



January 24, 2019

Christina Hernandez
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1625 French Drive
Hobbs, NM 88240

Incident ID	pending
District RP	pending
Facility ID	pending
Application ID	pending

Re: **Site Assessment Report and Proposed Remediation Plan**
 Site Name: 2B Pipeline
 GPS: Latitude: 32.17124 Longitude: -103.19349
 Legals: UL "I", Sec. 31, T24S, R37E
 Lea County, New Mexico
 NMOCD Ref. No. pending

Lowry Environmental & Associates, LLC (LEA), on behalf of ETC Texas Pipeline, Ltd., has prepared this Site Assessment Report and Proposed Remediation Plan for the Release Site known as the 2B Pipeline. Details of the release are summarized on the table below:

Nature and Volume of Release	
Date Release Discovered	12/24/2018
Source of Release	Pipeline
Type of Release	Condensate & Natural Gas
Volume Released	95 bbls (Condensate) 24.738 Mscf (Gas)
Volume Recovered	None
Cause of Release The release was attributed to the failure of a segment of buried natural gas pipeline as a result of corrosion.	
Affected Area The release affected an area west of and within a pipeline right-of-way totaling approximately 6,000 sq. ft.	
Was this a major release?	If YES, for what reasons (s) is this considered a major release?
Yes	Unauthorized release of a volume of liquids exceeding 25 bbls.
If Yes, was immediate notice given to the OCD? By whom? To whom? When and by what means? Dean Ericson, Christina Hernandez, 12/24/2018 @ 20:10, Phone/Email	

A copy of the Release Notification (NMOCD Form C-141) is provided as Attachment #8.

Incident ID	pending
District RP	pending
Facility ID	pending
Application ID	pending

Site Assessment/Characterization	
What is the shallowest depth to groundwater beneath the area affected by the release?	50-100 Ft.
Did this release impact groundwater or surface water?	No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	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)?	No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	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?	No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	No
Are the lateral extents of the release within 300 feet of a wetland?	No
Are the lateral extents of the release overlying a subsurface mine?	No
Are the lateral extents of the release overlying an unstable area such as karst geology?	No
Are the lateral extents of the release within a 100-year floodplain?	No
Did the release impact areas not on an exploration, development, production or storage site?	Yes

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey was conducted in an effort to determine the average depth to groundwater within a 1 Mile radius of the Site and identify any registered water wells within a 1/2 Mile radius of the Site. A search of the NMOSE database suggested the presence of 1 water well (CP00494) 1,120 Ft. of the Site.

Based on the volume and nature of the release, inferred depth to groundwater and NMOCD Siting Criteria, the NMOCD Closure Criteria for the Site is as follows:

Closure Criteria for Soil Impacted by a Release	
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX)	50 mg/kg
Total Petroleum Hydrocarbons	2500 mg/kg
Combined GRO and DRO	1000 mg/kg
Chloride	10000 mg/kg

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figures 1 & 2. Depth to groundwater information is provided as Attachment #4. A Photographic Log is provided as Attachment #7.

Incident ID	pending
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Facility ID	pending
Application ID	pending

INITIAL SITE ASSESSMENT

On **January 8, 2019**, LEA conducted an initial site assessment. During the initial site assessment, twelve (12) representative soil samples (V1 6", V1 4'-R, V2 0-3", V2 3-6", V3 0-3", V3 18"-R, V4 0-3", V4 12"-R, V5 0-3", V5 18"-R, V6 0-3" and V6 12") were collected from within the release margins in an effort to determine the vertical extent of soil impacts. In addition, twenty-four (24) soil samples (SH1 0-3", SH1 2', EH1 0-3", EH1 2', NH1 6", NH1 2', NH2 0-3", NH2 6", SH2 0-3", SH2 6", WH4 0-3", WH4 12", EH4 0-3", EH4 12", WH5 0-3", WH5 12", EH5 0-3", EH5 12", WH6 0-3", WH6 12", EH6 0-3", EH6 12", NH6 0-3" and NH6 12") were collected from the inferred edges of the affected area in an effort to determine the horizontal extent of soil impact. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples.

A table summarizing laboratory analytical results from soil samples collected during the initial site assessment is provided below:

Concentrations of BTEX, TPH and/or Chloride in Soil - Initial Assessment(s)											
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
V1 6"	1/8/19	6"	In-Situ	0.206	2.30	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
V1 4'-R	1/8/19	4'	In-Situ	<0.050	0.314	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SH1 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SH1 2'	1/8/19	2'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
EH1 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
EH1 2'	1/8/19	2'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
NH1 6"	1/8/19	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
NH1 2'	1/8/19	2'	In-Situ	<0.050	0.405	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
V2 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
V2 3-6"	1/8/19	3-6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
NH2 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
NH2 6"	1/8/19	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SH2 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SH2 6"	1/8/19	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
V3 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
V3 18"-R	1/8/19	18"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
V4 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
V4 12"-R	1/8/19	12"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
WH4 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
WH4 12"	1/8/19	12"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
EH4 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
EH4 12"	1/8/19	12"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
V5 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
Closure Criteria				10	50	-	-	1,000	-	2,500	10,000

Incident ID	pending
District RP	pending
Facility ID	pending
Application ID	pending

Concentrations of BTEX, TPH and/or Chloride in Soil - Initial Assessment (cont.)											
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
V5 18"-R	1/8/19	18"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
WH5 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
WH5 12"	1/8/19	12"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
EH5 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
EH5 12"	1/8/19	12"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
V6 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
V6 12"	1/8/19	12"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
WH6 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
WH6 12"	1/8/19	12"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
EH6 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
EH6 12"	1/8/19	12"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
NH6 0-3"	1/8/19	0-3"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
NH6 12"	1/8/19	12"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
Closure Criteria				10	50	-	-	1,000	-	2,500	10,000

A "Site & Sample Location Map" is provided as Attachment #3. Field Data, if applicable, is provided as Attachment #9. Soil profile observations are provided on Attachment #5. Laboratory analytical reports are provided as Attachment #6.

PROPOSED REMEDIATION PLAN

Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment, ETC Texas Pipeline, Ltd. proposes the following remediation activities designed to advance the Site toward an approved closure:

- Utilizing mechanical equipment, excavated visibly stained soil from the area adjacent to the release point and within the oilfield access road.
- Vegetation within the release flow path will be monitored for "die off". In the event vegetation is lost, affected areas will be "spot dug", backfilled and seeded in accordance with the landowner. ETC maintains scraping the affect pasture poses a risk to the existing grass stand.
- Excavated soil will be temporarily stockpiled on-site, atop an impermeable liner, pending transportation under manifest to an NMOCD-approved disposal facility.
- Upon excavating visibly stained soil from the area adjacent to the release point and within the oilfield access road, the excavated area adjacent to the release point will be backfilled with locally sourced, non-impacted "like" material. Excavation backfill will be placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable.

Incident ID	pending
District RP	pending
Facility ID	pending
Application ID	pending

SAMPLING PLAN

Laboratory analytical results from soil samples collected during the initial release assessment indicates soil was not affected above the NMOCD Closure Criteria; no additional soil samples are necessary.

TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

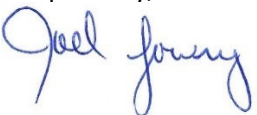
Remediation activities are expected to be completed **within 90 days** of receiving necessary approval(s) of this Site Assessment Summary and Proposed Remediation Plan. Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment it is estimated that approximately **60 cubic yards** is in need of removal.

RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

Areas affected by remediation and closure activities will be substantially restored to the condition that existed prior to the release, to the extent practicable. Excavated areas will be backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an agency and/or landowner-approved seed mixture during the first favorable growing season following closure of the site.

If you have any questions, or need any additional information, please feel free to contact Dean Ericson or the undersigned by phone or email.

Respectfully,



Joel W. Lowry
Environmental Professional
Lowry Environmental & Associates, LLC

Attachments:

- Attachment #1- Figure 1 - Topographic Map
- Attachment #2- Figure 2 - Aerial Map
- Attachment #3- Figure 3 - Site & Sample Location Map
- Attachment #4- Depth to Groundwater Information
- Attachment #5- Soil Profile
- Attachment #6- Laboratory Analytical Reports
- Attachment #7- Photographic Log
- Attachment #8- Release Notification (FORM C-141)
- Attachment #9- Field Data

