



Attn: New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Release Investigation, and Closure Report
Arrowhead Compressor Station
Unit N, Section 10, Township 18 South, Range 29 East
32.75645°, -104.06462 °
Eddy County, New Mexico
Terracon Project No. KH237025

To Whom it May Concern:

Terracon Consultants, Inc. (Terracon) is pleased to submit our Release Investigation and Closure Report for the site referenced above. The scope of services was developed in accordance with the New Mexico Oil Conservation Division (NMOCD) regulations concerning clean-up actions required for releases of crude oil and produced water. The investigative response actions were taken as the result of a condensate release from a suspected corroded dump line. The below sections detail Terracon’s assessment and remediation actions in response to the noted release.

Action Items

Completed Actions

- 1) Initial site assessment and sampling events completed.
- 2) All conditions needed for approval of closure have been met.
- 3) All Maps and associated data for approval have been provided.
- 4) Conducted an initial site assessment and a series of sampling events
- 5) Soil samples collected from the excavation were submitted to an approved analytical laboratory to determine levels of impact vertically and horizontally.
- 6) Excavation of the inferred release area was completed with the intent to remove impacted soil as determined by the Closure Criteria set by NMOCD.
- 7) All soil stockpiles on site were placed on plastic and bermed around the edges to reduce loss.
- 8) All confirmation samples were collected every 200 sq. ft.
- 9) Remedial activities were terminated when a confirmation sample was collected below the NMOCD remedial action levels (RALs) for Oil and Gas impacted soils.

Frontier Field Services, LLC
Arrowhead Compressor Station
32.75645°, -104.06462°
NMOCD Reference # nAPP2305949229
Terracon Project # KH237025



Anticipated Actions

-
- 1) Following the acceptance of this Closure Report, the excavation will be backfilled and brought to the surrounding grade and reseeded.
-
- 2) Approval by the NMOCD.
-

Terracon appreciates this opportunity to provide environmental services to Frontier Field Services, LLC. Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.


Travis Casey
Senior Staff Scientist
Carlsbad

Erin Loyd, P.G. (TX)
Senior Principal
Office Manager – Lubbock

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Exhibit 5 – Designated Wetland Area Map

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Frontier Field Services, LLC
 Arrowhead Compressor Station
 32.75645°, -104.06462°
 NMOCD Reference # nAPP2305949229
 Terracon Project # KH237025



Section 1 – Incident Information

The following table provides detailed information regarding the February 27, 2023, condensate release at the Arrowhead Compressor Station (Arrowhead) site in Eddy County, New Mexico:

Required Information	Site and Release information	
Responsible party	The pipeline is operated by Frontier Field Services, LLC	
Local contact	Contact: Mr. Chad Frost	P: (575)-703-1804 E: cfrost@durangomidstream.com
NMOCD Notification	Notice of the release was provided to the NMOCD District 2 Artesia Office by Ms. Amber Groves on February 27, 2023. NMOCD Reference ID: nAPP2305949229	
Facility Description	Arrowhead Compressor Station is in Eddy County, New Mexico. The site is located within Unit N, Section 10, Township 18 South, Range 29 East, approximately 19.39 miles southwest of Atoka, New Mexico. The site is predominantly developed as an oil and gas Right of Way (ROW) surrounded by native pastureland and owned by the Bureau of Land Management (BLM).	
Time of incident	February 27, 2023, discovered during routine maintenance.	
Discharge event	The natural gas pipeline leak was caused by corrosion of a dump line. The Site is illustrated in Exhibits 1 and 2 of Appendix A.	
Type of discharge	The documented condensate release occurred in an open ROW, state-owned, native pastureland area. Soils at the site are affected at the surface and beyond the depth of the pipeline.	
Quantity of spilled material	Total Fluids: N/A	Natural Gas: 35.65 Mcf
Site characteristics	Relatively flat with drainage following the natural ground surface.	
Immediate corrective actions	The damaged pipeline was closed in at the nearest isolation valve, blown down, and clamped. A backhoe was utilized to excavate impacted soils around the corroded dump line to repair the source of the release.	

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Section 2 – General Site Characteristics	
Physical Characteristic	Site Ranking Characteristics
Groundwater NMOSE POD Location Map – (Exhibit 4 in Appendix A)	<p><u>POD Number:</u> (CP-01618 POD 1)</p> <p><u>Depth to Groundwater:</u> 180 ft. bgs</p> <p><u>Distance to Well:</u> 2.99 miles to the northeast</p> <p><u>Date Drilled:</u> August 23, 2016</p>
	<p><u>Groundwater Quality:</u> Groundwater quality at the site is predominately used for livestock production.</p>
Surface Water NM Wetland Map – (Exhibit 5 in Appendix A)	Freshwater pond (unnamed), approximately 0.7 miles to the west.
100-Year Flood Plain	This site is located within the 100-year flood plain of the Pecos River.
Soil Characteristics	Soils at the site are mapped as Berino-Dune Land Complex series soils, 0 to 3 percent slopes, well-drained, few fine roots; very porous; neutral; gradual smooth boundary. (3 to 14 inches thick). The formation is categorized with a low runoff classification.
Karst Characterization CFO Karst Potential Map – (Exhibit 6 in Appendix A)	Terracon evaluated data from the BLM Carlsbad Field Office’s publicly available spatial data, and Karst map designations in reference to the site location. The site appears to be within a low-level Karst risk area. Based on site observations within the extent of the release margins, the potential for Karst formations in this specific area is of low potential, as illustrated in Exhibit 6. Restrictive features were not encountered from surface to 60 inches below grade surface (bgs) within the release margins. The full extent of release quantities and excavation activities did not extend greater than 60 inches bgs.

Frontier Field Services, LLC
 Arrowhead Compressor Station
 32.75645°, -104.06462°
 NMOCD Reference # nAPP2305949229
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Section 3 – Regulatory Framework and Response Action Levels

Oil and gas exploration and production facilities in New Mexico are generally regulated by the New Mexico Oil Conservation Division (NMOCD). The NMOCD has issued the *Closure Criteria for Soils Impacted by a Release, June 21, 2018*, and *Restoration, Reclamation, and Re-vegetation (19.15.29.13) NMAC – D (Reclamation of areas no longer in use)* as guidance documents for the remediation and reclamation of sites impacted by releases from oil and gas exploration and production activities. Sections detailed below the applicability of these guidance documents to the site-specific characteristics associated with the Arrowhead.

Section 3.1 – Reclamation Levels (Surface to 4 ft. bgs)

The below Reclamation Limits for chlorides, Total Petroleum Hydrocarbons (TPH (GRO+DRO+MRO)), BTEX (includes benzene, toluene, ethylbenzene, and xylenes), and benzene are defined within the New Mexico Administration Code (NMAC) *Restoration, Reclamation, and Re-vegetation (19.15.29.13) New Mexico Administration Code (NMAC) – D (Reclamation of areas no longer in use)* for soils extending to 4 ft. bgs.:

Constituent	Remediation Limits
Chloride	600 mg/kg
TPH (GRO+DRO+MRO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

*Milligrams per kilogram (mg/kg)

Section 3.2 – Remediation Levels (> 4 ft. bgs)

Based on the lack of a well within 0.5 miles of the site, the site was remediated to the most conservative standard. the applicable NMOCD remediation levels for Total BTEX, chloride, and TPH within soils, exclusive of the Reclamation Zone (surface to 4 ft. bgs), are as follows:

Constituent	Remediation Limit
Chloride	600 mg/kg
TPH (GRO+DRO+MRO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

Frontier Field Services, LLC
Arrowhead Compressor Station
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Section 4 – Remediation Activities

On March 24, 2023, and March 29, 2023, Terracon mobilized to the site to meet Gandy's personnel, who performed soil remediation activities. The areas exhibiting visual impacts were excavated to a depth of approximately 4 to 8 feet bgs.

