



Ameredev II, LLC

2901 Via Fortuna Suite 600 • Austin, Texas 78746 • Phone (737) 300-4700

July 31, 2024

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

RE: Characterization and Remediation Report and Deferral Request
Incident ID: nAPP2411463396
Firethorn CTB
Project ID #: 20240423-0550-ftCTBflare

NMOCD:

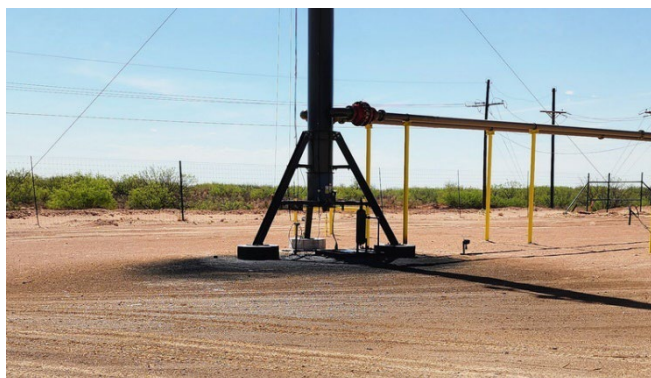
Ameredev Operating submits this site characterization, remediation activities report and deferral request for Incident ID#: nAPP2411463396. We respectfully ask NMOCD for remediation deferral around production equipment. This submission is revised to include a photo of surface scraping as directed by NMOCD denial. Communication included in Appendix A.

The release occurred on April 23, 2024 caused by a fire that occurred at the Firethorn CTB flare. The calculated volume was 1 barrel of crude oil.

The fire occurred due to equipment failure (Treated Oil Recirculation Heater oil dump was stuck in the closed position), burned out and likely consumed most of the crude oil released. The release was on an active production site for oil and gas operations. The release did not impact surface or groundwater and did not extend off-site. The release is located on Fee surface. The coordinates of the release point are 32.0772885, -103.2725998 (Lat, Long; NAD83). Figure 1 shows the source of the release; Figure 2 shows the extent of the release.

Figure 1: View of source facing southeast from the northwest.

*Date Taken: 2024-04-23 10:10:56
GPS: 32.0774617, -103.2728029*



Incident ID: nAPP2411463396
Firethorn CTB
Project ID #: 20240423-0550-ftCTBflare



Figure 2: View of the area of saturation and portion of the area of overspray facing northeast from the southwest.

Date Taken: 2024-04-23 10:12:08. GPS: 103.2726421°W 32.0772548°N

The flares were taken offline for the initial response and evaluation. The release area was surface scraped to remove the mass load of impacted soil and combusted hydrocarbons.

1. Site Characterization

The following sections address items as described in 19.15.29.11.A, paragraphs 1- 4. Please refer to the digital reporting site characterization checklist below for additional setback criteria and verification (Plates 2-9).

1.1. Site Map

The horizontal extent of the release was initially determined by visual observations. The release extent mapping utilized GPS technology with sub-meter accuracy.

Plate 1 shows the release extent relative to the Firethorn CTB production equipment, flowlines, flares and utilities. The release extent covered an area of approximately 3854 sq. ft., mostly consisting of a light overspray and will be referred to as the Area of Interest. The area of saturation was approximately 741 sq ft and shall be referred to as the Area of Saturation.

1.2. Depth to Ground Water

The depth to water boring nearest to the release area is mapped on Plate 2:

- MISC-422 (CP-1952 POD 1) is located 83 ft north of the location. Depth to water is measured at > 101-feet. The borehole has been plugged. The Well Log is presented in Appendix B.

07/31/2024

Incident ID: nAPP2411463396
 Firethorn CTB
 Project ID #: 20240423-0550-ftCTBflare

1.3. Wellhead Protection Area

Plate 3 shows that the release extent is:

- Not within incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within ½-mile private and domestic water sources (wells and springs). CP-000857 (POD 1) is 0.48 miles to the west of the Area of Interest. Location verified by aerial imagery and on the ground visual confirmation. Well logs included in Appendix B.
- Not 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
- Not within 1000 feet of any other freshwater well or spring.

1.4. Distance to Nearest Significant Water Course

Plate 4 shows that the release extent is:

- Within ½ mile of a significant water course.
- Within 300 feet of a significant watercourse.
- Not within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

The closest significant water course is an intermittent stream 199 ft to the east of the Area of Interest. This stream flows north to south (Plate 4a). There are numerous obstructions to the natural drainage patterns, that includes, but limited to, roads and production pads. Therefore, it is unlikely that portion of the “intermittent stream” mapped area will contain surface water (Plate 4b) within the sitting criteria relative to the release extent.

Site Characterization		
What is the shallowest depth to groundwater (ft bgs)	Plate 2	>101 ft bgs 83 ft north of location
What measure was used to determine this?		Direct
Did this release impact ground or surface water?		No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:		
• A continuously flowing watercourse or any other significant watercourse.	Plate 4a and 4b	Intermittent stream 199 ft to the west of location
• Any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark).	Plate 4a	>1 mile to the NW of location
• An occupied permanent residence, school, hospital, institution or church.	Plate 5	Ranch 1.77 miles SE of location

07/31/2024

Incident ID: nAPP2411463396
 Firethorn CTB
 Project ID #: 20240423-0550-ftCTBflare

<ul style="list-style-type: none"> • A spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes. Plate 3 	0.48 mile to the west CP-00857 (POD 1)
<ul style="list-style-type: none"> • Any other fresh water well or spring. Plate 3 	0.48 mile to the west CP-00857 (POD 1)
<ul style="list-style-type: none"> • Incorporated municipal boundaries or a defined municipal fresh water well field. Plate 3 	Jal Municipal Wells 2.91 Miles to the SW
<ul style="list-style-type: none"> • A wetland. Plate 6 	1.63 miles to the NW of location
<ul style="list-style-type: none"> • A subsurface mine. Plate 7 	>5 miles
<ul style="list-style-type: none"> • A (non-karst) unstable area. 	>5 miles
<ul style="list-style-type: none"> • Categorize the risk of this well/site being in a karst geology. Plate 8 	Low
<ul style="list-style-type: none"> • A 100-year floodplain. Plate 9 	4.57 miles to the ENE
Did the release impact areas not on an exploration, development, production, or storage site?	No

1.5. Soil/Waste Characteristics

The release occurred in an area where depth to water is >100 ft below ground surface (bgs) and on an active production site used for oil and gas operations.

The release occurred in the Kermit-Palomas fine sands soil complex with a slope of 0 – 12 %. The USDA Natural Resources Conservation Service (NRCS) soil survey describes the upper 5-feet of lithology as:

Description of Kermit soil – 3 – 12 % slope

- *A - 0 to 8 inches*: fine sand
- *C - 8 to 60 inches*: fine sand

Description of Palomas soil – 0 – 5 % slope

- *A - 0 to 16 inches*: fine sand
- *Bt - 16 to 60 inches*: sandy clay loam
- *Bk - 60 to 66 inches*: sandy loam

The NRCS description is consistent with the lithology observed during excavation.

On May 7, 2024 samples were collected to characterize and delineate the Area of Interest and the Area of Saturation. The flare was briefly interrupted to allow for sampling to occur without risk to human health and safety. Additional delineation samples were collected (outside of the flare buffer zone) on June 12, 2024 to complete horizontal delineation of the south and east of the release. Sample event notifications are located in Appendix A.

07/31/2024

Incident ID: nAPP2411463396
Firethorn CTB
Project ID #: 20240423-0550-ftCTBflare

- Plate 10 shows the characterization sample locations in relation to the pad, 100 ft flare buffers, “intermittent water course” and comingling with previous 2021 fire event (open file Incident ID#: nAPP2134161203, 11/22/2021- mapping of this extent was provided by Black Gold Environmental and is assumed to be approximate).
- Table A shows the sample point coordinates
- Table B includes the summary of analytical
- Certificates of Analysis are attached in Appendix C

Per 19.15.29.12(4)(a)(c)(i) NMAC, a “significant water course” (intermittent stream) is located within 300-feet of the release and remediation is required to meet Closure Criteria listed in Table 1 of 19.15.29 NMAC as if groundwater is \leq 50-feet below ground surface. Closure Criteria are defined as

- Chloride < 600 mg/kg
- TPH (GRO + DRO + MRO) < 100 mg/kg
- TPH (GRO + DRO) < 100 mg/kg
- BTEX < 50 mg/kg
- Benzene < 10 mg/kg

Characterization and delineation sample results provided the following information:

- **CS-01** provided vertical delineation within the area of saturation, adjacent to the source, with all constituents of concern meeting the most stringent closure criteria below a depth of 2 ft bgs.
- **CS-02, CS-03, CS-04 and CS-05** provided vertical delineation at the periphery of the area of saturation with all constituents of concern meeting the most stringent closure criteria below a depth of 0.5 ft bgs.
- **CS-08** provided vertical delineation at the periphery of the area of saturation with all constituents of concern meeting the most stringent closure criteria below a depth of 2 ft bgs.
- **CS-06, CS-07, CS-09 and CS-10** provided horizontal delineation with all constituents of concern meeting the most stringent closure criteria to a depth of 4 ft. CS-09 is located off-site between the release area and the “significant water course” demonstrating the release did not extend off-site to that feature. CS-10 provides off-site delineation to the south.

It is a consideration that the southwestern extent of this release comingled with the 2021 Firethorn CTB fire which is pending full evaluation (Incident ID#: nAPP2134161203). Sampling within the 2021 incident extent would confound the delineation of this current incident.

07/31/2024

Incident ID: nAPP2411463396

Firethorn CTB

Project ID #: 20240423-0550-ftCTBflare

2. Remediation Activities

Remediation activities were confined to the surface scrape of impacted and combusted materials at the time of the initial response (approximately 700 sq feet) to reduce the mass load of impacted soils. Residual impacted material is the subject of the deferral request. Approximately 2 cubic yards were hauled off for disposal to an approved facility. Figure 3 shows the area post surface scraping. The surface was restored to its original condition as an active production pad for oil and gas operations. Figure 4 is a current view of the area after restoration.

Remediation Plan	
Requesting a remediation plan approval with this submission?	Yes
Have the lateral and vertical extents of the contamination been fully delineated (<i>attach report demonstrating lateral and vertical extents</i>)?	Yes
Was this release entirely contained within a lined containment area?	No
Soil Contamination Sampling (Highest observable value for each in mg/kg)	
• Chloride	1850
• TPH (DRO+GRO+MRO)	161
• GRO+DRO	120
• BTEX	0
• Benzene	0
On what estimated date will the remediation commence	04/24/2024
On what date will (or did) the final sampling or liner inspection occur	06/12/2024
On what date will (or was) the remediation completed	04/24/2024
What is the estimated surface area (in square feet) that will be reclaimed	700
What is the estimated volume (in cubic yards) that will be reclaimed	2
What is the estimated surface area (in square ft) that will be remediated	700
What is the estimated volume (in cubic yards) that will be remediated	2
The remediation will (or is expected to) utilize the following processes to remediate/reduce contaminants:	
• Excavation and off-site disposal	Yes – [fJEG1635837366] Owl Landfill Jal

07/31/2024

Incident ID: nAPP2411463396
Firethorn CTB
Project ID #: 20240423-0550-ftCTBflare



*Figure 3: View of area after surface scrape, facing southeast from the northwest.
Date Taken: 2024-04-25 13:40:04. GPS: 32.0774890, -103.2728717*



*Figure 4: View of area post restoration facing southeast from the northwest.
Date Taken: 2024-07-30 11:27:15. GPS: 32.0773658, -103.2724886*

07/31/2024

Released to Imaging: 8/26/2024 2:43:34 PM

Incident ID: nAPP2411463396
 Firethorn CTB
 Project ID #: 20240423-0550-ftCTBflare

3. Deferral Request

Ameredeve respectfully requests deferral of impacted areas immediately around production equipment and within a 100 ft buffer area of the flares (to protect human health and safety). This area meets the criteria for deferral request as defined in 19.15.29.12.C.(2):

- On an active production site for oil and gas operations.
- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Turning off flares during remediation efforts would cause major facility shutdown and operating oil and gas wells to be shut-in.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

Deferral Requests Only	
Requesting a deferral of the remediation closure due date with approval of this submission?	Yes
Have the lateral and vertical extents of the contamination been fully delineated?	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction?	Yes
What is the remaining surface area (in sq ft) that will still need to be remediated if deferral is granted?	1700
What is the remaining volume (in cubic yards) what still needs to be remediated if the deferral is granted?	47
Enter the facility ID on which this deferral should be granted	fAPP2203855966
Enter the well API on which this deferral should be granted	
Contamination does not cause an imminent risk to human health, the environment or groundwater.	Yes

As discussed above, upstream obstruction to the mapped watercourse has occurred and delineation sampling (CS-09) between the release and the mapped watercourse met most stringent closure criteria. Potential impact to the mapped watercourse from the release is highly unlikely.