LIMITATIONS

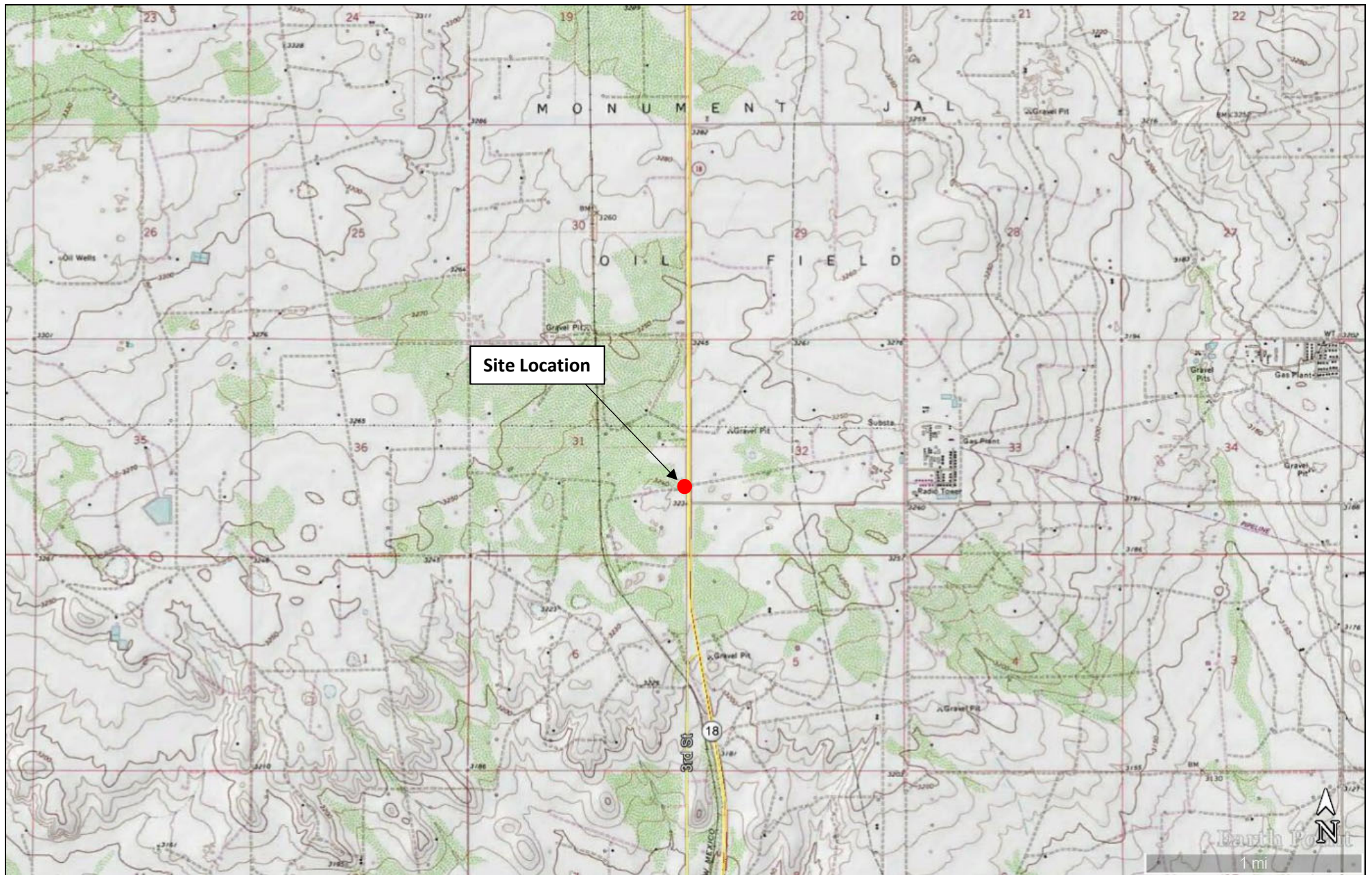
This document has been prepared on behalf of ETC Texas Pipeline, Ltd.. Use of information contained in this report, including exhibits and attachments, by any other party without the consent of LEA and/or ETC Texas Pipeline, Ltd. is prohibited.

This document has been prepared in a professional manner, using the degree of skill and care exercised by similar environmental professionals. LEA notes that the facts and conditions referenced in this document may change over time and that the conclusions and recommendations are only applicable to the facts and conditions as described at the time this document was prepared.

LEA has prepared this report to the best of its ability. No other warranty, expressed or implied, is made or intended.

ATTACHMENT #1

Figure 1 - Topographic Map



LEGEND:

● Site Location

Figure 1

Topographic Map
ETC Texas Pipeline, Ltd.
2B Pipeline
GPS: 32.17124, -103.19349
Lea County, New Mexico

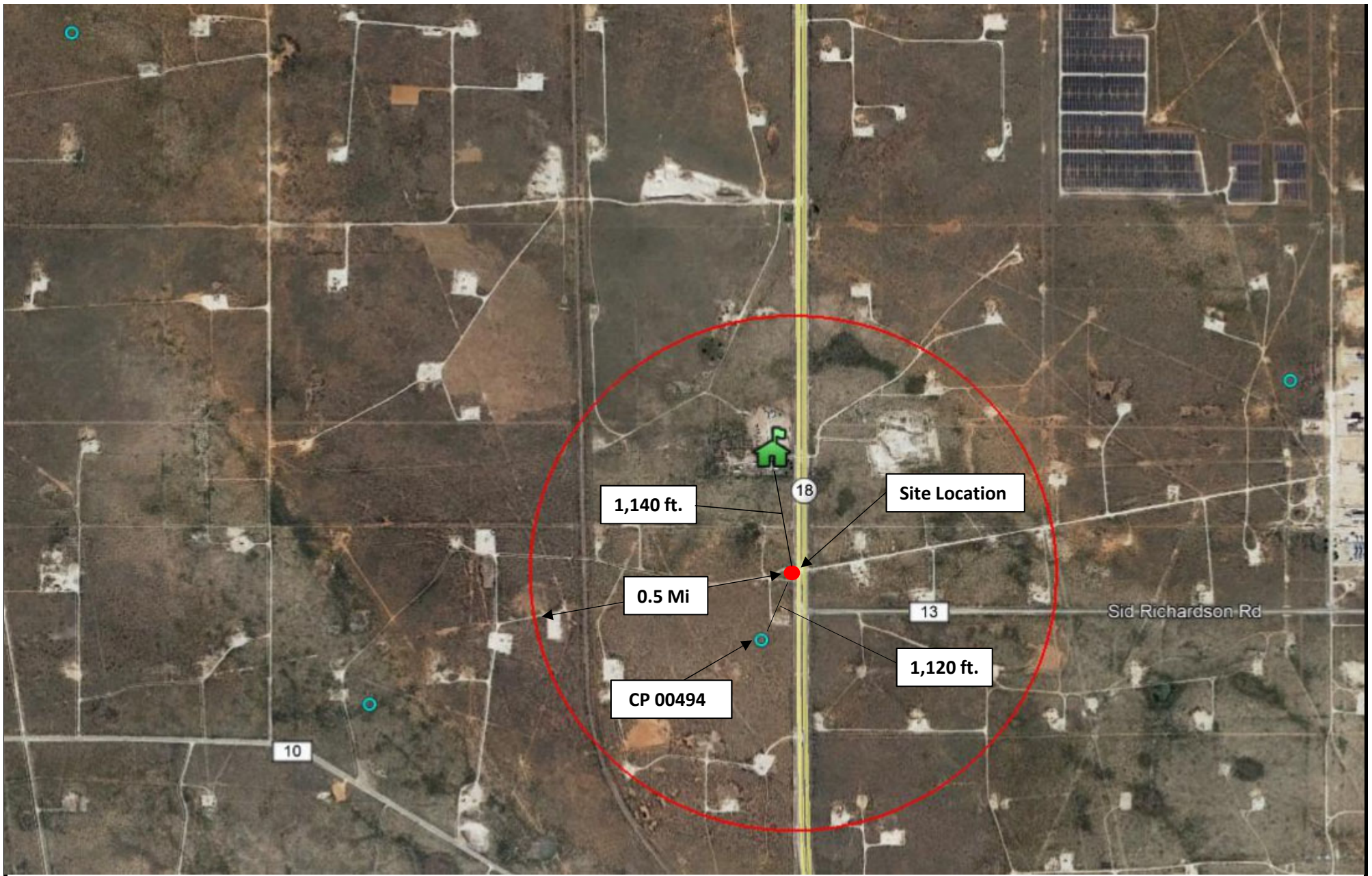


Drafted by: jwl

Checked by: client

Date: 1/24/2019

ATTACHMENT #2
Figure 2 - Aerial Map



LEGEND:

- Site Location
- Fresh Water Well
- 100-Year Floodplain
- High/Critical Karst

- Non-Industrial Building
- Subsurface Mine

Figure 2
Aerial Map
ETC Texas Pipeline, Ltd.
2B Pipeline
GPS: 32.17124, -103.19349
Lea County, New Mexico



Drafted by: jwl

Checked by: client

Date: 1/24/2019

ATTACHMENT #3

Figure 3 - Site & Sample Location Map



LEGEND:

- Sample Point
- Affected Area
- Buried Pipeline
- Test Trench

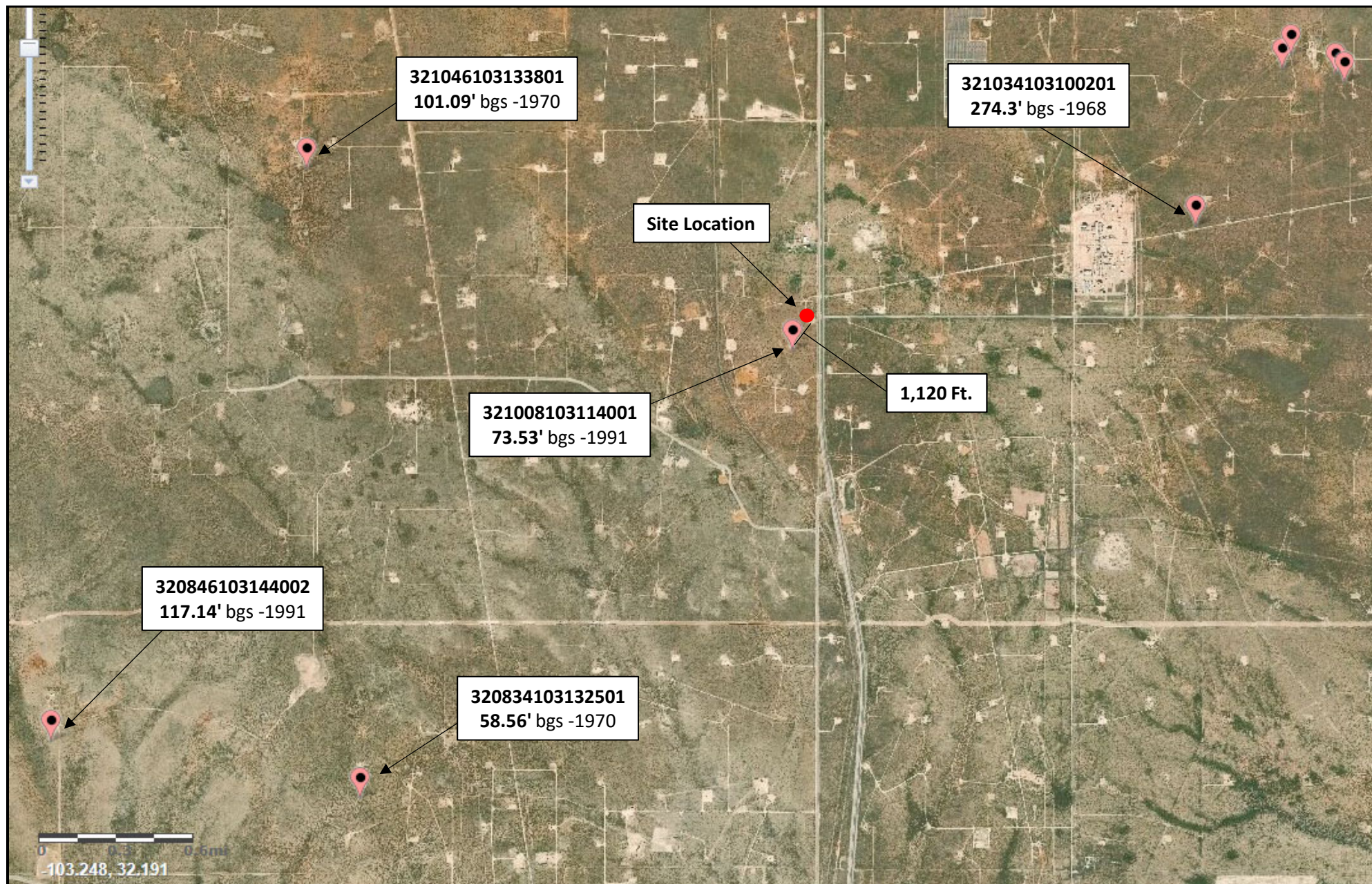
Figure 3

Site & Sample Location Map
 ETC Texas Pipeline, Ltd.
 2B Pipeline
 GPS: 32.17124, -103.19349
 Lea County, New Mexico



Drafted by: jwl Checked by: client Date: 1/24/2019

ATTACHMENT #4
Depth to Groundwater Information



LEGEND:

● Site Location

Figure 4

USGS Well Proximity Map
ETC Texas Pipeline, Ltd.
2B Pipeline
GPS: 32.17124, -103.19349
Lea County, New Mexico



Drafted by: jwl

Checked by: client

Date: 1/24/2019



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

(R=POD has been replaced,

O=orphaned,

C=the file is closed)

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

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

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tw	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP 00494 POD1		CP	LE	2	4	4	31	24S	37E	670239	3560628*	228	500		
CP 00846 POD1		CP	LE		4	2	06	25S	37E	670154	3559725*	1126	600		
CP 00549 POD1		CP	XX	4	3	3	31	24S	37E	669051	3560409*	1349	200		
CP 00517 POD1		CP	LE	1	2	3	05	25S	37E	670863	3559434*	1501	4900		
CP 00507		CP	LE	3	3	2	05	25S	37E	671259	3559642*	1514	4900		
CP 00493 POD1		CP	LE	2	4	2	32	24S	37E	671834	3561458*	1626	500		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 670330

Northing (Y): 3560838

Radius: 1680

*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.


1/21/19 3:35 PM

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
	CP 00494 POD1	2	4	4	31	24S	37E	670239	3560628* 
<hr/>									
Driller License:		Driller Company:							
Driller Name: W. PERRY SMITH									
Drill Start Date: 05/04/1971		Drill Finish Date: 05/13/1971		Plug Date:					
Log File Date: 08/04/1971		PCW Rev Date:		Source:					
Pump Type:		Pipe Discharge Size:		Estimated Yield:					
Casing Size: 8.00		Depth Well: 500 feet		Depth Water:					
<hr/>									
Water Bearing Stratifications:		Top	Bottom	Description					
		75	100	Shallow Alluvium/Basin Fill					
		120	135	Shallow Alluvium/Basin Fill					

*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.

1/21/19 3:38 PM

POINT OF DIVERSION SUMMARY



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National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:


Groundwater

Geographic Area:

United States

GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321008103114001

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321008103114001 24S.37E.31.243442

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°10'08", Longitude 103°11'40" NAD27

Land-surface elevation 3,240 feet above NAVD88

The depth of the well is 100 feet below land surface.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

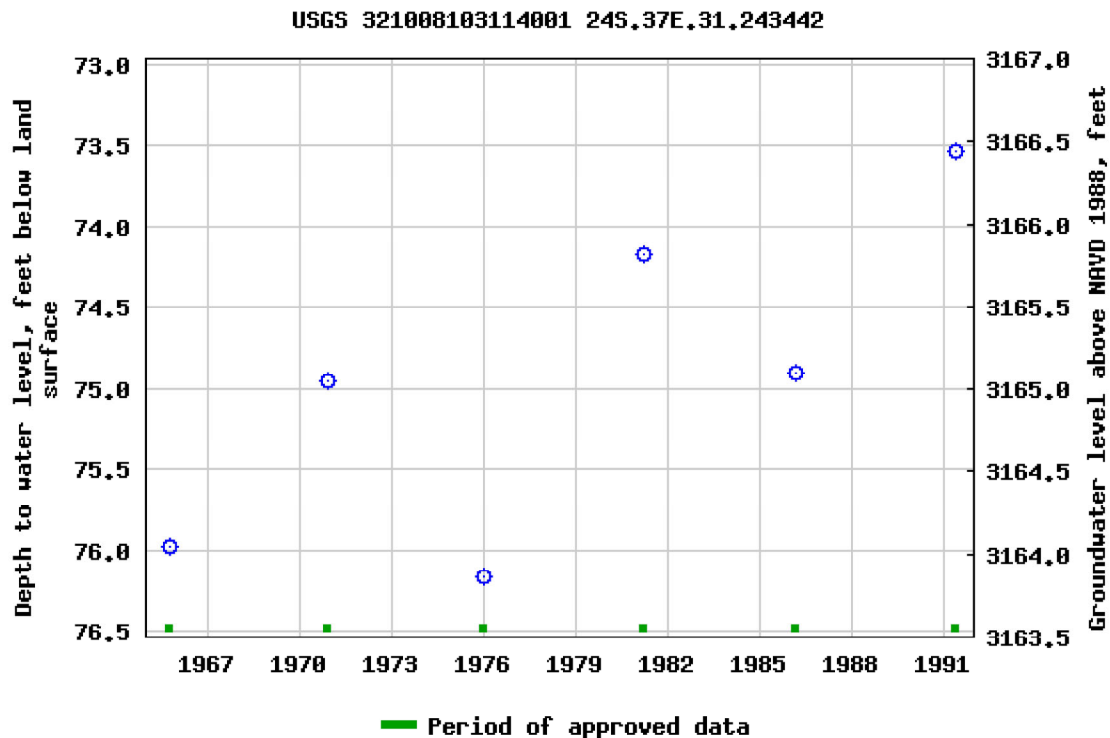
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Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-01-21 17:53:12 EST

1.04 0.91 nadww01



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Data Category:


Groundwater

Geographic Area:

United States

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321034103100201

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321034103100201 24S.37E.28.43333

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°10'34", Longitude 103°10'02" NAD27

Land-surface elevation 3,248 feet above NAVD88

The depth of the well is 798 feet below land surface.

This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

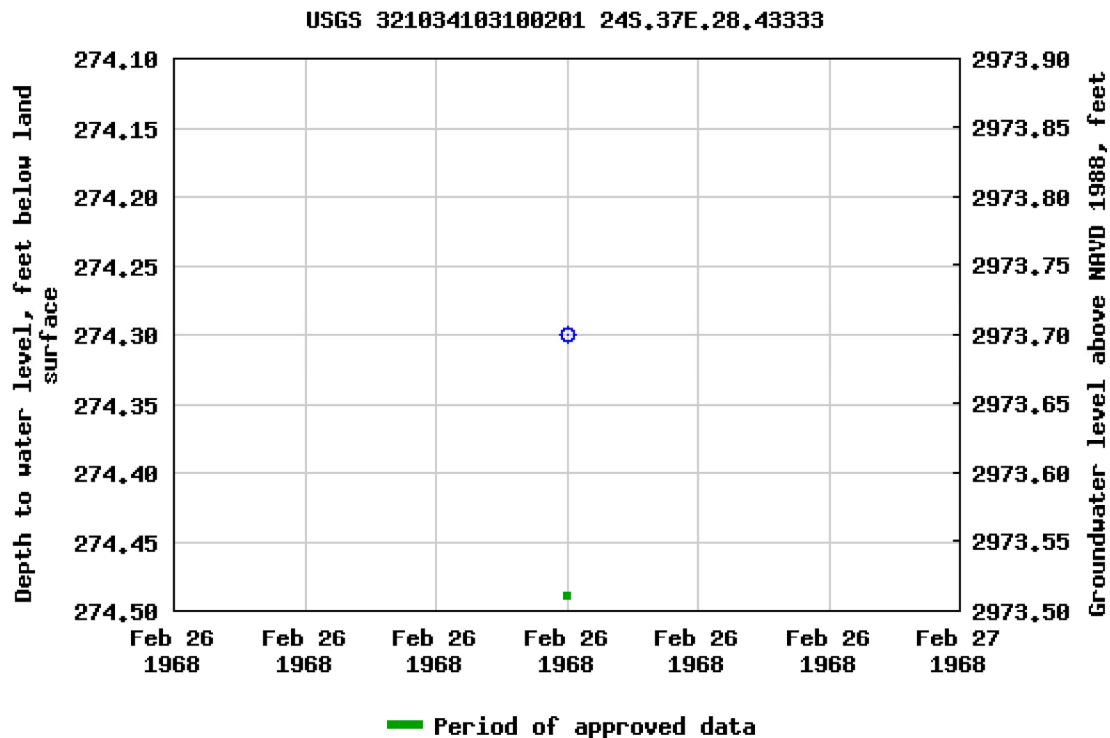
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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-01-21 17:59:22 EST