Approximately 360 cubic yards of soil were excavated and stockpiled atop a polyethylene liner pending waste characterization and disposal under an approved Form C-138. Excavation efforts ceased based on the removal of visually impacted material. Excavated materials were disposed of at Lea Land Landfill.

Section 5 - Remediation Confirmation Assessment

A total of 17 composite soil samples (N-SW 01 through 04, S-SW 01 through 04, E-SW 01, W-SW 01, W-SW 1.2, and FS 01 through 06) were collected from the excavation, placed in laboratory-provided sample containers, preserved with ice, and transported under a chain of custody to Cardinal Laboratories, Inc. in Hobbs, New Mexico for analysis of BTEX, TPH, and chlorides.

Section 6 – Analytical Results

Of the composite soil samples collected on March 24, 2023, and March 29, 2023, only one sample exhibited concentrations of TPH above sample detection limits (SDLs). The detected TPH concentration of 215 mg/kg in soil sample W-SW 01 (0-4 ft bgs) but after resampling was found to be below the NMOCD closure criteria of 100 mg/kg for this site.

All the soil samples collected from the excavation area exhibited concentrations of chloride below laboratory SDLs and ranged from <16.0 mg/kg in N-SW 02 (0-4 feet) to 32.0 mg/kg in FS 04 (8 feet). All the chloride sample results were below the NMOCD closure criteria of 600 mg/kg for this site.

A summary of BTEX, chloride, and TPH concentrations of all collected soil samples is attached as Table 1.

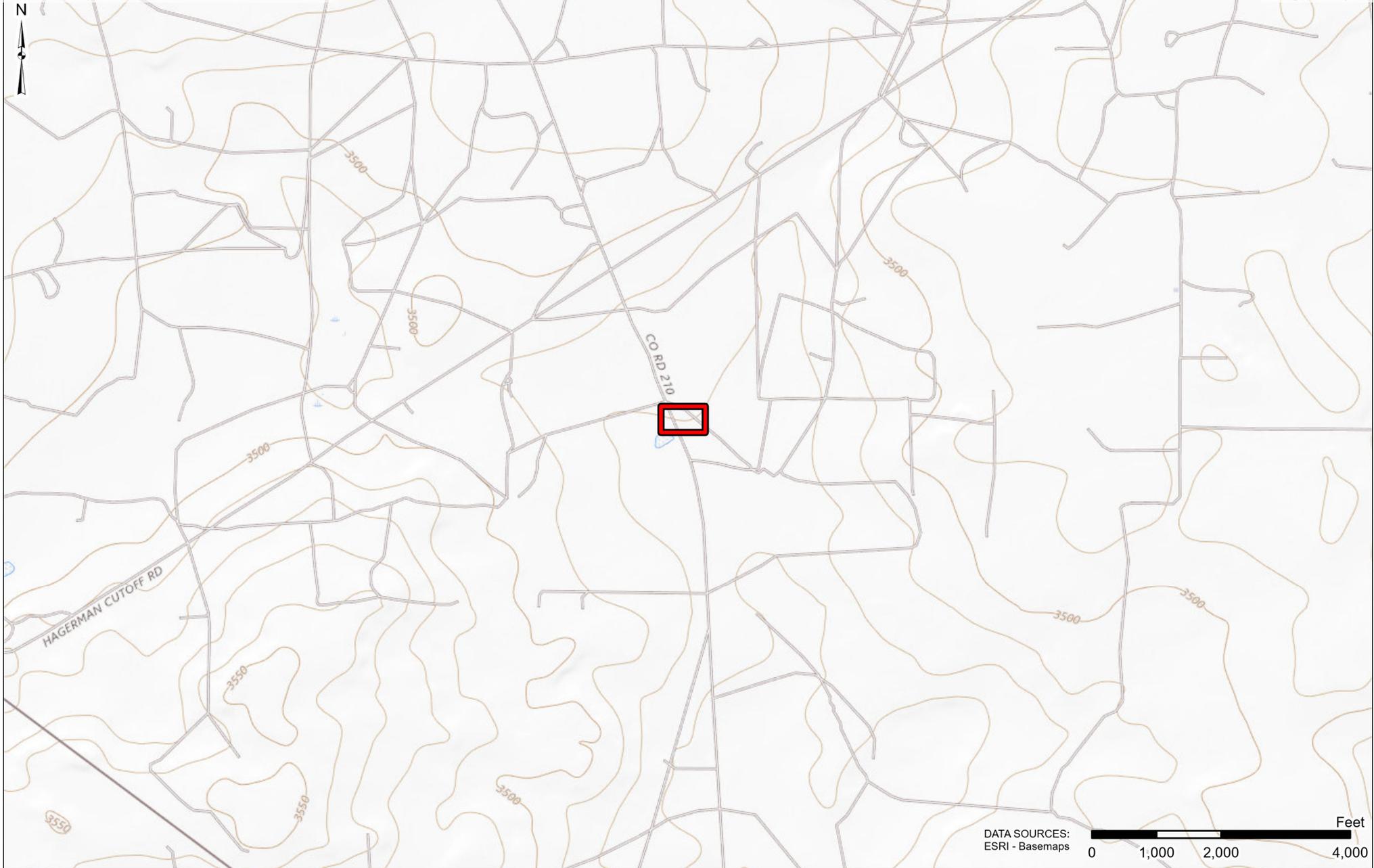
Frontier Field Services, LLC
Arrowhead Compressor Station
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Section 7 – Conclusion and Closure Request

Based on the laboratory results of the confirmation sampling following soil excavation activities, the response action of the release at the Arrowhead Compressor Station facility on April 29, 2023, has met the closure criteria defined in NMAC 19.15.29.12. Terracon respectfully requests regulatory closure of incident nAPP2305949229 on the behalf of Frontier Field Services.

