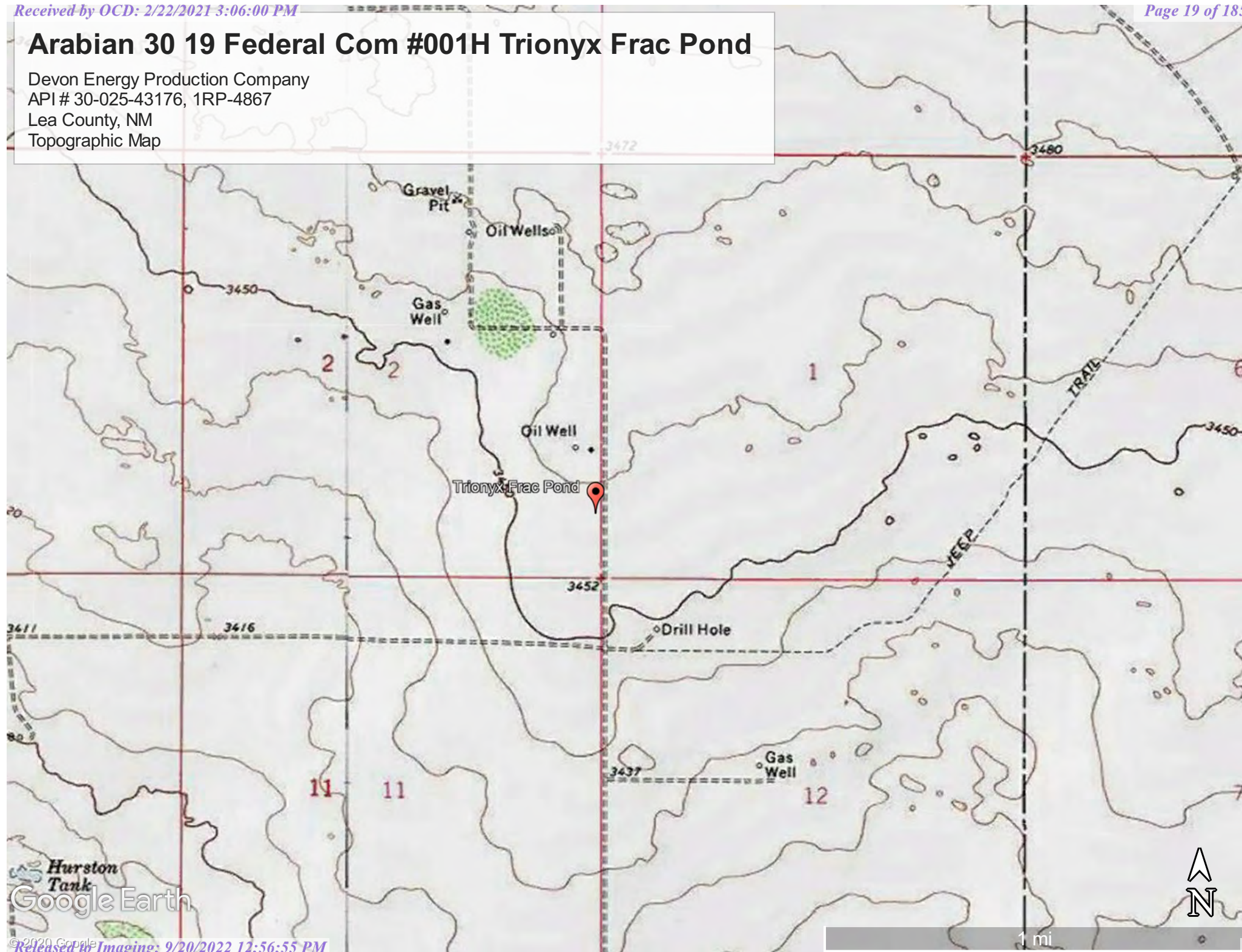
Released to Imaging: 9/20/2022 12:56:55 PM



3 mi

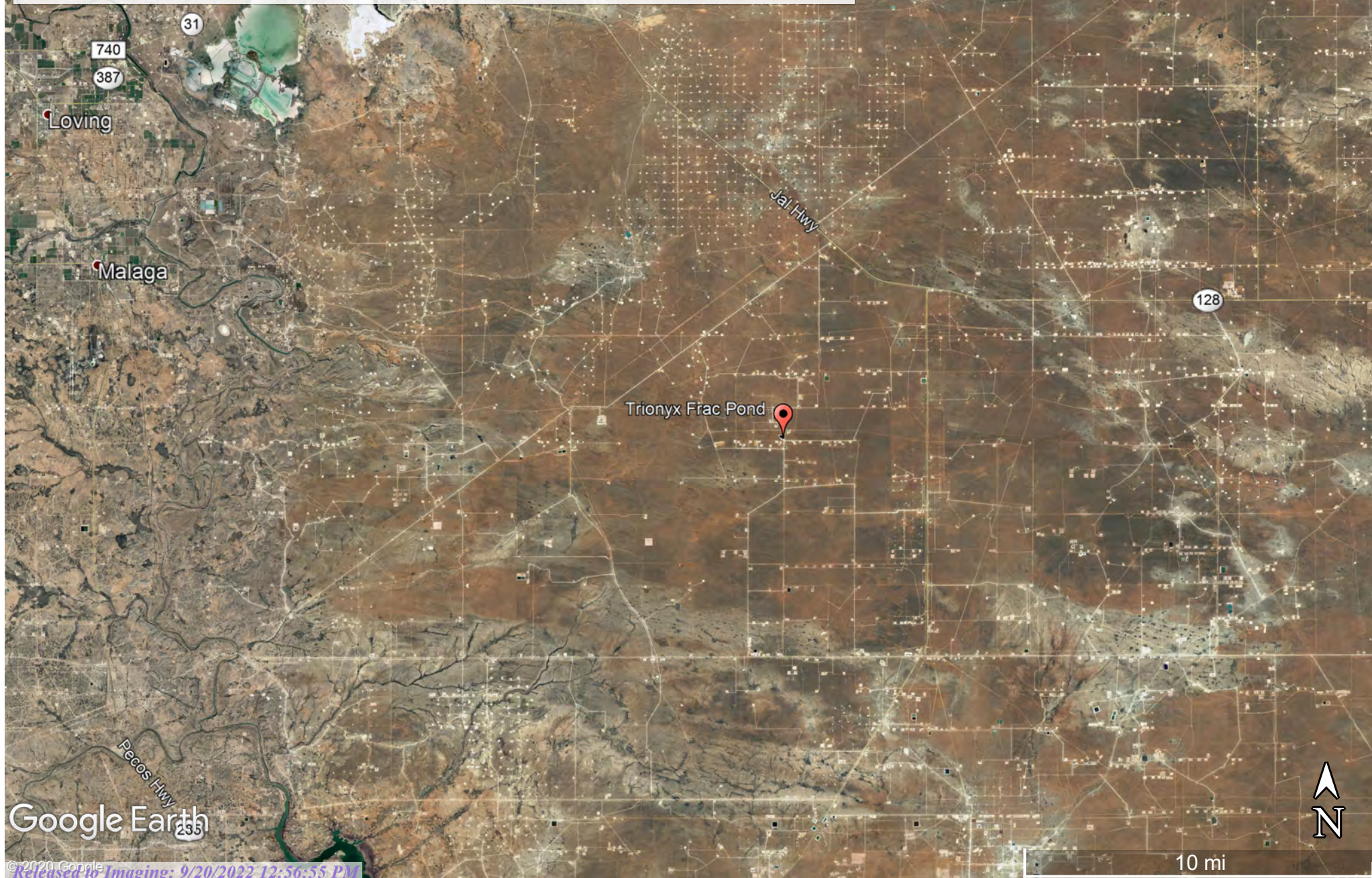
Arabian 30 19 Federal Com #001H Trionyx Frac Pond

Devon Energy Production Company
API # 30-025-43176, 1RP-4867
Lea County, NM
Topographic Map



Arabian 30 19 Federal Com #001H Trionyx Frac Pond

Devon Energy Production Company
API # 30-025-43176, 1RP-4867
Lea County, NM
Locator Map





APPENDIX II

SOIL BORING LOG

GROUNDWATER DATA

SOIL SURVEY

FEMA FLOOD MAP



BORING LOG

Project No.: 700794.336.01

Weather: Sunny, Warm Temp.: 80's °F

Driller: M. Doyle

Site Name: Trionyx Frac Pond

Logger: B. Sinclair

Rig Type: Geoprobe 7822DT

Location: Lea County, New Mexico

Field Instrument: Lab Analysis

Bit Size: 5 1/4"

Date: 11/18/2020

Latitude: 32.154386° N

Drilling Method: Air Rotary

Boring Number: S-1

Longitude: -103.740605°W

Sample Retrieval Method: Core Liner

Time	Lab Sample Collected	Sample Interval (ft)	Sample Recovery (ft)	USCS	Composition (%)	Sample Material/Comments Include composition, color, grain size, moisture, hardness, plasticity, density	Hydrocarbon Odor	PID (ppm)
		0-10'				White fine Sand (SP) with trace amounts of caliche.	None	
		10-15'				Light tan fine Sand (SP) with varying amounts of caliche.	None	
		15-25'				Pinkish-gray fine Sand (SP) with varying amounts of caliche.	None	
		25-40'				Dark red/brown fine Sand (SP).	None	
		40-45'				Brown gravelly fine Sand (SW).	None	
		45-51'				Dark red/brown fine Sand (SP).	None	
Surface Elevation: 3,600' Notes: TD 51', Groundwater Not Encountered Logger Initials: B.S.								



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03830 POD1	CUB	ED		4	2	4	02	25S	31E	618632	3558432	251	450		
C 02570	CUB	ED		4	2	4	02	25S	31E	618704	3558489*	271	895		
C 02569	CUB	ED		4	4	2	02	25S	31E	618699	3558891*	667	1016		
C 02568	CUB	ED		4	3	1	01	25S	31E	619103	3558892*	738	1025		
C 02573	CUB	ED		1	4	2	02	25S	31E	618499	3559091*	906			
C 02572	CUB	ED		4	2	2	02	25S	31E	618695	3559294*	1068	852		
C 02571	CUB	ED		4	1	2	02	25S	31E	618292	3559294*	1171	860		
C 02574	CUB	ED		1	1	2	02	25S	31E	618092	3559494*	1440			

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 8

UTMNA83 Radius Search (in meters):

Easting (X): 618778.83

Northing (Y): 3558228.34

Radius: 3000

*UTM location was derived from PLSS - see Help

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

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Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



New Mexico Office of the State Engineer Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	03830 POD1	4	2	4	02	25S	31E	618632	3558432

Driller License: 1607 **Driller Company:** DURAN DRILLING
Driller Name: DURAN, LUIS A.
Drill Start Date: 01/28/2015 **Drill Finish Date:** 02/02/2015 **Plug Date:**
Log File Date: 02/23/2015 **PCW Rcv Date:** **Source:** Shallow
Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 15 GPM
Casing Size: 7.00 **Depth Well:** 450 feet **Depth Water:**

Water Bearing Stratifications:		Top	Bottom	Description
		348	378	Sandstone/Gravel/Conglomerate
		384	448	Sandstone/Gravel/Conglomerate

Casing Perforations:		Top	Bottom
		220	450

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

11/10/20 1:58 PM

POINT OF DIVERSION SUMMARY

Map Unit Description: Berino complex, 0 to 3 percent slopes, eroded---Eddy Area, New Mexico

Eddy Area, New Mexico

BB—Berino complex, 0 to 3 percent slopes, eroded

Map Unit Setting

National map unit symbol: 1w43

Elevation: 2,000 to 5,700 feet

Mean annual precipitation: 5 to 15 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: 60 percent

Pajarito and similar soils: 25 percent

Minor components: 15 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 17 inches: fine sand

H2 - 17 to 58 inches: sandy clay loam

H3 - 58 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

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 content: 40 percent

Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water capacity: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Map Unit Description: Berino complex, 0 to 3 percent slopes, eroded---Eddy Area, New Mexico

Hydrologic Soil Group: B
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Description of Pajarito

Setting

Landform: Interdunes, plains, dunes
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 9 inches: loamy fine sand
H2 - 9 to 72 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High
(2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Cacique

Percent of map unit: 4 percent
Ecological site: R042XC004NM - Sandy
Hydric soil rating: No

Pajarito

Percent of map unit: 4 percent
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Wink

Percent of map unit: 4 percent
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Map Unit Description: Berino complex, 0 to 3 percent slopes, eroded---Eddy Area, New Mexico

Kermit

Percent of map unit: 3 percent

Ecological site: R042XC005NM - Deep Sand

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 16, Jun 8, 2020



National Flood Hazard Layer FIRMette



103°44'45"W 32°9'31"N



USGS The National Map: Orthoimagery. Data refreshed October, 2020.

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

1:6,000

103°44'7"W 32°9'1"N

Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
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 **12/28/2020 at 4:10 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



APPENDIX III

C-141 FORMS

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

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy Production Co LP (6137)	Contact Stephen Richards, Devon Completions Foreman
Address PO BOX 250, Artesia, NM 88211	Telephone No. (575) 252-3717
Facility Name: Trionyx Frac Pond (Completing wells on the Arabian 30-19 Fed Com 1H)	Facility Type Oil

Surface Owner: State	Mineral Owner: State	API No. 30-025-43176
----------------------	----------------------	----------------------

LOCATION OF RELEASE

Unit Letter P	Section 2	Township 25S	Range 31E	Feet from the	North/South Line	Feet from the	East/West Line	County EDDY
------------------	--------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude 32.154386 N Longitude 103.740605 W NAD83

NATURE OF RELEASE

Type of Release: Treated Produced Water	Volume of Release: 50 bbls	Volume Recovered: 40 bbls
Source of Release: Lay Flat Transfer Line	Date and Hour of Occurrence: 10/24/2017 @ 2:14 PM MST	Date and Hour of Discovery: 10/24/2017 @ 2:14 PM MST
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD: Olivia Yu	<div style="border: 1px solid black; padding: 5px; text-align: center;"> RECEIVED <i>By Olivia Yu at 9:23 am, Nov 17, 2017</i> </div>
By Whom? Mike Shoemaker, EHS Professional	Date and Hour: OCD: 10/25/17 @ 7:24 PM MST	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA


Describe Cause of Problem and Remedial Action Taken.*

A contract company was pigging the layflat line from the Arabian 30-19 Fed Com 1H to the Trionyx pond. They had completed the line from the location to their booster pump, after rigging up to pig from the booster pump to the Trionyx pond there was some air in the line which caused the line to come out of the pond and allowed fluid to be release to the ground from the line. The contract company shut down operations and notified Devon personnel. Approximately 50bbls of produced water ran off the side of the pond onto the Trionxy facility. A vacuum truck was dispatched and recovered 40 bbls of produced water.

Describe Area Affected and Cleanup Action Taken.*

The spill affected approximately 25,000 square feet running South from the release point. Approximately 50 barrels of treated produced water was spilled and approximately 40 barrels were recovered. A remediation contractor will be contacted to assist with the delineation and remediation efforts.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: <i>Denise Menoud</i>	OIL CONSERVATION DIVISION 	
Printed Name: Denise Menoud		
Title: Admin Field Support	Approved by Environmental Specialist:	Approval Date: 11/17/2017 Expiration Date:
E-mail Address: denise.menoud@dvn.com	Conditions of Approval: see attached directive	Attached <input checked="" type="checkbox"/>
Date: 10/30/2017 Phone: (575)746-5544		

* Attach Additional Sheets If Necessary

1RP-4867

nOY1732133962

pOY1732135037

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _11/6/2017_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4867_ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs__ on or before _12/17/2017_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us



Trionyx Pond Spill 10.24.17



This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map.