07/31/2024

Incident ID: nAPP2411463396
Firethorn CTB
Project ID #: 20240423-0550-ftCTBflare

All other Siting Criteria support Closure Criteria for releases on-site, where depth to water is > 100 ft; closure criteria per Table 1 of 19.15.29 NMAC:

- Chloride < 20,000 mg/kg
- TPH (GRO + DRO + MRO) < 2,500 mg/kg
- TPH (GRO + DRO) < 1,000 mg/kg
- BTEX < 50 mg/kg
- Benzene < 10 mg/kg

This information is provided only to support deferral request.

4. Surface Restoration

The release extent was restored per 19.15.29.13. B NMAC to prior condition as an active production site (Figure 3). The impacted area around the production equipment will be remediated per 19.15.29.13 NMAC and restored, reclaimed and revegetated per 19.15.29.13.A-D when the site and associated production equipment are no longer in-use for oil and gas operations.

Please contact me with any questions.

Sincerely,
Ameredev II, LLC



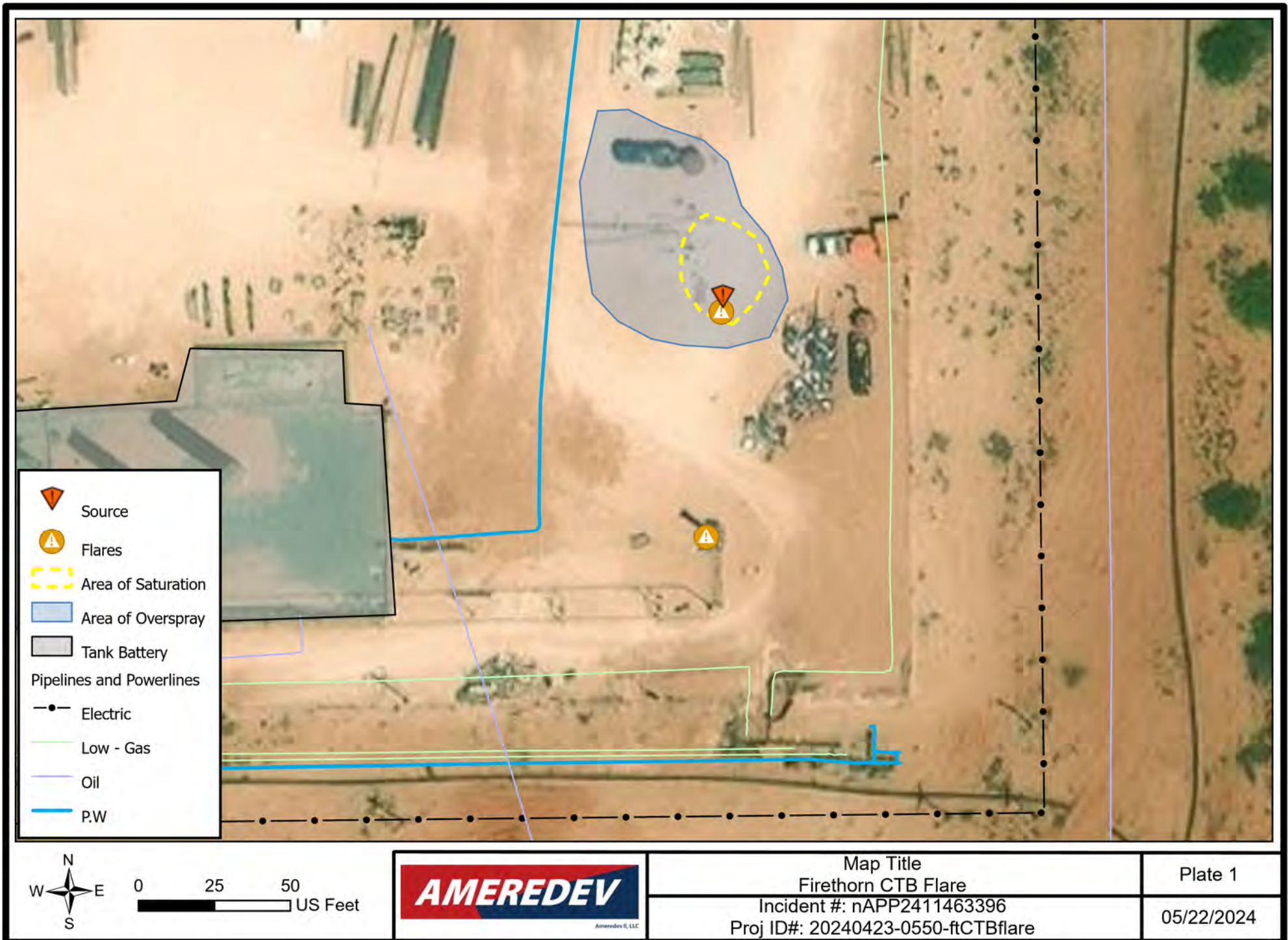
Andrew Parker
Env. Scientist

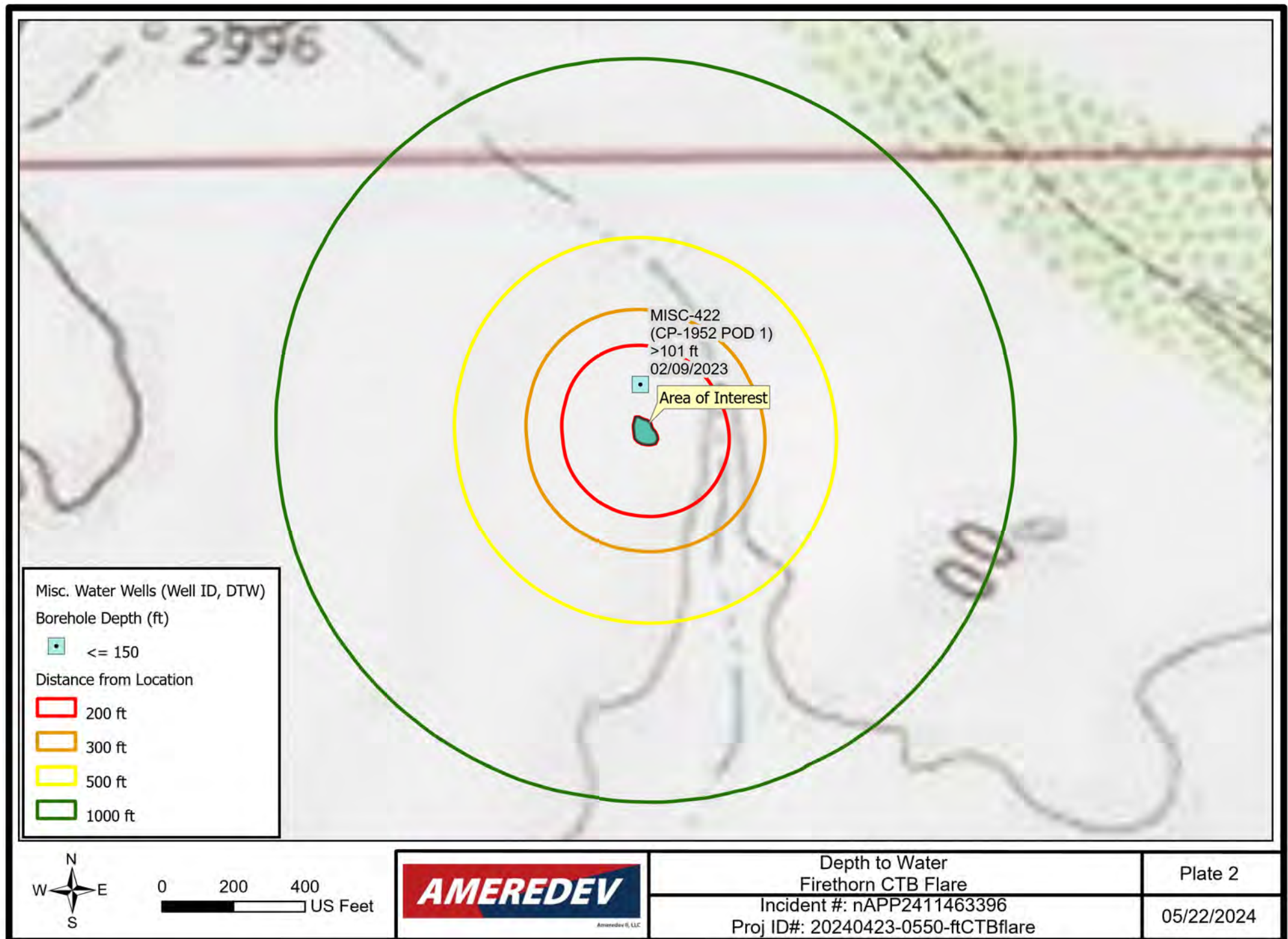
07/31/2024

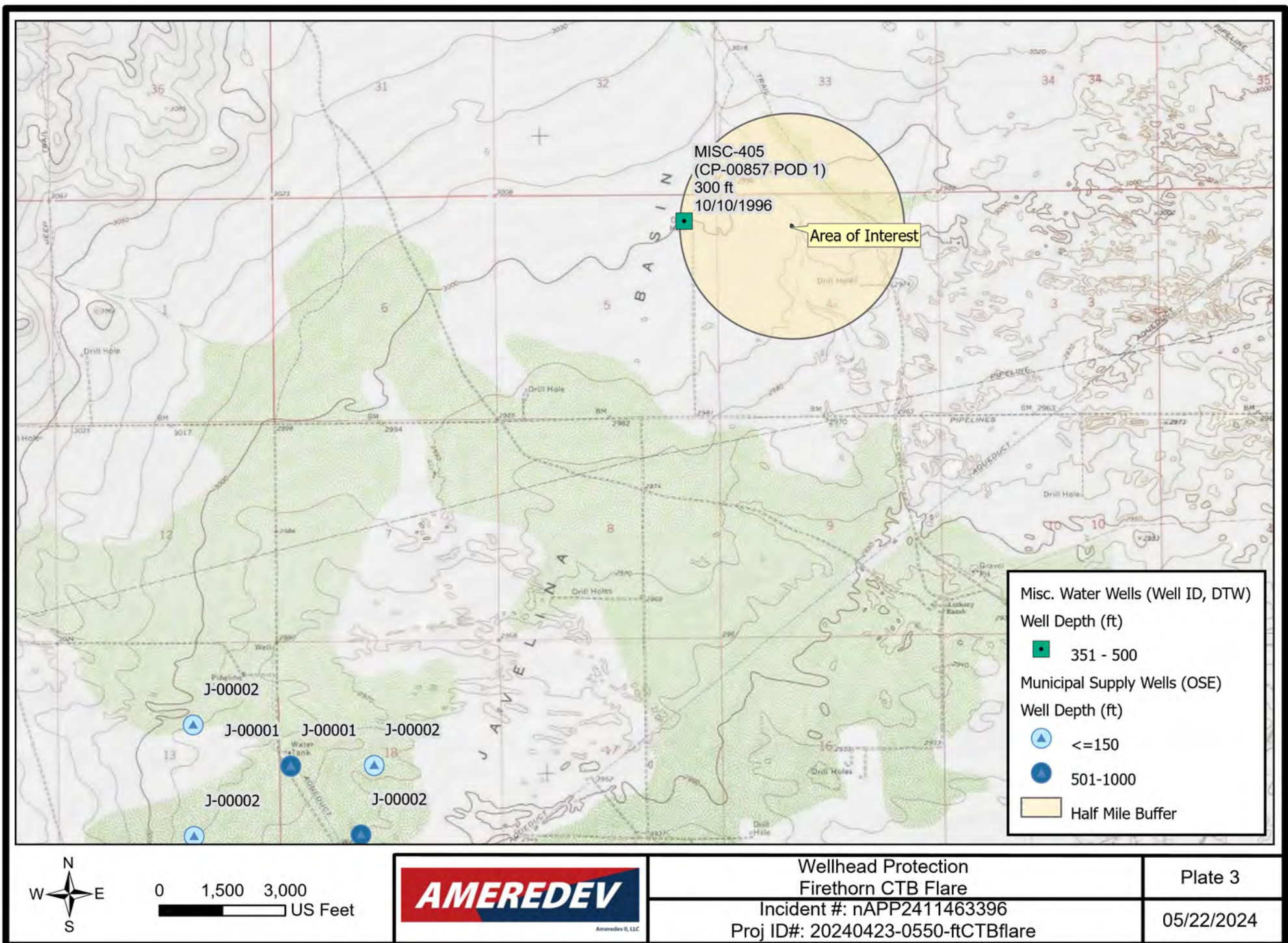
Plates

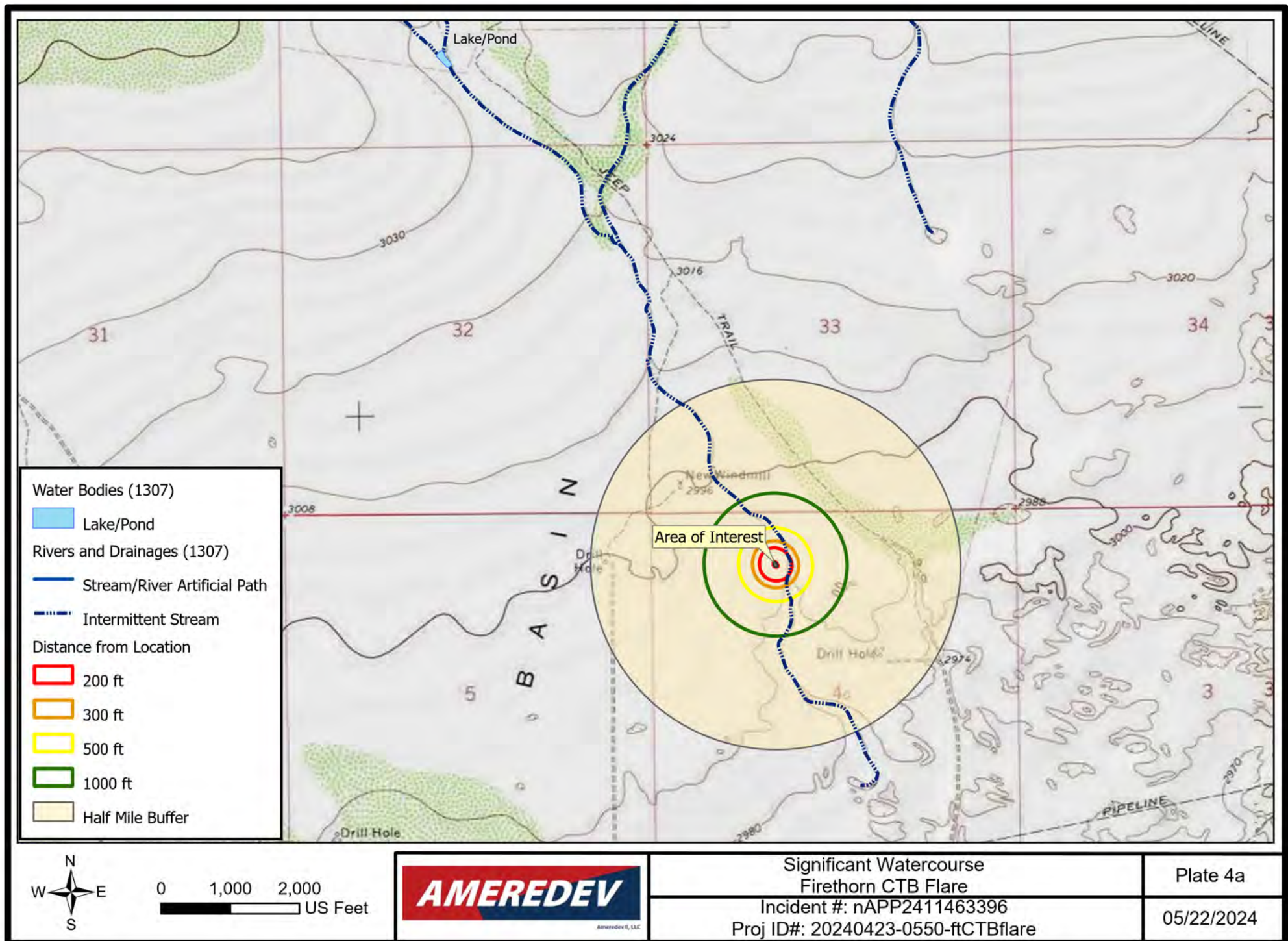


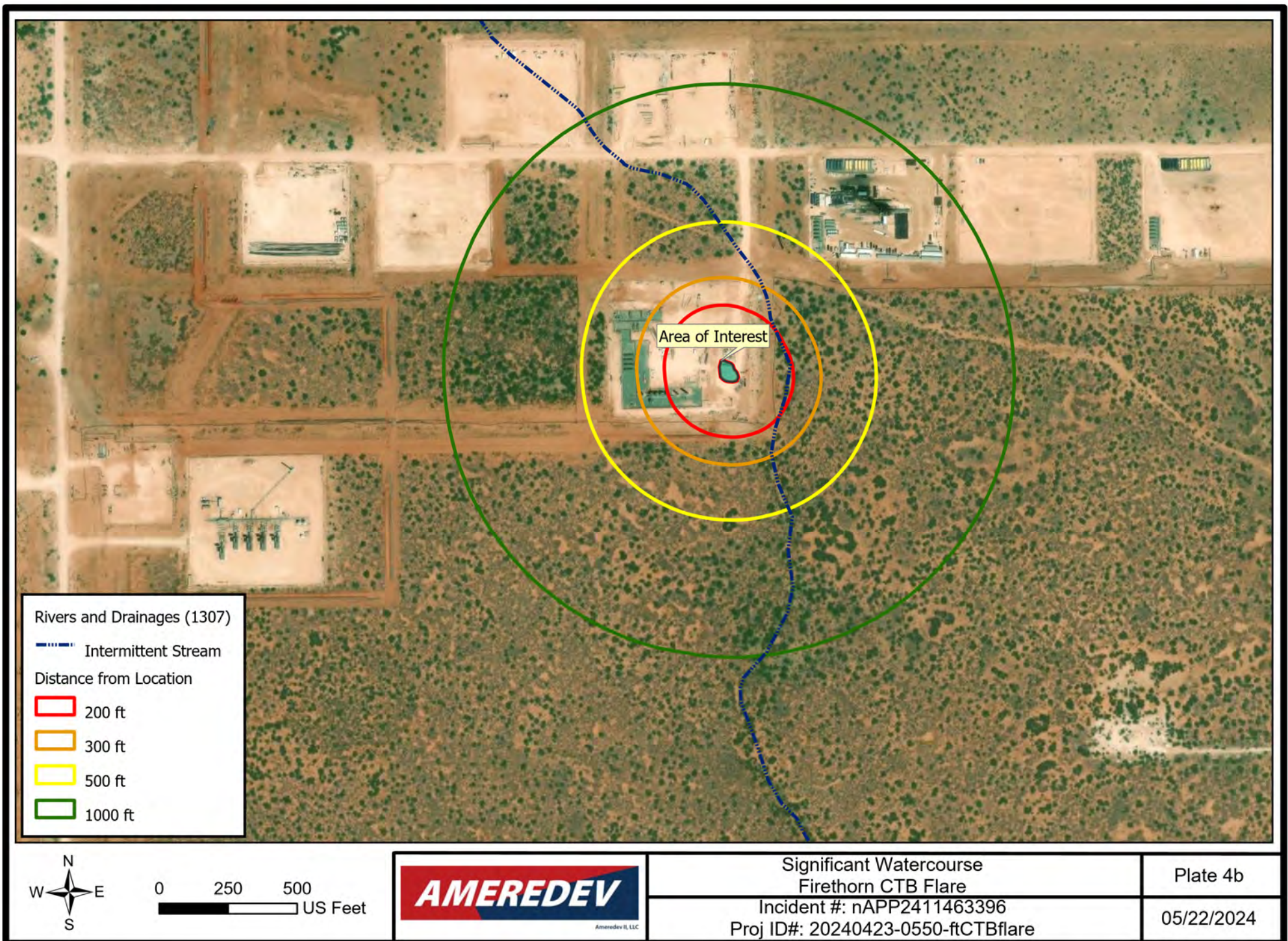
Ameredev II, LLC

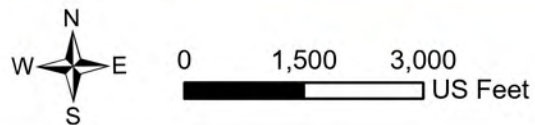
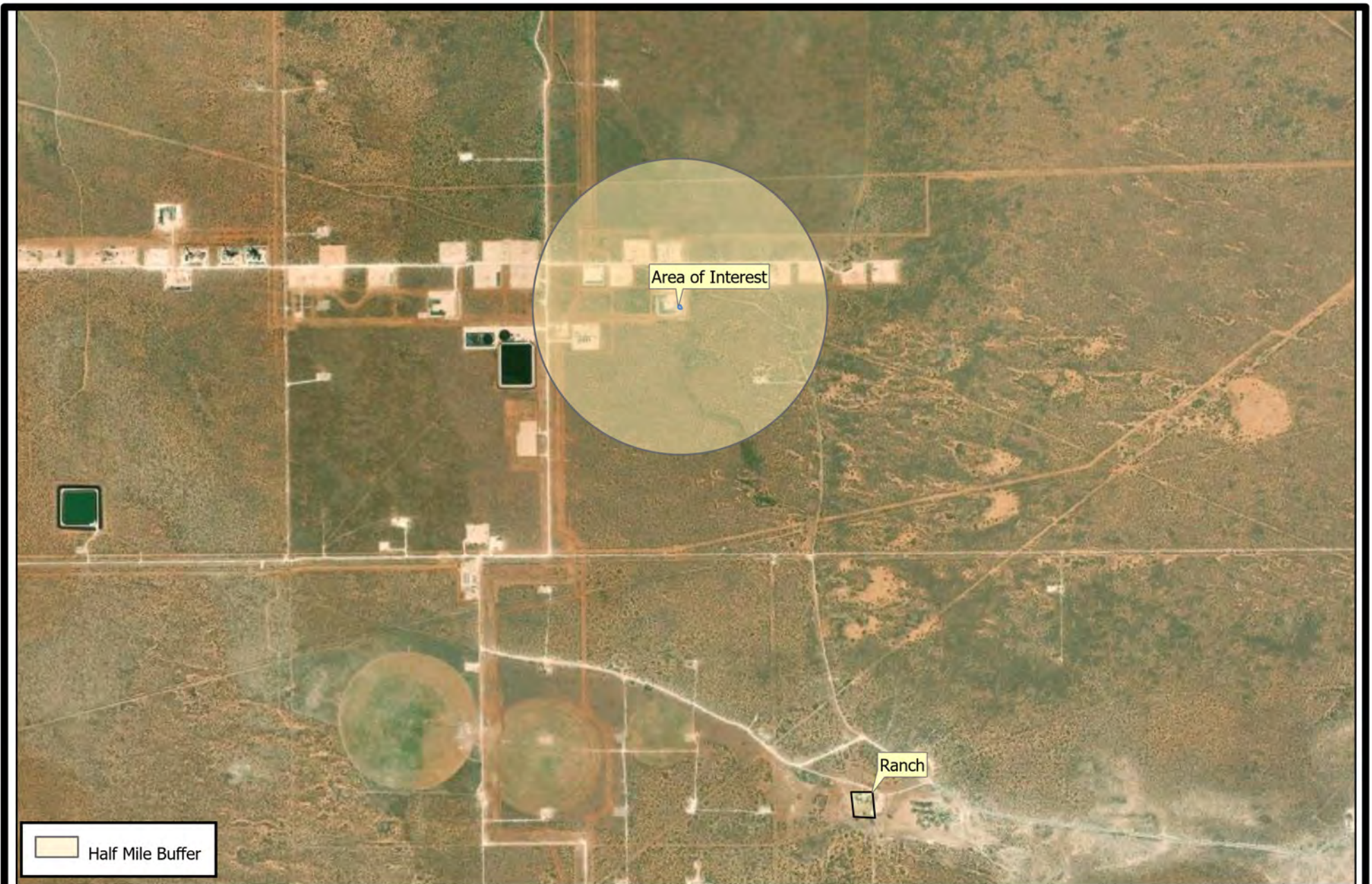