APPENDIX A – EXHIBITS



 Site Location

Project No.:
KH237025

Date:
May 2023

Drawn By:
JWL

Reviewed By:
JRG



Terracon

4518 W Pierce St
Carlsbad, NM

PH. 806-300-0140 terracon.com

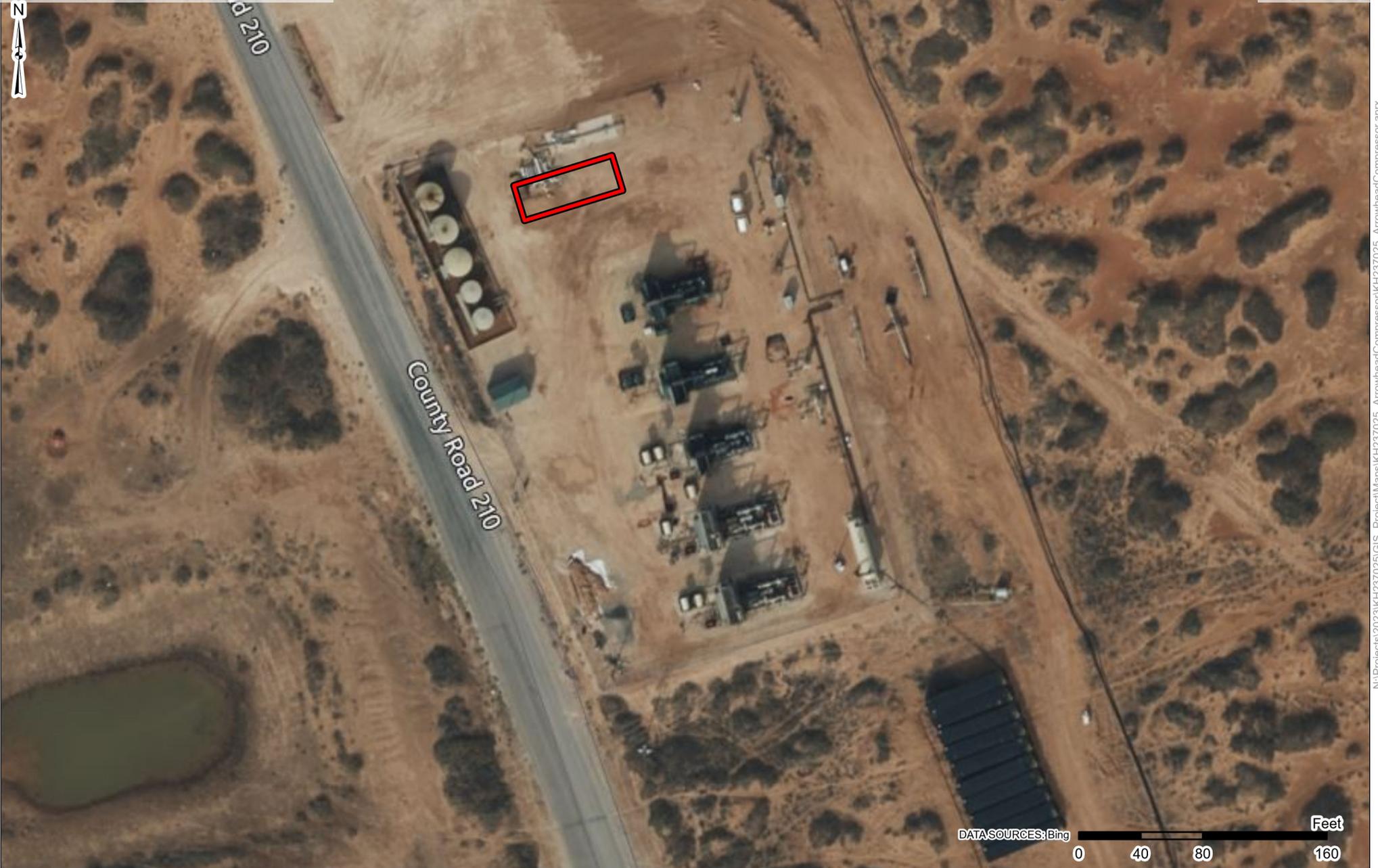
Topographic Map

Arrowhead Compressor Station
-104.0646974, 32.7564017
Eddy County, New Mexico

Exhibit

1

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 Excavation Boundary

Project No.:
KH237025
Date:
May 2023
Drawn By:
JWL
Reviewed By:
JRG



4518 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

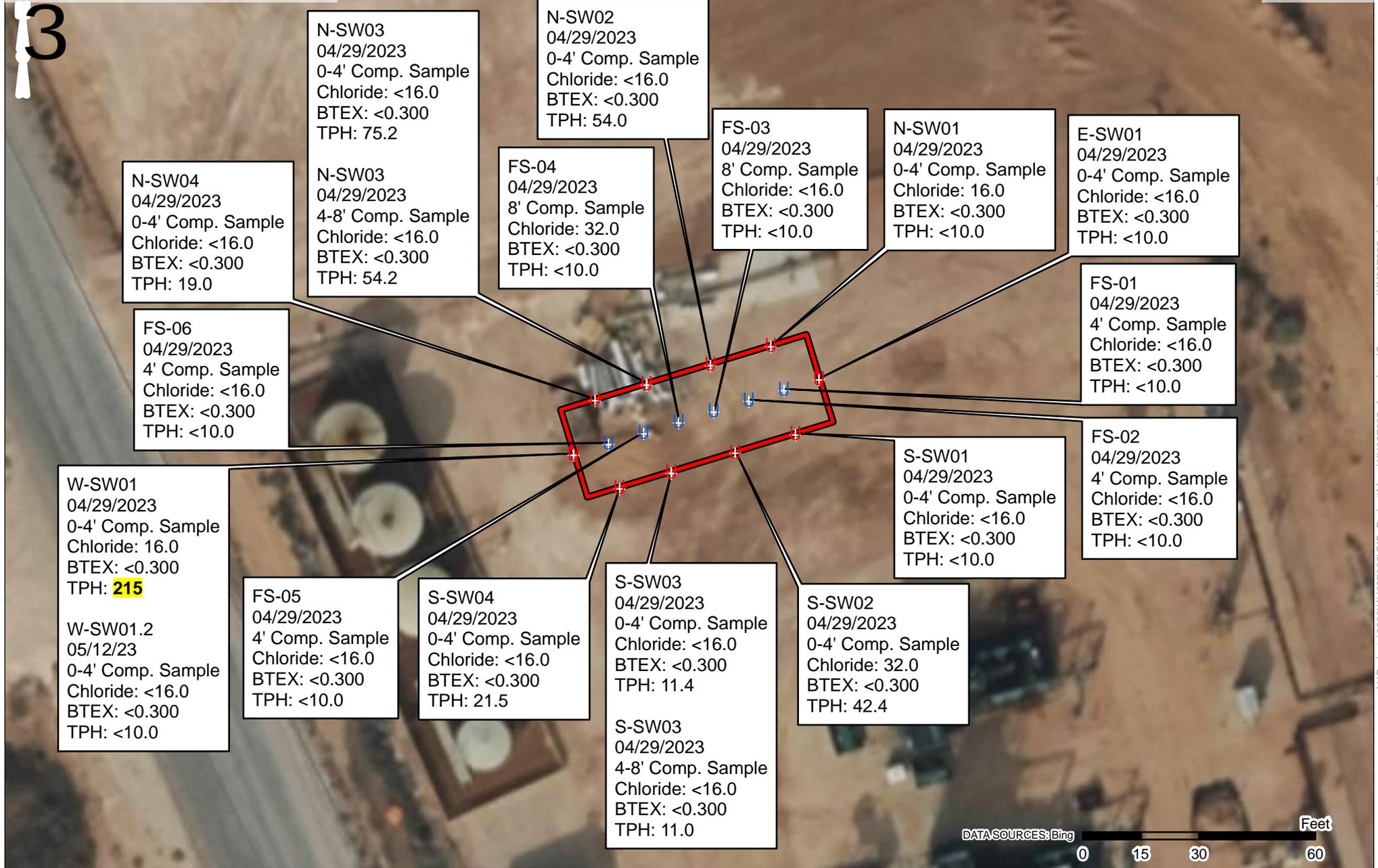
Site Map

Arrowhead Compressor Station
-104.0646974, 32.7564017
Eddy County, New Mexico

Exhibit

2

3



Excavation Boundary
 Sample Locations

Project No.: KH237025
 Date: May 2023
 Drawn By: JWL
 Reviewed By: JRG

4518 W Pierce St
 Carlsbad, NM
 PH. 806-300-0140 terracon.com

Site Sample Map

Arrowhead Compressor Station
 -104.0646974, 32.7564017
 Eddy County, New Mexico

Exhibit

3

N:\Projects\2023\KH237025\GIS - Project\Maps\KH237025 - ArrowheadCompressor\KH237025 - ArrowheadCompressor.aprx