WGS_1984_Web_Mercator_Auxiliary_Sphere
Prepared by: Menoud
Map is current as of: 30-Oct-2017



Miles

0 0.01 0.02 0.04 1:1,779

Incident ID	NOY1732133962
District RP	1RP-4867
Facility ID	30-025-43176
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?	<u>348</u> (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

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

Page 4

Incident ID	NOY1732133962
District RP	1RP-4867
Facility ID	30-025-43176
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: Brandon Sinclair

Title: Environmental Project Manager

Signature: _____

Date: 2-22-2021

email: bsinclair@talonlpe.com

Telephone: 575-746-8768

OCD Only

Received by: _____

Date: _____

Incident ID	NOY1732133962
District RP	1RP-4867
Facility ID	30-025-43176
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: Brandon Sinclair

Title: Environmental Project Manager

Signature: _____

Date: 2-22-2021

email: bsinclair@talonlpe.com

Telephone: 575-746-8768

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: _____

APPROVED

Date: _____

Printed Name: _____

By Ashley Maxwell at 12:46 pm, Sep 20, 2022

Title: _____

Environmental Specialist



APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

Arabian 30 19 Fed Com 1H Trionyx Frac Pond Photographs



Arabian 30 19 Fed Com 1H Trionyx Frac Pond Photographs





APPENDIX V

LABORATORY DATA



Analytical Report 665597

for

Talon LPE-Artesia

Project Manager: David Adkins

Trionyx Frac Pond

700794.336.01

06.29.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



06.29.2020

Project Manager: **David Adkins**

Talon LPE-Artesia

408 West Texas St.

Artesia, NM 88210

Reference: XENCO Report No(s): **665597**

Trionyx Frac Pond

Project Address: Lea County

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 665597. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 665597 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 665597****Talon LPE-Artesia, Artesia, NM**

Trionyx Frac Pond

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-1 0-0.5' R	S	06.24.2020 10:25		665597-001
S-2 0-0.5' R	S	06.24.2020 10:30		665597-002
S-3 0-0.5'	S	06.24.2020 10:45		665597-003
S-3 1'	S	06.24.2020 10:48		665597-004
S-3 2'	S	06.24.2020 10:52		665597-005
S-3 2.5' R	S	06.24.2020 10:56		665597-006
S-4 0-0.5' R	S	06.24.2020 11:00		665597-007
S-4 1'	S	06.24.2020 11:05		665597-008
S-4 2'	S	06.24.2020 11:08		665597-009
S-4 2.5' R	S	06.24.2020 11:11		665597-010

**CASE NARRATIVE***Client Name: Talon LPE-Artesia**Project Name: Trionyx Frac Pond*

Project ID: 700794.336.01
Work Order Number(s): 665597

Report Date: 06.29.2020
Date Received: 06.25.2020

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: S-1 0-0.5' R

Matrix: Soil

Sample Depth:

Lab Sample Id: 665597-001

Date Collected: 06.24.2020 10:25

Date Received: 06.25.2020 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130200

Date Prep: 06.26.2020 08:41

Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	10000	99.6	3.53	mg/kg	06.26.2020 11:46		10

Analytical Method: TPH by SW8015 Mod

Prep Method: 8015

Analyst: CAC

% Moist:

Tech: CAC

Seq Number: 3130037

Date Prep: 06.25.2020 16:48

Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.9	50.2	13.9	mg/kg	06.25.2020 19:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.5	50.2	11.5	mg/kg	06.25.2020 19:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.5	50.2	11.5	mg/kg	06.25.2020 19:55	U	1
Total TPH	PHC635	<11.5		11.5	mg/kg	06.25.2020 19:55	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	100	70 - 135	%		
o-Terphenyl	102	70 - 135	%		

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000486	0.00200	0.000486	mg/kg	06.25.2020 21:38	U	1
Toluene	108-88-3	<0.000529	0.00200	0.000529	mg/kg	06.25.2020 21:38	U	1
Ethylbenzene	100-41-4	<0.000407	0.00200	0.000407	mg/kg	06.25.2020 21:38	U	1
m,p-Xylenes	179601-23-1	<0.000755	0.00401	0.000755	mg/kg	06.25.2020 21:38	U	1
o-Xylene	95-47-6	<0.000404	0.00200	0.000404	mg/kg	06.25.2020 21:38	U	1
Xylenes, Total	1330-20-7	<0.000404		0.000404	mg/kg	06.25.2020 21:38	U	
Total BTEX		<0.000404		0.000404	mg/kg	06.25.2020 21:38	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	97	70 - 130	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: S-2 0-0.5' R

Matrix: Soil

Sample Depth:

Lab Sample Id: 665597-002

Date Collected: 06.24.2020 10:30

Date Received: 06.25.2020 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130200

Date Prep: 06.26.2020 08:41

Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	1370	10.1	0.357	mg/kg	06.26.2020 12:08		1

Analytical Method: TPH by SW8015 Mod

Prep Method: 8015

Analyst: CAC

% Moist:

Tech: CAC

Seq Number: 3130037

Date Prep: 06.25.2020 16:48

Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.9	50.2	13.9	mg/kg	06.25.2020 20:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.5	50.2	11.5	mg/kg	06.25.2020 20:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.5	50.2	11.5	mg/kg	06.25.2020 20:56	U	1
Total TPH	PHC635	<11.5		11.5	mg/kg	06.25.2020 20:56	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	95	70 - 135	%		
o-Terphenyl	97	70 - 135	%		

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000482	0.00198	0.000482	mg/kg	06.25.2020 21:59	U	1
Toluene	108-88-3	<0.000524	0.00198	0.000524	mg/kg	06.25.2020 21:59	U	1
Ethylbenzene	100-41-4	<0.000403	0.00198	0.000403	mg/kg	06.25.2020 21:59	U	1
m,p-Xylenes	179601-23-1	<0.000748	0.00397	0.000748	mg/kg	06.25.2020 21:59	U	1
o-Xylene	95-47-6	<0.000400	0.00198	0.000400	mg/kg	06.25.2020 21:59	U	1
Xylenes, Total	1330-20-7	<0.000400		0.000400	mg/kg	06.25.2020 21:59	U	
Total BTEX		<0.000400		0.000400	mg/kg	06.25.2020 21:59	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	104	70 - 130	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: S-3 0-0.5'

Matrix: Soil

Sample Depth:

Lab Sample Id: 665597-003

Date Collected: 06.24.2020 10:45

Date Received: 06.25.2020 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130200

Date Prep: 06.26.2020 08:41

Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	38.9	9.92	0.351	mg/kg	06.26.2020 12:16		1

Analytical Method: TPH by SW8015 Mod

Prep Method: 8015

Analyst: CAC

% Moist:

Tech: CAC

Seq Number: 3130037

Date Prep: 06.25.2020 16:48

Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.9	50.0	13.9	mg/kg	06.25.2020 21:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.5	50.0	11.5	mg/kg	06.25.2020 21:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.4	50.0	11.4	mg/kg	06.25.2020 21:17	U	1
Total TPH	PHC635	<11.4		11.4	mg/kg	06.25.2020 21:17	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	96	70 - 135	%		
o-Terphenyl	102	70 - 135	%		

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00198	0.000480	mg/kg	06.25.2020 22:20	U	1
Toluene	108-88-3	<0.000521	0.00198	0.000521	mg/kg	06.25.2020 22:20	U	1
Ethylbenzene	100-41-4	<0.000401	0.00198	0.000401	mg/kg	06.25.2020 22:20	U	1
m,p-Xylenes	179601-23-1	<0.000745	0.00395	0.000745	mg/kg	06.25.2020 22:20	U	1
o-Xylene	95-47-6	<0.000398	0.00198	0.000398	mg/kg	06.25.2020 22:20	U	1
Xylenes, Total	1330-20-7	<0.000398		0.000398	mg/kg	06.25.2020 22:20	U	
Total BTEX		<0.000398		0.000398	mg/kg	06.25.2020 22:20	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: S-3 1'

Matrix: Soil

Sample Depth:

Lab Sample Id: 665597-004

Date Collected: 06.24.2020 10:48

Date Received: 06.25.2020 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130200

Date Prep: 06.26.2020 08:41

Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	24.5	9.90	0.350	mg/kg	06.26.2020 12:23		1

Analytical Method: TPH by SW8015 Mod

Prep Method: 8015

Analyst: CAC

% Moist:

Tech: CAC

Seq Number: 3130037

Date Prep: 06.25.2020 16:48

Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.9	50.0	13.9	mg/kg	06.25.2020 21:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.5	50.0	11.5	mg/kg	06.25.2020 21:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.5	50.0	11.5	mg/kg	06.25.2020 21:37	U	1
Total TPH	PHC635	<11.5		11.5	mg/kg	06.25.2020 21:37	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	101	70 - 135	%		
o-Terphenyl	104	70 - 135	%		

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000481	0.00198	0.000481	mg/kg	06.25.2020 22:42	U	1
Toluene	108-88-3	<0.000522	0.00198	0.000522	mg/kg	06.25.2020 22:42	U	1
Ethylbenzene	100-41-4	<0.000402	0.00198	0.000402	mg/kg	06.25.2020 22:42	U	1
m,p-Xylenes	179601-23-1	<0.000746	0.00396	0.000746	mg/kg	06.25.2020 22:42	U	1
o-Xylene	95-47-6	<0.000399	0.00198	0.000399	mg/kg	06.25.2020 22:42	U	1
Xylenes, Total	1330-20-7	<0.000399		0.000399	mg/kg	06.25.2020 22:42	U	
Total BTEX		<0.000399		0.000399	mg/kg	06.25.2020 22:42	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: S-3 2'

Matrix: Soil

Sample Depth:

Lab Sample Id: 665597-005

Date Collected: 06.24.2020 10:52

Date Received: 06.25.2020 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130200

Date Prep: 06.26.2020 08:41

Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	232	9.88	0.350	mg/kg	06.26.2020 12:31		1

Analytical Method: TPH by SW8015 Mod

Prep Method: 8015

Analyst: CAC

% Moist:

Tech: CAC

Seq Number: 3130037

Date Prep: 06.25.2020 16:48

Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.9	49.9	13.9	mg/kg	06.25.2020 21:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.4	49.9	11.4	mg/kg	06.25.2020 21:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.4	49.9	11.4	mg/kg	06.25.2020 21:58	U	1
Total TPH	PHC635	<11.4		11.4	mg/kg	06.25.2020 21:58	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	93	70 - 135	%		
o-Terphenyl	116	70 - 135	%		

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000484	0.00199	0.000484	mg/kg	06.25.2020 23:03	U	1
Toluene	108-88-3	<0.000526	0.00199	0.000526	mg/kg	06.25.2020 23:03	U	1
Ethylbenzene	100-41-4	<0.000405	0.00199	0.000405	mg/kg	06.25.2020 23:03	U	1
m,p-Xylenes	179601-23-1	<0.000751	0.00398	0.000751	mg/kg	06.25.2020 23:03	U	1
o-Xylene	95-47-6	<0.000401	0.00199	0.000401	mg/kg	06.25.2020 23:03	U	1
Xylenes, Total	1330-20-7	<0.000401		0.000401	mg/kg	06.25.2020 23:03	U	
Total BTEX		<0.000401		0.000401	mg/kg	06.25.2020 23:03	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	104	70 - 130	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: S-3 2.5' R

Matrix: Soil

Sample Depth:

Lab Sample Id: 665597-006

Date Collected: 06.24.2020 10:56

Date Received: 06.25.2020 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130200

Date Prep: 06.26.2020 08:41

Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	1530	9.98	0.353	mg/kg	06.26.2020 12:53		1

Analytical Method: TPH by SW8015 Mod

Prep Method: 8015

Analyst: CAC

% Moist:

Tech: CAC

Seq Number: 3130037

Date Prep: 06.25.2020 16:48

Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.9	50.0	13.9	mg/kg	06.25.2020 22:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.5	50.0	11.5	mg/kg	06.25.2020 22:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.4	50.0	11.4	mg/kg	06.25.2020 22:18	U	1
Total TPH	PHC635	<11.4		11.4	mg/kg	06.25.2020 22:18	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	89	70 - 135	%		
o-Terphenyl	91	70 - 135	%		

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000486	0.00200	0.000486	mg/kg	06.25.2020 23:25	U	1
Toluene	108-88-3	<0.000529	0.00200	0.000529	mg/kg	06.25.2020 23:25	U	1
Ethylbenzene	100-41-4	<0.000407	0.00200	0.000407	mg/kg	06.25.2020 23:25	U	1
m,p-Xylenes	179601-23-1	<0.000755	0.00401	0.000755	mg/kg	06.25.2020 23:25	U	1
o-Xylene	95-47-6	<0.000404	0.00200	0.000404	mg/kg	06.25.2020 23:25	U	1
Xylenes, Total	1330-20-7	<0.000404		0.000404	mg/kg	06.25.2020 23:25	U	
Total BTEX		<0.000404		0.000404	mg/kg	06.25.2020 23:25	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	106	70 - 130	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: S-4 0-0.5' R

Matrix: Soil

Sample Depth:

Lab Sample Id: 665597-007

Date Collected: 06.24.2020 11:00

Date Received: 06.25.2020 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130200

Date Prep: 06.26.2020 08:41

Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	57.2	9.96	0.353	mg/kg	06.26.2020 13:08		1

Analytical Method: TPH by SW8015 Mod

Prep Method: 8015

Analyst: CAC

% Moist:

Tech: CAC

Seq Number: 3130037

Date Prep: 06.25.2020 16:48

Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.8	49.8	13.8	mg/kg	06.25.2020 22:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.4	49.8	11.4	mg/kg	06.25.2020 22:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.4	49.8	11.4	mg/kg	06.25.2020 22:39	U	1
Total TPH	PHC635	<11.4		11.4	mg/kg	06.25.2020 22:39	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	89	70 - 135	%		

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000486	0.00200	0.000486	mg/kg	06.25.2020 23:46	U	1
Toluene	108-88-3	<0.000529	0.00200	0.000529	mg/kg	06.25.2020 23:46	U	1
Ethylbenzene	100-41-4	<0.000407	0.00200	0.000407	mg/kg	06.25.2020 23:46	U	1
m,p-Xylenes	179601-23-1	<0.000755	0.00401	0.000755	mg/kg	06.25.2020 23:46	U	1
o-Xylene	95-47-6	<0.000404	0.00200	0.000404	mg/kg	06.25.2020 23:46	U	1
Xylenes, Total	1330-20-7	<0.000404		0.000404	mg/kg	06.25.2020 23:46	U	
Total BTEX		<0.000404		0.000404	mg/kg	06.25.2020 23:46	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: S-4 1'

Matrix: Soil

Sample Depth:

Lab Sample Id: 665597-008

Date Collected: 06.24.2020 11:05

Date Received: 06.25.2020 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130200

Date Prep: 06.26.2020 08:41

Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	17.6	9.98	0.353	mg/kg	06.26.2020 13:16		1

Analytical Method: TPH by SW8015 Mod

Prep Method: 8015

Analyst: CAC

% Moist:

Tech: CAC

Seq Number: 3130037

Date Prep: 06.25.2020 16:48

Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.8	49.8	13.8	mg/kg	06.25.2020 22:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.4	49.8	11.4	mg/kg	06.25.2020 22:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.4	49.8	11.4	mg/kg	06.25.2020 22:59	U	1
Total TPH	PHC635	<11.4		11.4	mg/kg	06.25.2020 22:59	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	90	70 - 135	%		