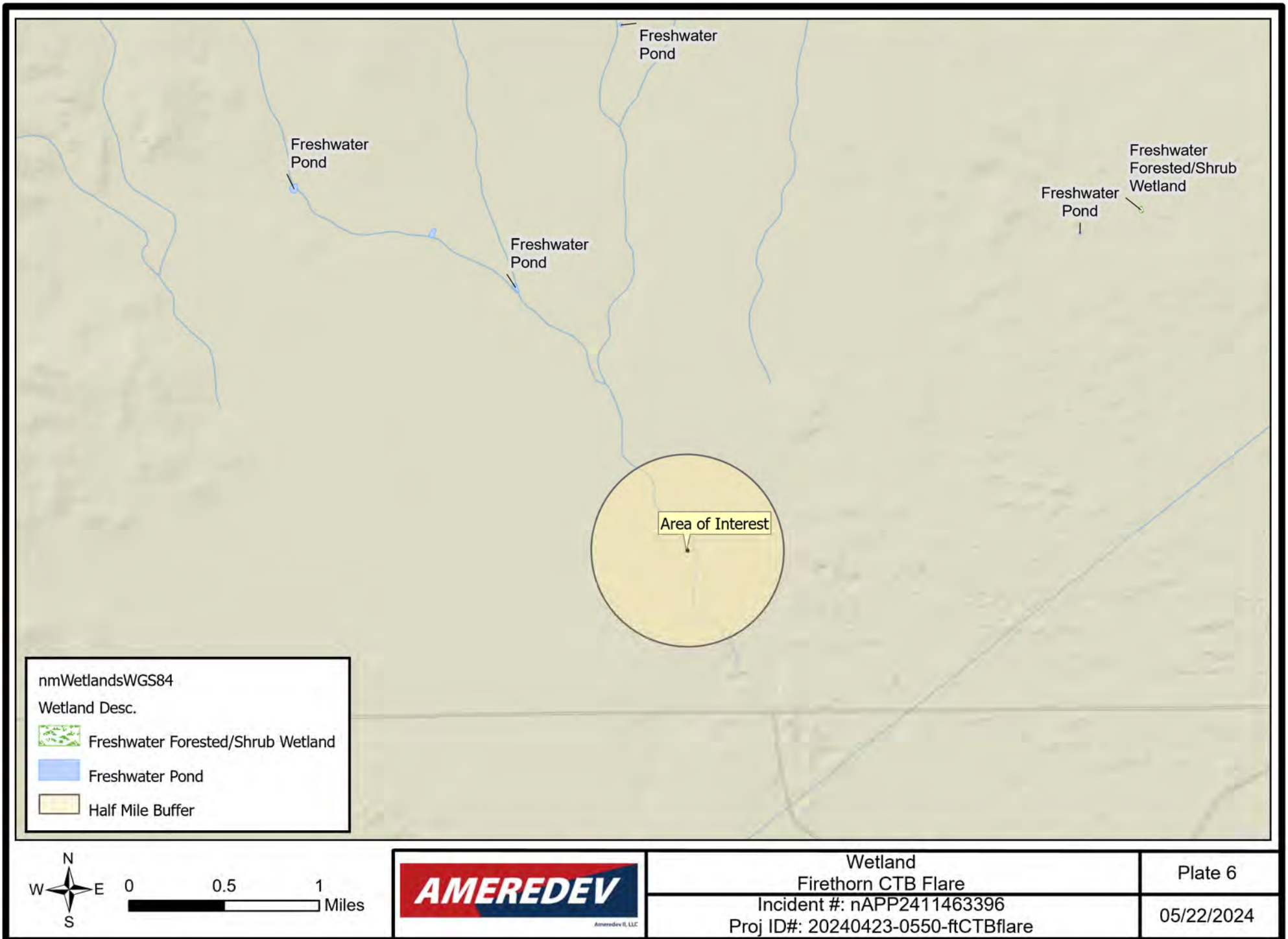


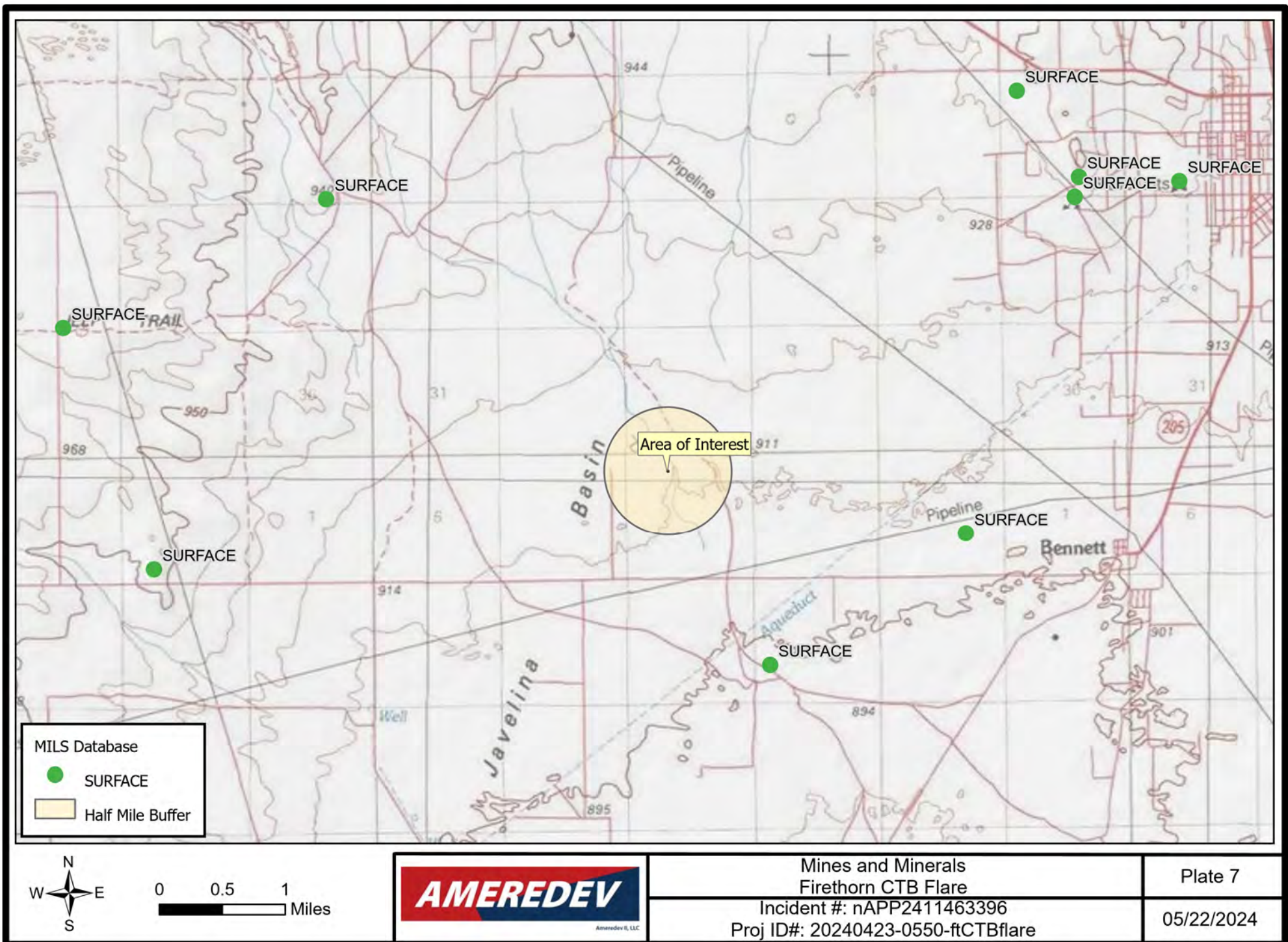


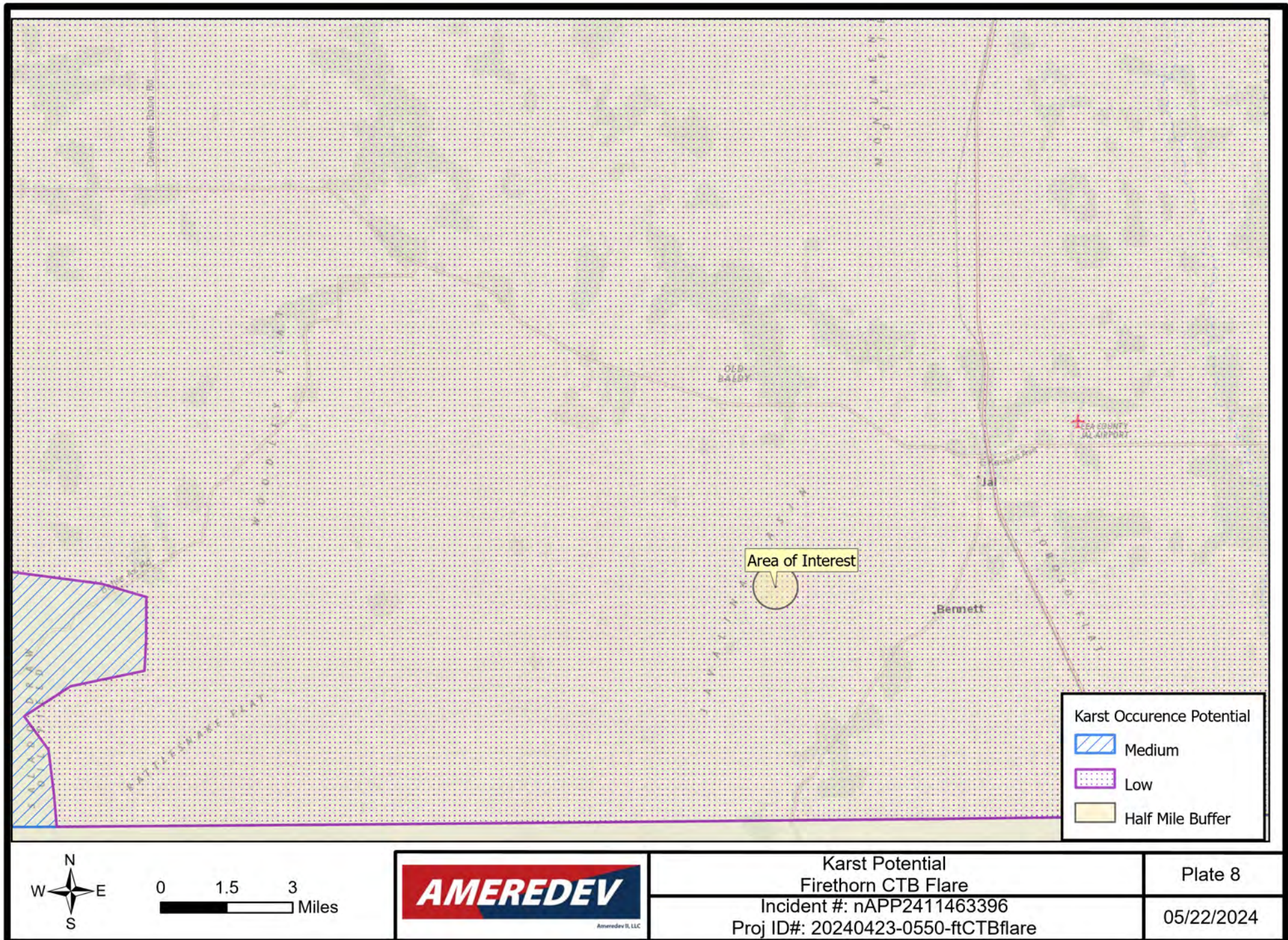


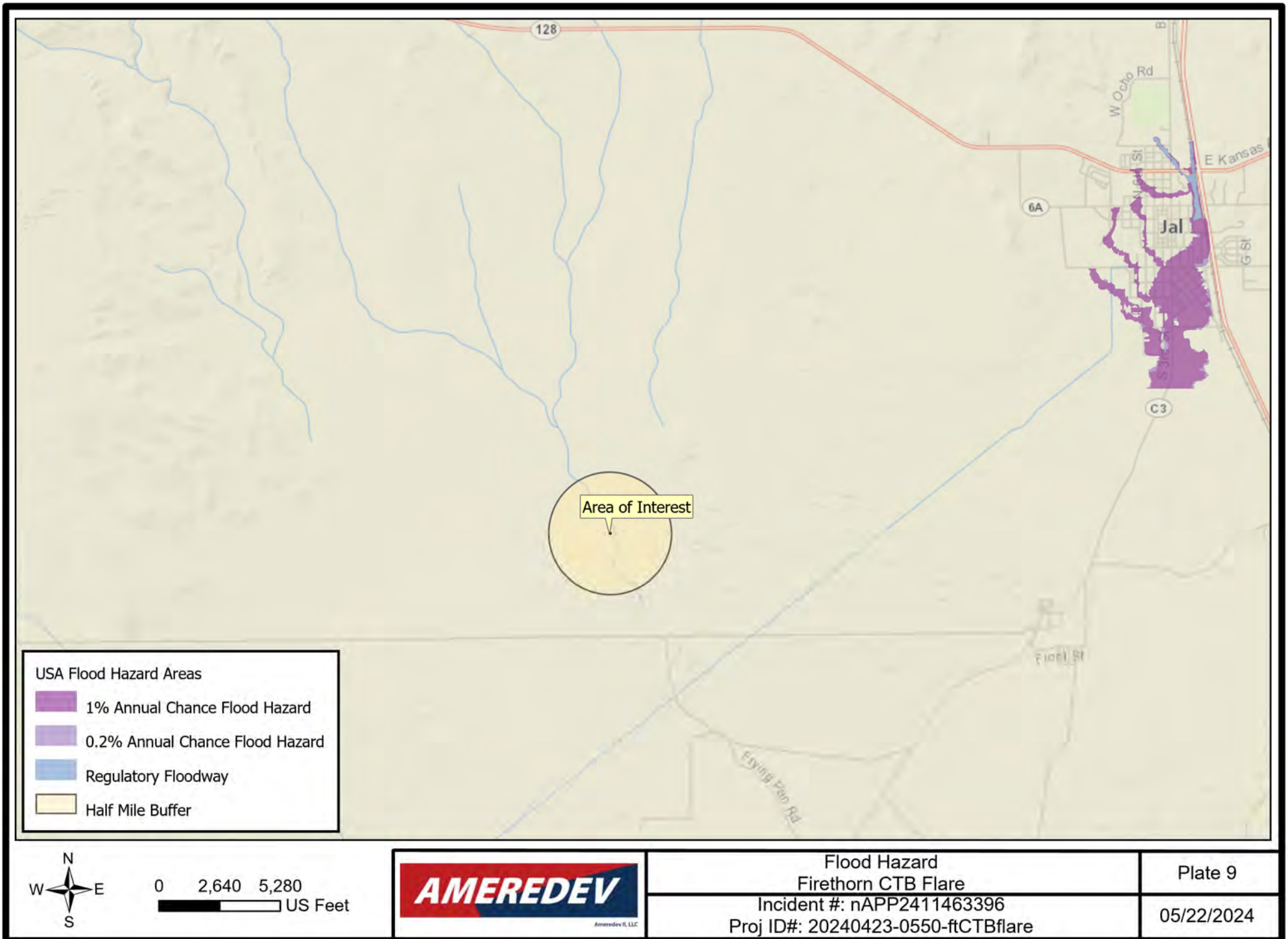
Nearby Structures
Firethorn CTB Flare
Incident #: nAPP2411463396
Proj ID#: 20240423-0550-ftCTBflare

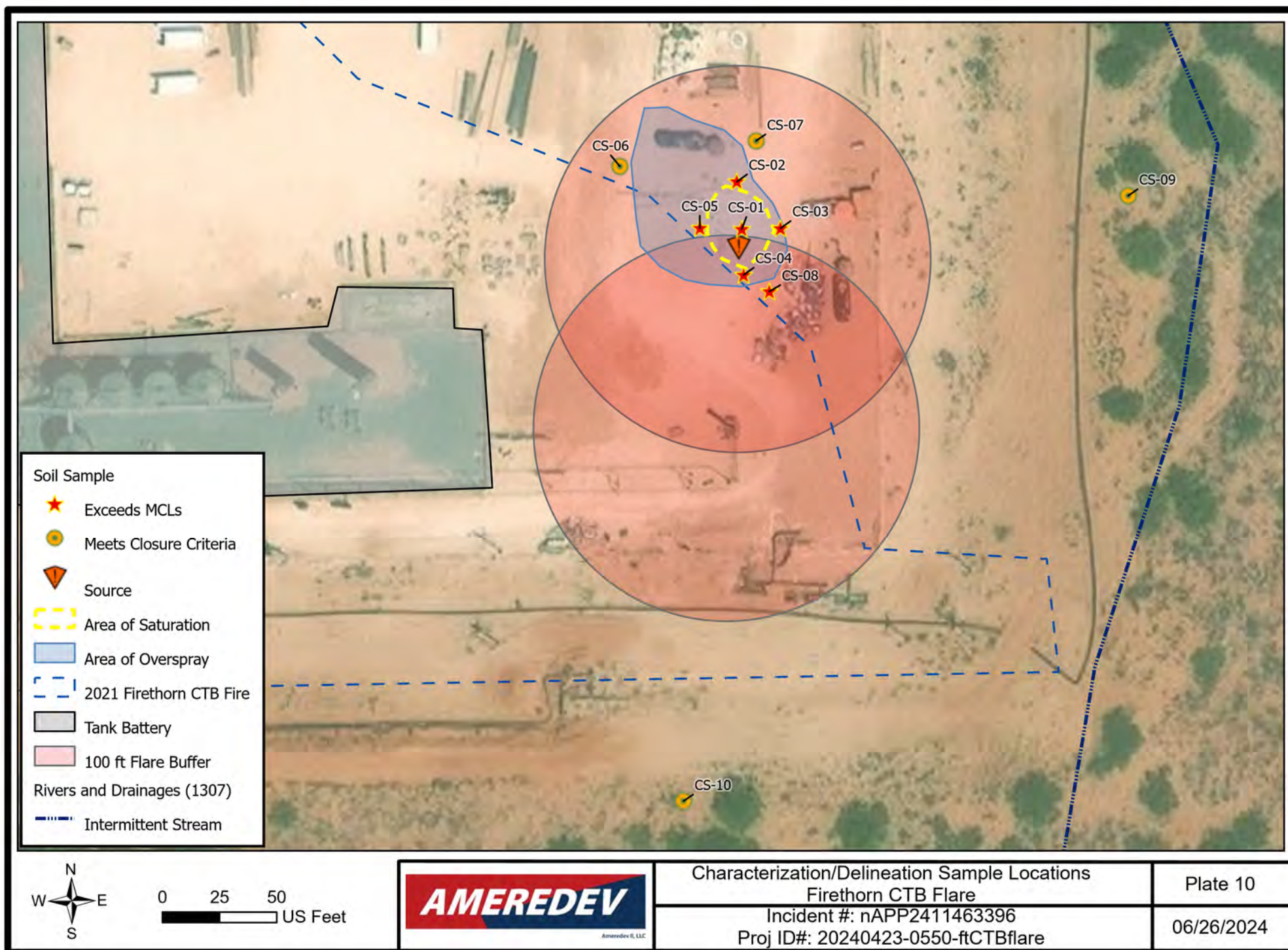
Plate 5
05/22/2024











Tables



Ameredev II, LLC

June 26, 2024

Table A
Sample Point Coordinates

Incident ID: nAPP2411463396
Firethorn CTB
Project ID #: 20240423-0550-ftCTBflare

Sample Point	Latitude	Longitude
CS-01	32.0773220	-103.2725924
CS-02	32.0773790	-103.2725997
CS-03	32.0773232	-103.2725396
CS-04	32.0772667	-103.2725912
CS-05	32.0773233	-103.2726513
CS-06	32.0773983	-103.2727645
CS-07	32.0774269	-103.2725711
CS-08	32.0772469	-103.2725549
CS-09	32.0773577	-103.2720465
CS-10	32.0766373	-103.2726846

June 26, 2024

Table B
Summary of Analytical

Incident ID: nAPP2411463396

Firethorn CTB

Project ID #: 20240423-0550-ftCTBflare

Sample ID	Date	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	Location	Chloride (mg/kg)	GRO+DRO (mg/kg)	TPH Ext. (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	Comments	Lab	Lab #
												(Hall/Cardinal)	
NMOCD Closure Criteria													
0 - 4 feet & "not in-use"						600	--	100	10	50			
> 4 ft or "in-use"						20,000	1,000	2,500	10	50			
CS-01	5/7/2024		0	0.5	on site	576	<555	<734	<0.05	<0.3		Cardinal	H242469
CS-01	5/7/2024		0.5	2	on site	192	<84.5	<106.6	<0.05	<0.3		Cardinal	H242469
CS-01	5/7/2024		2	4	on site	32	<20	<30	<0.05	<0.3	Vertical Delineation	Cardinal	H242469
CS-02	5/7/2024		0	0.5	on site	448	<120	<161.1	<0.05	<0.3		Cardinal	H242469
CS-02	5/7/2024		0.5	2	on site	64	<20	<30	<0.05	<0.3	Vertical Delineation	Cardinal	H242469
CS-02	5/7/2024		2	4	on site	32	<20	<30	<0.05	<0.3	Vertical Delineation	Cardinal	H242469
CS-03	5/7/2024		0	0.5	on site	912	<20	<30	<0.05	<0.3		Cardinal	H242469
CS-03	5/7/2024		0.5	2	on site	160	<20	<30	<0.05	<0.3	Vertical Delineation	Cardinal	H242469
CS-03	5/7/2024		2	4	on site	48	<20	<30	<0.05	<0.3	Vertical Delineation	Cardinal	H242469
CS-04	5/7/2024		0	0.5	on site	1850	<20	<30	<0.05	<0.3		Cardinal	H242469
CS-04	5/7/2024		0.5	2	on site	320	<20	<30	<0.05	<0.3	Vertical Delineation	Cardinal	H242469