- Site Location
- NMOSE POD Locations

Project No.:
KH237025

Date:
May 2023

Drawn By:
JWL

Reviewed By:
JRG



Terracon

4518 W Pierce St
Carlsbad, NM

PH. 806-300-0140 terracon.com

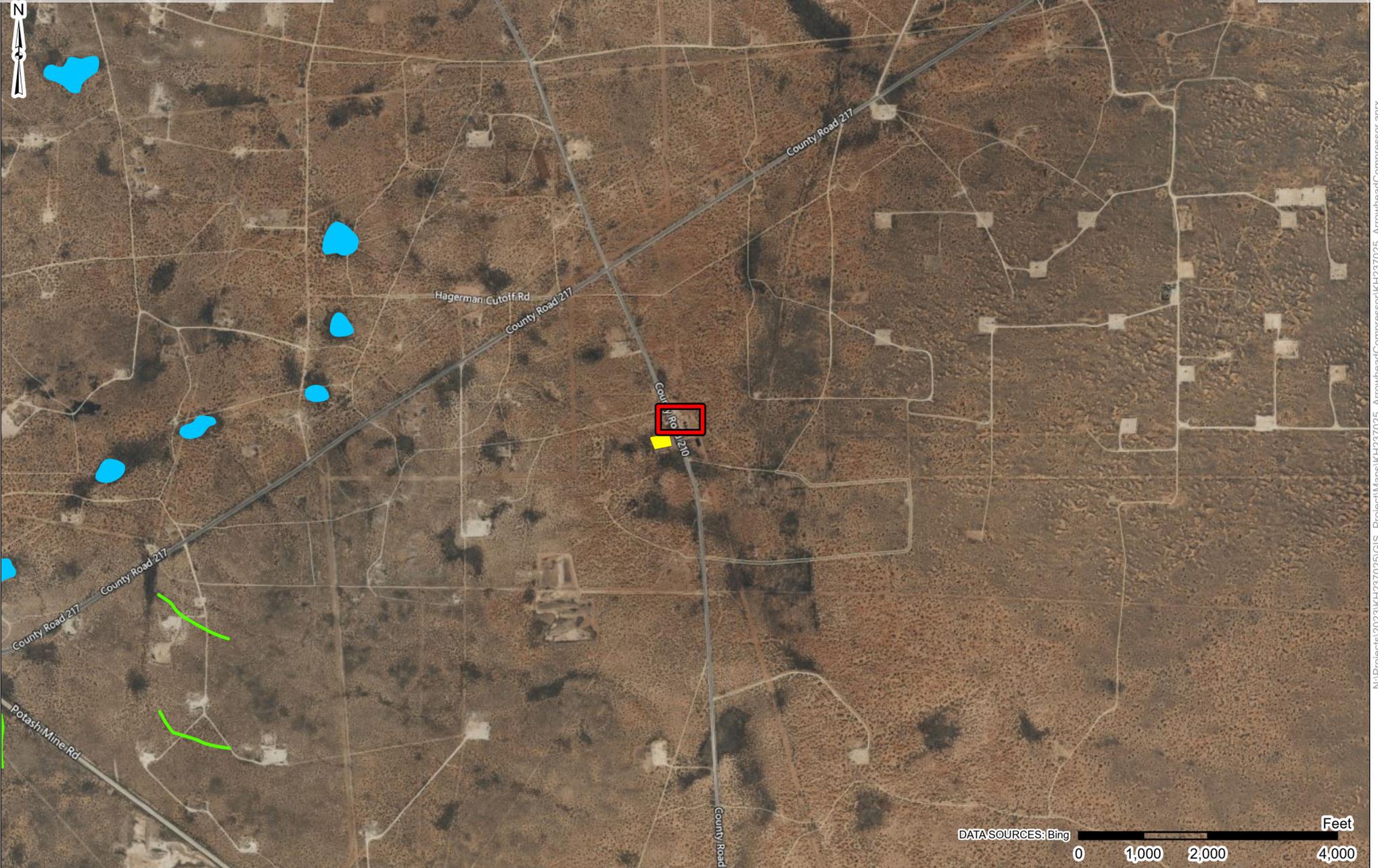
NMOSE POD Location Map

Arrowhead Compressor Station
-104.0646974, 32.7564017
Eddy County, New Mexico

Exhibit

4

N:\Projects\2023\KH237025\GIS - Project\Maps\KH237025 - ArrowheadCompressor\KH237025 - ArrowheadCompressor.aprx



- Site Location
- Designated Wetland
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Project No.: KH237025
 Date: May 2023
 Drawn By: JWL
 Reviewed By: JRG

Terracon
 4518 W Pierce St
 Carlsbad, NM
 PH. 806-300-0140 terracon.com

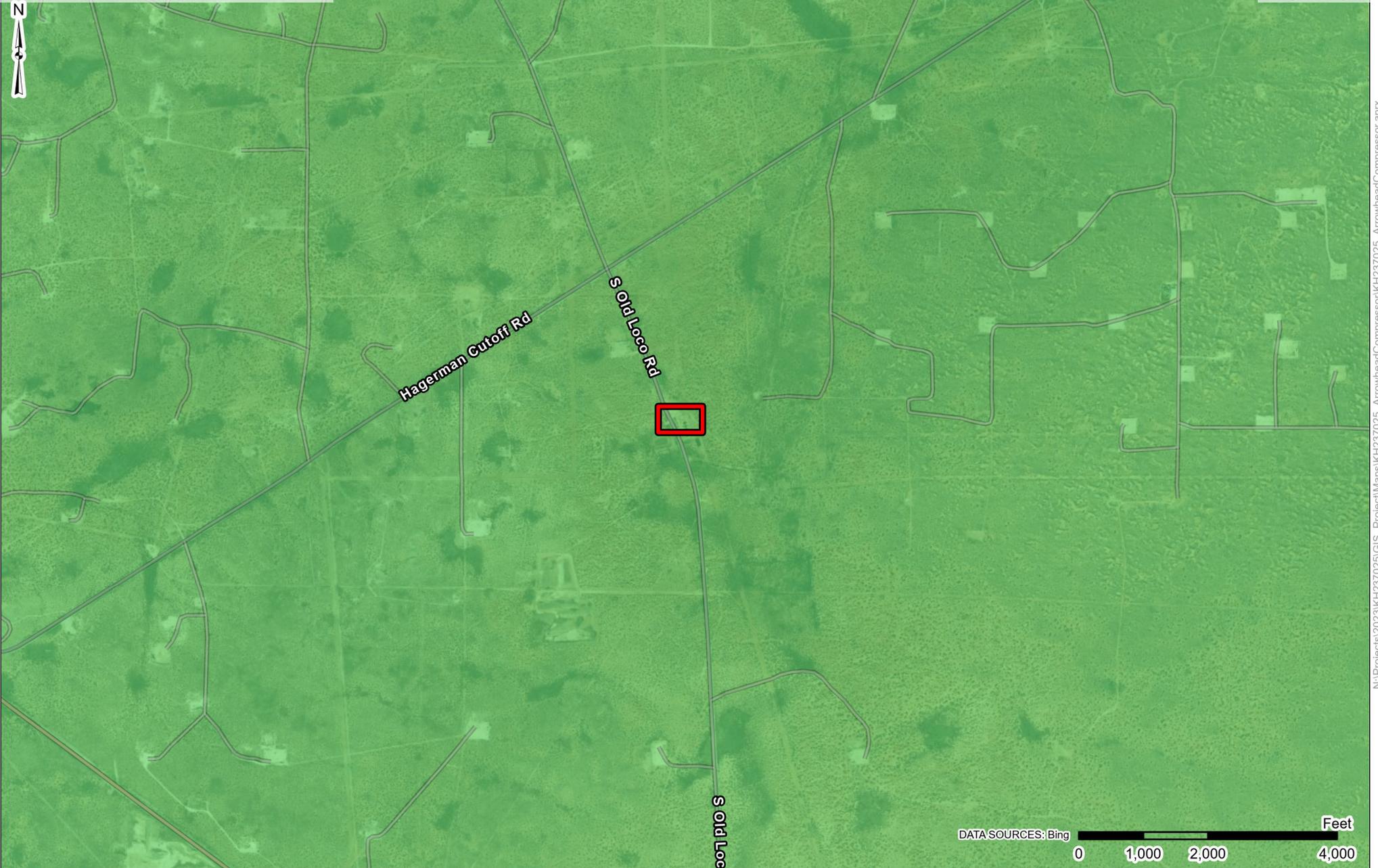
Designated Wetland Map

Arrowhead Compressor Station
 -104.0646974, 32.7564017
 Eddy County, New Mexico

Exhibit

5

N:\Projects\2023\KH237025\GIS - Project\Maps\KH237025 - ArrowheadCompressor\KH237025 - ArrowheadCompressor.aprx