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00198	0.000480	mg/kg	06.26.2020 00:07	U	1
Toluene	108-88-3	<0.000521	0.00198	0.000521	mg/kg	06.26.2020 00:07	U	1
Ethylbenzene	100-41-4	<0.000401	0.00198	0.000401	mg/kg	06.26.2020 00:07	U	1
m,p-Xylenes	179601-23-1	<0.000745	0.00395	0.000745	mg/kg	06.26.2020 00:07	U	1
o-Xylene	95-47-6	<0.000398	0.00198	0.000398	mg/kg	06.26.2020 00:07	U	1
Xylenes, Total	1330-20-7	<0.000398		0.000398	mg/kg	06.26.2020 00:07	U	
Total BTEX		<0.000398		0.000398	mg/kg	06.26.2020 00:07	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: S-4 2'

Matrix: Soil

Sample Depth:

Lab Sample Id: 665597-009

Date Collected: 06.24.2020 11:08

Date Received: 06.25.2020 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130200

Date Prep: 06.26.2020 08:41

Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	19.6	10.0	0.355	mg/kg	06.26.2020 13:23		1

Analytical Method: TPH by SW8015 Mod

Prep Method: 8015

Analyst: CAC

% Moist:

Tech: CAC

Seq Number: 3130037

Date Prep: 06.25.2020 16:48

Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.8	49.8	13.8	mg/kg	06.25.2020 23:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.4	49.8	11.4	mg/kg	06.25.2020 23:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.4	49.8	11.4	mg/kg	06.25.2020 23:20	U	1
Total TPH	PHC635	<11.4		11.4	mg/kg	06.25.2020 23:20	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 135	%		
o-Terphenyl	91	70 - 135	%		

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000482	0.00198	0.000482	mg/kg	06.26.2020 00:29	U	1
Toluene	108-88-3	<0.000524	0.00198	0.000524	mg/kg	06.26.2020 00:29	U	1
Ethylbenzene	100-41-4	<0.000403	0.00198	0.000403	mg/kg	06.26.2020 00:29	U	1
m,p-Xylenes	179601-23-1	<0.000748	0.00397	0.000748	mg/kg	06.26.2020 00:29	U	1
o-Xylene	95-47-6	<0.000400	0.00198	0.000400	mg/kg	06.26.2020 00:29	U	1
Xylenes, Total	1330-20-7	<0.000400		0.000400	mg/kg	06.26.2020 00:29	U	
Total BTEX		<0.000400		0.000400	mg/kg	06.26.2020 00:29	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	104	70 - 130	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: S-4 2.5' R

Matrix: Soil

Sample Depth:

Lab Sample Id: 665597-010

Date Collected: 06.24.2020 11:11

Date Received: 06.25.2020 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130200

Date Prep: 06.26.2020 08:41

Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	67.3	9.94	0.352	mg/kg	06.26.2020 13:30		1

Analytical Method: TPH by SW8015 Mod

Prep Method: 8015

Analyst: CAC

% Moist:

Tech: CAC

Seq Number: 3130037

Date Prep: 06.25.2020 16:48

Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.8	49.8	13.8	mg/kg	06.25.2020 23:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.4	49.8	11.4	mg/kg	06.25.2020 23:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.4	49.8	11.4	mg/kg	06.25.2020 23:40	U	1
Total TPH	PHC635	<11.4		11.4	mg/kg	06.25.2020 23:40	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	86	70 - 135	%		
o-Terphenyl	90	70 - 135	%		

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000483	0.00199	0.000483	mg/kg	06.26.2020 00:50	U	1
Toluene	108-88-3	<0.000525	0.00199	0.000525	mg/kg	06.26.2020 00:50	U	1
Ethylbenzene	100-41-4	<0.000404	0.00199	0.000404	mg/kg	06.26.2020 00:50	U	1
m,p-Xylenes	179601-23-1	<0.000749	0.00398	0.000749	mg/kg	06.26.2020 00:50	U	1
o-Xylene	95-47-6	<0.000401	0.00199	0.000401	mg/kg	06.26.2020 00:50	U	1
Xylenes, Total	1330-20-7	<0.000401		0.000401	mg/kg	06.26.2020 00:50	U	
Total BTEX		<0.000401		0.000401	mg/kg	06.26.2020 00:50	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	101	70 - 130	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond

Sample Id: **7706226-1-BLK** Matrix: Solid Sample Depth:
 Lab Sample Id: 7706226-1-BLK Date Collected: Date Received:
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Analyst: MAB % Moist: Tech: MAB
 Seq Number: 3130200 Date Prep: 06.26.2020 08:41
 Prep seq: 7706226

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.354	10.0	0.354	mg/kg	06.26.2020 13:01	U	1

Sample Id: **7706231-1-BLK** Matrix: Solid Sample Depth:
 Lab Sample Id: 7706231-1-BLK Date Collected: Date Received:
 Analytical Method: TPH by SW8015 Mod Prep Method: 8015
 Analyst: CAC % Moist: Tech: CAC
 Seq Number: 3130037 Date Prep: 06.25.2020 16:48
 Prep seq: 7706231

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.9	50.0	13.9	mg/kg	06.25.2020 18:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.5	50.0	11.5	mg/kg	06.25.2020 18:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.5	50.0	11.5	mg/kg	06.25.2020 18:32	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	83	70 - 135	%		
o-Terphenyl	71	70 - 135	%		



Certificate of Analytical Results

665597

Talon LPE-Artesia, Artesia, NM
Trionyx Frac Pond

Sample Id: **7706233-1-BLK**

Matrix: Solid

Sample Depth:

Lab Sample Id: 7706233-1-BLK

Date Collected:

Date Received:

Analytical Method: BTEX by EPA 8021

Prep Method: 5035A

Analyst: MAB

% Moist:

Tech: MAB

Seq Number: 3130038

Date Prep: 06.25.2020 16:52

Prep seq: 7706233

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000486	0.00200	0.000486	mg/kg	06.25.2020 19:17	U	1
Toluene	108-88-3	<0.000528	0.00200	0.000528	mg/kg	06.25.2020 19:17	U	1
Ethylbenzene	100-41-4	<0.000406	0.00200	0.000406	mg/kg	06.25.2020 19:17	U	1
m_p-Xylenes	179601-23-1	<0.000754	0.00400	0.000754	mg/kg	06.25.2020 19:17	U	1
o-Xylene	95-47-6	<0.000403	0.00200	0.000403	mg/kg	06.25.2020 19:17	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	95	70 - 130	%		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Form 2 - Surrogate Recoveries

Project Name: Trionyx Frac Pond

Work Orders : 665597

Project ID: 700794.336.01

Lab Batch #: 3130038

Sample: 7706233-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06.25.2020 19:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0295	0.0300	98	70-130	
4-Bromofluorobenzene	0.0285	0.0300	95	70-130	

Lab Batch #: 3130038

Sample: 7706233-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06.25.2020 19:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0295	0.0300	98	70-130	
4-Bromofluorobenzene	0.0313	0.0300	104	70-130	

Lab Batch #: 3130038

Sample: 7706233-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06.25.2020 20:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0297	0.0300	99	70-130	
4-Bromofluorobenzene	0.0318	0.0300	106	70-130	

Lab Batch #: 3130038

Sample: 665597-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06.25.2020 20:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0295	0.0300	98	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

Lab Batch #: 3130038

Sample: 665597-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06.25.2020 20:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0301	0.0300	100	70-130	
4-Bromofluorobenzene	0.0319	0.0300	106	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Trionyx Frac Pond

Work Orders : 665597

Project ID: 700794.336.01

Lab Batch #: 3130037

Sample: 7706231-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06.25.2020 18:32

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.6	100	83	70-135	
o-Terphenyl	35.4	50.0	71	70-135	

Lab Batch #: 3130037

Sample: 7706231-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06.25.2020 18:53

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	52.8	50.0	106	70-135	

Lab Batch #: 3130037

Sample: 7706231-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06.25.2020 19:14

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	58.1	50.0	116	70-135	

Lab Batch #: 3130037

Sample: 665597-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06.25.2020 20:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.8	110	70-135	
o-Terphenyl	52.4	49.9	105	70-135	

Lab Batch #: 3130037

Sample: 665597-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06.25.2020 20:36

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.5	107	70-135	
o-Terphenyl	51.7	49.8	104	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries

Project Name: Trionyx Frac Pond

Work Order #: 665597

Project ID: 700794.336.01

Analyst: MAB

Date Prepared: 06.25.2020

Date Analyzed: 06.25.2020

Lab Batch ID: 3130038

Sample: 7706233-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.000486	0.100	0.105	105	0.100	0.106	106	1	70-130	35	
Toluene	<0.000528	0.100	0.106	106	0.100	0.108	108	2	70-130	35	
Ethylbenzene	<0.000406	0.100	0.103	103	0.100	0.104	104	1	71-129	35	
m_p-Xylenes	<0.000754	0.200	0.211	106	0.200	0.213	107	1	70-135	35	
o-Xylene	<0.000403	0.100	0.105	105	0.100	0.106	106	1	71-133	35	

Analyst: MAB

Date Prepared: 06.26.2020

Date Analyzed: 06.26.2020

Lab Batch ID: 3130200

Sample: 7706226-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<0.354	250	254	102	250	262	105	3	90-110	20	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries

Project Name: Trionyx Frac Pond

Work Order #: 665597

Project ID: 700794.336.01

Analyst: CAC

Date Prepared: 06.25.2020

Date Analyzed: 06.25.2020

Lab Batch ID: 3130037

Sample: 7706231-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<13.9	1000	743	74	1000	835	84	12	70-135	35	
Diesel Range Organics (DRO)	<11.5	1000	889	89	1000	985	99	10	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: Trionyx Frac Pond

Work Order #: 665597

Project ID: 700794.336.01

Lab Batch ID: 3130038

QC- Sample ID: 665597-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06.25.2020

Date Prepared: 06.25.2020

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000484	0.0996	0.115	115	0.0998	0.120	120	4	70-130	35	
Toluene	<0.000526	0.0996	0.112	112	0.0998	0.119	119	6	70-130	35	
Ethylbenzene	<0.000405	0.0996	0.0967	97	0.0998	0.112	112	15	71-129	35	
m_p-Xylenes	<0.000751	0.199	0.196	98	0.200	0.227	114	15	70-135	35	
o-Xylene	<0.000401	0.0996	0.0972	98	0.0998	0.110	110	12	71-133	35	

Lab Batch ID: 3130200

QC- Sample ID: 665597-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06.26.2020

Date Prepared: 06.26.2020

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	10000	200	10200	100	200	10200	100	0	90-110	20	

Matrix Spike Percent Recovery $[D] = 100 * (C - A) / B$
 Relative Percent Difference $RPD = 200 * |(C - F)| / (C + F)$

Matrix Spike Duplicate Percent Recovery $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries

Project Name: Trionyx Frac Pond

Work Order #: 665597

Project ID: 700794.336.01

Lab Batch ID: 3130200

QC- Sample ID: 665605-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06.26.2020

Date Prepared: 06.26.2020

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	9.25	200	195	93	200	196	93	1	90-110	20	

Lab Batch ID: 3130037

QC- Sample ID: 665597-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06.25.2020

Date Prepared: 06.25.2020

Analyst: CAC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<13.9	998	1000	100	995	968	97	3	70-135	35	
Diesel Range Organics (DRO)	<11.4	998	1120	112	995	1130	114	1	70-135	35	

Matrix Spike Percent Recovery $[D] = 100 * (C - A) / B$
 Relative Percent Difference $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, El Paso, TX (915) 583-3443, Lubbock, TX (806) 799-1296
Hobbs, NM (575) 382-7550, Carlsbad, NM (575) 986-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 798-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8900

Work Order No: 665597

[illegible]

XENCO Laboratories**Prelogin/Nonconformance Report- Sample Log-In****Client:** Talon LPE-Artesia**Date/ Time Received:** 06.25.2020 03.45.00 PM**Work Order #:** 665597**Acceptable Temperature Range:** 0 - 6 degC**Air and Metal samples Acceptable Range:** Ambient**Temperature Measuring device used :** T NM 007**Sample Receipt Checklist****Comments**

#1 *Temperature of cooler(s)?	3.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	Samples received in bulk containers.
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	N/A	
#18 Water VOC samples have zero headspace?	N/A	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 06.26.2020

Checklist reviewed by:

Jessica Kramer

Date: 06.29.2020

Certificate of Analysis Summary 672834



Talon LPE-Artesia, Artesia, NM

Project Name: Trionyx Frac Pond (Pond)

Project Id: 7079433601

Contact: R Pons

Project Location: Lea County

Date Received in Lab: Thu 09.17.2020 12:30

Report Date: 09.21.2020 13:12

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	672834-001	672834-002	672834-003	672834-004	672834-005	672834-006
	<i>Field Id:</i>	S1 1-2'	S1 2-3'	S1 3-4'	S2 1-2'	S2 2-3'	S2 3-4'
	<i>Depth:</i>	1-2 ft	2-3 ft	3-4 ft	1-2 ft	2-3 ft	3-4 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.16.2020 09:00	09.16.2020 09:05	09.16.2020 09:10	09.16.2020 09:20	09.16.2020 09:25	09.16.2020 09:30
Chloride by EPA 300	<i>Extracted:</i>	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28
	<i>Analyzed:</i>	** * * * *	** * * * *	** * * * *	** * * * *	** * * * *	** * * * *
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		204 9.94	928 49.8	1910 49.6	911 9.90	281 10.1	3370 50.5

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 672834



Talon LPE-Artesia, Artesia, NM

Project Name: Trionyx Frac Pond (Pond)

Project Id: 7079433601

Date Received in Lab: Thu 09.17.2020 12:30

Contact: R Pons

Report Date: 09.21.2020 13:12

Project Location: Lea County

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	672834-007	672834-008	672834-009	672834-010	672834-011	672834-012
	<i>Field Id:</i>	S3 3-4'	S4 3-4'	S5 0-1'	S5 1-2'	S5 2-3'	S5 3-4'
	<i>Depth:</i>	3-4 ft	3-4 ft	0-1 ft	1-2 ft	2-3 ft	3-4 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.16.2020 09:50	09.16.2020 10:10	09.16.2020 10:20	09.16.2020 10:25	09.16.2020 10:30	09.16.2020 10:35
BTEX by EPA 8021B	<i>Extracted:</i>			09.17.2020 14:38	09.17.2020 14:38	09.17.2020 14:38	09.17.2020 14:38
	<i>Analyzed:</i>			09.17.2020 18:24	09.17.2020 18:46	09.17.2020 19:09	09.17.2020 19:31
	<i>Units/RL:</i>			mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene				<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
Toluene				<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
Ethylbenzene				<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
m,p-Xylenes				<0.00402 0.00402	<0.00403 0.00403	<0.00403 0.00403	<0.00398 0.00398
o-Xylene				<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
Total Xylenes				<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
Total BTEX				<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28
	<i>Analyzed:</i>	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		5250 49.6	321 9.98	153 9.92	63.1 9.96	237 9.90	259 9.96
TPH By SW8015 Mod	<i>Extracted:</i>			09.17.2020 17:20	09.17.2020 14:00	09.17.2020 14:00	09.17.2020 14:00
	<i>Analyzed:</i>			09.17.2020 23:34	09.18.2020 10:13	09.17.2020 18:52	09.17.2020 19:12
	<i>Units/RL:</i>			mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)				<49.9 49.9	<50.2 50.2	<50.1 50.1	<50.0 50.0
Diesel Range Organics (DRO)				<49.9 49.9	<50.2 50.2	<50.1 50.1	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)				<49.9 49.9	<50.2 50.2	<50.1 50.1	<50.0 50.0
Total TPH				<49.9 49.9	<50.2 50.2	<50.1 50.1	<50.0 50.0