CS-04	5/7/2024		2	4	on site	64	<20	<30	<0.05	<0.3	Vertical Delineation	Cardinal	H242469
CS-05	5/7/2024		0	0.5	on site	960	<44.8	<54.8	<0.05	<0.3		Cardinal	H242469
CS-05	5/7/2024		0.5	2	on site	416	<20	<30	<0.05	<0.3	Vertical Delineation	Cardinal	H242469
CS-05	5/7/2024		2	4	on site	32	<20	<30	<0.05	<0.3	Vertical Delineation	Cardinal	H242469
CS-06	5/7/2024		0	0.5	on site	16	<20	<30	<0.05	<0.3	Horizontal Delineation	Cardinal	H242469
CS-06	5/7/2024		0.5	2	on site	16	<20	<30	<0.05	<0.3	Horizontal Delineation	Cardinal	H242469
CS-06	5/7/2024		2	4	on site	16	<20	<30	<0.05	<0.3	Horizontal Delineation	Cardinal	H242469
CS-07	5/7/2024		0	0.5	on site	144	<20	<30	<0.05	<0.3	Horizontal Delineation	Cardinal	H242469
CS-07	5/7/2024		0.5	2	on site	48	<20	<30	<0.05	<0.3	Horizontal Delineation	Cardinal	H242469
CS-07	5/7/2024		2	4	on site	32	<20	<30	<0.05	<0.3	Horizontal Delineation	Cardinal	H242469
CS-08	5/7/2024		0	0.5	on site	1150	<20	<30	<0.05	<0.3		Cardinal	H242469
CS-08	5/7/2024		0.5	2	on site	642	<20	<30	<0.05	<0.3		Cardinal	H242469
CS-08	5/7/2024		2	4	on site	192	<20	<30	<0.05	<0.3	Vertical Delineation	Cardinal	H242469
CS-09	6/12/2024		0	2	off site	32	<20	<30	<0.05	<0.3	Horizontal Delineation	Cardinal	H243423
CS-09	6/12/2024		2	4	off site	32	<20	<30	<0.05	<0.3	Horizontal Delineation	Cardinal	H243423
CS-10	6/12/2024		0	2	off site	16	<20	<30	<0.05	<0.3	Horizontal Delineation	Cardinal	H243423
CS-10	6/12/2024		2	4	off site	16	<20	<30	<0.05	<0.3	Horizontal Delineation	Cardinal	H243423

Appendix A

Communications



Ameredev II, LLC

From: OCDOnline@state.nm.us
To: [Andrew Parker](#)
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has accepted the application, Application ID: 336501
Date: Tuesday, April 23, 2024 5:37:09 PM

Caution: External (ocdonline@state.nm.us)

Spam Content [Details](#)

[Report This Email](#) [FAQ](#) [Protection by INKY](#)

To whom it may concern (c/o Andrew Parker for AMEREDEV OPERATING, LLC),

The OCD has accepted the submitted *Notification of a release* (NOR), for incident ID (n#) nAPP2411463396, with the following conditions:

- **When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.**

Please reference nAPP2411463396, on all subsequent C-141 submissions and communications regarding the remediation of this release.

