



Souder, Miller & Associates ♦ 201 S. Halagueno St. ♦ Carlsbad, NM 88220
(575) 689-7040

August 5, 2020

SMA #5E29133, BG40

NMOCD District 1
1625 N. French Drive
Hobbs, New Mexico 88240

**RE: LINER INSPECTION REPORT
DEVON THISTLE UNIT 34 CENTRAL TANK BATTERY**

To Whom it May Concern:

Souder, Miller & Associates (SMA) is pleased to submit this letter report on behalf of Devon Energy Production Company (Devon) summarizing the liner inspection that occurred due to the Devon Thistle Unit 34 Central Tank Battery release. The site is located in Unit Letter P Section 34, T23S, R33E (N32.256886/W-558408) Lea County, New Mexico, on BLM land.

Site Characterization

On October 6, 2017, a gun barrel vented at Devon Thistle Unit 34 Central Tank Battery Facility causing the storage tanks to overflow into the secondary containment. This resulted in the release of 34 bbls of produced water and 1 bbls of crude oil inside the lined secondary containment of the tank battery. Initial response activities were conducted by the operator and included source elimination and site stabilization, which recovered approximately 34 bbls of produced water and 1bbls of crude oil.

Based upon New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) well data, depth to groundwater in the area is estimated to be between 135 and 158 feet below grade surface (bgs). There are no water sources within ½-mile of the location, according to the NMOSE and USGS water well databases (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed July 29, 2020; Appendix C). The nearest significant watercourse is an unnamed intermittent stream, located approximately 970 feet to the northeast, depicted on figure 2.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of >100 feet bgs.

Liner Integrity

At the request of Devon, SMA conducted a liner integrity inspection per the requirements of 19.15.29.11.A(5)(a) NMAC. NMOCD was notified on July 27, 2020 that the liner inspection was to occur. After a thorough visual inspection of the liner within the tank battery containment, the liner appeared to be intact and had the ability to contain the leak in question. The tanks from which the release occurred were identified, and SMA verified that the release did not occur outside of the lined containment. A photo log and field notes of the inspection is included in Appendix A.

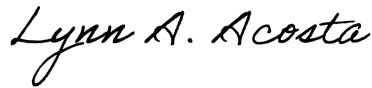
SMA recommends no further action for this release.

Devon Energy Production Company
Devon Thistle Unit 34 CTB

5E29133, BG53

Souder, Miller and Associates appreciates the opportunity to provide environmental services to you. If you have any questions or comments concerning this report, please feel free to call Lynn A. Acosta at 505-516-7469.