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 672834



Talon LPE-Artesia, Artesia, NM

Project Name: Trionyx Frac Pond (Pond)

Project Id: 7079433601

Date Received in Lab: Thu 09.17.2020 12:30

Contact: R Pons

Report Date: 09.21.2020 13:12

Project Location: Lea County

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	672834-013	672834-014	672834-015	672834-016	672834-017	672834-018
	Field Id:	S6 0-1'	S6 1-2'	S6 2-3'	S6 3-4'	S7 0-1'	S7 1-2'
	Depth:	0-1 ft	1-2 ft	2-3 ft	3-4 ft	0-1 ft	1-2 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	09.16.2020 10:45	09.16.2020 10:50	09.16.2020 10:55	09.16.2020 11:00	09.16.2020 11:10	09.16.2020 11:15
BTEX by EPA 8021B	Extracted:	09.17.2020 14:38	09.17.2020 14:38	09.17.2020 14:38	09.17.2020 14:38	09.17.2020 14:38	09.17.2020 14:38
	Analyzed:	09.17.2020 19:54	09.17.2020 20:16	09.17.2020 20:39	09.17.2020 21:01	09.17.2020 21:23	09.17.2020 21:46
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00397 0.00397	<0.00403 0.00403	<0.00401 0.00401	<0.00403 0.00403
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	Extracted:	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28	09.18.2020 15:28
	Analyzed:	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		186 10.1	121 10.1	327 9.94	1030 10.1	221 10.0	70.9 10.0
TPH By SW8015 Mod	Extracted:	09.17.2020 14:00	09.17.2020 14:00	09.17.2020 14:00	09.17.2020 14:00	09.17.2020 14:00	09.17.2020 14:00
	Analyzed:	09.17.2020 19:32	09.17.2020 19:52	09.17.2020 20:12	09.17.2020 20:32	09.17.2020 20:53	09.17.2020 21:13
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.2 50.2	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.2 50.2	<49.9 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.2 50.2	<49.9 49.9	<50.0 50.0
Total TPH		<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.2 50.2	<49.9 49.9	<50.0 50.0

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 672834



Talon LPE-Artesia, Artesia, NM

Project Name: Trionyx Frac Pond (Pond)

Project Id: 7079433601

Date Received in Lab: Thu 09.17.2020 12:30

Contact: R Pons

Report Date: 09.21.2020 13:12

Project Location: Lea County

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	672834-019	672834-020	672834-021	672834-022	672834-023	672834-024
	<i>Field Id:</i>	S7 2-3'	S7 3-4'	S8 0-1'	S8 1-2'	S8 2-3'	S8 3-4'
	<i>Depth:</i>	2-3 ft	3-4 ft	0-1 ft	1-2 ft	2-3 ft	3-4 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.16.2020 11:20	09.16.2020 11:25	09.16.2020 11:35	09.16.2020 11:40	09.16.2020 11:45	09.16.2020 11:50
BTEX by EPA 8021B	<i>Extracted:</i>	09.17.2020 14:38	09.17.2020 14:38	09.18.2020 06:00	09.18.2020 06:00	09.18.2020 06:00	09.18.2020 06:00
	<i>Analyzed:</i>	09.17.2020 23:04	09.17.2020 23:26	09.18.2020 08:53	09.18.2020 09:16	09.18.2020 09:38	09.18.2020 10:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
Toluene		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
Ethylbenzene		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
m,p-Xylenes		<0.00396 0.00396	<0.00397 0.00397	<0.00396 0.00396	<0.00403 0.00403	<0.00403 0.00403	<0.00403 0.00403
o-Xylene		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
Total Xylenes		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
Total BTEX		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	09.18.2020 15:28	09.18.2020 15:28	09.17.2020 17:31	09.17.2020 17:31	09.17.2020 17:31	09.17.2020 17:31
	<i>Analyzed:</i>	** ** *	** ** *	09.17.2020 19:57	09.17.2020 20:14	09.17.2020 20:19	09.17.2020 20:25
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		307 10.0	1250 50.0	155 9.92	54.0 49.9	154 10.1	332 9.90
TPH By SW8015 Mod	<i>Extracted:</i>	09.17.2020 14:00	09.17.2020 14:00	09.17.2020 17:20	09.17.2020 17:20	09.17.2020 17:20	09.17.2020 17:20
	<i>Analyzed:</i>	09.17.2020 21:33	09.17.2020 21:53	09.18.2020 00:34	09.18.2020 00:54	09.18.2020 01:14	09.18.2020 01:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.3 50.3
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.3 50.3
Total TPH		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.3 50.3

BRL - Below Reporting Limit

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Certificate of Analysis Summary 672834

Talon LPE-Artesia, Artesia, NM

Project Name: Trionyx Frac Pond (Pond)

Project Id: 7079433601

Contact: R Pons

Project Location: Lea County

Date Received in Lab: Thu 09.17.2020 12:30


Report Date: 09.21.2020 13:12

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	672834-025	672834-026	672834-027	672834-028		
	Field Id:	S9 0-1'	S9 1-2"	S9 2-3'	S9 3-4'		
	Depth:	0-1 ft	1-2 ft	2-3 ft	3-4 ft		
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	09.16.2020 12:00	09.16.2020 12:05	09.16.2020 12:10	09.16.2020 12:15		
BTEX by EPA 8021B	Extracted:	09.18.2020 06:00	09.17.2020 14:38	09.17.2020 14:38	09.17.2020 14:38		
	Analyzed:	09.18.2020 10:23	09.17.2020 23:49	09.18.2020 00:11	09.18.2020 00:33		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200		
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200		
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200		
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00401 0.00401	<0.00401 0.00401		
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200		
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200		
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200		
Chloride by EPA 300	Extracted:	09.17.2020 17:31	09.17.2020 17:31	09.17.2020 17:31	09.17.2020 17:31		
	Analyzed:	09.17.2020 20:30	09.17.2020 20:47	09.17.2020 20:52	09.17.2020 20:57		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		1050 9.90	576 9.90	569 10.1	1160 50.1		
TPH By SW8015 Mod	Extracted:	09.17.2020 17:20	09.17.2020 17:20	09.17.2020 17:20	09.17.2020 17:20		
	Analyzed:	09.18.2020 01:55	09.18.2020 02:15	09.18.2020 02:34	09.18.2020 02:55		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.1 50.1		
Diesel Range Organics (DRO)		<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.1 50.1		
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.1 50.1		
Total TPH		<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.1 50.1		

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





Analytical Report 672834

for

Talon LPE-Artesia

Project Manager: R Pons

Trionyx Frac Pond (Pond)

7079433601

09.21.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.21.2020

Project Manager: **R Pons**

Talon LPE-Artesia

408 West Texas St.

Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **672834**

Trionyx Frac Pond (Pond)

Project Address: Lea County

R Pons:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672834. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672834 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S1 1-2'	S	09.16.2020 09:00	1 - 2 ft	672834-001
S1 2-3'	S	09.16.2020 09:05	2 - 3 ft	672834-002
S1 3-4'	S	09.16.2020 09:10	3 - 4 ft	672834-003
S2 1-2'	S	09.16.2020 09:20	1 - 2 ft	672834-004
S2 2-3'	S	09.16.2020 09:25	2 - 3 ft	672834-005
S2 3-4'	S	09.16.2020 09:30	3 - 4 ft	672834-006
S3 3-4'	S	09.16.2020 09:50	3 - 4 ft	672834-007
S4 3-4'	S	09.16.2020 10:10	3 - 4 ft	672834-008
S5 0-1'	S	09.16.2020 10:20	0 - 1 ft	672834-009
S5 1-2'	S	09.16.2020 10:25	1 - 2 ft	672834-010
S5 2-3'	S	09.16.2020 10:30	2 - 3 ft	672834-011
S5 3-4'	S	09.16.2020 10:35	3 - 4 ft	672834-012
S6 0-1'	S	09.16.2020 10:45	0 - 1 ft	672834-013
S6 1-2'	S	09.16.2020 10:50	1 - 2 ft	672834-014
S6 2-3'	S	09.16.2020 10:55	2 - 3 ft	672834-015
S6 3-4'	S	09.16.2020 11:00	3 - 4 ft	672834-016
S7 0-1'	S	09.16.2020 11:10	0 - 1 ft	672834-017
S7 1-2'	S	09.16.2020 11:15	1 - 2 ft	672834-018
S7 2-3'	S	09.16.2020 11:20	2 - 3 ft	672834-019
S7 3-4'	S	09.16.2020 11:25	3 - 4 ft	672834-020
S8 0-1'	S	09.16.2020 11:35	0 - 1 ft	672834-021
S8 1-2'	S	09.16.2020 11:40	1 - 2 ft	672834-022
S8 2-3'	S	09.16.2020 11:45	2 - 3 ft	672834-023
S8 3-4'	S	09.16.2020 11:50	3 - 4 ft	672834-024
S9 0-1'	S	09.16.2020 12:00	0 - 1 ft	672834-025
S9 1-2"	S	09.16.2020 12:05	1 - 2 ft	672834-026
S9 2-3'	S	09.16.2020 12:10	2 - 3 ft	672834-027
S9 3-4'	S	09.16.2020 12:15	3 - 4 ft	672834-028



CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Trionyx Frac Pond (Pond)

Project ID: 7079433601
Work Order Number(s): 672834

Report Date: 09.21.2020
Date Received: 09.17.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

**Certificate of Analytical Results 672834****Talon LPE-Artesia, Artesia, NM**

Trionyx Frac Pond (Pond)

Sample Id: **S1 1-2'**

Matrix: Soil

Date Received: 09.17.2020 12:30

Lab Sample Id: 672834-001

Date Collected: 09.16.2020 09:00

Sample Depth: 1 - 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 15:28

Basis: Wet Weight

Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	204	9.94	mg/kg	09.17.2020 16:56		1

**Certificate of Analytical Results 672834****Talon LPE-Artesia, Artesia, NM**

Trionyx Frac Pond (Pond)

Sample Id: **S1 2-3'**
Lab Sample Id: 672834-002

Matrix: Soil
Date Collected: 09.16.2020 09:05

Date Received: 09.17.2020 12:30
Sample Depth: 2 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 15:28

Basis: Wet Weight

Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	928	49.8	mg/kg	09.17.2020 17:13		5



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: S1 3-4'

Matrix: Soil

Date Received: 09.17.2020 12:30

Lab Sample Id: 672834-003

Date Collected: 09.16.2020 09:10

Sample Depth: 3 - 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 15:28

Basis: Wet Weight

Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1910	49.6	mg/kg	09.17.2020 17:18		5

**Certificate of Analytical Results 672834****Talon LPE-Artesia, Artesia, NM**

Trionyx Frac Pond (Pond)

Sample Id: **S2 1-2'**
Lab Sample Id: 672834-004

Matrix: Soil
Date Collected: 09.16.2020 09:20

Date Received: 09.17.2020 12:30
Sample Depth: 1 - 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 15:28

Basis: Wet Weight

Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	911	9.90	mg/kg	09.17.2020 17:24		1

**Certificate of Analytical Results 672834****Talon LPE-Artesia, Artesia, NM**

Trionyx Frac Pond (Pond)

Sample Id: **S2 2-3'**
Lab Sample Id: 672834-005

Matrix: Soil
Date Collected: 09.16.2020 09:25

Date Received: 09.17.2020 12:30
Sample Depth: 2 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 15:28

Basis: Wet Weight

Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	281	10.1	mg/kg	09.17.2020 17:29		1



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: S2 3-4'

Matrix: Soil

Date Received: 09.17.2020 12:30

Lab Sample Id: 672834-006

Date Collected: 09.16.2020 09:30

Sample Depth: 3 - 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 15:28

Basis: Wet Weight

Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3370	50.5	mg/kg	09.17.2020 17:46		5

**Certificate of Analytical Results 672834****Talon LPE-Artesia, Artesia, NM**

Trionyx Frac Pond (Pond)

Sample Id: **S3 3-4'**

Matrix: Soil

Date Received: 09.17.2020 12:30

Lab Sample Id: 672834-007

Date Collected: 09.16.2020 09:50

Sample Depth: 3 - 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 15:28

Basis: Wet Weight

Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5250	49.6	mg/kg	09.17.2020 17:51		5

**Certificate of Analytical Results 672834****Talon LPE-Artesia, Artesia, NM**

Trionyx Frac Pond (Pond)

Sample Id: **S4 3-4'**

Matrix: Soil

Date Received: 09.17.2020 12:30

Lab Sample Id: 672834-008

Date Collected: 09.16.2020 10:10

Sample Depth: 3 - 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 15:28

Basis: Wet Weight

Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	321	9.98	mg/kg	09.17.2020 17:57		1



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S5 0-1'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-009 Date Collected: 09.16.2020 10:20 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	153	9.92	mg/kg	09.17.2020 18:02		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 17:20 Basis: Wet Weight
 Seq Number: 3137481

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.17.2020 23:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.17.2020 23:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.17.2020 23:34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.17.2020 23:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	09.17.2020 23:34	
o-Terphenyl	84-15-1	88	%	70-135	09.17.2020 23:34	



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S5 0-1'**
 Lab Sample Id: 672834-009

Matrix: Soil
 Date Collected: 09.16.2020 10:20

Date Received: 09.17.2020 12:30
 Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.17.2020 18:24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.17.2020 18:24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.17.2020 18:24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.17.2020 18:24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.17.2020 18:24	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.17.2020 18:24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.17.2020 18:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.17.2020 18:24	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.17.2020 18:24	



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S5 1-2'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-010 Date Collected: 09.16.2020 10:25 Sample Depth: 1 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	63.1	9.96	mg/kg	09.17.2020 18:08		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.18.2020 10:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.18.2020 10:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.18.2020 10:13	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.18.2020 10:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	09.18.2020 10:13	
o-Terphenyl	84-15-1	75	%	70-135	09.18.2020 10:13	



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S5 1-2'**
 Lab Sample Id: 672834-010

Matrix: Soil
 Date Collected: 09.16.2020 10:25

Date Received: 09.17.2020 12:30
 Sample Depth: 1 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.17.2020 18:46	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.17.2020 18:46	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.17.2020 18:46	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.17.2020 18:46	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.17.2020 18:46	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.17.2020 18:46	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.17.2020 18:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.17.2020 18:46	
4-Bromofluorobenzene	460-00-4	95	%	70-130	09.17.2020 18:46	



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S5 2-3'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-011 Date Collected: 09.16.2020 10:30 Sample Depth: 2 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	237	9.90	mg/kg	09.17.2020 18:13		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.17.2020 18:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.17.2020 18:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.17.2020 18:52	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.17.2020 18:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	09.17.2020 18:52	
o-Terphenyl	84-15-1	89	%	70-135	09.17.2020 18:52	



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: S5 2-3'
Lab Sample Id: 672834-011

Matrix: Soil
Date Collected: 09.16.2020 10:30

Date Received: 09.17.2020 12:30
Sample Depth: 2 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.17.2020 19:09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.17.2020 19:09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.17.2020 19:09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.17.2020 19:09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.17.2020 19:09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.17.2020 19:09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.17.2020 19:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.17.2020 19:09		
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.17.2020 19:09		