-  Site Location
- Karst Potential**
-  High
-  Medium
-  Low

Project No.:
KH237025

Date:
May 2023

Drawn By:
JWL

Reviewed By:
JRG



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Carlsbad, NM

PH. 806-300-0140 terracon.com

Cave Karst Public UCP Map

Arrowhead Compressor Station
-104.0646974, 32.7564017
Eddy County, New Mexico

Exhibit

6

APPENDIX B – TABLES AND WELL DATA

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS - BTEX ¹ , Chloride ² , and TPH ³ Arrowhead Compressor Station Terracon Project No. KH237025									
Sample I.D.	Sample Depth (ft. bgs)	Sample Type	Sample Date	BTEX (mg/kg)		Chloride (mg/kg)	TPH (8015M)		
							(mg/kg)		
							GRO	DRO	EXT DRO
Confirmation Samples (On Pad)									
N-SW 01	0-4'	Comp	04/24/23	Benzene -	<0.050	16.0	<10.0	<10.0	<10.0
				Total BTEX -	<0.300				
N-SW 02	0-4'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	54.0	<10.0
				Total BTEX -	<0.300				
N-SW 03	0-4'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	75.2	13.2
				Total BTEX -	<0.300				
N-SW 03	4-8'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	54.2	<10.0
				Total BTEX -	<0.300				
N-SW 04	0-4'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	19.0	<10.0
				Total BTEX -	<0.300				
E-SW 01	0-4'	Comp	04/24/23	Benzene -	<0.050	<16.0	<10.0	<10.0	<10.0
				Total BTEX -	<0.300				
S-SW 01	0-4'	Comp	04/24/23	Benzene -	<0.050	<16.0	<10.0	<10.0	<10.0
				Total BTEX -	<0.300				
S-SW 02	0-4'	Comp	04/29/23	Benzene -	<0.050	32.0	<10.0	42.4	<10.0
				Total BTEX -	<0.300				
S-SW 03	0-4'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	11.4	<10.0
				Total BTEX -	<0.300				
S-SW 03	4-8'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	11.0	<10.0
				Total BTEX -	<0.300				
S-SW 04	0-4'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	21.5	<10.0
				Total BTEX -	<0.300				
W-SW 01	0-4'	Comp	04/29/23	Benzene -	<0.050	16.0	<10.0	215	44.4
				Total BTEX -	<0.300				
W-SW 1.2	0-4'	Comp	05/12/23	Benzene -	<0.050	32.0	<10.0	<10.0	<10.0
				Total BTEX -	<0.300				
FS 01	4'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	<10.0	<10.0
				Total BTEX -	<0.300				
FS 02	4'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	<10.0	<10.0
				Total BTEX -	<0.300				
FS 03	8'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	<10.0	<10.0
				Total BTEX -	<0.300				
FS 04	8'	Comp	04/29/23	Benzene -	<0.050	32.0	<10.0	<10.0	<10.0
				Total BTEX -	<0.300				
FS 05	4'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	<10.0	<10.0
				Total BTEX -	<0.300				
FS 06	4'	Comp	04/29/23	Benzene -	<0.050	<16.0	<10.0	<10.0	<10.0
				Total BTEX -	<0.300				
NMOCD Reclamation Standards ⁴ (Applicable for Soils from the Surface to 4 ft. Below Grade Surface)				Benzene -	10	600	100		
				Total BTEX -	50				
NMOCD Remediation and Delineation Standards ⁵ (Applicable for Soils at Depths Greater than 4 ft. Below Grade Surface)				Benzene -	10	10,000	1,000		
				Total BTEX -	50				

1. BTEX = Benzene, toluene, ethylbenzene, total xylenes analyzed by EPA Method 8021B

2. Chloride = Chloride analyzed by EPA Method 300.

3. TPH = Total petroleum hydrocarbons analyzed by EPA Method 8015M (GRO/DRO/MRO)

4. New Mexico Administration Code (NMAC) Restoration, Reclamation, and Re-vegetation (19.15.29.13) New Mexico Administration Code (NMAC) – D (Reclamation of areas no longer in use) for soils extending to 4 ft. bgs

5. New Mexico Oil Conservation Division (NMOCD) Remediation and Delineation Standards are proposed in 19.15.29.12 NMAC - N, 8/14/2018

< = Constituent not detected above the indicated laboratory SDL

NA = Not Analyzed

N/A = Not Applicable

New Mexico Office of the State Engineer Water Right Summary



[get image list](#)

WR File Number: CP 01618 **Subbasin:** CP **Cross Reference:** -
Primary Purpose: STK 72-12-1 LIVESTOCK WATERING
Primary Status: PMT PERMIT
Total Acres: **Subfile:** - **Header:** -
Total Diversion: 3 **Cause/Case:** -
Owner: KEY LIVESTOCK LLC
Contact: GARY KEY

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/	Acres	Diversion	Consumptive
			1	2		To			
591553	72121	2016-08-15	PMT	LOG	CP 01618 POD1	T		3	

Current Points of Diversion

POD Number	Well Tag	Source	Q (NAD83 UTM in meters)					X	Y	Other Location Desc	
			64	Q16	Q4	Sec	Tws				Rng
CP 01618 POD1		Shallow	3	4	2	29	18S	29E	585120	3620554	

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.

APPENDIX C – PHOTOGRAPHIC LOG

Arrowhead Compressor Station ■ Eddy County, New Mexico
May 16, 2023 ■ Terracon Project No. KH237025



PHOTO 1: View of staining prior to the excavation.



PHOTO 2: View of the staining prior to the excavation.

Responsive ■ Resourceful ■ Reliable

Arrowhead Compressor Station ■ Eddy County, New Mexico
May 16, 2023 ■ Terracon Project No. KH237025



PHOTO 3: View of the hydro-vac spotting of lines.

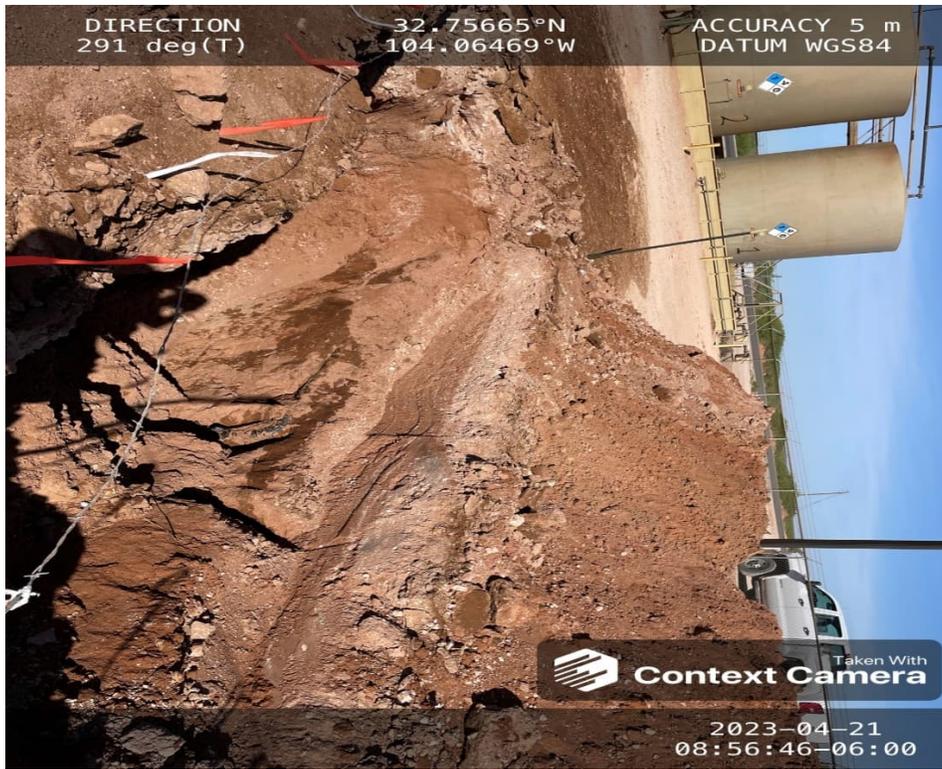


PHOTO 4: View of the northern extent during the excavation.