NOTE: As of December 2019, NMOCD has discontinued the use of the “RP” number.

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

ocd.enviro@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

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

QUESTIONS

Action 340184

QUESTIONS

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID: 372224
	Action Number: 340184
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2411463396
Incident Name	NAPP2411463396 FIRETHORN CTB @ 0
Incident Type	Fire
Incident Status	Initial C-141 Approved
Incident Facility	[fAPP2203855966] FIRETHORN

Location of Release Source

Site Name	Firethorn CTB
Date Release Discovered	04/23/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

What is the sampling surface area in square feet	3,854
What is the estimated number of samples that will be gathered	10
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	05/07/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	Jesus Palomares 575-605-4276; lpalomares@ameredev.com Characterization samples may be used for closure
Please provide any information necessary for navigation to sampling site	GPS Coordinates: 32.077292, -103.272610

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 340184

CONDITIONS

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID: 372224
	Action Number: 340184
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aparker1969	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	5/2/2024

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

QUESTIONS

Action 352086

QUESTIONS

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID: 372224
	Action Number: 352086
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2411463396
Incident Name	NAPP2411463396 FIRETHORN CTB @ 0
Incident Type	Fire
Incident Status	Initial C-141 Approved
Incident Facility	[fAPP2203855966] FIRETHORN

Location of Release Source	
Site Name	Firethorn CTB
Date Release Discovered	04/23/2024
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	3,854
What is the estimated number of samples that will be gathered	6
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	06/12/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Jesus Palomares 575-605-4276 Auden Escajeda 575-665-2887
Please provide any information necessary for navigation to sampling site	GPS Coordinates: 32.077292, -103.272610 Characterization samples may be used as closure samples

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 352086

CONDITIONS

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID: 372224
	Action Number: 352086
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aparker1969	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	6/7/2024

From: [Andrew Parker](#)
To: [Laura Parker](#)
Subject: FW: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 357793
Date: Monday, July 29, 2024 12:26:26 PM

See below.

Andrew Parker
Environmental Scientist
970-570-9535



From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Monday, July 29, 2024 11:24 AM
To: Andrew Parker <aparker@amerdev.com>
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 357793

To whom it may concern (c/o Andrew Parker for AMEREDEV OPERATING, LLC),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2411463396, for the following reasons:

- **The Deferral Request is Denied. A photo of the scraped remediation area around the flare will need to be included to ensure the contaminated soil has been removed and there is no danger to human health and the environment.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 357793.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,
Robert Hamlet
575-748-1283
Robert.Hamlet@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Appendix B

Well Logs



Ameredev II, LLC



2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

March 9, 2023

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record CP- 1952 POD-1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings,
CP- 1952 POD-1

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucas Middleton".

Lucas Middleton

Enclosures: as noted above

2023-03-09 10:12 AM



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER


www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD-1		WELL TAG ID NO. n/a		OSE FILE NO(S). CP-1952			
	WELL OWNER NAME(S) Amercedev Operating, LLC				PHONE (OPTIONAL) 737-300-4700			
	WELL OWNER MAILING ADDRESS 2901 Via Fortuna Suite 600				CITY Austin	STATE TX	ZIP 78746	
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 4	SECONDS 39.88	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
		LONGITUDE 103	16	21.73	W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SW NE NW Sec.4 T26S R36E NMPM								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 2/9/23	DRILLING ENDED 2/9/23	DEPTH OF COMPLETED WELL (FT) temporary well material		BORE HOLE DEPTH (FT) ±101	DEPTH WATER FIRST ENCOUNTERED (FT) n/a		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a	DATE STATIC MEASURED 2/13/23	
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger					CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>		
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0 101		6.25"	Soil Boring	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	12	12	Sand, fine-grained, poorly graded, unconsolidated, Brown	Y ✓ N	
	12	19	7	Caliche, consolidated, off white	Y ✓ N	
	19	50	31	Sand, fine-grained, poorly graded, Tan	Y ✓ N	
	50	65	15	Sand, fine-grained, poorly graded, with clay Tan	Y ✓ N	
	65	70	5	Sand, fine-grained, poorly graded, consolidated, Tan	Y ✓ N	
	70	74	4	Sand, fine-grained, poorly graded, slightly consolidated, Tan	Y ✓ N	
	74	101	27	Sand, very fine-grained, poorly graded, unconsolidated, Tan/Gray	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER -- SPECIFY:						
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	MISCELLANEOUS INFORMATION: Removed temporary well material from soil boring, backfilled with drill cutting from total depth to 10 feet below ground surface, then placed hydrated bentonite from 10 feet to ground surface. See attached plugging record. DTW-13					
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge, Cameron Pruitt					
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING: <div style="display: flex; justify-content: space-between;"> <div>  SIGNATURE OF DRILLER / PRINT SIGNEE NAME </div> <div> Jackie D. Atkins DATE </div> </div>					

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO.

POD NO.

TRN NO.

LOCATION

WELL TAG ID NO.

PAGE 2 OF 2



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: CP-1952 POD-1
 Well owner: Ameredev Operating, LLC Phone No.: 737-300-4700
 Mailing address: 2901 Via Fortuna Suite 600
 City: Austin State: Texas Zip code: 78746

II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)
- 2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/23
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge, Cameron Pruitt
- 4) Date well plugging began: 2/13/23 Date well plugging concluded: 2/13/23
- 5) GPS Well Location: Latitude: 32 deg, 4 min, 39.88 sec
 Longitude: 103 deg, 16 min, 21.73 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 101 ft below ground level (bgl),
 by the following manner: water level probe
- 7) Static water level measured at initiation of plugging: n/a ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: 1/17/23
- 9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

- For each interval plugged, describe within the following columns:**

MULTIPLY		BY	AND OBTAIN
cubic feet	x	7.4805	= gallons
cubic yards	x	201.97	= gallons

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

3/9/23

Date _____






13-Well Record and Log-packet-forsign

Final Audit Report

2023-03-09

Created:	2023-03-09
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAiK_5cA5r4VMkV5-cBe4rtaUj0L40v24Q

"13-Well Record and Log-packet-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)
2023-03-09 - 5:44:03 PM GMT- IP address: 64.17.82.146
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2023-03-09 - 5:49:33 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)
2023-03-09 - 7:23:03 PM GMT- IP address: 64.90.153.232
-  Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2023-03-09 - 7:23:20 PM GMT - Time Source: server- IP address: 64.90.153.232
-  Agreement completed.
2023-03-09 - 7:23:20 PM GMT

2023-03-09 7:23:20 PM GMT




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
NA	CP 00857 POD1	1 2 2 05 26S 36E	662244	3550380 

Driller License: 1184 **Driller Company:** WEST TEXAS WATER WELL SERVICE

Driller Name: COLLIS, ROBERT E. (LD)

Drill Start Date: 10/09/1996

Drill Finish Date: 10/10/1996

Plug Date:

Log File Date: 01/15/1997

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 100 GPM

Casing Size:

Depth Well: 365 feet

Depth Water:

Water Bearing Stratifications:

Top Bottom Description

300 365 Sandstone/Gravel/Conglomerate

Meter Number: 18966

Meter Make:

Meter Serial Number:

Meter Multiplier: 1.0000

Number of Dials: 1

Meter Type: Diversion

Unit of Measure: Gallons

Return Flow Percent:

Usage Multiplier:

Reading Frequency: Quarterly (No Reading Expected)

**YTD Meter Amounts:	Year	Amount
	2017	0

Meter Number: 19007

Meter Make: OCTAVE

Meter Serial Number: 19235055

Meter Multiplier: 1.0000

Number of Dials: 9

Meter Type: Diversion

Unit of Measure: Gallons

Return Flow Percent:

Usage Multiplier:

Reading Frequency: Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
02/01/2017	2017	2599614	A	RPT		0
04/01/2017	2017	2627531	A	RPT		3.598
05/01/2017	2017	2631319	A	RPT		0.488
06/01/2017	2017	2652251	A	RPT		2.698
07/01/2017	2017	2720508	A	RPT		8.798
08/01/2017	2017	2782114	A	RPT		7.941
09/01/2017	2017	2858989	A	RPT		9.909
10/01/2017	2017	2906622	A	RPT		6.140

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
11/01/2017	2017	2912696	A	RPT		0.783
12/01/2017	2017	2998304	A	RPT		11.034
02/01/2018	2018	3146658	A	RPT		19.122
03/01/2018	2018	3212353	A	RPT		8.468
04/01/2018	2018	3286487	A	RPT		9.555
05/01/2018	2018	3381113	A	RPT		12.197
06/01/2018	2018	3470486	A	RPT		11.520
07/01/2018	2018	3547614	A	RPT		9.941
09/01/2018	2018	3569776	A	RPT		2.857
12/01/2018	2018	4076874	A	RPT		65.362
01/01/2019	2018	4181523	A	RPT		13.489
02/01/2019	2019	4296954	A	RPT		14.878
03/01/2019	2019	4346796	A	RPT		6.424
04/01/2019	2019	4365803	A	RPT		2.450
05/01/2019	2019	4418132	A	RPT		6.745
07/31/2019	2019	0	A	RPT		0
09/30/2019	2019	325518	A	RPT		41.957
10/31/2019	2019	388564	A	RPT		8.126
12/31/2019	2019	622880	A	RPT		30.202
01/19/2020	2020	672026	A	RPT		6.335
01/19/2020	2020	0	A	RPT		0
01/31/2020	2020	336667	A	RPT		1.033
03/31/2020	2020	9198198	A	RPT		27.195
08/31/2020	2020	25497766	A	RPT		50.022
09/30/2020	2020	29234202	A	RPT		11.467
11/30/2020	2020	36579854	A	RPT		22.543
12/31/2020	2020	40821185	A	RPT		13.016
01/31/2021	2021	45738623	A	RPT		15.091

**YTD Meter Amounts:	Year	Amount
	2017	51.389
	2018	152.511
	2019	110.782
	2020	131.611
	2021	15.091

Meter Number:	19056	Meter Make:	MASTER METER
Meter Serial Number:	19814845	Meter Multiplier:	10.0000
Number of Dials:	6	Meter Type:	Diversion
Unit of Measure:	Gallons	Return Flow Percent:	
Usage Multiplier:		Reading Frequency:	Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
11/30/2020	2020	38460	A	RPT		0
12/31/2020	2020	42150	A	RPT		0.113
01/31/2021	2021	49850	A	RPT		0.236

**YTD Meter Amounts:		Year	Amount
		2020	0.113
		2021	0.236

File

CP-857



NEW MEXICO OFFICE OF THE STATE ENGINEER

Update Well Location



Date: 03/27/2020

POD No.: CP-00857-POD1

OSE Staff: Chris Angel

Instructions:

Use this form to correct or update POD location(s) based on In-Office Geospatial Applications. Update WATERS by creating a UWL transaction in the pertinent file number(s). Create and image a map, if necessary.