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S5 3-4'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-012 Date Collected: 09.16.2020 10:35 Sample Depth: 3 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	259	9.96	mg/kg	09.17.2020 18:30		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.17.2020 19:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.17.2020 19:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.17.2020 19:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.17.2020 19:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	09.17.2020 19:12	
o-Terphenyl	84-15-1	94	%	70-135	09.17.2020 19:12	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S5 3-4'**
 Lab Sample Id: 672834-012

Matrix: Soil
 Date Collected: 09.16.2020 10:35

Date Received: 09.17.2020 12:30
 Sample Depth: 3 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.17.2020 19:31	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.17.2020 19:31	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.17.2020 19:31	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.17.2020 19:31	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.17.2020 19:31	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.17.2020 19:31	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.17.2020 19:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.17.2020 19:31	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.17.2020 19:31	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S6 0-1'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-013 Date Collected: 09.16.2020 10:45 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	186	10.1	mg/kg	09.17.2020 18:35		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.17.2020 19:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.17.2020 19:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.17.2020 19:32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.17.2020 19:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	09.17.2020 19:32	
o-Terphenyl	84-15-1	94	%	70-135	09.17.2020 19:32	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S6 0-1'**
 Lab Sample Id: 672834-013

Matrix: Soil
 Date Collected: 09.16.2020 10:45

Date Received: 09.17.2020 12:30
 Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.17.2020 19:54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.17.2020 19:54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.17.2020 19:54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.17.2020 19:54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.17.2020 19:54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.17.2020 19:54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.17.2020 19:54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.17.2020 19:54		
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.17.2020 19:54		



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S6 1-2'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-014 Date Collected: 09.16.2020 10:50 Sample Depth: 1 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	121	10.1	mg/kg	09.17.2020 18:52		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.17.2020 19:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.17.2020 19:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.17.2020 19:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.17.2020 19:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	09.17.2020 19:52	
o-Terphenyl	84-15-1	92	%	70-135	09.17.2020 19:52	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S6 1-2'**
 Lab Sample Id: 672834-014

Matrix: Soil
 Date Collected: 09.16.2020 10:50

Date Received: 09.17.2020 12:30
 Sample Depth: 1 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.2020 20:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.2020 20:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.2020 20:16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.17.2020 20:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.2020 20:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.2020 20:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.2020 20:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	09.17.2020 20:16	
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.17.2020 20:16	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S6 2-3'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-015 Date Collected: 09.16.2020 10:55 Sample Depth: 2 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	327	9.94	mg/kg	09.17.2020 18:57		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.17.2020 20:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.17.2020 20:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.17.2020 20:12	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.17.2020 20:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	09.17.2020 20:12	
o-Terphenyl	84-15-1	91	%	70-135	09.17.2020 20:12	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S6 2-3'**
 Lab Sample Id: 672834-015

Matrix: Soil
 Date Collected: 09.16.2020 10:55

Date Received: 09.17.2020 12:30
 Sample Depth: 2 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.17.2020 20:39	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.17.2020 20:39	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.17.2020 20:39	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.17.2020 20:39	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.17.2020 20:39	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.17.2020 20:39	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.17.2020 20:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.17.2020 20:39	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.17.2020 20:39	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S6 3-4'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-016 Date Collected: 09.16.2020 11:00 Sample Depth: 3 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1030	10.1	mg/kg	09.17.2020 19:02		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.17.2020 20:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.17.2020 20:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.17.2020 20:32	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.17.2020 20:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	09.17.2020 20:32	
o-Terphenyl	84-15-1	91	%	70-135	09.17.2020 20:32	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S6 3-4'**
Lab Sample Id: 672834-016

Matrix: Soil
Date Collected: 09.16.2020 11:00

Date Received: 09.17.2020 12:30
Sample Depth: 3 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.17.2020 21:01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.17.2020 21:01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.17.2020 21:01	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.17.2020 21:01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.17.2020 21:01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.17.2020 21:01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.17.2020 21:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.17.2020 21:01	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.17.2020 21:01	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S7 0-1'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-017 Date Collected: 09.16.2020 11:10 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	221	10.0	mg/kg	09.17.2020 19:08		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.17.2020 20:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.17.2020 20:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.17.2020 20:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.17.2020 20:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	09.17.2020 20:53	
o-Terphenyl	84-15-1	85	%	70-135	09.17.2020 20:53	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S7 0-1'**
Lab Sample Id: 672834-017

Matrix: Soil
Date Collected: 09.16.2020 11:10

Date Received: 09.17.2020 12:30
Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.2020 21:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.2020 21:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.2020 21:23	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.17.2020 21:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.2020 21:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.2020 21:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.2020 21:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.17.2020 21:23	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.17.2020 21:23	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S7 1-2'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-018 Date Collected: 09.16.2020 11:15 Sample Depth: 1 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.9	10.0	mg/kg	09.17.2020 19:13		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.17.2020 21:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.17.2020 21:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.17.2020 21:13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.17.2020 21:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	09.17.2020 21:13	
o-Terphenyl	84-15-1	89	%	70-135	09.17.2020 21:13	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S7 1-2'**
 Lab Sample Id: 672834-018

Matrix: Soil
 Date Collected: 09.16.2020 11:15

Date Received: 09.17.2020 12:30
 Sample Depth: 1 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.17.2020 21:46	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.17.2020 21:46	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.17.2020 21:46	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.17.2020 21:46	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.17.2020 21:46	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.17.2020 21:46	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.17.2020 21:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.17.2020 21:46	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.17.2020 21:46	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S7 2-3'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-019 Date Collected: 09.16.2020 11:20 Sample Depth: 2 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	307	10.0	mg/kg	09.17.2020 19:19		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.17.2020 21:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.17.2020 21:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.17.2020 21:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.17.2020 21:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	09.17.2020 21:33	
o-Terphenyl	84-15-1	87	%	70-135	09.17.2020 21:33	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S7 2-3'**
 Lab Sample Id: 672834-019

Matrix: Soil
 Date Collected: 09.16.2020 11:20

Date Received: 09.17.2020 12:30
 Sample Depth: 2 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.17.2020 23:04	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.17.2020 23:04	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.17.2020 23:04	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.17.2020 23:04	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.17.2020 23:04	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.17.2020 23:04	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.17.2020 23:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.17.2020 23:04	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.17.2020 23:04	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S7 3-4'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-020 Date Collected: 09.16.2020 11:25 Sample Depth: 3 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.18.2020 15:28 Basis: Wet Weight
 Seq Number: 3137498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1250	50.0	mg/kg	09.17.2020 19:24		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.17.2020 21:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.17.2020 21:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.17.2020 21:53	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.17.2020 21:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	09.17.2020 21:53	
o-Terphenyl	84-15-1	84	%	70-135	09.17.2020 21:53	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S7 3-4'**
 Lab Sample Id: 672834-020

Matrix: Soil
 Date Collected: 09.16.2020 11:25

Date Received: 09.17.2020 12:30
 Sample Depth: 3 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.17.2020 23:26	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.17.2020 23:26	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.17.2020 23:26	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.17.2020 23:26	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.17.2020 23:26	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.17.2020 23:26	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.17.2020 23:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.17.2020 23:26		
4-Bromofluorobenzene	460-00-4	89	%	70-130	09.17.2020 23:26		



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S8 0-1'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-021 Date Collected: 09.16.2020 11:35 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.17.2020 17:31 Basis: Wet Weight
 Seq Number: 3137499

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	155	9.92	mg/kg	09.17.2020 19:57		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 17:20 Basis: Wet Weight
 Seq Number: 3137481

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.18.2020 00:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.18.2020 00:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.18.2020 00:34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.18.2020 00:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	09.18.2020 00:34	
o-Terphenyl	84-15-1	84	%	70-135	09.18.2020 00:34	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S8 0-1'**
Lab Sample Id: 672834-021

Matrix: Soil
Date Collected: 09.16.2020 11:35

Date Received: 09.17.2020 12:30
Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 06:00

Basis: Wet Weight

Seq Number: 3137632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.18.2020 08:53	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.18.2020 08:53	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.18.2020 08:53	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.18.2020 08:53	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.18.2020 08:53	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.18.2020 08:53	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.18.2020 08:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.18.2020 08:53	
4-Bromofluorobenzene	460-00-4	89	%	70-130	09.18.2020 08:53	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S8 1-2'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-022 Date Collected: 09.16.2020 11:40 Sample Depth: 1 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.17.2020 17:31 Basis: Wet Weight
 Seq Number: 3137499

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	54.0	49.9	mg/kg	09.17.2020 20:14		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 17:20 Basis: Wet Weight
 Seq Number: 3137481

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.18.2020 00:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.18.2020 00:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.18.2020 00:54	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.18.2020 00:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	09.18.2020 00:54	
o-Terphenyl	84-15-1	89	%	70-135	09.18.2020 00:54	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S8 1-2'**
Lab Sample Id: 672834-022

Matrix: Soil
Date Collected: 09.16.2020 11:40

Date Received: 09.17.2020 12:30
Sample Depth: 1 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 06:00

Basis: Wet Weight

Seq Number: 3137632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.18.2020 09:16	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.18.2020 09:16	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.18.2020 09:16	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.18.2020 09:16	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.18.2020 09:16	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.18.2020 09:16	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.18.2020 09:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.18.2020 09:16	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.18.2020 09:16	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S8 2-3'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-023 Date Collected: 09.16.2020 11:45 Sample Depth: 2 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.17.2020 17:31 Basis: Wet Weight
 Seq Number: 3137499

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	154	10.1	mg/kg	09.17.2020 20:19		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 17:20 Basis: Wet Weight
 Seq Number: 3137481

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.18.2020 01:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.18.2020 01:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.18.2020 01:14	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.18.2020 01:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	09.18.2020 01:14	
o-Terphenyl	84-15-1	91	%	70-135	09.18.2020 01:14	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S8 2-3'**
Lab Sample Id: 672834-023

Matrix: Soil
Date Collected: 09.16.2020 11:45

Date Received: 09.17.2020 12:30
Sample Depth: 2 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 06:00

Basis: Wet Weight

Seq Number: 3137632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.18.2020 09:38	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.18.2020 09:38	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.18.2020 09:38	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.18.2020 09:38	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.18.2020 09:38	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.18.2020 09:38	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.18.2020 09:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.18.2020 09:38		
4-Bromofluorobenzene	460-00-4	95	%	70-130	09.18.2020 09:38		



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S8 3-4'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-024 Date Collected: 09.16.2020 11:50 Sample Depth: 3 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.17.2020 17:31 Basis: Wet Weight
 Seq Number: 3137499

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	332	9.90	mg/kg	09.17.2020 20:25		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 17:20 Basis: Wet Weight
 Seq Number: 3137481

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.18.2020 01:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	09.18.2020 01:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.18.2020 01:34	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.18.2020 01:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	09.18.2020 01:34	
o-Terphenyl	84-15-1	89	%	70-135	09.18.2020 01:34	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S8 3-4'**
Lab Sample Id: 672834-024

Matrix: Soil
Date Collected: 09.16.2020 11:50

Date Received: 09.17.2020 12:30
Sample Depth: 3 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 06:00

Basis: Wet Weight

Seq Number: 3137632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.18.2020 10:01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.18.2020 10:01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.18.2020 10:01	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.18.2020 10:01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.18.2020 10:01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.18.2020 10:01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.18.2020 10:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.18.2020 10:01		
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.18.2020 10:01		



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S9 0-1'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-025 Date Collected: 09.16.2020 12:00 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.17.2020 17:31 Basis: Wet Weight
 Seq Number: 3137499

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1050	9.90	mg/kg	09.17.2020 20:30		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 17:20 Basis: Wet Weight
 Seq Number: 3137481

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.18.2020 01:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	09.18.2020 01:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.18.2020 01:55	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.18.2020 01:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	09.18.2020 01:55	
o-Terphenyl	84-15-1	87	%	70-135	09.18.2020 01:55	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S9 0-1'**
 Lab Sample Id: 672834-025

Matrix: Soil
 Date Collected: 09.16.2020 12:00

Date Received: 09.17.2020 12:30
 Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.18.2020 06:00

Basis: Wet Weight

Seq Number: 3137632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.18.2020 10:23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.18.2020 10:23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.18.2020 10:23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.18.2020 10:23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.18.2020 10:23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.18.2020 10:23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.18.2020 10:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.18.2020 10:23	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.18.2020 10:23	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S9 1-2"** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-026 Date Collected: 09.16.2020 12:05 Sample Depth: 1 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.17.2020 17:31 Basis: Wet Weight
 Seq Number: 3137499

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	576	9.90	mg/kg	09.17.2020 20:47		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 17:20 Basis: Wet Weight
 Seq Number: 3137481

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.18.2020 02:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.18.2020 02:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.18.2020 02:15	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.18.2020 02:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	09.18.2020 02:15	
o-Terphenyl	84-15-1	91	%	70-135	09.18.2020 02:15	



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Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S9 1-2"**
 Lab Sample Id: 672834-026

Matrix: Soil
 Date Collected: 09.16.2020 12:05

Date Received: 09.17.2020 12:30
 Sample Depth: 1 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.17.2020 23:49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.17.2020 23:49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.17.2020 23:49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.17.2020 23:49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.17.2020 23:49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.17.2020 23:49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.17.2020 23:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.17.2020 23:49	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.17.2020 23:49	



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S9 2-3'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-027 Date Collected: 09.16.2020 12:10 Sample Depth: 2 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.17.2020 17:31 Basis: Wet Weight
 Seq Number: 3137499

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	569	10.1	mg/kg	09.17.2020 20:52		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 17:20 Basis: Wet Weight
 Seq Number: 3137481

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.18.2020 02:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.18.2020 02:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.18.2020 02:34	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.18.2020 02:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	09.18.2020 02:34	
o-Terphenyl	84-15-1	94	%	70-135	09.18.2020 02:34	



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S9 2-3'**
 Lab Sample Id: 672834-027

Matrix: Soil
 Date Collected: 09.16.2020 12:10

Date Received: 09.17.2020 12:30
 Sample Depth: 2 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.18.2020 00:11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.18.2020 00:11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.18.2020 00:11	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.18.2020 00:11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.18.2020 00:11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.18.2020 00:11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.18.2020 00:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.18.2020 00:11		
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.18.2020 00:11		



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S9 3-4'** Matrix: Soil Date Received: 09.17.2020 12:30
 Lab Sample Id: 672834-028 Date Collected: 09.16.2020 12:15 Sample Depth: 3 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.17.2020 17:31 Basis: Wet Weight
 Seq Number: 3137499

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1160	50.1	mg/kg	09.17.2020 20:57		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.17.2020 17:20 Basis: Wet Weight
 Seq Number: 3137481

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.18.2020 02:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.18.2020 02:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.18.2020 02:55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.18.2020 02:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	09.18.2020 02:55	
o-Terphenyl	84-15-1	96	%	70-135	09.18.2020 02:55	



Certificate of Analytical Results 672834

Talon LPE-Artesia, Artesia, NM

Trionyx Frac Pond (Pond)

Sample Id: **S9 3-4'**
 Lab Sample Id: 672834-028

Matrix: Soil
 Date Collected: 09.16.2020 12:15

Date Received: 09.17.2020 12:30
 Sample Depth: 3 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.17.2020 14:38

Basis: Wet Weight

Seq Number: 3137494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.18.2020 00:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.18.2020 00:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.18.2020 00:33	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.18.2020 00:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.18.2020 00:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.18.2020 00:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.18.2020 00:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.18.2020 00:33	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.18.2020 00:33	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Talon LPE-Artesia
Trionyx Frac Pond (Pond)