0.99 0.87 nadww01




National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:	Geographic Area:	
Groundwater	United States	GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 320834103132501

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320834103132501 25S.36E.12.123142

Lea County, New Mexico

Latitude 32°08'34", Longitude 103°13'25" NAD27

Land-surface elevation 3,173 feet above NAVD88

The depth of the well is 80 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1964-11-30		D	57.37				2		U	
1965-11-30		D	57.37				2		U	
1968-03-27		D	56.22				2		U	
1970-12-09		D	58.56				2		U	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for USA: Water Levels

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0.58 0.49 nadww01





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National Water Information System: Web Interface

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Data Category:


Groundwater

Geographic Area:

United States

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320846103144002

Minimum number of levels = 1

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USGS 320846103144002 25S.36E.10.24234 A

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code --

Latitude 32°08'46", Longitude 103°14'40" NAD27

Land-surface elevation 3,151 feet above NAVD88

This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

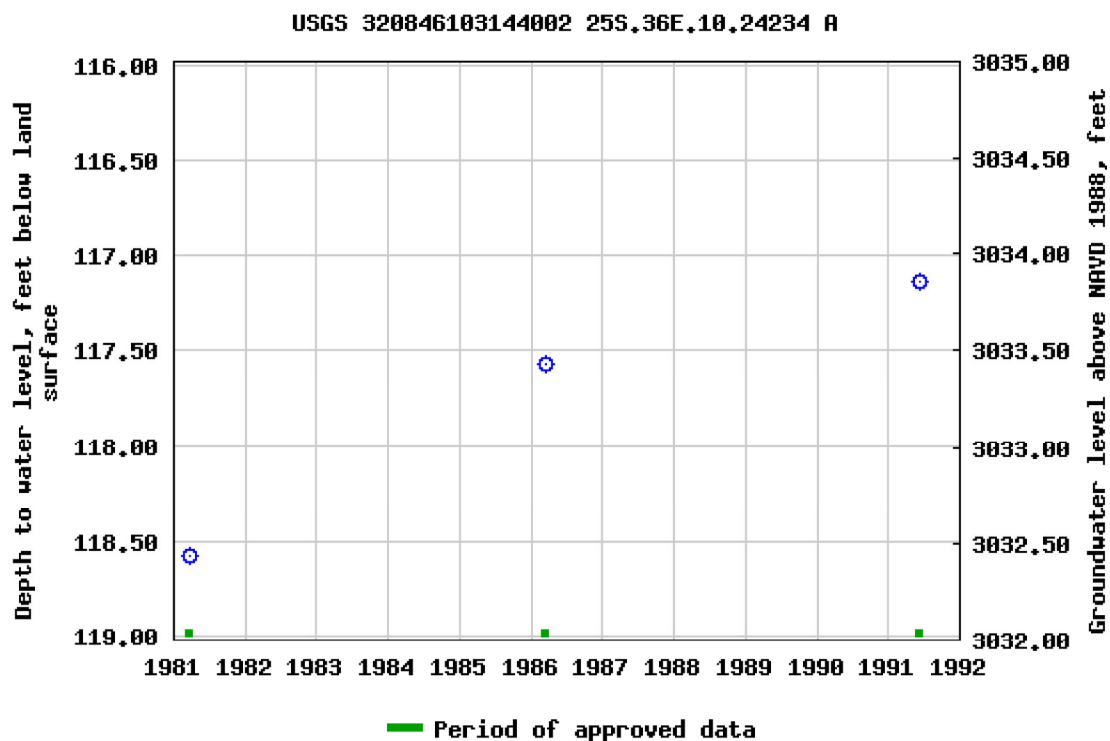
Output formats

[Table of data](#)

[Tab-separated data](#)

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Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-01-21 18:03:38 EST

1.04 0.92 nadww01



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National Water Information System: Web Interface

USGS Water Resources

Data Category:


Groundwater

Geographic Area:

United States

GO

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- [Please see news on new formats](#)
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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321046103133801

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321046103133801 24S.36E.26.44223

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°10'46", Longitude 103°13'38" NAD27

Land-surface elevation 3,277 feet above NAVD88

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

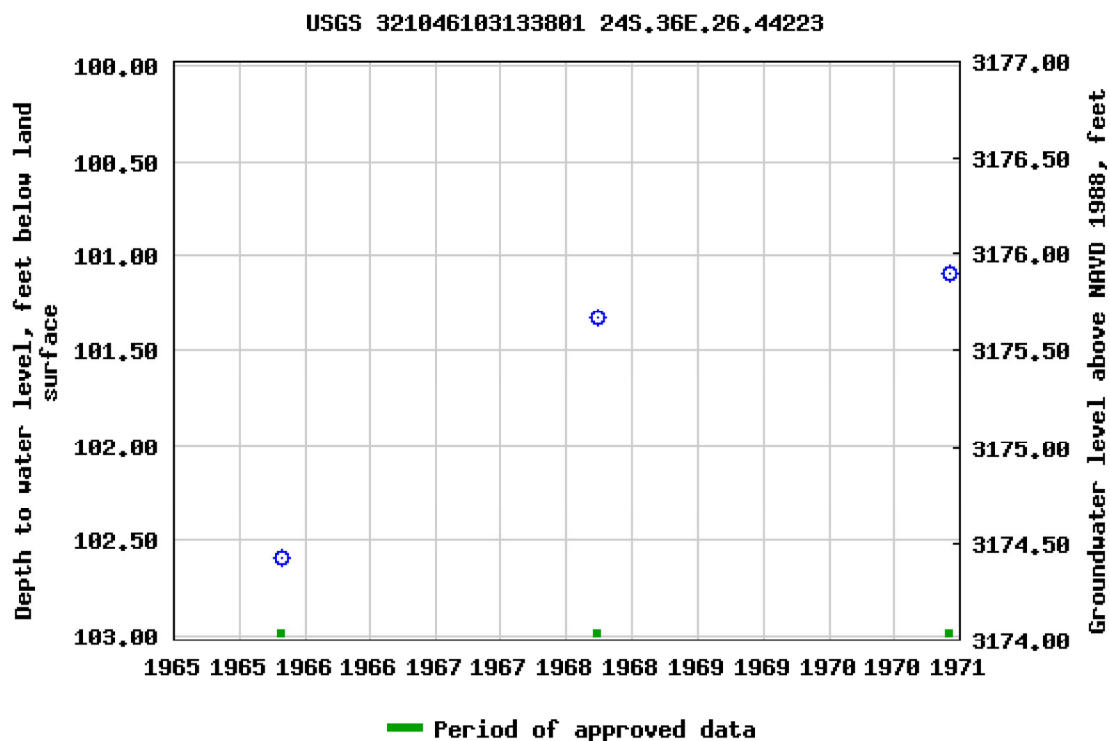
Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-01-21 18:11:20 EST

1.03 0.93 nadww01

ATTACHMENT #5
Soil Profile

SOIL PROFILE

Site Name: 2B (Hwy 18)

Date: 1/8/2019

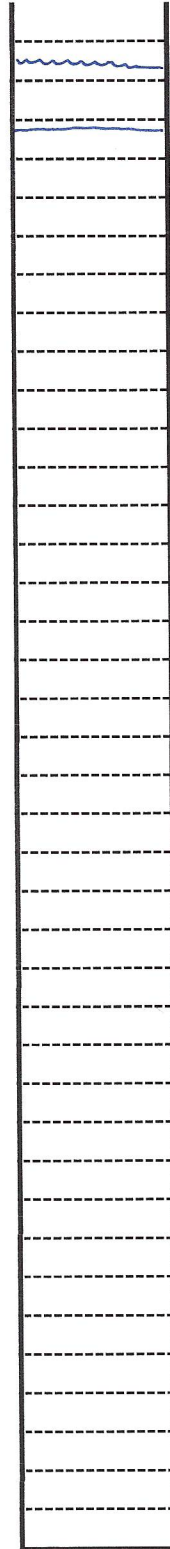
Description

Brown top soil w/ Rock

Caliche / Calcrete Hardpan

Depth (ft. bgs)

1
2
3
4 TD
5
6
7
8
9
0
1
2
3
4
5
6
7
8
9
0
1
2
3
4
5
6
7
8
9
0



ATTACHMENT #6
Laboratory Analytical Reports



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

January 16, 2019

DEAN ERICSON

ENERGY TRANSFER

P. O. BOX 1226

JAL, NM 88252

RE: 2B PIPELINE

Enclosed are the results of analyses for samples received by the laboratory on 01/09/19 11:55.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
DEAN ERICSON
P. O. BOX 1226
JAL NM, 88252
Fax To:

Received: 01/09/2019
Reported: 01/16/2019
Project Name: 2B PIPELINE
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 01/08/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: V1 6" (H900052-01)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.206	0.050	01/15/2019	ND	2.11	106	2.00	1.22	
Toluene*	0.829	0.050	01/15/2019	ND	2.03	102	2.00	0.860	
Ethylbenzene*	0.245	0.050	01/15/2019	ND	2.00	100	2.00	1.07	
Total Xylenes*	1.02	0.150	01/15/2019	ND	6.09	102	6.00	0.840	
Total BTX	2.30	0.300	01/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/11/2019	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/10/2019	ND	220	110	200	8.49	
DRO >C10-C28*	<10.0	10.0	01/10/2019	ND	208	104	200	9.94	
EXT DRO >C28-C36	<10.0	10.0	01/10/2019	ND					

Surrogate: 1-Chlorooctane 84.3 % 41-142

Surrogate: 1-Chlorooctadecane 78.5 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
DEAN ERICSON
P. O. BOX 1226
JAL NM, 88252
Fax To:

Received: 01/09/2019
Reported: 01/16/2019
Project Name: 2B PIPELINE
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 01/08/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: V1 4'-R (H900052-02)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/15/2019	ND	2.11	106	2.00	1.22	
Toluene*	<0.050	0.050	01/15/2019	ND	2.03	102	2.00	0.860	
Ethylbenzene*	0.067	0.050	01/15/2019	ND	2.00	100	2.00	1.07	
Total Xylenes*	0.246	0.150	01/15/2019	ND	6.09	102	6.00	0.840	
Total BTEX	0.314	0.300	01/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	01/11/2019	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/10/2019	ND	220	110	200	8.49	
DRO >C10-C28*	<10.0	10.0	01/10/2019	ND	208	104	200	9.94	
EXT DRO >C28-C36	<10.0	10.0	01/10/2019	ND					

Surrogate: 1-Chlorooctane 86.0 % 41-142

Surrogate: 1-Chlorooctadecane 80.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



QUEST

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

January 22, 2019

DEAN ERICSON

ENERGY TRANSFER

P. O. BOX 1226

JAL, NM 88252

RE: 2B PIPELINE

Enclosed are the results of analyses for samples received by the laboratory on 01/09/19 11:55.