Current Location:

NM State Plane (NAD83) - In feet	NM West Zone	<input type="checkbox"/>	X (in feet): Y (in feet):		
	NM Central Zone	<input type="checkbox"/>			
	NM East Zone	<input type="checkbox"/>			
UTM (NAD83) - In meters	UTM Zone 13N	<input type="checkbox"/>	Easting (in meters): Northing (in meters):		
	UTM Zone 12N	<input type="checkbox"/>			
Lat/Long (WGS84) - To 1/10 th of second	Lat:	deg	min	sec	
<input type="checkbox"/> Check if seconds are decimal format	Long:	deg	min	sec	
Other Location Information (complete the below, if applicable):					
PLSS Quarters or Halves: SW1/4NE1/4NE1/4		Section: 05		Township: 26 South Range: 36 East	
County: Lea		Subasin: Capitan			

Updated Location:

NM State Plane (NAD83) - In feet	NM West Zone	<input type="checkbox"/>	X (in feet): Y (in feet):			
	NM Central Zone	<input type="checkbox"/>				
	NM East Zone	<input type="checkbox"/>				
UTM (NAD83) - In meters	UTM Zone 13N	<input type="checkbox"/>	Easting (in meters): Northing (in meters):			
	UTM Zone 12N	<input type="checkbox"/>				
Lat/Long (WGS84) - To 1/10 th of second	Lat: 32	deg	04	min	40.0	sec
<input type="checkbox"/> Check if seconds are decimal format	Long: 103	deg	16	min	51.5	sec
Other Location Information (complete the below, if applicable):						
PLSS Quarters or Halves: SE1/4NW1/4NE1/4NE1/4		Section: 05		Township: 26 South		Range: 36 East
County: Lea		Subasin: Capitan				

Comments:

A GPS was used to locate the well on the attached map.

Update Well Location Form, Rev. 12/11/18

File No.:

CP-857

Trn. No.:

670905



Revised June 1972

476330

Recompletion

Owner's Well No.

Owner's Well No.

b. Tract No. _____ of Map No. _____ of the _____

d. Y= feet. Y= feet. N.M. Coordinate System Zone is

WD-1184

10-9-96

365

on of well

Description of Water-Bearing Formation

Estimated Yield
(gallons per minute)

Top	Bottom
-----	--------

Type of Shoe

Method of Placement

State Engineer Representative

Depth in Feet

FOR USE OF STATE ENGINEER ONLY

130947

FWL

Stock

26.36.5.22322

Section 7. REMARKS AND ADDITIONAL INFORMATION

Released to Imaging: 8/26/2024 2:43:34 PM

Appendix C

Certificates of Analysis



Ameredev II, LLC



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

May 13, 2024

ANDREW PARKER

AMEREDEV

2901 VIA FORTUNA , SUITE 600

AUSTIN, TX 78746

RE: FIRETHORN FLARE

Enclosed are the results of analyses for samples received by the laboratory on 05/07/24 14:52.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 01 0 - 0.5 FT (H242469-01)

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	05/08/2024	ND	2.18	109	2.00	3.48	
Toluene*	<0.050	0.050	05/08/2024	ND	2.19	110	2.00	4.68	
Ethylbenzene*	<0.050	0.050	05/08/2024	ND	2.25	113	2.00	6.01	
Total Xylenes*	<0.150	0.150	05/08/2024	ND	6.79	113	6.00	6.73	
Total BTEX	<0.300	0.300	05/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	576	16.0	05/10/2024	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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	545	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	179	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 97.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 01 0.5 - 2 FT (H242469-02)

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	05/08/2024	ND	2.18	109	2.00	3.48		
Toluene*	<0.050	0.050	05/08/2024	ND	2.19	110	2.00	4.68		
Ethylbenzene*	<0.050	0.050	05/08/2024	ND	2.25	113	2.00	6.01		
Total Xylenes*	<0.150	0.150	05/08/2024	ND	6.79	113	6.00	6.73		
Total BTEX	<0.300	0.300	05/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	192	16.0	05/10/2024	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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	74.5	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	22.1	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 97.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.6 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 01 2 - 4 FT (H242469-03)

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	05/08/2024	ND	2.18	109	2.00	3.48		
Toluene*	<0.050	0.050	05/08/2024	ND	2.19	110	2.00	4.68		
Ethylbenzene*	<0.050	0.050	05/08/2024	ND	2.25	113	2.00	6.01		
Total Xylenes*	<0.150	0.150	05/08/2024	ND	6.79	113	6.00	6.73		
Total BTEX	<0.300	0.300	05/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	05/10/2024	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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.9 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 02 0 - 0.5 FT (H242469-04)

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	05/08/2024	ND	2.18	109	2.00	3.48		
Toluene*	<0.050	0.050	05/08/2024	ND	2.19	110	2.00	4.68		
Ethylbenzene*	<0.050	0.050	05/08/2024	ND	2.25	113	2.00	6.01		
Total Xylenes*	<0.150	0.150	05/08/2024	ND	6.79	113	6.00	6.73		
Total BTEX	<0.300	0.300	05/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	448	16.0	05/10/2024	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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	110	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	41.1	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 94.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.3 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 02 0.5 - 2 FT (H242469-05)

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	05/08/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/08/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/08/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/08/2024	ND	7.75	129	6.00	12.9	QM-07, QR-03	
Total BTEX	<0.300	0.300	05/08/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 97.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.7 % 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:

AMEREDEV
ANDREW PARKER
2901 VIA FORTUNA , SUITE 600
AUSTIN TX, 78746
Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 02 2 - 4 FT (H242469-06)

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	05/08/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/08/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/08/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/08/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.8 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 03 0 - 0.5 FT (H242469-07)

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	05/08/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/08/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/08/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/08/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/08/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	912	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 03 0.5 - 2 FT (H242469-08)

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	05/08/2024	ND	2.14	107	2.00	4.57	
Toluene*	<0.050	0.050	05/08/2024	ND	2.25	112	2.00	6.51	
Ethylbenzene*	<0.050	0.050	05/08/2024	ND	2.36	118	2.00	10.2	
Total Xylenes*	<0.150	0.150	05/08/2024	ND	7.75	129	6.00	12.9	
Total BTEX	<0.300	0.300	05/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 98.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.9 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 03 2 - 4 FT (H242469-09)

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	05/08/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/08/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/08/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/08/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/08/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 91.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.3 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 04 0 - 0.5 FT (H242469-10)

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	05/08/2024	ND	2.14	107	2.00	4.57	
Toluene*	<0.050	0.050	05/08/2024	ND	2.25	112	2.00	6.51	
Ethylbenzene*	<0.050	0.050	05/08/2024	ND	2.36	118	2.00	10.2	
Total Xylenes*	<0.150	0.150	05/08/2024	ND	7.75	129	6.00	12.9	
Total BTEX	<0.300	0.300	05/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1840	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 97.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.2 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 04 0.5 - 2 FT (H242469-11)

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	05/09/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 94.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.5 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 04 2 - 4 FT (H242469-12)

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	05/09/2024	ND	2.14	107	2.00	4.57	
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51	
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2	
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9	
Total BTEX	<0.300	0.300	05/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.8 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 05 0 - 0.5 FT (H242469-13)

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	05/09/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	960	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	34.8	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 77.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.9 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 05 0.5 - 2 FT (H242469-14)

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	05/09/2024	ND	2.14	107	2.00	4.57	
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51	
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2	
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9	
Total BTEX	<0.300	0.300	05/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 82.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.5 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 05 2 - 4 FT (H242469-15)

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	05/09/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	191	95.3	200	3.52	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	197	98.6	200	2.53	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 93.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.4 % 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:

AMEREDEV
ANDREW PARKER
2901 VIA FORTUNA , SUITE 600
AUSTIN TX, 78746
Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 06 0 - 0.5 FT (H242469-16)

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	05/09/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	190	94.8	200	1.62	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	179	89.3	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 88.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.9 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 06 0.5 - 2 FT (H242469-17)

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	05/09/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	190	94.8	200	1.62	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	179	89.3	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 90.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.4 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 06 2 - 4 FT (H242469-18)

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	05/09/2024	ND	2.14	107	2.00	4.57	
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51	
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2	
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9	
Total BTEX	<0.300	0.300	05/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	190	94.8	200	1.62	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	179	89.3	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 92.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.6 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 07 0 - 0.5 FT (H242469-19)

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	05/09/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	190	94.8	200	1.62	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	179	89.3	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 67.4 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 07 0.5 - 2 FT (H242469-20)

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	05/09/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	190	94.8	200	1.62	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	179	89.3	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.3 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 07 2 - 4 FT (H242469-21)

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	05/09/2024	ND	2.14	107	2.00	4.57	
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51	
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2	
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9	
Total BTEX	<0.300	0.300	05/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/10/2024	ND	416	104	400	7.41	

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	05/08/2024	ND	190	94.8	200	1.62	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	179	89.3	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 93.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.9 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 08 0 - 0.5 FT (H242469-22)

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	05/09/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1150	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	190	94.8	200	1.62	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	179	89.3	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 80.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 61.4 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 08 0.5 - 2 FT (H242469-23)

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	05/09/2024	ND	2.14	107	2.00	4.57	
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51	
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2	
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9	
Total BTEX	<0.300	0.300	05/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	624	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	190	94.8	200	1.62	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	179	89.3	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 84.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 62.4 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	05/07/2024	Sampling Date:	05/07/2024
Reported:	05/13/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 08 2 - 4 FT (H242469-24)

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	05/09/2024	ND	2.14	107	2.00	4.57		
Toluene*	<0.050	0.050	05/09/2024	ND	2.25	112	2.00	6.51		
Ethylbenzene*	<0.050	0.050	05/09/2024	ND	2.36	118	2.00	10.2		
Total Xylenes*	<0.150	0.150	05/09/2024	ND	7.75	129	6.00	12.9		
Total BTEX	<0.300	0.300	05/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	05/10/2024	ND	416	104	400	7.41		

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	05/08/2024	ND	190	94.8	200	1.62	
DRO >C10-C28*	<10.0	10.0	05/08/2024	ND	179	89.3	200	2.40	
EXT DRO >C28-C36	<10.0	10.0	05/08/2024	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.6 % 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

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.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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

A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Amerebe

Project Manager: Andrew Parker

Address: On-File

City: State: Zip:

Phone #: Fax #:

Project #: Project Owner:

Project Name: 20240423-0550-ft CTB flare

Project Location: Firehorn Flare

Sample Name: Christopher Turner

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

Sample I.D.	Date	Time	Matrix	Preserv	Sampling	Analysis Request				
						Chloride	TPH (GRO+DRO+MRO)	BTEX (Benzene)		
CS-01	0-0.5 ft	10:20	X	X	X					
CS-01	0.5-2 ft	10:35	X	X	X					
CS-01	2-4 ft	10:44	X	X	X					
CS-02	0-0.5 ft	10:48	X	X	X					
CS-02	0.5-2 ft	10:53	X	X	X					
CS-02	2-4 ft	11:00	X	X	X					
CS-03	0-0.5 ft	11:06	X	X	X					
CS-03	0.5-2 ft	11:13	X	X	X					
CS-03	2-4 ft	11:19	X	X	X					
CS-04	0-0.5 ft		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 analysis. All claims, including those for negligence and any other cause whatsoever shall be barred unless written 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. *Tag out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based on any of the above stated reasons or otherwise.