Analytical Method: Chloride by EPA 300

Seq Number: 3137499

MB Sample Id: 7711598-1-BLK

Matrix: Solid

LCS Sample Id: 7711598-1-BKS

Prep Method: E300P

Date Prep: 09.17.2020

LCSD Sample Id: 7711598-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	256	102	90-110	0	20	mg/kg	09.17.2020 19:46	

Analytical Method: Chloride by EPA 300

Seq Number: 3137498

MB Sample Id: 7711596-1-BLK

Matrix: Solid

LCS Sample Id: 7711596-1-BKS

Prep Method: E300P

Date Prep: 09.18.2020

LCSD Sample Id: 7711596-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	256	102	90-110	0	20	mg/kg	09.17.2020 16:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3137499

Parent Sample Id: 672834-021

Matrix: Soil

MS Sample Id: 672834-021 S

Prep Method: E300P

Date Prep: 09.17.2020

MSD Sample Id: 672834-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	155	199	357	102	357	102	90-110	0	20	mg/kg	09.17.2020 20:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3137498

Parent Sample Id: 672834-001

Matrix: Soil

MS Sample Id: 672834-001 S

Prep Method: E300P

Date Prep: 09.18.2020

MSD Sample Id: 672834-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	204	200	406	101	406	101	90-110	0	20	mg/kg	09.17.2020 17:02	

Analytical Method: Chloride by EPA 300

Seq Number: 3137498

Parent Sample Id: 672834-011

Matrix: Soil

MS Sample Id: 672834-011 S

Prep Method: E300P

Date Prep: 09.18.2020

MSD Sample Id: 672834-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	237	199	449	107	447	106	90-110	0	20	mg/kg	09.17.2020 18:19	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Talon LPE-Artesia
Trionyx Frac Pond (Pond)

Analytical Method: TPH By SW8015 Mod

Seq Number: 3137402

MB Sample Id: 7711528-1-BLK

Matrix: Solid

LCS Sample Id: 7711528-1-BKS

Prep Method: SW8015P

Date Prep: 09.17.2020

LCSD Sample Id: 7711528-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	805	81	809	81	70-135	0	35	mg/kg	09.17.2020 11:26	
Diesel Range Organics (DRO)	<50.0	1000	876	88	869	87	70-135	1	35	mg/kg	09.17.2020 11:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		99		99		70-135	%	09.17.2020 11:26
o-Terphenyl	111		89		90		70-135	%	09.17.2020 11:26

Analytical Method: TPH By SW8015 Mod

Seq Number: 3137481

MB Sample Id: 7711555-1-BLK

Matrix: Solid

LCS Sample Id: 7711555-1-BKS

Prep Method: SW8015P

Date Prep: 09.17.2020

LCSD Sample Id: 7711555-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	834	83	822	82	70-135	1	35	mg/kg	09.17.2020 22:53	
Diesel Range Organics (DRO)	<50.0	1000	935	94	925	93	70-135	1	35	mg/kg	09.17.2020 22:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		122		121		70-135	%	09.17.2020 22:53
o-Terphenyl	124		117		113		70-135	%	09.17.2020 22:53

Analytical Method: TPH By SW8015 Mod

Seq Number: 3137402

Matrix: Solid

MB Sample Id: 7711528-1-BLK

Prep Method: SW8015P

Date Prep: 09.17.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.17.2020 11:06	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3137481

Matrix: Solid

MB Sample Id: 7711555-1-BLK

Prep Method: SW8015P

Date Prep: 09.17.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.17.2020 22:33	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * | (C - E) / (C + E) |$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Talon LPE-Artesia

Trionyx Frac Pond (Pond)

Analytical Method: TPH By SW8015 Mod

Seq Number: 3137402

Parent Sample Id: 672770-002

Matrix: Soil

MS Sample Id: 672770-002 S

Prep Method: SW8015P

Date Prep: 09.17.2020

MSD Sample Id: 672770-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	767	77	770	77	70-135	0	35	mg/kg	09.17.2020 12:27	
Diesel Range Organics (DRO)	<50.2	1000	778	78	804	80	70-135	3	35	mg/kg	09.17.2020 12:27	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		85		70-135	%	09.17.2020 12:27
o-Terphenyl	71		76		70-135	%	09.17.2020 12:27

Analytical Method: TPH By SW8015 Mod

Seq Number: 3137481

Parent Sample Id: 672834-009

Matrix: Soil

MS Sample Id: 672834-009 S

Prep Method: SW8015P

Date Prep: 09.17.2020

MSD Sample Id: 672834-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	824	83	861	86	70-135	4	35	mg/kg	09.17.2020 23:53	
Diesel Range Organics (DRO)	<49.9	998	906	91	938	94	70-135	3	35	mg/kg	09.17.2020 23:53	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		104		70-135	%	09.17.2020 23:53
o-Terphenyl	100		97		70-135	%	09.17.2020 23:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137494

MB Sample Id: 7711602-1-BLK

Matrix: Solid

LCS Sample Id: 7711602-1-BKS

Prep Method: SW5035A

Date Prep: 09.17.2020

LCSD Sample Id: 7711602-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.118	118	0.116	116	70-130	2	35	mg/kg	09.17.2020 16:21	
Toluene	<0.00200	0.100	0.112	112	0.112	112	70-130	0	35	mg/kg	09.17.2020 16:21	
Ethylbenzene	<0.00200	0.100	0.104	104	0.103	103	71-129	1	35	mg/kg	09.17.2020 16:21	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.209	105	70-135	0	35	mg/kg	09.17.2020 16:21	
o-Xylene	<0.00200	0.100	0.103	103	0.104	104	71-133	1	35	mg/kg	09.17.2020 16:21	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		100		99		70-130	%	09.17.2020 16:21
4-Bromofluorobenzene	88		92		87		70-130	%	09.17.2020 16:21

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Talon LPE-Artesia
Trionyx Frac Pond (Pond)

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137632

Matrix: Solid

Prep Method: SW5035A

Date Prep: 09.18.2020

MB Sample Id: 7711605-1-BLK

LCS Sample Id: 7711605-1-BKS

LCSD Sample Id: 7711605-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.105	105	0.0937	94	70-130	11	35	mg/kg	09.18.2020 06:51	
Toluene	<0.00200	0.100	0.102	102	0.0906	91	70-130	12	35	mg/kg	09.18.2020 06:51	
Ethylbenzene	<0.00200	0.100	0.0940	94	0.0833	83	71-129	12	35	mg/kg	09.18.2020 06:51	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.168	84	70-135	12	35	mg/kg	09.18.2020 06:51	
o-Xylene	<0.00200	0.100	0.0939	94	0.0835	84	71-133	12	35	mg/kg	09.18.2020 06:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		98		98		70-130	%	09.18.2020 06:51
4-Bromofluorobenzene	88		88		88		70-130	%	09.18.2020 06:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137494

Matrix: Soil

Prep Method: SW5035A

Date Prep: 09.17.2020

Parent Sample Id: 672834-009

MS Sample Id: 672834-009 S

MSD Sample Id: 672834-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.125	125	0.121	120	70-130	3	35	mg/kg	09.17.2020 17:06	
Toluene	<0.00200	0.100	0.127	127	0.125	124	70-130	2	35	mg/kg	09.17.2020 17:06	
Ethylbenzene	<0.00200	0.100	0.118	118	0.125	124	71-129	6	35	mg/kg	09.17.2020 17:06	
m,p-Xylenes	<0.00401	0.200	0.237	119	0.253	126	70-135	7	35	mg/kg	09.17.2020 17:06	
o-Xylene	<0.00200	0.100	0.115	115	0.123	122	71-133	7	35	mg/kg	09.17.2020 17:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		70-130	%	09.17.2020 17:06
4-Bromofluorobenzene	87		86		70-130	%	09.17.2020 17:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137632

Matrix: Soil

Prep Method: SW5035A

Date Prep: 09.18.2020

Parent Sample Id: 672834-021

MS Sample Id: 672834-021 S

MSD Sample Id: 672834-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.120	120	0.123	123	70-130	2	35	mg/kg	09.18.2020 07:36	
Toluene	<0.00199	0.0996	0.114	114	0.118	118	70-130	3	35	mg/kg	09.18.2020 07:36	
Ethylbenzene	<0.00199	0.0996	0.104	104	0.109	109	71-129	5	35	mg/kg	09.18.2020 07:36	
m,p-Xylenes	<0.00398	0.199	0.208	105	0.218	108	70-135	5	35	mg/kg	09.18.2020 07:36	
o-Xylene	<0.00199	0.0996	0.102	102	0.107	107	71-133	5	35	mg/kg	09.18.2020 07:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		100		70-130	%	09.18.2020 07:36
4-Bromofluorobenzene	89		90		70-130	%	09.18.2020 07:36

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No: 20844332

6720834

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Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 1 of 3

Project Manager:	Rebecca Pons	Bill to: (if different)	
Company Name:	Talon LPE	Company Name:	Devon Energy
Address:	408 W. Texas St	Address:	
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	
Phone:	575 441-0980	Email:	Pons@talonlpe.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:
Reporting Level: <input type="checkbox"/> I <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	Trinity Frac Pond (Pond)	Turn Around	<input checked="" type="checkbox"/>
Project Number:	700794.336.01	Routine	<input checked="" type="checkbox"/>
Project Location:	Lee County	Rush:	
Sampler's Name:	Ronnie Rodriguez	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	4.2 / 4.0			Thermometer ID:	TNMD07	
Received In tact:	Yes	No		Correction Factor:	-0.2	
Cooler Custody Seals:	Yes	No	N/A	Total Containers:	28	
Sample Custody Seals:	Yes	No	N/A			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Analysis Request	Preservative Codes
S1	1-2'	Soil	9/16/20	9:00	1-2'	1	Total Chlorides	MeOH: Me
S1	2-3'			9:05	2-3'		BTEX	None: NO
S1	3-4'			9:10	3-4'		TPH	HNO3: HN
S2	1-2'			9:20	1-2'			H2SO4: H2
S2	2-3'			9:25	2-3'			HCL: HL
S3	3-4'			9:30	3-4'			NaOH: Na
S4	3-4'			9:50	3-4'			Zn Acetate+ NaOH: Zn
S5	0-1'			10:10	3-4'			
S5	0-1'			10:20	0-1'			
S5	1-2'			10:25	1-2'			

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 A Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Date/Time

09-16-20 11:35 AM

Received by: (Signature)

9/17/20 12:30



Chain of Custody

672834

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Casabad, NM (432) 704-5440
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: 20844332

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Project Manager: Rebecca Pons		Bill to: (if different)	
Company Name: Talon LPE		Company Name: Devon Energy	
Address: 408 W Texas St		Address:	
City, State ZIP: Artesia, NM 88210		City, State ZIP:	
Phone: 575 441-0980		Email: Pons@talonlpe.com	
Project Name: Trinity Trm Pond (Pond)		Turn Around	
Project Number: 700794.336.01		Routine <input checked="" type="checkbox"/>	
Project Location: Lea County		Rush: <input type="checkbox"/>	
Sampler's Name: Ronnie Rodriguez		Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):		Received Intact:	Yes	No	Thermometer ID:		
Cooler Custody Seals:		Yes	No	N/A			
Sample Custody Seals:		Yes	No	N/A			
Total Containers:							

Number of Containers

Total Chlorides

BTEX

TPH

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Preservative Codes
55	2-3'	Soil	9/6/20	10:30	2-3'	
55	3-4'			10:35	3-4'	
56	0-1'			10:45	0-1'	
56	1-2'			10:50	1-2'	
56	2-3'			10:55	2-3'	
56	3-4'			11:00	3-4'	
57	0-1'			11:10	0-1'	
57	1-2'			11:15	1-2'	
57	2-3'			11:20	2-3'	
57	3-4'			11:25	3-4'	

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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Relinquished by: (Signature)

Received by: (Signature)

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

9/17/20 12:30

Revised Date 02/26/19 Rev. 2019.1



Chain of Custody

672834

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1298 Grapeland, NM (432) 704-5440
Phoenix, AZ (480) 365-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 699-6701

Work Order No: 20844332

Project Manager: Rebecca Pons

Bill to: (if different)

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Company Name: Talon IPE
Address: 408 W Texas St
City, State ZIP: Artesia, NM 88210
Phone: 575 441-0980
Email: Pons@talonipe.com

Company Name: Talon IPE

Company Name: Devon Energy

Address: 408 W Texas St

City, State ZIP: Artesia, NM 88210

Phone: 575 441-0980

Email: Pons@talonipe.com

Project Name: Trinity Trac Pond (Pond)

Project Number: 700794336.01

Project Location: Lea County

Sampler's Name: Ronnie Rodriguez

PO #: [blank]

Quote #: [blank]

Due Date: [blank]

Turn Around: [blank]

Routine: [X]

Rush: [blank]

Thermometer ID: [blank]

Correction Factor: [blank]

Total Containers: [blank]

Sample Custody Seal: Yes No N/A

Temp Blank: Yes No

Received Intact: Yes No

Cooler Custody Seal: Yes No N/A

Temp Blank: Yes No

Received Intact: Yes No

Cooler Custody Seal: Yes No N/A

Temp Blank: Yes No

Received Intact: Yes No

Cooler Custody Seal: Yes No N/A

Temp Blank: Yes No

Received Intact: Yes No

Cooler Custody Seal: Yes No N/A

Temp Blank: Yes No

Received Intact: Yes No

Cooler Custody Seal: Yes No N/A

Temp Blank: Yes No

Received Intact: Yes No

Cooler Custody Seal: Yes No N/A

Temp Blank: Yes No

Received Intact: Yes No

Cooler Custody Seal: Yes No N/A

Temp Blank: Yes No

Received Intact: Yes No

Cooler Custody Seal: Yes No N/A

ANALYSIS REQUEST

Preservative Codes

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project: [blank]
Reporting Level: I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADAPT ☐ Other: [blank]

Work Order Comments

[blank]

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

B.I. Devon Direct

5-8 0-1'	Soil	9/16/20	11:35	0-1'
5-8 1-2'			11:40	1-2'
5-8 2-3'			11:45	2-3'
5-8 3-4'			11:50	3-4'
5-9 0-1'			12:00	0-1'
5-9 1-2'			12:05	1-2'
5-9 2-3'			12:10	2-3'
5-9 3-4'			12:15	3-4'

Total Chlorides
BTEX
TPH

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)

[Signature]

Received by: (Signature)

[Signature]

Date/Time

[Signature]

Date/Time

[Signature]

Date/Time

[Signature]

Date/Time

[Signature]

Date/Time

[Signature]

Date/Time

[Signature]

Date/Time

[Signature]

Date/Time

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 09.17.2020 12.30.00 PM

Work Order #: 672834

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.17.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.18.2020



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

December 01, 2020

Rebecca Pons
Talon Artesia
408 West Texas Ave
Artesia, NM 88210
TEL:
FAX:

RE: Trionyx Frac Pond

OrderNo.: 2011B61

Dear Rebecca Pons:

Hall Environmental Analysis Laboratory received 41 sample(s) on 11/24/2020 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 light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: BG-1 0'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 12:00:00 PM

Lab ID: 2011B61-001

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	100	59		mg/Kg	20	11/26/2020 12:34:03 AM	56667
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/26/2020 1:38:24 AM	56638
Surr: BFB	101	70-130		%Rec	1	11/26/2020 1:38:24 AM	56638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	11/28/2020 2:12:19 PM	56641
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	11/28/2020 2:12:19 PM	56641
Surr: DNOP	92.0	30.4-154		%Rec	1	11/28/2020 2:12:19 PM	56641
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	11/26/2020 1:38:24 AM	56638
Toluene	ND	0.048		mg/Kg	1	11/26/2020 1:38:24 AM	56638
Ethylbenzene	ND	0.048		mg/Kg	1	11/26/2020 1:38:24 AM	56638
Xylenes, Total	ND	0.097		mg/Kg	1	11/26/2020 1:38:24 AM	56638
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	11/26/2020 1:38:24 AM	56638
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	11/26/2020 1:38:24 AM	56638
Surr: Dibromofluoromethane	111	70-130		%Rec	1	11/26/2020 1:38:24 AM	56638
Surr: Toluene-d8	91.5	70-130		%Rec	1	11/26/2020 1:38:24 AM	56638