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

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

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

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

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

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

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SH-1 0-3"	H900051-01	Soil	08-Jan-19 00:00	09-Jan-19 11:55
SH-1 2'	H900051-02	Soil	08-Jan-19 00:00	09-Jan-19 11:55
EH-1 0-3"	H900051-03	Soil	08-Jan-19 00:00	09-Jan-19 11:55
EH-1 2'	H900051-04	Soil	08-Jan-19 00:00	09-Jan-19 11:55
NH-1 6"	H900051-05	Soil	08-Jan-19 00:00	09-Jan-19 11:55
NH-1 2'	H900051-06	Soil	08-Jan-19 00:00	09-Jan-19 11:55
V2 0-3"	H900051-07	Soil	08-Jan-19 00:00	09-Jan-19 11:55
V2 3-6"	H900051-08	Soil	08-Jan-19 00:00	09-Jan-19 11:55
NH-2 0-3"	H900051-09	Soil	08-Jan-19 00:00	09-Jan-19 11:55
NH-2 6"	H900051-10	Soil	08-Jan-19 00:00	09-Jan-19 11:55
SH-2 0-3"	H900051-11	Soil	08-Jan-19 00:00	09-Jan-19 11:55
SH-2 6"	H900051-12	Soil	08-Jan-19 00:00	09-Jan-19 11:55
V3 0-3"	H900051-13	Soil	08-Jan-19 00:00	09-Jan-19 11:55
V3 18"-R	H900051-14	Soil	08-Jan-19 00:00	09-Jan-19 11:55
V4 0-3"	H900051-15	Soil	08-Jan-19 00:00	09-Jan-19 11:55
V4 12"-R	H900051-16	Soil	08-Jan-19 00:00	09-Jan-19 11:55
WH4 0-3"	H900051-17	Soil	08-Jan-19 00:00	09-Jan-19 11:55
WH4 12"	H900051-18	Soil	08-Jan-19 00:00	09-Jan-19 11:55
EH4 0-3"	H900051-19	Soil	08-Jan-19 00:00	09-Jan-19 11:55
EH4 12"	H900051-20	Soil	08-Jan-19 00:00	09-Jan-19 11:55
V5 0-3"	H900051-21	Soil	08-Jan-19 00:00	09-Jan-19 11:55
V5 18"-R	H900051-22	Soil	08-Jan-19 00:00	09-Jan-19 11:55
WH5 0-3"	H900051-23	Soil	08-Jan-19 00:00	09-Jan-19 11:55
WH5 12"	H900051-24	Soil	08-Jan-19 00:00	09-Jan-19 11:55
EH5 0-3"	H900051-25	Soil	08-Jan-19 00:00	09-Jan-19 11:55
EH5 12"	H900051-26	Soil	08-Jan-19 00:00	09-Jan-19 11:55
V6 0-3"	H900051-27	Soil	08-Jan-19 00:00	09-Jan-19 11:55

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:Reported:
22-Jan-19 12:12

V6 12"	H900051-28	Soil	08-Jan-19 00:00	09-Jan-19 11:55
WH-6 0-3"	H900051-29	Soil	08-Jan-19 00:00	09-Jan-19 11:55
WH-6 12"	H900051-30	Soil	08-Jan-19 00:00	09-Jan-19 11:55
EH6 0-3"	H900051-31	Soil	08-Jan-19 00:00	09-Jan-19 11:55
EH6 12"	H900051-32	Soil	08-Jan-19 00:00	09-Jan-19 11:55
NH6 0-3"	H900051-33	Soil	08-Jan-19 00:00	09-Jan-19 11:55
NH6 12"	H900051-34	Soil	08-Jan-19 00:00	09-Jan-19 11:55

Samples that were on hold were released for analysis on 01/21/19 as per Joel. This is the revised report including the hold analysis for samples -07, -13, -15, -21 and -27. This report will replace the one sent on 01/16/19.

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

SH-1 0-3" H900051-01 (Soil)

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

Cardinal Laboratories

Inorganic Compounds

Chloride	48.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			96.6 %		73.3-129	9011108	ms	14-Jan-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	

Surrogate: 1-Chlorooctane			84.9 %		41-142	9010908	MS	09-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			84.4 %		37.6-147	9010908	MS	09-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

SH-1 2' H900051-02 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	0.069		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	

Surrogate: 1-Chlorooctane 98.5 % 41-142 9010908 MS 09-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 95.6 % 37.6-147 9010908 MS 09-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

EH-1 0-3" H900051-03 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	73.3-129		9011108	ms	14-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	

Surrogate: 1-Chlorooctane			90.5 %	41-142		9010908	MS	09-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			90.5 %	37.6-147		9010908	MS	09-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

EH-1 2' H900051-04 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	

Surrogate: 1-Chlorooctane 93.4 % 41-142 9010908 MS 09-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 93.0 % 37.6-147 9010908 MS 09-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

NH-1 6" H900051-05 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010908	MS	09-Jan-19	8015B	

Surrogate: 1-Chlorooctane 93.0 % 41-142 9010908 MS 09-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 93.2 % 37.6-147 9010908 MS 09-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

NH-1 2' H900051-06 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	0.405		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	0.405		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			100 %	73.3-129		9011108	ms	14-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010908	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010908	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010908	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane			87.1 %	41-142		9010908	MS	10-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			95.2 %	37.6-147		9010908	MS	10-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

V2 0-3" H900051-07 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9012208	AC	22-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9012115	ms	21-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9012115	ms	21-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9012115	ms	21-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9012115	ms	21-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9012115	ms	21-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129 9012115 ms 21-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	

Surrogate: 1-Chlorooctane 95.4 % 41-142 9012114 MS 21-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 97.3 % 37.6-147 9012114 MS 21-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

V2 3-6" H900051-08 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 94.0 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 94.7 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

NH-2 0-3" H900051-09 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			100 %	73.3-129		9011108	ms	14-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane			90.1 %	41-142		9010913	MS	10-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			88.1 %	37.6-147		9010913	MS	10-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

NH-2 6" H900051-10 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	73.3-129		9011108	ms	14-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane			91.2 %	41-142		9010913	MS	10-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			90.9 %	37.6-147		9010913	MS	10-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

SH-2 0-3" H900051-11 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			99.6 %		73.3-129	9011108	ms	14-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane			93.3 %		41-142	9010913	MS	10-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			94.8 %		37.6-147	9010913	MS	10-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

SH-2 6" H900051-12 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 92.2 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 92.5 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

V3 0-3" H900051-13 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9012208	AC	22-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9012115	ms	21-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9012115	ms	21-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9012115	ms	21-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9012115	ms	21-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9012115	ms	21-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129 9012115 ms 21-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	

Surrogate: 1-Chlorooctane 97.8 % 41-142 9012114 MS 21-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 99.2 % 37.6-147 9012114 MS 21-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

V3 18"-R H900051-14 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 91.8 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 90.7 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

V4 0-3" H900051-15 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9012208	AC	22-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9012115	ms	22-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129 9012115 ms 22-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	

Surrogate: 1-Chlorooctane 98.0 % 41-142 9012114 MS 21-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 99.0 % 37.6-147 9012114 MS 21-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

V4 12"-R H900051-16 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 93.0 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 92.9 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

WH4 0-3" H900051-17 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011004	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			98.0 %		73.3-129	9011108	ms	14-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane			90.0 %		41-142	9010913	MS	10-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			91.4 %		37.6-147	9010913	MS	10-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

WH4 12" H900051-18 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 87.1 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 91.3 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

EH4 0-3" H900051-19 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			100 %		73.3-129	9011108	ms	14-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane			87.6 %		41-142	9010913	MS	10-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			89.0 %		37.6-147	9010913	MS	10-Jan-19	8015B	
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Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

EH4 12 H900051-20 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 90.2 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 92.9 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

V5 0-3" H900051-21 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9012208	AC	22-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9012115	ms	22-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %		73.3-129	9012115	ms	22-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9012114	MS	21-Jan-19	8015B	

Surrogate: 1-Chlorooctane			97.2 %		41-142	9012114	MS	21-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			98.0 %		37.6-147	9012114	MS	21-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

V5 18"-R H900051-22 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			97.9 %		73.3-129	9011108	ms	14-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane			94.0 %		41-142	9010913	MS	10-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			97.8 %		37.6-147	9010913	MS	10-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

WH5 0-3" H900051-23 (Soil)

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

Inorganic Compounds

Chloride	<16.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 95.4 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 96.2 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

WH5 12" H900051-24 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011108	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011108	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 73.3-129 9011108 ms 14-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 93.7 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 96.3 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