Relinquished By:

Date: 05-12-24

Time: 1452

Received By:

Date: 05-12-24

Time: 1452

Received By:

Date: 05-12-24

Time: 1452

Received By:

Date: 05-12-24

Time: 1452

Received By:

Relinquished By:

Date: 05-12-24

Time: 1452

Received By:

Date: 05-12-24

Time: 1452

Received By:

Date: 05-12-24

Time: 1452

Received By:

Date: 05-12-24

Time: 1452

Received By:

Delivered By: (Circle One)

Observed Temp. °C

Corrected Temp. °C

Sample Condition

CHECKED BY: (Initials)

Thermometer ID #140

Correction Factor 0°C

Remarks:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

Remarks:

FORM 006 REV 07/11/23

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Amerefer Project Manager: Andrew Parker Address: Du-File						P.O. #: 20240923-0550-FCTBPure Company: Amerefer Attn: upurker@amerefer.com Address: City: State: Zip:						
City: State: Zip: Phone #: Fax #: Project #: Project Name: 20240923-0550-FCTBPure Project Location: Fire thorn Flare Sampler Name: Chris Turner						City: Address: City: State: Zip: Phone #: Fax #:						
FOR LAB USE ONLY												
Lab I.D.						Sample I.D.						
H2R24U9												
CS-04						D-0.5 FT C (G) RAB OR (C) OMP.						
CS-04						# CONTAINERS						
CS-04						GROUNDWATER						
CS-04						WASTEWATER						
CS-05						SOIL X						
CS-05						OIL						
CS-05						SLUDGE						
CS-05						OTHER :						
CS-06						ACID/BASE:						
CS-06						ICE / COOL X						
CS-06						OTHER :						
CS-07						DATE DATE TIME						
CS-07						TIME						
CS-07						X Chloride						
CS-07						X TPH (GR0+DR0+MR0)						
CS-07						X ISTEX (Benzene)						
PLEASE NOTE: Liability and Damages. Cardholder's liability and credit exclusions remain solely for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the service. 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 indirect limitation, business interruptions, loss of use or profits incurred by clients, its subsidiaries, affiliates or associates, 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: 05-12-21 Received By: [Signature] Time: 14:52 Date: 14:52						
Delivered By: (Circle One) Cool Intact Yes No Corrected Temp. °C						Sample Condition CHECKED BY: (Initials) Cool Intact Yes No Thermometer ID #140 Correction Factor 0°C						
REMARKS:						Verbal Result: Yes No Add'l Phone #: All Results are emailed. Please provide Email address:						
Temp bank - 0.8°C						Standard Bacteria (only) Sample Condition Cool Intact Yes No Observed Temp. °C Corrected Temp. °C						



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

P.O. # 2240423-0550-F1CTBF1are

Company: A Wercel

Address: 2240423-0550-F1CTBF1are

City: State: Zip:

Phone #: Fax #:

Project Name: 2240423-0550-F1CTBF1are

Project Location: Firestorm Flare

Sampler Name: Christopher Turner

FOR LAB USE ONLY

Lab I.D. Sample I.D.

Matrix

Preserv

Sampling

Date Time

Chloride

TPH (GRO+DRO+MRO)

STEX (Benzene)



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

June 18, 2024

ANDREW PARKER

AMEREDEV

2901 VIA FORTUNA , SUITE 600

AUSTIN, TX 78746

RE: FIRETHORN FLARE

Enclosed are the results of analyses for samples received by the laboratory on 06/12/24 16:43.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	06/12/2024	Sampling Date:	06/12/2024
Reported:	06/18/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 09 0-2' (H243423-01)

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	06/14/2024	ND	1.79	89.6	2.00	6.69	
Toluene*	<0.050	0.050	06/14/2024	ND	1.84	92.0	2.00	8.36	
Ethylbenzene*	<0.050	0.050	06/14/2024	ND	1.94	97.1	2.00	8.37	
Total Xylenes*	<0.150	0.150	06/14/2024	ND	5.82	97.1	6.00	7.83	
Total BTEX	<0.300	0.300	06/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	06/17/2024	ND	416	104	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	06/14/2024	ND	188	94.2	200	4.00	
DRO >C10-C28*	<10.0	10.0	06/14/2024	ND	173	86.6	200	4.02	
EXT DRO >C28-C36	<10.0	10.0	06/14/2024	ND					

Surrogate: 1-Chlorooctane 96.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	06/12/2024	Sampling Date:	06/12/2024
Reported:	06/18/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 09 2-4' (H243423-02)

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	06/14/2024	ND	1.79	89.6	2.00	6.69		
Toluene*	<0.050	0.050	06/14/2024	ND	1.84	92.0	2.00	8.36		
Ethylbenzene*	<0.050	0.050	06/14/2024	ND	1.94	97.1	2.00	8.37		
Total Xylenes*	<0.150	0.150	06/14/2024	ND	5.82	97.1	6.00	7.83		
Total BTEX	<0.300	0.300	06/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	06/17/2024	ND	416	104	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	06/14/2024	ND	188	94.2	200	4.00	
DRO >C10-C28*	<10.0	10.0	06/14/2024	ND	173	86.6	200	4.02	
EXT DRO >C28-C36	<10.0	10.0	06/14/2024	ND					

Surrogate: 1-Chlorooctane 98.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	06/12/2024	Sampling Date:	06/12/2024
Reported:	06/18/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 10 0-2' (H243423-03)

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	06/14/2024	ND	1.79	89.6	2.00	6.69		
Toluene*	<0.050	0.050	06/14/2024	ND	1.84	92.0	2.00	8.36		
Ethylbenzene*	<0.050	0.050	06/14/2024	ND	1.94	97.1	2.00	8.37		
Total Xylenes*	<0.150	0.150	06/14/2024	ND	5.82	97.1	6.00	7.83		
Total BTEX	<0.300	0.300	06/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	06/17/2024	ND	416	104	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	06/14/2024	ND	188	94.2	200	4.00	
DRO >C10-C28*	<10.0	10.0	06/14/2024	ND	173	86.6	200	4.02	
EXT DRO >C28-C36	<10.0	10.0	06/14/2024	ND					

Surrogate: 1-Chlorooctane 98.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 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:

AMEREDEV
 ANDREW PARKER
 2901 VIA FORTUNA , SUITE 600
 AUSTIN TX, 78746
 Fax To:

Received:	06/12/2024	Sampling Date:	06/12/2024
Reported:	06/18/2024	Sampling Type:	Soil
Project Name:	FIRETHORN FLARE	Sampling Condition:	Cool & Intact
Project Number:	20240423-0550-FTCTBFLARE	Sample Received By:	Alyssa Parras
Project Location:	NONE GIVEN		

Sample ID: CS - 10 2-4' (H243423-04)

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	06/14/2024	ND	1.79	89.6	2.00	6.69		
Toluene*	<0.050	0.050	06/14/2024	ND	1.84	92.0	2.00	8.36		
Ethylbenzene*	<0.050	0.050	06/14/2024	ND	1.94	97.1	2.00	8.37		
Total Xylenes*	<0.150	0.150	06/14/2024	ND	5.82	97.1	6.00	7.83		
Total BTEX	<0.300	0.300	06/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	06/17/2024	ND	416	104	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	06/14/2024	ND	188	94.2	200	4.00	
DRO >C10-C28*	<10.0	10.0	06/14/2024	ND	173	86.6	200	4.02	
EXT DRO >C28-C36	<10.0	10.0	06/14/2024	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.8 % 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

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
- Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Amerder LLC</u>		P.O. #: <u>20240423-0550-41CTB flow</u>		BILL TO		ANALYSIS REQUEST											
Project Manager: <u>Andrew Parker</u>		Company: <u>Amerder LLC</u>															
Address: <u>On-File</u>		Attn: <u>aparker@amerder.com</u>															
City: _____ State: _____ Zip: _____		Address: _____															
Phone #: _____ Fax #: _____		City: _____ State: _____ Zip: _____															
Project #: _____		Project Owner: _____															
Project Name: <u>20240423-0550-41CTB flow</u>		City: _____ State: _____ Zip: _____															
Project Location: <u>Firethorn CTB</u>		Phone #: _____															
Sample Name: <u>Jesus Palomares</u>		Fax #: _____															
FOR LAB USE ONLY																	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	TPH (GRO+DRO+MRO)	BTEX (Benzene)
H243473	CS-09	0-2ft	1										06-12	08:40			
1	CS-09	2-4ft	1										08:50	13:49			
3	CS-10	0-2ft	1										13:55				
3	CS-10	2-4ft	1														
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.																	
Relinquished By: _____		Date: <u>8-12-24</u>		Received By: _____		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:		All Results are emailed. Please provide Email address:									
Relinquished By: _____		Date: <u>8-12-24</u>		Received By: _____		REMARKS: <u>1.2c temp blank</u>											
Delivered By: (Circle One)		Observed Temp. °C		Sample Condition		CHECKED BY: (Initials)		Turnaround Time:		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Bacteria (only) Sample Condition		Cool Intact <input type="checkbox"/>		Observed Temp. °C	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		<input type="checkbox"/> Yes <input type="checkbox"/> No													
FORM-000 Rev 4 07/11/23																	

† Cardinal cannot accept verbal changes to celery.keene@cardinallabsnm.com

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

QUESTIONS

Action 369286

QUESTIONS

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID: 372224
	Action Number: 369286
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2411463396
Incident Name	NAPP2411463396 FIRETHORN CTB @ 0
Incident Type	Fire
Incident Status	Deferral Request Received
Incident Facility	[fAPP2203855966] FIRETHORN

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Firethorn CTB
Date Release Discovered	04/23/2024
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Fire
Did this release result in a fire or is the result of a fire	Yes
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Fire Other (Specify) Crude Oil Released: 1 BBL Recovered: 0 BBL Lost: 1 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Cause: Fire Other (Specify) Natural Gas Vented Released: 5 MCF Recovered: 0 MCF Lost: 5 MCF.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Cause of fire: Treated Oil Recirculation Heater oil dump was stuck in it's closed position.

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

QUESTIONS, Page 2

Action 369286

QUESTIONS (continued)

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID:	372224
	Action Number:	369286
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	Yes, according to supplied volumes this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (2) an unauthorized release of a volume that: (a) results in a fire or is the result of a fire.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Andrew Parker Title: Environmental Scientist Email: aparker@ameredev.com Date: 04/30/2024
--	--

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

QUESTIONS, Page 3

Action 369286

QUESTIONS (continued)

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID: 372224
	Action Number: 369286
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 100 and 200 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	1850
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	161
GRO+DRO (EPA SW-846 Method 8015M)	120
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	04/24/2024
On what date will (or did) the final sampling or liner inspection occur	06/12/2024
On what date will (or was) the remediation complete(d)	04/24/2024
What is the estimated surface area (in square feet) that will be reclaimed	700
What is the estimated volume (in cubic yards) that will be reclaimed	2
What is the estimated surface area (in square feet) that will be remediated	700
What is the estimated volume (in cubic yards) that will be remediated	2

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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

QUESTIONS, Page 4

Action 369286

QUESTIONS (continued)

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID:	372224
	Action Number:	369286
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	OWL LANDFILL JAL [fJEG1635837366]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Andrew Parker Title: Environmental Scientist Email: aparker@ameredev.com Date: 08/02/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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

QUESTIONS, Page 5

Action 369286

QUESTIONS (continued)

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID:	372224
	Action Number:	369286
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Deferral Requests Only	
<i>Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	Turning off flares during remediation efforts would cause major facility shutdown and operating oil and gas wells to be shut-in.
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	1700
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	47
<i>Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.</i>	
Enter the facility ID (F#) on which this deferral should be granted	FIRETHORN [fAPP2203855966]
Enter the well API (30-) on which this deferral should be granted	Not answered.
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Andrew Parker Title: Environmental Scientist Email: aparker@ameredev.com Date: 08/02/2024

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

QUESTIONS, Page 6

Action 369286

QUESTIONS (continued)

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID: 372224
	Action Number: 369286
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	352086
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	06/12/2024
What was the (estimated) number of samples that were to be gathered	6
What was the sampling surface area in square feet	3854

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	No
--	----

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 369286

CONDITIONS

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID:
	372224
	Action Number:
	369286
Action Type:	
[C-141] Deferral Request C-141 (C-141-v-Deferral)	

CONDITIONS

Created By	Condition	Condition Date
rhamlet	Ameredev's deferral requests final remediation for (Incident Number NAPP2411463396) until final reclamation of the well pad or major construction, whichever comes first. Ameredev does not believe deferment will result in imminent risk to human health, the environment, or groundwater. The areas requested for deferral are in the immediate vicinity of active flares, where remediation would require a major facility deconstruction, which include sample areas (CS-01 through CS-05 and CS-08). At this time, OCD approves this request. The release areas will need to meet reclamation standards at the time the facility is deconstructed, and the pad is reclaimed/revegetated. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.	8/26/2024