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		

Page 1 of 47

Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: BG-2 0'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 12:10:00 PM

Lab ID: 2011B61-002

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	75	60		mg/Kg	20	11/26/2020 1:11:17 AM	56670
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/26/2020 2:06:45 AM	56638
Surr: BFB	98.8	70-130		%Rec	1	11/26/2020 2:06:45 AM	56638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	16	8.8		mg/Kg	1	11/28/2020 2:36:04 PM	56641
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	11/28/2020 2:36:04 PM	56641
Surr: DNOP	93.4	30.4-154		%Rec	1	11/28/2020 2:36:04 PM	56641
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	11/26/2020 2:06:45 AM	56638
Toluene	ND	0.048		mg/Kg	1	11/26/2020 2:06:45 AM	56638
Ethylbenzene	ND	0.048		mg/Kg	1	11/26/2020 2:06:45 AM	56638
Xylenes, Total	ND	0.096		mg/Kg	1	11/26/2020 2:06:45 AM	56638
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%Rec	1	11/26/2020 2:06:45 AM	56638
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	11/26/2020 2:06:45 AM	56638
Surr: Dibromofluoromethane	101	70-130		%Rec	1	11/26/2020 2:06:45 AM	56638
Surr: Toluene-d8	88.8	70-130		%Rec	1	11/26/2020 2:06:45 AM	56638

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		

Page 2 of 47

Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: BG-3 0'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 12:20:00 PM

Lab ID: 2011B61-003

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	87	60		mg/Kg	20	11/26/2020 2:13:22 AM	56670
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/26/2020 2:35:04 AM	56638
Surr: BFB	104	70-130		%Rec	1	11/26/2020 2:35:04 AM	56638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	11/25/2020 3:32:46 PM	56641
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	11/25/2020 3:32:46 PM	56641
Surr: DNOP	82.8	30.4-154		%Rec	1	11/25/2020 3:32:46 PM	56641
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	11/26/2020 2:35:04 AM	56638
Toluene	ND	0.048		mg/Kg	1	11/26/2020 2:35:04 AM	56638
Ethylbenzene	ND	0.048		mg/Kg	1	11/26/2020 2:35:04 AM	56638
Xylenes, Total	ND	0.096		mg/Kg	1	11/26/2020 2:35:04 AM	56638
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	11/26/2020 2:35:04 AM	56638
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	1	11/26/2020 2:35:04 AM	56638
Surr: Dibromofluoromethane	104	70-130		%Rec	1	11/26/2020 2:35:04 AM	56638
Surr: Toluene-d8	94.1	70-130		%Rec	1	11/26/2020 2:35:04 AM	56638

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: BG-4 0'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 12:30:00 PM

Lab ID: 2011B61-004

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	89	60		mg/Kg	20	11/26/2020 2:50:35 AM	56670
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/26/2020 3:03:22 AM	56638
Surr: BFB	104	70-130		%Rec	1	11/26/2020 3:03:22 AM	56638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/25/2020 3:56:41 PM	56641
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/25/2020 3:56:41 PM	56641
Surr: DNOP	87.1	30.4-154		%Rec	1	11/25/2020 3:56:41 PM	56641
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	11/26/2020 3:03:22 AM	56638
Toluene	ND	0.047		mg/Kg	1	11/26/2020 3:03:22 AM	56638
Ethylbenzene	ND	0.047		mg/Kg	1	11/26/2020 3:03:22 AM	56638
Xylenes, Total	ND	0.094		mg/Kg	1	11/26/2020 3:03:22 AM	56638
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	11/26/2020 3:03:22 AM	56638
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	11/26/2020 3:03:22 AM	56638
Surr: Dibromofluoromethane	107	70-130		%Rec	1	11/26/2020 3:03:22 AM	56638
Surr: Toluene-d8	90.3	70-130		%Rec	1	11/26/2020 3:03:22 AM	56638

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: BG-5 0'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 12:40:00 PM

Lab ID: 2011B61-005

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	100	60		mg/Kg	20	11/26/2020 3:03:00 AM	56670
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/26/2020 3:31:42 AM	56638
Surr: BFB	103	70-130		%Rec	1	11/26/2020 3:31:42 AM	56638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/25/2020 4:20:36 PM	56641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/25/2020 4:20:36 PM	56641
Surr: DNOP	82.1	30.4-154		%Rec	1	11/25/2020 4:20:36 PM	56641
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	11/26/2020 3:31:42 AM	56638
Toluene	ND	0.048		mg/Kg	1	11/26/2020 3:31:42 AM	56638
Ethylbenzene	ND	0.048		mg/Kg	1	11/26/2020 3:31:42 AM	56638
Xylenes, Total	ND	0.096		mg/Kg	1	11/26/2020 3:31:42 AM	56638
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%Rec	1	11/26/2020 3:31:42 AM	56638
Surr: 4-Bromofluorobenzene	99.0	70-130		%Rec	1	11/26/2020 3:31:42 AM	56638
Surr: Dibromofluoromethane	104	70-130		%Rec	1	11/26/2020 3:31:42 AM	56638
Surr: Toluene-d8	91.4	70-130		%Rec	1	11/26/2020 3:31:42 AM	56638

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: BG-6 0'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 12:50:00 PM

Lab ID: 2011B61-006

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	85	60		mg/Kg	20	11/26/2020 3:15:24 AM	56670
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/26/2020 3:59:58 AM	56638
Surr: BFB	103	70-130		%Rec	1	11/26/2020 3:59:58 AM	56638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/25/2020 4:44:25 PM	56641
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/25/2020 4:44:25 PM	56641
Surr: DNOP	79.1	30.4-154		%Rec	1	11/25/2020 4:44:25 PM	56641
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	11/26/2020 3:59:58 AM	56638
Toluene	ND	0.047		mg/Kg	1	11/26/2020 3:59:58 AM	56638
Ethylbenzene	ND	0.047		mg/Kg	1	11/26/2020 3:59:58 AM	56638
Xylenes, Total	ND	0.095		mg/Kg	1	11/26/2020 3:59:58 AM	56638
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	11/26/2020 3:59:58 AM	56638
Surr: 4-Bromofluorobenzene	99.9	70-130		%Rec	1	11/26/2020 3:59:58 AM	56638
Surr: Dibromofluoromethane	103	70-130		%Rec	1	11/26/2020 3:59:58 AM	56638
Surr: Toluene-d8	89.9	70-130		%Rec	1	11/26/2020 3:59:58 AM	56638

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-1 6'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 1:00:00 PM

Lab ID: 2011B61-007

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	700	60		mg/Kg	20	11/26/2020 3:27:49 AM	56670

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		

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Analytical Report

Lab Order **2011B61**

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-1 8'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 1:00:00 PM

Lab ID: 2011B61-008

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	410	59		mg/Kg	20	11/26/2020 3:40:13 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-1 10'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 1:00:00 PM

Lab ID: 2011B61-009

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	130	60		mg/Kg	20	11/26/2020 4:17:27 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-2 6'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 2:20:00 PM

Lab ID: 2011B61-010

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	880	60		mg/Kg	20	11/26/2020 4:29:52 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-2 8'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 2:20:00 PM

Lab ID: 2011B61-011

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	250	60		mg/Kg	20	11/26/2020 4:42:16 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-2 10'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 2:20:00 PM

Lab ID: 2011B61-012

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	360	60		mg/Kg	20	11/26/2020 4:54:41 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-3 6'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 3:00:00 PM

Lab ID: 2011B61-013

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	480	60		mg/Kg	20	11/26/2020 5:07:05 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-3 8'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 3:00:00 PM

Lab ID: 2011B61-014

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	160	59		mg/Kg	20	11/26/2020 5:19:30 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-3 10'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 3:00:00 PM

Lab ID: 2011B61-015

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	120	59		mg/Kg	20	11/26/2020 5:31:55 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-4 6'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 3:35:00 PM

Lab ID: 2011B61-016

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	250	60		mg/Kg	20	11/26/2020 5:44:19 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-4 8'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 3:35:00 PM

Lab ID: 2011B61-017

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	160	60		mg/Kg	20	11/26/2020 5:56:44 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-4 10'

Project: Trionyx Frac Pond

Collection Date: 11/18/2020 3:35:00 PM

Lab ID: 2011B61-018

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	120	60		mg/Kg	20	11/26/2020 6:33:57 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-5 6'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 9:00:00 AM

Lab ID: 2011B61-019

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	300	60		mg/Kg	20	11/26/2020 6:46:22 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-5 8'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 9:00:00 AM

Lab ID: 2011B61-020

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	140	60		mg/Kg	20	11/26/2020 6:58:46 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-5 10'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 9:00:00 AM

Lab ID: 2011B61-021

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	120	60		mg/Kg	20	11/26/2020 7:11:11 AM	56670

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-6 6'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 9:40:00 AM

Lab ID: 2011B61-022

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	1100	60		mg/Kg	20	11/26/2020 12:32:06 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-6 8'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 9:40:00 AM

Lab ID: 2011B61-023

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	180	60		mg/Kg	20	11/26/2020 1:09:07 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-6 10'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 9:40:00 AM

Lab ID: 2011B61-024

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	170	60		mg/Kg	20	11/26/2020 2:10:48 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-7 6'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 9:55:00 AM

Lab ID: 2011B61-025

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	720	59		mg/Kg	20	11/26/2020 2:23:08 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-7 8'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 9:55:00 AM

Lab ID: 2011B61-026

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	560	59		mg/Kg	20	11/26/2020 2:35:30 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-7 10'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 9:55:00 AM

Lab ID: 2011B61-027

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	530	61		mg/Kg	20	11/26/2020 2:47:51 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-7 12'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 10:15:00 AM

Lab ID: 2011B61-028

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	150	61		mg/Kg	20	11/26/2020 3:00:11 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-8 6'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 10:50:00 AM

Lab ID: 2011B61-029

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	59		mg/Kg	20	11/26/2020 3:12:32 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-8 8'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 10:50:00 AM

Lab ID: 2011B61-030

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	11/26/2020 3:24:53 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-8 10'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 10:50:00 AM

Lab ID: 2011B61-031

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	59		mg/Kg	20	11/26/2020 3:37:13 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-9 6'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 11:30:00 AM

Lab ID: 2011B61-032

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	59		mg/Kg	20	11/26/2020 3:49:33 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-9 8'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 11:30:00 AM

Lab ID: 2011B61-033

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	59		mg/Kg	20	11/26/2020 4:01:55 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-9 10'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 11:30:00 AM

Lab ID: 2011B61-034

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	61		mg/Kg	20	11/26/2020 4:38:56 AM	56671

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-10 0-1'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 12:20:00 PM

Lab ID: 2011B61-035

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	180	60		mg/Kg	20	11/26/2020 4:51:17 AM	56671
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/26/2020 4:28:13 AM	56638
Surr: BFB	102	70-130		%Rec	1	11/26/2020 4:28:13 AM	56638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	11/25/2020 5:08:17 PM	56641
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/25/2020 5:08:17 PM	56641
Surr: DNOP	76.3	30.4-154		%Rec	1	11/25/2020 5:08:17 PM	56641
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	11/26/2020 4:28:13 AM	56638
Toluene	ND	0.050		mg/Kg	1	11/26/2020 4:28:13 AM	56638
Ethylbenzene	ND	0.050		mg/Kg	1	11/26/2020 4:28:13 AM	56638
Xylenes, Total	ND	0.10		mg/Kg	1	11/26/2020 4:28:13 AM	56638
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	11/26/2020 4:28:13 AM	56638
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	11/26/2020 4:28:13 AM	56638
Surr: Dibromofluoromethane	106	70-130		%Rec	1	11/26/2020 4:28:13 AM	56638
Surr: Toluene-d8	88.8	70-130		%Rec	1	11/26/2020 4:28:13 AM	56638

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-10 2'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 12:20:00 PM

Lab ID: 2011B61-036

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	78	60		mg/Kg	20	11/26/2020 5:03:37 AM	56671
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/26/2020 4:56:31 AM	56638
Surr: BFB	101	70-130		%Rec	1	11/26/2020 4:56:31 AM	56638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/25/2020 5:31:59 PM	56641
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/25/2020 5:31:59 PM	56641
Surr: DNOP	81.7	30.4-154		%Rec	1	11/25/2020 5:31:59 PM	56641
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.023		mg/Kg	1	11/26/2020 4:56:31 AM	56638
Toluene	ND	0.047		mg/Kg	1	11/26/2020 4:56:31 AM	56638
Ethylbenzene	ND	0.047		mg/Kg	1	11/26/2020 4:56:31 AM	56638
Xylenes, Total	ND	0.093		mg/Kg	1	11/26/2020 4:56:31 AM	56638
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	11/26/2020 4:56:31 AM	56638
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	11/26/2020 4:56:31 AM	56638
Surr: Dibromofluoromethane	108	70-130		%Rec	1	11/26/2020 4:56:31 AM	56638
Surr: Toluene-d8	89.4	70-130		%Rec	1	11/26/2020 4:56:31 AM	56638

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-10 3'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 12:20:00 PM

Lab ID: 2011B61-037

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	98	60		mg/Kg	20	11/26/2020 5:15:58 AM	56671
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/26/2020 5:24:46 AM	56638
Surr: BFB	102	70-130		%Rec	1	11/26/2020 5:24:46 AM	56638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	11/25/2020 5:55:39 PM	56641
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/25/2020 5:55:39 PM	56641
Surr: DNOP	89.2	30.4-154		%Rec	1	11/25/2020 5:55:39 PM	56641
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	11/26/2020 5:24:46 AM	56638
Toluene	ND	0.048		mg/Kg	1	11/26/2020 5:24:46 AM	56638
Ethylbenzene	ND	0.048		mg/Kg	1	11/26/2020 5:24:46 AM	56638
Xylenes, Total	ND	0.096		mg/Kg	1	11/26/2020 5:24:46 AM	56638
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%Rec	1	11/26/2020 5:24:46 AM	56638
Surr: 4-Bromofluorobenzene	99.1	70-130		%Rec	1	11/26/2020 5:24:46 AM	56638
Surr: Dibromofluoromethane	101	70-130		%Rec	1	11/26/2020 5:24:46 AM	56638
Surr: Toluene-d8	90.3	70-130		%Rec	1	11/26/2020 5:24:46 AM	56638

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-10 4'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 12:20:00 PM

Lab ID: 2011B61-038

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	130	60		mg/Kg	20	11/26/2020 5:28:19 AM	56671
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/26/2020 5:53:04 AM	56638
Surr: BFB	102	70-130		%Rec	1	11/26/2020 5:53:04 AM	56638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/25/2020 6:19:16 PM	56641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/25/2020 6:19:16 PM	56641
Surr: DNOP	85.7	30.4-154		%Rec	1	11/25/2020 6:19:16 PM	56641
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	11/26/2020 5:53:04 AM	56638
Toluene	ND	0.049		mg/Kg	1	11/26/2020 5:53:04 AM	56638
Ethylbenzene	ND	0.049		mg/Kg	1	11/26/2020 5:53:04 AM	56638
Xylenes, Total	ND	0.098		mg/Kg	1	11/26/2020 5:53:04 AM	56638
Surr: 1,2-Dichloroethane-d4	99.5	70-130		%Rec	1	11/26/2020 5:53:04 AM	56638
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	1	11/26/2020 5:53:04 AM	56638
Surr: Dibromofluoromethane	103	70-130		%Rec	1	11/26/2020 5:53:04 AM	56638
Surr: Toluene-d8	90.1	70-130		%Rec	1	11/26/2020 5:53:04 AM	56638