EH5 0-3" H900051-25 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011109	ms	14-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011109	ms	14-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011109	ms	14-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011109	ms	14-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011109	ms	14-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			97.6 %		73.3-129	9011109	ms	14-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane			92.3 %		41-142	9010913	MS	10-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			94.3 %		37.6-147	9010913	MS	10-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

EH5 12" H900051-26 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011109	ms	15-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 73.3-129 9011109 ms 15-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 94.6 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 96.5 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

V6 0-3" H900051-27 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9012208	AC	22-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9012115	ms	22-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9012115	ms	22-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129 9012115 ms 22-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9012114	MS	22-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9012114	MS	22-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9012114	MS	22-Jan-19	8015B	

Surrogate: 1-Chlorooctane 103 % 41-142 9012114 MS 22-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 103 % 37.6-147 9012114 MS 22-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

V6 12" H900051-28 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011109	ms	15-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			98.6 %		73.3-129	9011109	ms	15-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane			91.9 %		41-142	9010913	MS	10-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			93.6 %		37.6-147	9010913	MS	10-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

WH-6 0-3" H900051-29 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011109	ms	15-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			97.1 %		73.3-129	9011109	ms	15-Jan-19	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane			91.9 %		41-142	9010913	MS	10-Jan-19	8015B	
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Surrogate: 1-Chlorooctadecane			93.5 %		37.6-147	9010913	MS	10-Jan-19	8015B	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

WH-6 12" H900051-30 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011109	ms	15-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129 9011109 ms 15-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 89.3 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 90.0 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

EH6 0-3" H900051-31 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011109	ms	15-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 73.3-129 9011109 ms 15-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9010913	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 94.7 % 41-142 9010913 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 95.9 % 37.6-147 9010913 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

EH6 12" H900051-32 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011109	ms	15-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 73.3-129 9011109 ms 15-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9011001	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9011001	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9011001	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 92.7 % 41-142 9011001 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 93.4 % 37.6-147 9011001 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

NH6 0-3" H900051-33 (Soil)

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

Inorganic Compounds

Chloride	32.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011109	ms	15-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 73.3-129 9011109 ms 15-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9011001	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9011001	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9011001	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 89.1 % 41-142 9011001 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 88.8 % 37.6-147 9011001 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

NH6 12" H900051-34 (Soil)

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

Inorganic Compounds

Chloride	16.0		16.0	mg/kg	4	9011008	AC	11-Jan-19	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9011109	ms	15-Jan-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9011109	ms	15-Jan-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129 9011109 ms 15-Jan-19 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	9011005	MS	10-Jan-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9011005	MS	10-Jan-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9011005	MS	10-Jan-19	8015B	

Surrogate: 1-Chlorooctane 90.8 % 41-142 9011005 MS 10-Jan-19 8015B

Surrogate: 1-Chlorooctadecane 91.3 % 37.6-147 9011005 MS 10-Jan-19 8015B

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9011004 - General Prep - Wet Chem

Blank (9011004-BLK1)

Prepared & Analyzed: 10-Jan-19

Chloride ND 16.0 mg/kg

LCS (9011004-BS1)

Prepared & Analyzed: 10-Jan-19

Chloride 400 16.0 mg/kg 400 100 80-120

LCS Dup (9011004-BSD1)

Prepared & Analyzed: 10-Jan-19

Chloride 416 16.0 mg/kg 400 104 80-120 3.92 20

Batch 9011008 - General Prep - Wet Chem

Blank (9011008-BLK1)

Prepared & Analyzed: 10-Jan-19

Chloride ND 16.0 mg/kg

LCS (9011008-BS1)

Prepared & Analyzed: 10-Jan-19

Chloride 400 16.0 mg/kg 400 100 80-120

LCS Dup (9011008-BSD1)

Prepared & Analyzed: 10-Jan-19

Chloride 416 16.0 mg/kg 400 104 80-120 3.92 20

Batch 9012208 - General Prep - Wet Chem

Blank (9012208-BLK1)

Prepared & Analyzed: 22-Jan-19

Chloride ND 16.0 mg/kg

LCS (9012208-BS1)

Prepared & Analyzed: 22-Jan-19

Chloride 416 16.0 mg/kg 400 104 80-120

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 P. O. BOX 1226
 JAL NM, 88252

 Project: 2B PIPELINE
 Project Number: NONE GIVEN
 Project Manager: DEAN ERICSON
 Fax To:

 Reported:
 22-Jan-19 12:12

Inorganic Compounds - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9012208 - General Prep - Wet Chem
LCS Dup (9012208-BSD1)

Prepared & Analyzed: 22-Jan-19

Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	
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Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9011108 - Volatiles

Blank (9011108-BLK1)

Prepared: 11-Jan-19 Analyzed: 14-Jan-19

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.100		mg/kg	0.100		100	73.3-129			

LCS (9011108-BS1)

Prepared: 11-Jan-19 Analyzed: 14-Jan-19

Benzene	2.32	0.050	mg/kg	2.00		116	72.2-131			
Toluene	2.24	0.050	mg/kg	2.00		112	71.7-126			
Ethylbenzene	2.19	0.050	mg/kg	2.00		110	68.9-126			
Total Xylenes	6.72	0.150	mg/kg	6.00		112	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0982		mg/kg	0.100		98.2	73.3-129			

LCS Dup (9011108-BSD1)

Prepared: 11-Jan-19 Analyzed: 14-Jan-19

Benzene	2.35	0.050	mg/kg	2.00		118	72.2-131	1.44	6.91	
Toluene	2.26	0.050	mg/kg	2.00		113	71.7-126	0.766	7.12	
Ethylbenzene	2.20	0.050	mg/kg	2.00		110	68.9-126	0.449	7.88	
Total Xylenes	6.82	0.150	mg/kg	6.00		114	71.4-125	1.43	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	0.102		mg/kg	0.100		102	73.3-129			

Batch 9011109 - Volatiles

Blank (9011109-BLK1)

Prepared: 11-Jan-19 Analyzed: 14-Jan-19

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0977		mg/kg	0.100		97.7	73.3-129			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9011109 - Volatiles

LCS (9011109-BS1)

Prepared: 11-Jan-19 Analyzed: 14-Jan-19

Benzene	2.11	0.050	mg/kg	2.00		106	72.2-131			
Toluene	2.03	0.050	mg/kg	2.00		102	71.7-126			
Ethylbenzene	2.00	0.050	mg/kg	2.00		100	68.9-126			
Total Xylenes	6.09	0.150	mg/kg	6.00		102	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0967		mg/kg	0.100		96.7	73.3-129			

LCS Dup (9011109-BS1)

Prepared: 11-Jan-19 Analyzed: 14-Jan-19

Benzene	2.09	0.050	mg/kg	2.00		104	72.2-131	1.22	6.91	
Toluene	2.01	0.050	mg/kg	2.00		101	71.7-126	0.860	7.12	
Ethylbenzene	1.98	0.050	mg/kg	2.00		99.1	68.9-126	1.07	7.88	
Total Xylenes	6.04	0.150	mg/kg	6.00		101	71.4-125	0.840	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	0.0950		mg/kg	0.100		95.0	73.3-129			

Batch 9012115 - Volatiles

Blank (9012115-BLK1)

Prepared & Analyzed: 21-Jan-19

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.100		mg/kg	0.100		100	73.3-129			

LCS (9012115-BS1)

Prepared & Analyzed: 21-Jan-19

Benzene	1.93	0.050	mg/kg	2.00		96.6	72.2-131			
Toluene	1.86	0.050	mg/kg	2.00		92.8	71.7-126			
Ethylbenzene	1.85	0.050	mg/kg	2.00		92.3	68.9-126			
Total Xylenes	5.61	0.150	mg/kg	6.00		93.4	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.100		mg/kg	0.100		100	73.3-129			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9012115 - Volatiles

LCS Dup (9012115-BSD1)

Prepared & Analyzed: 21-Jan-19

Benzene	1.94	0.050	mg/kg	2.00		97.0	72.2-131	0.384	6.91	
Toluene	1.85	0.050	mg/kg	2.00		92.7	71.7-126	0.183	7.12	
Ethylbenzene	1.85	0.050	mg/kg	2.00		92.6	68.9-126	0.340	7.88	
Total Xylenes	5.63	0.150	mg/kg	6.00		93.9	71.4-125	0.489	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	0.0992		mg/kg	0.100		99.2	73.3-129			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9010908 - General Prep - Organics

Blank (9010908-BLK1)

Prepared & Analyzed: 09-Jan-19

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	43.4		mg/kg	50.0		86.7	41-142			
Surrogate: 1-Chlorooctadecane	41.2		mg/kg	50.0		82.4	37.6-147			

LCS (9010908-BS1)

Prepared & Analyzed: 09-Jan-19

GRO C6-C10	186	10.0	mg/kg	200		93.1	76.5-133			
DRO >C10-C28	203	10.0	mg/kg	200		102	72.9-138			
Total TPH C6-C28	390	10.0	mg/kg	400		97.4	78-132			
Surrogate: 1-Chlorooctane	46.8		mg/kg	50.0		93.5	41-142			
Surrogate: 1-Chlorooctadecane	44.3		mg/kg	50.0		88.7	37.6-147			

LCS Dup (9010908-BSD1)

Prepared & Analyzed: 09-Jan-19

GRO C6-C10	197	10.0	mg/kg	200		98.4	76.5-133	5.47	20.6	
DRO >C10-C28	212	10.0	mg/kg	200		106	72.9-138	3.92	20.6	
Total TPH C6-C28	408	10.0	mg/kg	400		102	78-132	4.67	18	
Surrogate: 1-Chlorooctane	47.0		mg/kg	50.0		94.0	41-142			
Surrogate: 1-Chlorooctadecane	44.9		mg/kg	50.0		89.9	37.6-147			