Sincerely,
Souder, Miller & Associates



Lynn A. Acosta
Staff Geoscientist



Shawna Chubbuck
Senior Scientist

Figures

Figure 1: Site Map

Figure 2: Surface Water Protection Map

Appendices

Appendix A: Photo Log & Field Notes

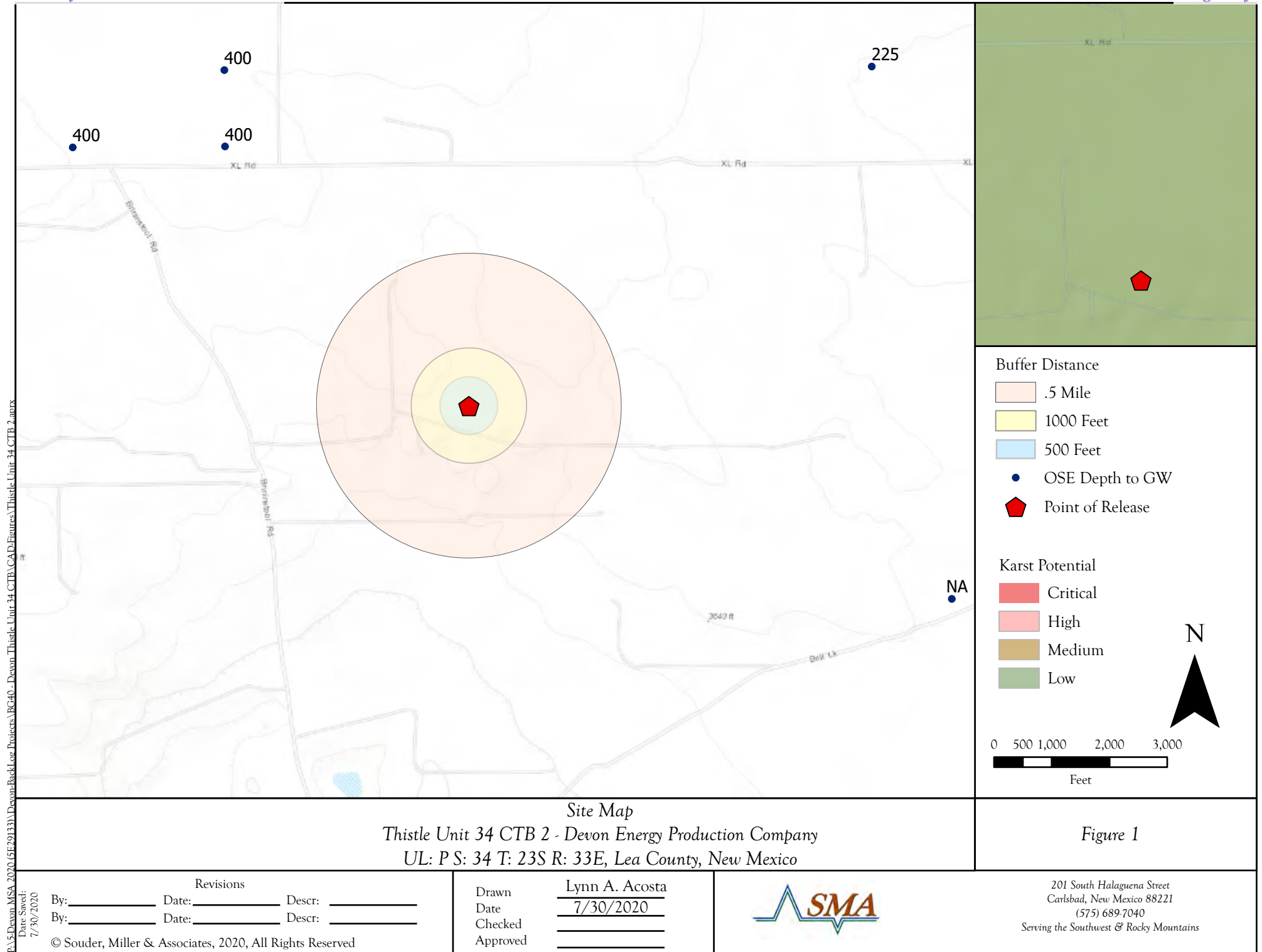
Appendix B: Incident Detail

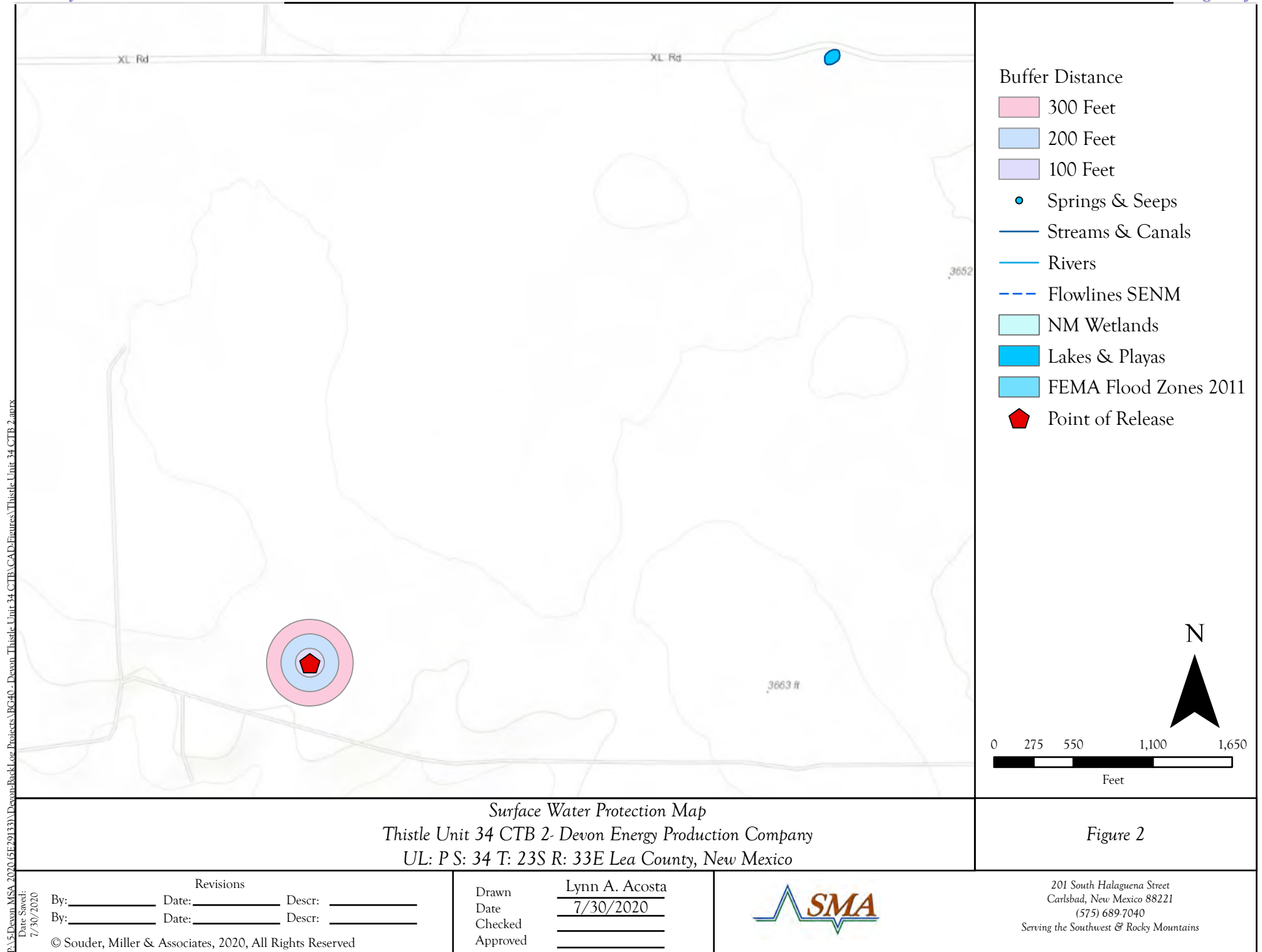
Appendix C: Water Well Data

Devon Energy Production Company