Responsive ■ Resourceful ■ Reliable

Arrowhead Compressor Station ■ Eddy County, New Mexico
May 16, 2023 ■ Terracon Project No. KH237025



PHOTO 5: View of the western extent of the excavation.



PHOTO 6: View of hand auger vertical floor delineation.

Responsive ■ Resourceful ■ Reliable

APPENDIX D – ANALYTICAL REPORT AND CHAIN OF CUSTODY



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

April 26, 2023

JOSEPH GUESNIER
TERRACON CONSULTANTS
5827 50TH ST. SUITE 1
LUBBOCK, TX 79424

RE: ARROWHEAD

Enclosed are the results of analyses for samples received by the laboratory on 04/24/23 13:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	04/24/2023	Sampling Date:	04/24/2023
Reported:	04/26/2023	Sampling Type:	Soil
Project Name:	ARROWHEAD	Sampling Condition:	** (See Notes)
Project Number:	KH237025	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO - EDDY CO NM		

Sample ID: N - SW01 (H231982-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/25/2023	ND	1.85	92.7	2.00	1.15	
Toluene*	<0.050	0.050	04/25/2023	ND	1.97	98.5	2.00	1.61	
Ethylbenzene*	<0.050	0.050	04/25/2023	ND	2.06	103	2.00	2.11	
Total Xylenes*	<0.150	0.150	04/25/2023	ND	6.29	105	6.00	3.06	
Total BTEX	<0.300	0.300	04/25/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/25/2023	ND	432	108	400	3.64	

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	04/25/2023	ND	194	96.8	200	0.577	
DRO >C10-C28*	<10.0	10.0	04/25/2023	ND	208	104	200	0.886	
EXT DRO >C28-C36	<10.0	10.0	04/25/2023	ND					

Surrogate: 1-Chlorooctane 79.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 04/24/2023
 Reported: 04/26/2023
 Project Name: ARROWHEAD
 Project Number: KH237025
 Project Location: DURANGO - EDDY CO NM

Sampling Date: 04/24/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: E - SW01 (H231982-02)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/25/2023	ND	1.85	92.7	2.00	1.15	
Toluene*	<0.050	0.050	04/25/2023	ND	1.97	98.5	2.00	1.61	
Ethylbenzene*	<0.050	0.050	04/25/2023	ND	2.06	103	2.00	2.11	
Total Xylenes*	<0.150	0.150	04/25/2023	ND	6.29	105	6.00	3.06	
Total BTEX	<0.300	0.300	04/25/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/25/2023	ND	432	108	400	3.64	

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	04/25/2023	ND	194	96.8	200	0.577	
DRO >C10-C28*	<10.0	10.0	04/25/2023	ND	208	104	200	0.886	
EXT DRO >C28-C36	<10.0	10.0	04/25/2023	ND					

Surrogate: 1-Chlorooctane 81.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 04/24/2023
 Reported: 04/26/2023
 Project Name: ARROWHEAD
 Project Number: KH237025
 Project Location: DURANGO - EDDY CO NM

Sampling Date: 04/24/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S - SW01 (H231982-03)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/25/2023	ND	1.85	92.7	2.00	1.15	
Toluene*	<0.050	0.050	04/25/2023	ND	1.97	98.5	2.00	1.61	
Ethylbenzene*	<0.050	0.050	04/25/2023	ND	2.06	103	2.00	2.11	
Total Xylenes*	<0.150	0.150	04/25/2023	ND	6.29	105	6.00	3.06	
Total BTEX	<0.300	0.300	04/25/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/25/2023	ND	432	108	400	3.64	

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	04/25/2023	ND	194	96.8	200	0.577	
DRO >C10-C28*	<10.0	10.0	04/25/2023	ND	208	104	200	0.886	
EXT DRO >C28-C36	<10.0	10.0	04/25/2023	ND					

Surrogate: 1-Chlorooctane 75.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by 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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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 04/26/2023
 Reported: 05/02/2023
 Project Name: ARROWHEAD
 Project Number: KH237025
 Project Location: DURANGO - EDDY CO NM

Sampling Date: 04/26/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S - SW 03 (H232043-03)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2023	ND	1.94	97.2	2.00	0.543	
Toluene*	0.135	0.050	04/28/2023	ND	1.97	98.3	2.00	1.81	
Ethylbenzene*	0.058	0.050	04/28/2023	ND	1.99	99.6	2.00	1.45	
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.06	101	6.00	0.0531	
Total BTEX	<0.300	0.300	04/28/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	0.00	

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	04/28/2023	ND	168	84.0	200	0.871	
DRO >C10-C28*	11.4	10.0	04/28/2023	ND	160	79.9	200	6.09	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 91.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 04/26/2023
 Reported: 05/02/2023
 Project Name: ARROWHEAD
 Project Number: KH237025
 Project Location: DURANGO - EDDY CO NM

Sampling Date: 04/26/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 01 (H232043-04)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2023	ND	1.94	97.2	2.00	0.543	
Toluene*	<0.050	0.050	04/28/2023	ND	1.97	98.3	2.00	1.81	
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	1.99	99.6	2.00	1.45	
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.06	101	6.00	0.0531	
Total BTEX	<0.300	0.300	04/28/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	0.00	

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	04/28/2023	ND	168	84.0	200	0.871	
DRO >C10-C28*	<10.0	10.0	04/28/2023	ND	160	79.9	200	6.09	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 04/26/2023
 Reported: 05/02/2023
 Project Name: ARROWHEAD
 Project Number: KH237025
 Project Location: DURANGO - EDDY CO NM

Sampling Date: 04/26/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 02 (H232043-05)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2023	ND	1.94	97.2	2.00	0.543	
Toluene*	<0.050	0.050	04/28/2023	ND	1.97	98.3	2.00	1.81	
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	1.99	99.6	2.00	1.45	
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.06	101	6.00	0.0531	
Total BTEX	<0.300	0.300	04/28/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	0.00	

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	04/28/2023	ND	168	84.0	200	0.871	
DRO >C10-C28*	<10.0	10.0	04/28/2023	ND	160	79.9	200	6.09	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 84.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 04/26/2023
 Reported: 05/02/2023
 Project Name: ARROWHEAD
 Project Number: KH237025
 Project Location: DURANGO - EDDY CO NM

Sampling Date: 04/26/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 03 (H232043-06)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2023	ND	1.94	97.2	2.00	0.543	
Toluene*	<0.050	0.050	04/28/2023	ND	1.97	98.3	2.00	1.81	
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	1.99	99.6	2.00	1.45	
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.06	101	6.00	0.0531	
Total BTEX	<0.300	0.300	04/28/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	0.00	

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	04/28/2023	ND	168	84.0	200	0.871	
DRO >C10-C28*	<10.0	10.0	04/28/2023	ND	160	79.9	200	6.09	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	04/26/2023	Sampling Date:	04/26/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	ARROWHEAD	Sampling Condition:	Cool & Intact
Project Number:	KH237025	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO - EDDY CO NM		