Batch 9010913 - General Prep - Organics

Blank (9010913-BLK1)

Prepared: 09-Jan-19 Analyzed: 10-Jan-19

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	44.9		mg/kg	50.0		89.9	41-142			
Surrogate: 1-Chlorooctadecane	43.5		mg/kg	50.0		87.0	37.6-147			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 9010913 - General Prep - Organics

LCS (9010913-BS1)

Prepared: 09-Jan-19 Analyzed: 10-Jan-19

GRO C6-C10	191	10.0	mg/kg	200		95.5	76.5-133		
DRO >C10-C28	217	10.0	mg/kg	200		108	72.9-138		
Total TPH C6-C28	408	10.0	mg/kg	400		102	78-132		
Surrogate: 1-Chlorooctane	47.9		mg/kg	50.0		95.7	41-142		
Surrogate: 1-Chlorooctadecane	45.8		mg/kg	50.0		91.6	37.6-147		

LCS Dup (9010913-BS1)

Prepared: 09-Jan-19 Analyzed: 10-Jan-19

GRO C6-C10	204	10.0	mg/kg	200		102	76.5-133	6.73	20.6
DRO >C10-C28	225	10.0	mg/kg	200		113	72.9-138	3.85	20.6
Total TPH C6-C28	429	10.0	mg/kg	400		107	78-132	5.21	18
Surrogate: 1-Chlorooctane	48.9		mg/kg	50.0		97.8	41-142		
Surrogate: 1-Chlorooctadecane	47.0		mg/kg	50.0		94.1	37.6-147		

Batch 9011001 - General Prep - Organics

Blank (9011001-BLK1)

Prepared & Analyzed: 10-Jan-19

GRO C6-C10	ND	10.0	mg/kg						
DRO >C10-C28	ND	10.0	mg/kg						
EXT DRO >C28-C36	ND	10.0	mg/kg						
Total TPH C6-C28	ND	10.0	mg/kg						
Surrogate: 1-Chlorooctane	46.3		mg/kg	50.0		92.6	41-142		
Surrogate: 1-Chlorooctadecane	43.8		mg/kg	50.0		87.6	37.6-147		

LCS (9011001-BS1)

Prepared & Analyzed: 10-Jan-19

GRO C6-C10	240	10.0	mg/kg	200		120	76.5-133		
DRO >C10-C28	226	10.0	mg/kg	200		113	72.9-138		
Total TPH C6-C28	466	10.0	mg/kg	400		117	78-132		
Surrogate: 1-Chlorooctane	51.0		mg/kg	50.0		102	41-142		
Surrogate: 1-Chlorooctadecane	47.4		mg/kg	50.0		94.9	37.6-147		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9011001 - General Prep - Organics

LCS Dup (9011001-BSD1)

Prepared & Analyzed: 10-Jan-19

GRO C6-C10	237	10.0	mg/kg	200		119	76.5-133	1.28	20.6	
DRO >C10-C28	218	10.0	mg/kg	200		109	72.9-138	3.48	20.6	
Total TPH C6-C28	456	10.0	mg/kg	400		114	78-132	2.34	18	
Surrogate: 1-Chlorooctane	47.6		mg/kg	50.0		95.3	41-142			
Surrogate: 1-Chlorooctadecane	44.1		mg/kg	50.0		88.3	37.6-147			

Batch 9011005 - General Prep - Organics

Blank (9011005-BLK1)

Prepared & Analyzed: 10-Jan-19

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	46.3		mg/kg	50.0		92.6	41-142			
Surrogate: 1-Chlorooctadecane	45.1		mg/kg	50.0		90.1	37.6-147			

LCS (9011005-BS1)

Prepared & Analyzed: 10-Jan-19

GRO C6-C10	220	10.0	mg/kg	200		110	76.5-133			
DRO >C10-C28	208	10.0	mg/kg	200		104	72.9-138			
Total TPH C6-C28	428	10.0	mg/kg	400		107	78-132			
Surrogate: 1-Chlorooctane	46.8		mg/kg	50.0		93.7	41-142			
Surrogate: 1-Chlorooctadecane	44.6		mg/kg	50.0		89.2	37.6-147			

LCS Dup (9011005-BSD1)

Prepared & Analyzed: 10-Jan-19

GRO C6-C10	239	10.0	mg/kg	200		120	76.5-133	8.49	20.6	
DRO >C10-C28	230	10.0	mg/kg	200		115	72.9-138	9.94	20.6	
Total TPH C6-C28	469	10.0	mg/kg	400		117	78-132	9.20	18	
Surrogate: 1-Chlorooctane	48.9		mg/kg	50.0		97.8	41-142			
Surrogate: 1-Chlorooctadecane	46.8		mg/kg	50.0		93.6	37.6-147			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

ENERGY TRANSFER
P. O. BOX 1226
JAL NM, 88252

Project: 2B PIPELINE
Project Number: NONE GIVEN
Project Manager: DEAN ERICSON
Fax To:

Reported:
22-Jan-19 12:12

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9012114 - General Prep - Organics

Blank (9012114-BLK1)

Prepared & Analyzed: 21-Jan-19

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	49.7		mg/kg	50.0		99.3	41-142			
Surrogate: 1-Chlorooctadecane	52.1		mg/kg	50.0		104	37.6-147			

LCS (9012114-BS1)

Prepared & Analyzed: 21-Jan-19

GRO C6-C10	191	10.0	mg/kg	200		95.7	76.5-133			
DRO >C10-C28	208	10.0	mg/kg	200		104	72.9-138			
Total TPH C6-C28	399	10.0	mg/kg	400		99.8	78-132			
Surrogate: 1-Chlorooctane	50.3		mg/kg	50.0		101	41-142			
Surrogate: 1-Chlorooctadecane	50.9		mg/kg	50.0		102	37.6-147			

LCS Dup (9012114-BSD1)

Prepared & Analyzed: 21-Jan-19

GRO C6-C10	189	10.0	mg/kg	200		94.6	76.5-133	1.13	20.6	
DRO >C10-C28	208	10.0	mg/kg	200		104	72.9-138	0.114	20.6	
Total TPH C6-C28	397	10.0	mg/kg	400		99.3	78-132	0.482	18	
Surrogate: 1-Chlorooctane	49.3		mg/kg	50.0		98.7	41-142			
Surrogate: 1-Chlorooctadecane	49.6		mg/kg	50.0		99.2	37.6-147			

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: ETC Texas Pipeline, Ltd.		BILL TO		ANALYSIS REQUEST																															
Project Manager: Joel Lowry		P.O. #:																																	
Address: 600 N. Marland, St., Suite 700, Midland, TX 79701		Company: ETC Texas Pipeline, Ltd.																																	
City: State: Zip:		Attn: Dean Ericson																																	
Phone #: 432-466-4450 Fax #: Project Owner:		Address:																																	
Project #: Project Name: 2B Pipeline		City: State: Zip:																																	
Project Location: Lea County, New Mexico		Phone #: Fax #:																																	
Sample Name:																																			
FOR LAB USE ONLY																																			
Lab I.D. Sample I.D.																																			
H960D51																																			
1 SH-1 0-3"		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		Chloride		TPH		BTEX 8021		Hold Analysis Pending	
2 SH1 2"		G 1		1		X																		1/9/19		X		X		X					
3 EH1 0-3"		G 1		1		X																		1/9/19		X		X		X					
4 EH1 2"		G 1		1		X																		1/9/19		X		X		X					
5 NH1 6"		G 1		1		X																		1/9/19		X		X		X					
6 NH1 2"		G 1		1		X																		1/9/19		X		X		X					
7 V2 0-3"		G 1		1		X																		1/9/19		X		X		X					
8 V2 3-6"		G 1		1		X																		1/9/19		X		X		X					

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

Reinquisitioned By: Date: 1/9/19 Received By: Dean Ericson		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:	
Reinquisitioned By: Date: 1/5/55 Received By: Dean Ericson		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Fax #:	
Delivered By: (Circle One) Sample: UPS - Bus - Other: 1.10 / #97		Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	
CHECKED BY: (Initials) JEA		REMARKS: Hold Samples released 1/21/19	

dean.ericson@energytransfer.com
joel@lowrvenvironmental.com

15 jo 05 eba



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3 of 14

Company Name: ETC Texas Pipeline, Ltd.		BILL TO		ANALYSIS REQUEST											
Project Manager: Joel Lowry		P.O. #:													
Address: 600 N. Marientfeld, St., Suite 700, Midland, TX 79701		Company: ETC Texas Pipeline, Ltd.													
City: State: Zip:		Attn: Dean Ericson													
Phone #: 432-466-4450 Fax #: Project Owner:		Address:													
Project #: Project Name: 2B Pipeline		City: State: Zip:													
Project Location: Lea County, New Mexico		Phone #: Fax #:													
Sample Name:															
FOR LAB USE ONLY															
Lab I.D.		Sample I.D.													
H900051		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX				PRESERV.		SAMPLING			
19 EH4 0-3"		G 1		X		GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :				ACID/BASE: ICE / COOL OTHER :		DATE 1/9/19		Chloride	
20 EH4 12		G 1		X						X		1/9/19		TPH	
21 V5 0-3"		G 1		X						X		1/9/19		BTEX 8021	
22 V5 18"-R		G 1		X						X		1/9/19		Hold Analysis Pending	
23 WH5 0-3"		G 1		X						X		1/9/19			
24 WH5 12"		G 1		X						X		1/9/19			
25 EH5 0-3"		G 1		X						X		1/9/19			
26 EH5 12"		G 1		X						X		1/9/19			
27 V6 0-3"		G 1		X						X		1/9/19			
28 V6 12"		G 1		X						X		1/9/19			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether passed in contract or tort, shall be limited to the amount paid by the client for the analyses. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>Quel Jones</i>	Date: <i>1/9/19</i>	Time: <i>11:55</i>	Received By: <i>Joel Lowry</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: <i>101@lowryenvironmental.com</i>	Add'l Fax #: <i>dean.ericson@energytransfer.com</i>
Relinquished By: <i>Quel Jones</i>	Date: <i>1/9/19</i>	Time: <i>11:55</i>	Received By: <i>Joel Lowry</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: <i>101@lowryenvironmental.com</i>	Add'l Fax #: <i>dean.ericson@energytransfer.com</i>
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <i>1.10/1/297</i>	Sample Condition <input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No			CHECKED BY: <i>[Signature]</i>			

REMARKS: *Hold samples Released 1/21/19*

FORM-006 R 2.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

ETC Texas Pipeline, Ltd.