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-10 6'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 12:40:00 PM

Lab ID: 2011B61-039

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	250	60		mg/Kg	20	11/26/2020 5:40:39 AM	56671
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/28/2020 2:31:14 PM	56648
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/28/2020 2:31:14 PM	56648
Surr: DNOP	98.8	30.4-154		%Rec	1	11/28/2020 2:31:14 PM	56648
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/25/2020 10:28:33 PM	56645
Surr: BFB	89.3	75.3-105		%Rec	1	11/25/2020 10:28:33 PM	56645
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	11/25/2020 10:28:33 PM	56645
Toluene	ND	0.049		mg/Kg	1	11/25/2020 10:28:33 PM	56645
Ethylbenzene	ND	0.049		mg/Kg	1	11/25/2020 10:28:33 PM	56645
Xylenes, Total	ND	0.099		mg/Kg	1	11/25/2020 10:28:33 PM	56645
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	1	11/25/2020 10:28:33 PM	56645

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-10 8'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 12:40:00 PM

Lab ID: 2011B61-040

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	150	59		mg/Kg	20	11/26/2020 5:53:01 AM	56671
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	11/28/2020 2:40:56 PM	56648
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/28/2020 2:40:56 PM	56648
Surr: DNOP	100	30.4-154		%Rec	1	11/28/2020 2:40:56 PM	56648
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/25/2020 11:38:48 PM	56645
Surr: BFB	88.4	75.3-105		%Rec	1	11/25/2020 11:38:48 PM	56645
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/25/2020 11:38:48 PM	56645
Toluene	ND	0.048		mg/Kg	1	11/25/2020 11:38:48 PM	56645
Ethylbenzene	ND	0.048		mg/Kg	1	11/25/2020 11:38:48 PM	56645
Xylenes, Total	ND	0.096		mg/Kg	1	11/25/2020 11:38:48 PM	56645
Surr: 4-Bromofluorobenzene	96.9	80-120		%Rec	1	11/25/2020 11:38:48 PM	56645

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		

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Analytical Report

Lab Order 2011B61

Date Reported: 12/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia

Client Sample ID: S-10 10'

Project: Trionyx Frac Pond

Collection Date: 11/19/2020 12:40:00 PM

Lab ID: 2011B61-041

Matrix: SOIL

Received Date: 11/24/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	140	59		mg/Kg	20	11/26/2020 6:05:22 AM	56671
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/28/2020 2:50:38 PM	56648
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/28/2020 2:50:38 PM	56648
Surr: DNOP	99.4	30.4-154		%Rec	1	11/28/2020 2:50:38 PM	56648
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/26/2020 12:48:45 AM	56645
Surr: BFB	88.2	75.3-105		%Rec	1	11/26/2020 12:48:45 AM	56645
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/26/2020 12:48:45 AM	56645
Toluene	ND	0.048		mg/Kg	1	11/26/2020 12:48:45 AM	56645
Ethylbenzene	ND	0.048		mg/Kg	1	11/26/2020 12:48:45 AM	56645
Xylenes, Total	ND	0.097		mg/Kg	1	11/26/2020 12:48:45 AM	56645
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	1	11/26/2020 12:48:45 AM	56645

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		

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

WO#: 2011B61

01-Dec-20

Client: Talon Artesia
Project: Trionyx Frac Pond

Sample ID: MB-56671	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 56671	RunNo: 73652								
Prep Date: 11/25/2020	Analysis Date: 11/26/2020	SeqNo: 2595726 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-56671	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 56671	RunNo: 73652								
Prep Date: 11/25/2020	Analysis Date: 11/26/2020	SeqNo: 2595727 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Sample ID: MB-56667	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 56667	RunNo: 73654								
Prep Date: 11/25/2020	Analysis Date: 11/25/2020	SeqNo: 2595922 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-56667	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 56667	RunNo: 73654								
Prep Date: 11/25/2020	Analysis Date: 11/25/2020	SeqNo: 2595923 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

Sample ID: MB-56670	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 56670	RunNo: 73654								
Prep Date: 11/25/2020	Analysis Date: 11/26/2020	SeqNo: 2595952 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-56670	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 56670	RunNo: 73654								
Prep Date: 11/25/2020	Analysis Date: 11/26/2020	SeqNo: 2595953 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical 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#: 2011B61

01-Dec-20

Client: Talon Artesia
Project: Trionyx Frac Pond

Sample ID: MB-56641	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 56641	RunNo: 73632								
Prep Date: 11/24/2020	Analysis Date: 11/25/2020	SeqNo: 2594887			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.2	30.4	154			

Sample ID: LCS-56641	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 56641	RunNo: 73632								
Prep Date: 11/24/2020	Analysis Date: 11/25/2020	SeqNo: 2594891			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.5	70	130			
Surr: DNOP	4.6		5.000		91.1	30.4	154			

Sample ID: LCS-56648	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 56648	RunNo: 73643								
Prep Date: 11/25/2020	Analysis Date: 11/28/2020	SeqNo: 2595548			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.4	70	130			
Surr: DNOP	5.0		5.000		101	30.4	154			

Sample ID: MB-56648	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 56648	RunNo: 73643								
Prep Date: 11/25/2020	Analysis Date: 11/28/2020	SeqNo: 2595550			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.3	30.4	154			

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#: 2011B61

01-Dec-20

Client: Talon Artesia
Project: Trionyx Frac Pond

Sample ID: mb-56645	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 56645		RunNo: 73605							
Prep Date: 11/24/2020	Analysis Date: 11/25/2020		SeqNo: 2594783		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	910		1000		90.6	75.3	105			

Sample ID: lcs-56645	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 56645		RunNo: 73605							
Prep Date: 11/24/2020	Analysis Date: 11/25/2020		SeqNo: 2594784		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	91.9	72.5	106			
Surr: BFB	970		1000		97.4	75.3	105			

Sample ID: 2011b61-039ams	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: S-10 6'	Batch ID: 56645		RunNo: 73605							
Prep Date: 11/24/2020	Analysis Date: 11/25/2020		SeqNo: 2594786		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.8	23.99	0	104	61.3	114			
Surr: BFB	960		959.7		100	75.3	105			

Sample ID: 2011b61-039amsd	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: S-10 6'	Batch ID: 56645		RunNo: 73605							
Prep Date: 11/24/2020	Analysis Date: 11/25/2020		SeqNo: 2594787		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.56	0	100	61.3	114	1.86	20	
Surr: BFB	990		982.3		101	75.3	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

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

WO#: 2011B61

01-Dec-20

Client: Talon Artesia
Project: Trionyx Frac Pond

Sample ID: mb-56645	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 56645	RunNo: 73605								
Prep Date: 11/24/2020	Analysis Date: 11/25/2020	SeqNo: 2594832 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	1.0		1.000		101	80	120			

Sample ID: LCS-56645	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 56645	RunNo: 73605								
Prep Date: 11/24/2020	Analysis Date: 11/25/2020	SeqNo: 2594833 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.6	80	120			
Toluene	0.98	0.050	1.000	0	97.6	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.5	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID: 2011b61-040ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: S-10 8'	Batch ID: 56645	RunNo: 73605								
Prep Date: 11/24/2020	Analysis Date: 11/26/2020	SeqNo: 2594836 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	0.9823	0	100	76.3	120			
Toluene	1.0	0.049	0.9823	0.009456	104	78.5	120			
Ethylbenzene	1.1	0.049	0.9823	0	107	78.1	124			
Xylenes, Total	3.1	0.098	2.947	0	106	79.3	125			
Surr: 4-Bromofluorobenzene	0.98		0.9823		99.5	80	120			

Sample ID: 2011b61-040amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: S-10 8'	Batch ID: 56645	RunNo: 73605								
Prep Date: 11/24/2020	Analysis Date: 11/26/2020	SeqNo: 2594837 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9921	0	102	76.3	120	2.37	20	
Toluene	1.0	0.050	0.9921	0.009456	104	78.5	120	0.682	20	
Ethylbenzene	1.1	0.050	0.9921	0	106	78.1	124	0.274	20	
Xylenes, Total	3.1	0.099	2.976	0	105	79.3	125	0.250	20	
Surr: 4-Bromofluorobenzene	1.0		0.9921		101	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#: 2011B61

01-Dec-20

Client: Talon Artesia
Project: Trionyx Frac Pond

Sample ID: mb-56638	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 56638	RunNo: 73630								
Prep Date: 11/24/2020	Analysis Date: 11/25/2020	SeqNo: 2594753	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: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.1	70	130			
Surr: Dibromofluoromethane	0.58		0.5000		116	70	130			
Surr: Toluene-d8	0.47		0.5000		93.3	70	130			

Sample ID: lcs-56638	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 56638	RunNo: 73630								
Prep Date: 11/24/2020	Analysis Date: 11/25/2020	SeqNo: 2594754	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	119	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.5	0.10	3.000	0	117	80	120			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.8	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		111	70	130			
Surr: Toluene-d8	0.48		0.5000		95.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical 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

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

WO#: 2011B61

01-Dec-20

Client: Talon Artesia
Project: Trionyx Frac Pond

Sample ID: mb-56638	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 56638	RunNo: 73630								
Prep Date: 11/24/2020	Analysis Date: 11/25/2020	SeqNo: 2594912	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	510		500.0		101	70	130			

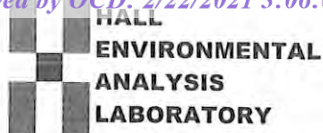
Sample ID: lcs-56638	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 56638	RunNo: 73630								
Prep Date: 11/24/2020	Analysis Date: 11/25/2020	SeqNo: 2594914	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.8	70	130			
Surr: BFB	510		500.0		103	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical 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

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

Sample Log-In Check List

Client Name: Talon Artesia

Work Order Number: 2011B61

RcptNo: 1

Received By: Juan Rojas 11/24/2020 8:00:00 AM

Completed By: Desiree Dominguez 11/24/2020 9:21:07 AM

Reviewed By: SPA 11-24-20

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: JR 11/24/20

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

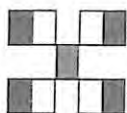
16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good				
2	1.1	Good				
3	4.3	Good				
4	0.4	Good				

Chain-of-Custody Record									
Client: <u>Talena/LPF</u>		Turn-Around Time: <u>4-day</u>							
		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush							
Mailing Address: <u>on file</u>		Project Name: <u>Devon Energy</u>							
		Project #: <u>Trionyx Frac Pond</u>							
Phone #: <u> </u>		Project Manager: <u>Rebecca Pons</u>							
email or Fax#: <u> </u>		Sampler: <u>Roy Bell</u> On Ice: <input type="checkbox"/> Yes <input type="checkbox"/> No							
QA/QC Package: <input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		# of Coolers: <u>4</u>							
Accreditation: <input type="checkbox"/> Az Compliance		Cooler Temp (including CFI): <u>See Remarks</u> (°C)							
<input type="checkbox"/> NELAC <input type="checkbox"/> Other <u> </u>		Container Type and #		Preservative Type		HEAL No.			
<input type="checkbox"/> EDD (Type) <u> </u>		Date		Time		Sample Name			
		11/18		15:00		5-3 6'		4 oz jar ice	
				15:00		5-3 8'			
				15:00		5-3 10'			
				15:35		5-4 6'			
				15:35		5-4 8'			
				15:35		5-4 10'			
		11/19		09:00		5-5 6'			
				09:00		5-5 8'			
				09:00		5-5 10'			
				09:40		5-6 6'			
				09:40		5-6 8'			
				09:40		5-6 10'			
Date: <u>11/23</u>		Time: <u>1900</u>		Relinquished by: <u>[Signature]</u>		Via: <u>Aluminum</u>		Date/Time: <u>11/23/20 1550</u>	
Date: <u>11/23/20</u>		Time: <u>1900</u>		Relinquished by: <u>[Signature]</u>		Via: <u>Aluminum</u>		Date/Time: <u>11/23/20 1550</u>	

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



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

Remarks:

Remarks:

W/O : 20844324.3±0 = 4.3% 0.3±0 = 0.3% 04±0 = 0.4%

11±0 = 1.1%

Bill directly to Devon

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**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

Remarks:

Remarks:
W/O : 20844332 $0.3 \pm 0 = 0.3^{\circ}\text{C}$ $0.4 \pm 0 = 0.4^{\circ}\text{C}$
 $0.3 \pm 0 = 0.3^{\circ}\text{C}$ $0.3 \pm 0 = 0.3^{\circ}\text{C}$ $1 \pm 0 = 1.0^{\circ}\text{C}$

Bill directly to Devon

0930f

Chain-of-Custody Record									
Client: <u>Talen/LPF</u>		Turn-Around Time: <u>4-day</u>							
		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush							
Mailing Address: <u>on file</u>		Project Name: <u>Devon Energy</u>							
		Project #: <u>Trionyx Frac Pond</u>							
Phone #: <u>700794.336.01</u>		Project Manager: <u>Rebecca Pons</u>							
QA/QC Package: <u>Level 4 (Full Validation)</u>		<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)							
Accreditation: <input type="checkbox"/> Az Compliance		Sampler: <u>Roy Bell</u>							
<input type="checkbox"/> NELAC		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
<input type="checkbox"/> EDD (Type) _____		# of Coolers: <u>4</u>							
		Cooler Temp (including CFI): <u>See Remarks</u> (°C)							
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.			
<u>11/19</u>	<u>09:55</u>	<u>soil</u>	<u>S-7 6'</u>	<u>4 02 jar</u>	<u>ice</u>	<u>2011B61</u>	<u>-025</u>		
	<u>09:55</u>		<u>S-7 8'</u>				<u>-026</u>		
	<u>09:55</u>		<u>S-7 10'</u>				<u>-027</u>		
	<u>10:15</u>		<u>S-7 12'</u>				<u>-028</u>		
	<u>10:50</u>		<u>S-8 6'</u>				<u>-029</u>		
	<u>10:50</u>		<u>S-8 8'</u>				<u>-030</u>		
	<u>10:50</u>		<u>S-8 10'</u>				<u>-031</u>		
	<u>11:30</u>		<u>S-9 6'</u>				<u>-032</u>		
	<u>11:30</u>		<u>S-9 8'</u>				<u>-033</u>		
	<u>11:30</u>		<u>S-9 10'</u>				<u>-034</u>		
	<u>12:20</u>		<u>S-10 0-1'</u>				<u>-035</u>		
	<u>12:20</u>		<u>S-10 2'</u>				<u>-036</u>		
Date: <u>11/23</u>	Time: _____	Relinquished by: <u>W. Hill</u>		Received by: <u>Alumina</u>		Date: <u>11/23/20</u>	Time: <u>1520</u>		
Date: <u>11/23</u>	Time: <u>1900</u>	Relinquished by: <u>Crum</u>		Received by: <u>St. Lawrence</u>		Date: <u>11/23/20</u>	Time: _____		

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

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

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.

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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
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Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 18520

CONDITIONS

Operator: Talon LPE 408 W Texas Artesia, NM 88210	OGRID: 329944
	Action Number: 18520
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	9/20/2022