Sample ID: N - SW 02 (H232043-07)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501	
Toluene*	<0.050	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332	
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664	
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477	
Total BTEX	<0.300	0.300	04/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	0.00	

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	04/28/2023	ND	168	84.0	200	0.871	
DRO >C10-C28*	54.0	10.0	04/28/2023	ND	160	79.9	200	6.09	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 84.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 04/26/2023
 Reported: 05/02/2023
 Project Name: ARROWHEAD
 Project Number: KH237025
 Project Location: DURANGO - EDDY CO NM

Sampling Date: 04/26/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S - SW 02 (H232043-08)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501	
Toluene*	<0.050	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332	
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664	
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477	
Total BTEX	<0.300	0.300	04/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/28/2023	ND	432	108	400	0.00	

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	04/28/2023	ND	168	84.0	200	0.871	
DRO >C10-C28*	41.4	10.0	04/28/2023	ND	160	79.9	200	6.09	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 85.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.3 % 49.1-148

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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	04/26/2023	Sampling Date:	04/26/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	ARROWHEAD	Sampling Condition:	Cool & Intact
Project Number:	KH237025	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO - EDDY CO NM		

Sample ID: FS 04 (H232043-09)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501	
Toluene*	<0.050	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332	
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664	
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477	
Total BTEX	<0.300	0.300	04/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/28/2023	ND	432	108	400	0.00	

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	04/27/2023	ND	185	92.5	200	1.36	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	176	87.8	200	0.0541	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 89.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 04/26/2023
 Reported: 05/02/2023
 Project Name: ARROWHEAD
 Project Number: KH237025
 Project Location: DURANGO - EDDY CO NM

Sampling Date: 04/26/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 05 (H232043-10)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501	
Toluene*	<0.050	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332	
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664	
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477	
Total BTEX	<0.300	0.300	04/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	7.69	

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	04/28/2023	ND	185	92.5	200	1.36	
DRO >C10-C28*	<10.0	10.0	04/28/2023	ND	176	87.8	200	0.0541	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 88.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.8 % 49.1-148

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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 04/26/2023
 Reported: 05/02/2023
 Project Name: ARROWHEAD
 Project Number: KH237025
 Project Location: DURANGO - EDDY CO NM

Sampling Date: 04/26/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 06 (H232043-11)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501	
Toluene*	<0.050	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332	
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664	
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477	
Total BTEX	<0.300	0.300	04/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	7.69	

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	04/28/2023	ND	185	92.5	200	1.36	
DRO >C10-C28*	<10.0	10.0	04/28/2023	ND	176	87.8	200	0.0541	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 89.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.8 % 49.1-148

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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	04/26/2023	Sampling Date:	04/26/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	ARROWHEAD	Sampling Condition:	Cool & Intact
Project Number:	KH237025	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO - EDDY CO NM		

Sample ID: N - SW 03 (H232043-12)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501	
Toluene*	<0.050	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332	
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664	
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477	
Total BTEX	<0.300	0.300	04/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	7.69	

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	04/28/2023	ND	185	92.5	200	1.36	
DRO >C10-C28*	54.2	10.0	04/28/2023	ND	176	87.8	200	0.0541	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 87.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	04/26/2023	Sampling Date:	04/26/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	ARROWHEAD	Sampling Condition:	Cool & Intact
Project Number:	KH237025	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO - EDDY CO NM		

Sample ID: S - SW 03 (H232043-13)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501	
Toluene*	0.053	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332	
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664	
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477	
Total BTEX	<0.300	0.300	04/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	7.69	

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	04/28/2023	ND	185	92.5	200	1.36	
DRO >C10-C28*	11.0	10.0	04/28/2023	ND	176	87.8	200	0.0541	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 93.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received:	04/26/2023	Sampling Date:	04/26/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	ARROWHEAD	Sampling Condition:	Cool & Intact
Project Number:	KH237025	Sample Received By:	Tamara Oldaker
Project Location:	DURANGO - EDDY CO NM		

Sample ID: N - SW 04 (H232043-14)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501	
Toluene*	<0.050	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332	
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664	
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477	
Total BTEX	<0.300	0.300	04/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	7.69	

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	04/28/2023	ND	185	92.5	200	1.36	
DRO >C10-C28*	19.0	10.0	04/28/2023	ND	176	87.8	200	0.0541	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 95.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TERRACON CONSULTANTS
 JOSEPH GUESNIER
 5827 50TH ST. SUITE 1
 LUBBOCK TX, 79424
 Fax To:

Received: 04/26/2023
 Reported: 05/02/2023
 Project Name: ARROWHEAD
 Project Number: KH237025
 Project Location: DURANGO - EDDY CO NM

Sampling Date: 04/26/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S - SW 04 (H232043-15)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501	
Toluene*	<0.050	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332	
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664	
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477	
Total BTEX	<0.300	0.300	04/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	432	108	400	7.69	

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	04/28/2023	ND	185	92.5	200	1.36	
DRO >C10-C28*	21.5	10.0	04/28/2023	ND	176	87.8	200	0.0541	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.9 % 49.1-148

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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 LCS/D 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

Celey D. Keene, Lab Director/Quality Manager



CARDINAL
Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Terracon
 Project Manager: Joseph Guesnier
 Address: 4518 W. Perice Street
 City: Carlsbad State: NM Zip: 88220
 Phone #: 8065077057 Fax #:
 Project #: KH232026 Project Owner:
 Project Name: Arrowhead
 Project Location:
 Sampler Name: Travis Casey
 P.O. #:
 Company: *Duango*
 Attn: *Ceal Frost*
 Address:
 City:
 State: Zip:
 Phone #:
 Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	Chloride (EPA Method 4500)	TPH Extended 8015	BTEX (EPA Method 8021B)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
<i>H232023</i>	<i>W-SW01</i>	<i>C</i>	<i>1</i>			<i>A</i>				<i>4-24</i>	<i>0920</i>	<i>1</i>	<i>1</i>	<i>1</i>
<i>W-SW02</i>	<i>N-SW03</i>										<i>0922</i>	<i>1</i>	<i>1</i>	<i>1</i>
<i>W-SW03</i>	<i>S-SW03</i>										<i>0924</i>	<i>1</i>	<i>1</i>	<i>1</i>
<i>FS01</i>	<i>FS01</i>										<i>0926</i>	<i>1</i>	<i>1</i>	<i>1</i>
<i>FS02</i>	<i>FS02</i>										<i>0928</i>	<i>1</i>	<i>1</i>	<i>1</i>
<i>FS03</i>	<i>FS03</i>										<i>0930</i>	<i>1</i>	<i>1</i>	<i>1</i>
<i>N-SW02</i>	<i>N-SW02</i>										<i>0932</i>	<i>1</i>	<i>1</i>	<i>1</i>
<i>S-SW02</i>	<i>S-SW02</i>										<i>0934</i>	<i>1</i>	<i>1</i>	<i>1</i>
<i>FS04</i>	<i>FS04</i>										<i>0936</i>	<i>1</i>	<i>1</i>	<i>1</i>
<i>FS05</i>	<i>FS05</i>										<i>0938</i>	<i>1</i>	<i>1</i>	<i>1</i>

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Relinquished By: *[Signature]* Date: *4-26-23* Time: *1410*
 Received By: *[Signature]* Date: *4-26-23* Time: *1410*
 Verbal Result: Yes No Add'l Phone #:
 All Results are emailed. Please provide Email address:
 REMARKS: *joesph.guesnier@terracon.com; travis.casey@terracon.com; auslin.worley@terracon.com; michael.adams@terracon.com*