ANALYSIS REQUEST

Company: ETC Texas Pipeline, Ltd.

Attn: Dean Ericson

Address:

City:

State: Zip:

Phone #:

Fax #:

PRESERV.	SA
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of use, or loss of profits incurred b

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10/25/20

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CHECKED BY
(Initials)

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Verbal changes: DI

ATTACHMENT #7
Photographic Log

PHOTOGRAPHIC LOG



Figure 1 View of the affected area and sample location, facing East.

PHOTOGRAPHIC LOG



Figure 2 View of the affected area and sample location.

PHOTOGRAPHIC LOG



Figure 3 View of the affected area.

PHOTOGRAPHIC LOG



Figure 4 View of surface staining from the initial release and sample location.

PHOTOGRAPHIC LOG



Figure 5 View of surface staining from the initial release, facing Northwest.

PHOTOGRAPHIC LOG



Figure 6 View of the affected area and sample location.

PHOTOGRAPHIC LOG



Figure 7 View of the affected area, facing North.

PHOTOGRAPHIC LOG



Figure 8 View of surface staining from the initial release.

ATTACHMENT #8
Release Notification (FORM C-141)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District Office

Incident ID	0
District RP	0
Facility ID	0
Application ID	0

Release Notification Responsible Party

Responsible Party	ETC Texas Pipeline, Ltd.	OGRID	371183
Contact Name	Carolyn Blackaller	Contact Telephone	817-302-9766
Contact Email	carolyn.blackaller@energytransfer.c	Incident # (assigned by OCD)	0
Contact Mailing Address	600 N. Marienfeld. St., Suite 700, Midland, TX 79701		

Location of Release Source

Latitude 32.171247 Longitude -103.193494
(Nad 83 in decimal degrees to 5 decimal places)

Site Name	2B	Site Type	Pipeline
Date Release Discovered	12/24/18	API# (if applicable)	NA

Unit Letter	Section	Township	Range	County
I	31	T24S	R37E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name Jal Public Library)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 95 bbls	Volume Recovered (bbls) 95 bbls
<input checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf) 24.738 Mscf	Volume Recovered (Mcf) 0 Mscf
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was attributed to the failure of a segment of buried natural gas pipeline as a result of corrosion.


State of New Mexico
Oil Conservation Division

Incident ID	0
District RP	0
Facility ID	0
Application ID	0

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? <p style="text-align: center;">Unauthorized release of a volume of liquids exceeding 25 bbls.</p>
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means? (phone, email, etc)? Dean Ericson, Mark Whitaker & Christina Hernandez, 12/24/2018 @ 20:10, Phone/Email	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Release materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11 (A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Carolyn Blackaller</u>	Title: <u>Sr. Environmental Specialist</u>
Signature: <u></u>	Date: <u>1/4/2019</u>
email: <u>carolyn.blackaller@energytransfer.com</u>	Telephone: <u>817-302-9766</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Calculation for Leak/Flare Volume

INPUT

Facility Name	=	2B	
Date	=	12/24/2018	
Hole Size *	=	1	Inches
Pipe Pressure	=	30	psig
Duration	=	0.7	Hrs
Heat Content	=	N/A	Btu/Ft3

EQUATIONS

Leak Rate = $(1.178) * (\text{Hole Size}^2) * (\text{Pipe Psig})$

CALCULATIONS

Leak Rate = 35.340 Mcf/Hr

Gas Loss = 24.738 Mcf

Heat Loss = N/A MMBtu

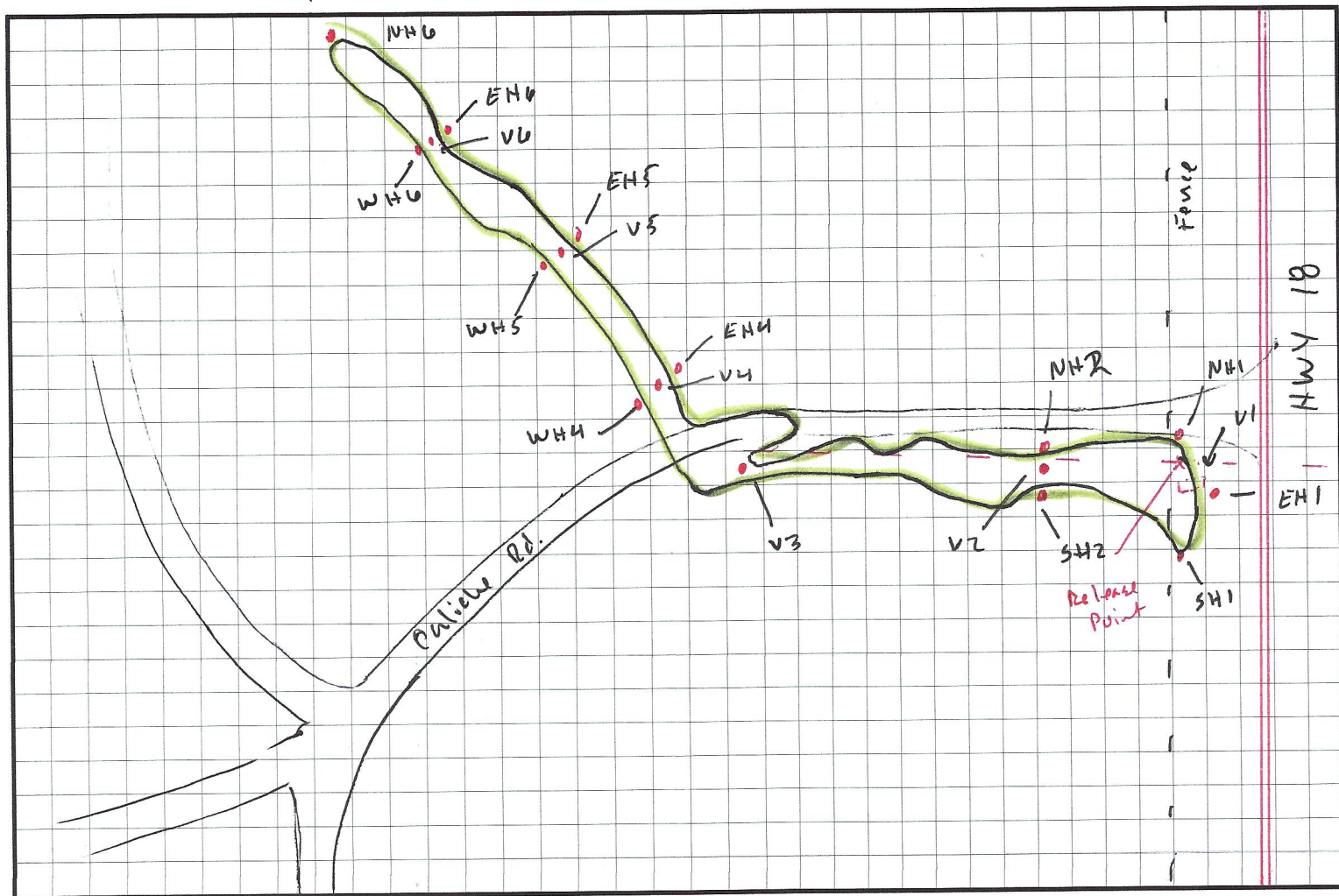
ATTACHMENT #9

Field Data

FIELD NOTES

Site Name: 2B (Hwy 18)

Date: 1/8/2019



CPS Release Margins, Advance Trench @ Release Point.
Delinecte Site, Found dead Fiber optic line
Black Staining Limited to to 2" in Flowpath

Field ID	Odor/PID	Chloride
V1 @ 6"	Strong	<120
V1 @ 4'-R	Slight	<120
SH1 @ 3"	Strong	<120
SH1 2'	None	—
EH1 @ 0.3"	Strong	—

Field ID	Odor/PID	Chloride
NH2 @ 0.3"	None	—
NH2 @ 6"	None	—
SH2 @ 0.3"	None	—
SH2 @ 6"	None	—
V3 @ 0.3"	Strong	—

Field ID	Odor/PID	Chloride
EH4 @ 12"	None	—
V5 @ 0.3"	Strong	—
V5 @ 18"-R	Medium	—
WH5 @ 0.3"	None	—
WH5 @ 12"	None	—

Field ID	Odor/PID	Chloride
EH1 @ 2'	Slight	—
WH1 @ 6"	Slight	—
NH1 @ 2'	None	—
V2 @ 0.3"	Strong	—
V2 @ 3-6"	None	—

Field ID	Odor/PID	Chloride
V3 @ 18"-R	Medium	—
V4 @ 0.3"	Strong	—
V4 @ 12"-R	None	—
WH4 @ 0.3"	Slight	—
EH4 @ 0.3"	None	—

Field ID	Odor/PID	Chloride
EH5 @ 0.3"	None	—
EH5 @ 12"	None	—
V6 @ 0.3"	Strong	—
V6 @ 12"	Mild	—
WH6 @ 0.3"	None	—

WH6 12" None
 EH6 0.3" None
 EH6 12" None
 NH6 0.3" None
 NH6 12" None