Delivered By: (Circle One) UPS - Bus - Other:
 Observed Temp. °C: *6.4* Sample Condition: Intact Cool Yes No No No
 Corrected Temp. °C: *5.8* CHECKED BY: *[Signature]* (Initials)
 Turnaround Time: Standard Rush Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Yes No No No Corrected Temp. °C
 Thermometer ID #113
 Correction Factor: -0.5°C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Terracon
 Project Manager: Joseph Guesnier
 Address: 4518 W. Perice Street
 City: Carlsbad State: NM Zip: 88220
 Phone #: 8065077057 Fax #:
 Project #: KH23RD25- Project Owner:
 Project Name: *Arrowhead*
 Project Location:
 Sampler Name: Travis Casey
 P.O. #:
 Company: *Duanso*
 Attn: *Chad Host*
 Address:
 City:
 State: Zip:
 Phone #:
 Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	Time DATE	Date TIME	Chloride (EPA Method 4500)	TPH Extended 8015	BTEX (EPA Method 8021B)	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :								ACID/BASE:
<i>H23RD43</i>	<i>F506</i>	<i>C</i>	<i>1</i>										<i>0940</i>	<i>4-24</i>	<i>K</i>	<i>K</i>	<i>K</i>
<i>11</i>	<i>N-SW03</i>												<i>0946</i>				
<i>18</i>	<i>S-SW03</i>												<i>0948</i>				
<i>13</i>	<i>N-SW04</i>												<i>0952</i>				
<i>14</i>	<i>S-SW04</i>												<i>0954</i>				
<i>15</i>																	

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

Relinquished By: *[Signature]* Date: *4-26-23* Time: *1410*
 Received By: *[Signature]* Date: *4-26-23* Time: *1410*
 Verbal Result: Yes No Add'l Phone #:
 All Results are emailed. Please provide Email address:
 REMARKS: *Joseph.guesnier@terracon.com; travis.casey@terracon.com; austin.worley@terracon.com; michael.adams@terracon.com*

Delivered By: (Circle One) Observed Temp. °C *6.4* Sample Condition Cool Intact Yes No
 Corrected Temp. °C *5.9* CHECKED BY: *AD* (Initials)
 Turnaround Time: Standard Rush Bacteria (only) Cool Intact Yes No
 Thermometer ID #113 Correction Factor -0.5°C Yes No Corrected Temp. °C

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APPENDIX E – INITIAL C-141 AND FINAL C-141

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

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

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

Incident ID	nAPP2305949229
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Frontier Field Services, LLC	OGRID 221115
Contact Name Amber Groves	Contact Telephone 575-703-7992
Contact email agroves@durangomidstream.com	Incident # (assigned by OCD)
Contact mailing address 47 Conoco Rd, Maljamar NM 88264	

Location of Release Source

Latitude 32.75645 Longitude -104.06462
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Arrowhead Compressor Station	Site Type Compressor Station
Date Release Discovered 2/27/2023	API# (if applicable)

Unit Letter	Section	Township	Range	County
N	10	18S	29E	Eddy

Surface Owner: State Federal Tribal Private (Name: _____)

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 35.65	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Corrosion of dump line caused weak spot.

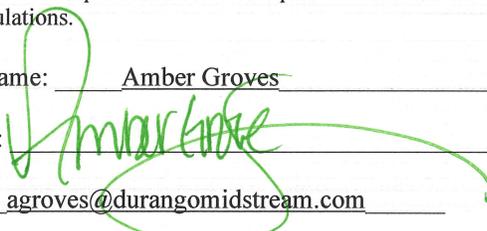
State of New Mexico
Oil Conservation Division

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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?
E-mail notification to Robert Hamlet, Jocelyn Harimon, Jennifer Nobui, Nelson Velez, Mike Bratcher 2/28/2023	

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"/> Released 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>Amber Groves</u> Title: <u>Sr. Environmental Specialist</u> Signature:  Date: <u>2/28/2023</u> email: <u>agroves@durangomidstream.com</u> Telephone: <u>(575)703-7992</u>
OCD Only Received by: _____ Date: _____



Liquid Volume Release Report

Liquid Release Volume Calculator							
Date:	2/27/2023						
Site or Line Name:	Arrowhead						
Soil Type	Porosity	Length	Width	Depth (.083 per inch)	Cubic Feet	Estimated Barrels	Soil Type
Clay	0.15				0	0.00	Clay
Sandy Clay	0.12				0	0.00	Sandy Clay
Silt	0.16				0	0.00	Silt
Fine Sand	0.16				0	0.00	Fine Sand
Medium Sand	0.25	40	20	1	800	35.65	Medium Sand
Coarse Sand	0.26				0	0.00	Coarse Sand
Gravelly Sand	0.26				0	0.00	Gravelly Sand
Fine Gravel	0.26				0	0.00	Fine Gravel
Medium Gravel	0.20				0	0.00	Medium Gravel
Coarse Gravel	0.18				0	0.00	Coarse Gravel
Sandstone	0.25				0	0.00	Sandstone
Siltstone	0.18				0	0.00	Siltstone
Limestone	0.13				0	0.00	Limestone
Basalt	0.19				0	0.00	Basalt
Standing Liquids	X				0	0.00	Standing Liquids

Choose the one prevailing ground type for estimating spill volumes at a single location. Standing liquids are figured separately using the green cell.

Note that the depth should be measured in feet and tenths of feet (1 inch = .083)

Cubic Feet = L x W x D
 Estimated Barrels = ((Cubic Feet x Porosity) / 5.61)

Incident ID	nAPP2305949229
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

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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: Lupe Carrasco Title: Sr. Environmental Specialist
 Signature: *Lupe Carrasco* Date: 6/23/23
 email: gcarrasco@durangomidstream.com Telephone: 575-725-0787

OCD Only

Received by: *Shelby Wells* Date: 6/23/2023

Incident ID	nAPP2305949229
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Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Lupe Carrasco Title: Sr. Environmental Specialist
 Signature: Lupe Carrasco Date: 6/23/23
 email: gcarrasco@durangomidstream.com Telephone: 575-725-0787

OCD Only

Received by: Shelly Wells Date: 6/23/2023

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

Incident ID	nAPP2305949229
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Application ID	

Closure

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

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

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

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

Printed Name: Lupe Carrasco Title: Sr. Environmental Specialist
 Signature: *Lupe Carrasco* Date: 6/23/23
 email: gcarrasco@durangomidstream.com Telephone: 575-725-0787

OCD Only

Received by: *Shelley Wells* Date: 6/23/2023

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

Closure Approved by: *Ashley Maxwell* Date: 11/29/2023
 Printed Name: Ashley Maxwell Title: Environmental Specialist

APPENDIX F – TERRACON STANDARD OF CARE, LIMITATION, AND RELIANCE

Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, either express or implied, regarding the findings, conclusions, or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These services were performed in accordance with the scope of work agreed with you, Durango Midstream LLC, as reflected in our proposal (PKH227021).

Additional Scope Limitations

The development of this Amended RAP is based upon information provided by the Client and Terracon's remediation and construction services line. Such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable, or not present during these services. We cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those by information provided by the Client. The data, interpretations, findings, and recommendations are based solely upon reformation executed within the scope of these services.

Reliance

This report has been prepared for the exclusive use of Durango Midstream LLC, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of Durango Midstream LLC and Terracon. Any unauthorized distribution or reuse is at Durango Midstream LLC sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal and Durango Midstream LLC and Terracon's Master Services Agreement. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to Durango Midstream LLC and all relying parties unless otherwise agreed in writing.

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 232137

CONDITIONS

Operator: FRONTIER FIELD SERVICES, LLC 10077 Grogans Mill Rd. The Woodlands, TX 77380	OGRID: 221115
	Action Number: 232137
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	11/29/2023