Devon Thistle Unit 34 CTB

5E29133, BG53

FIGURES



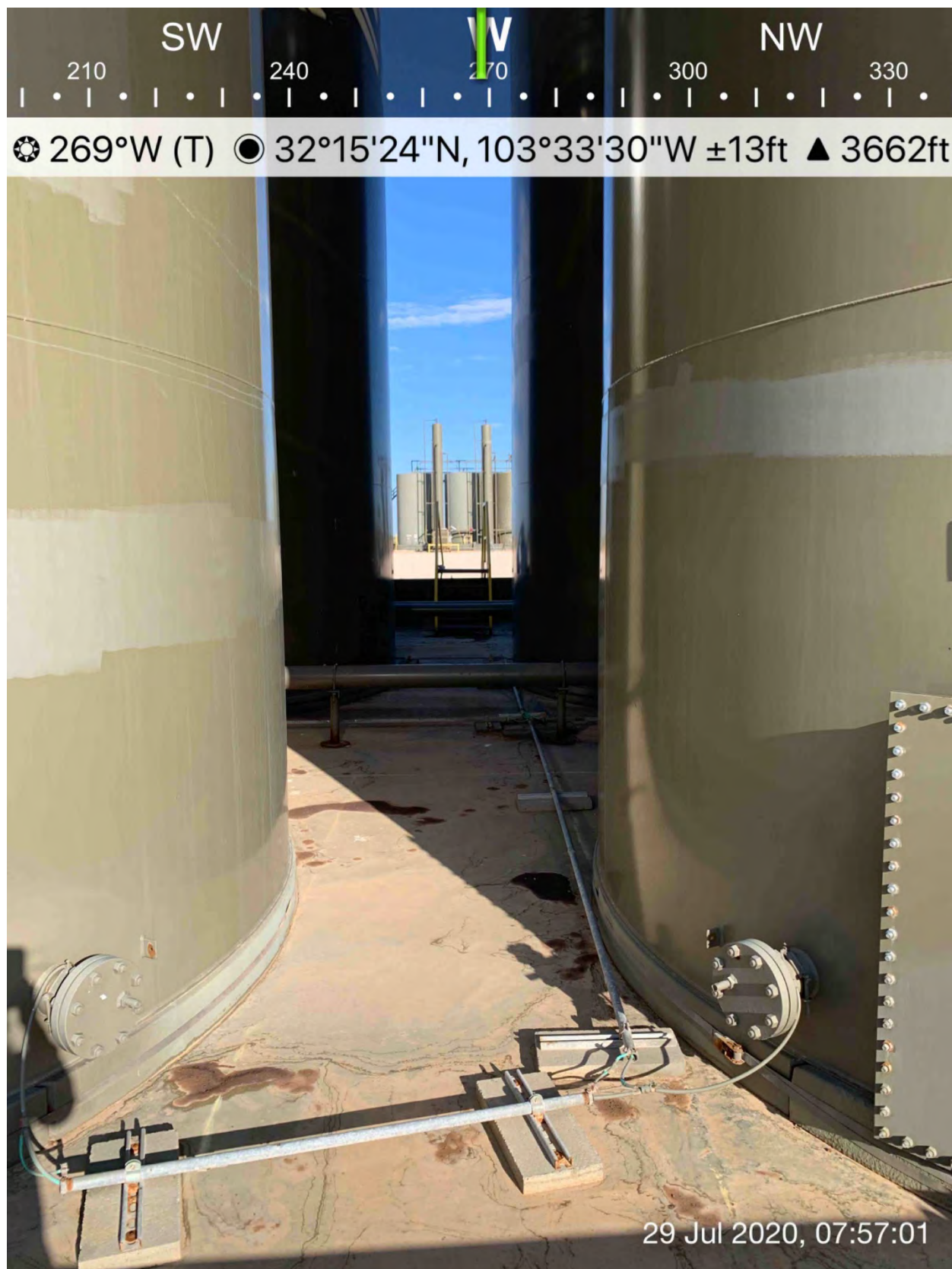


Devon Energy Production Company
Devon Thistle Unit 34 CTB

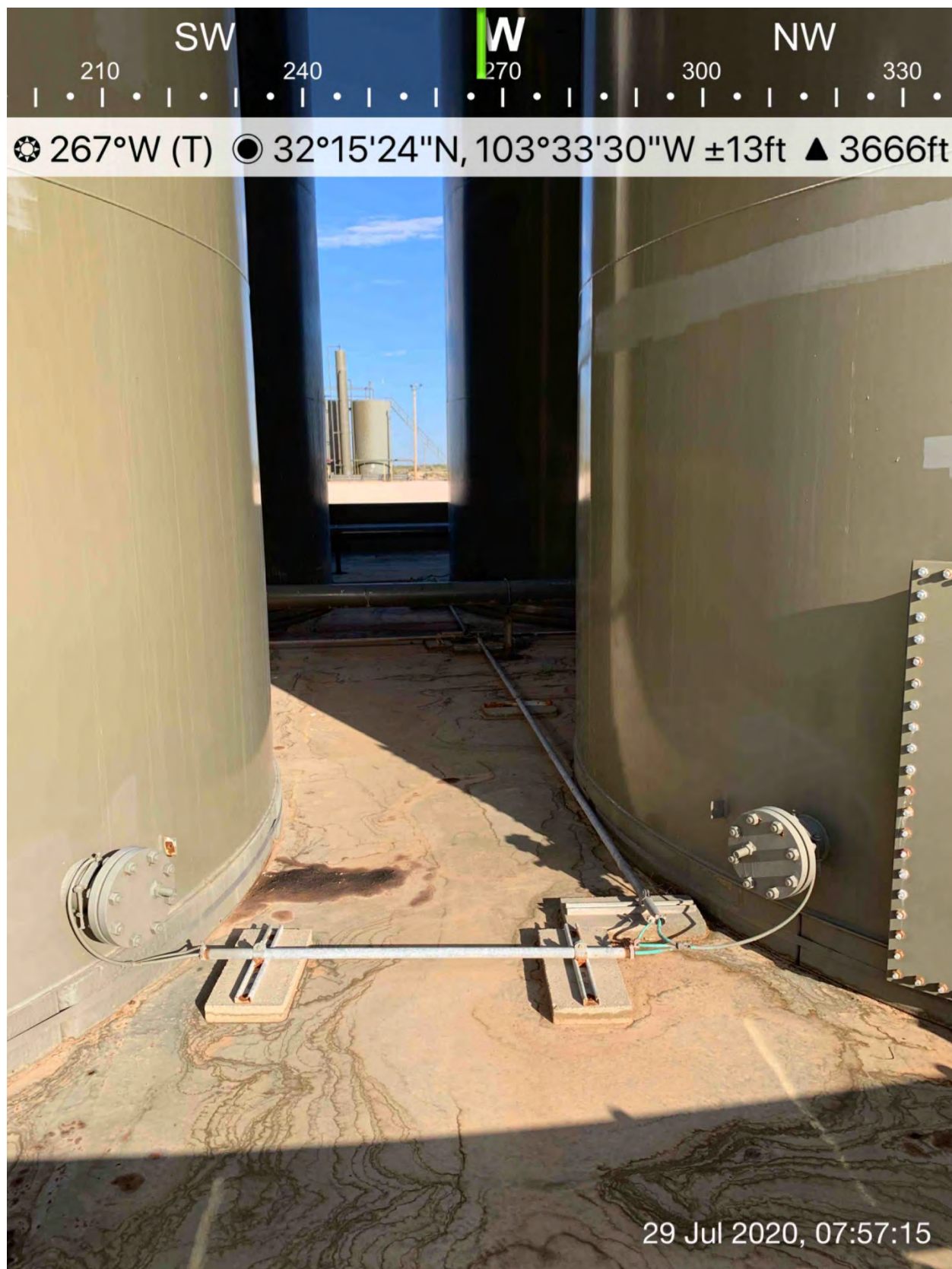
5E29133, BG53

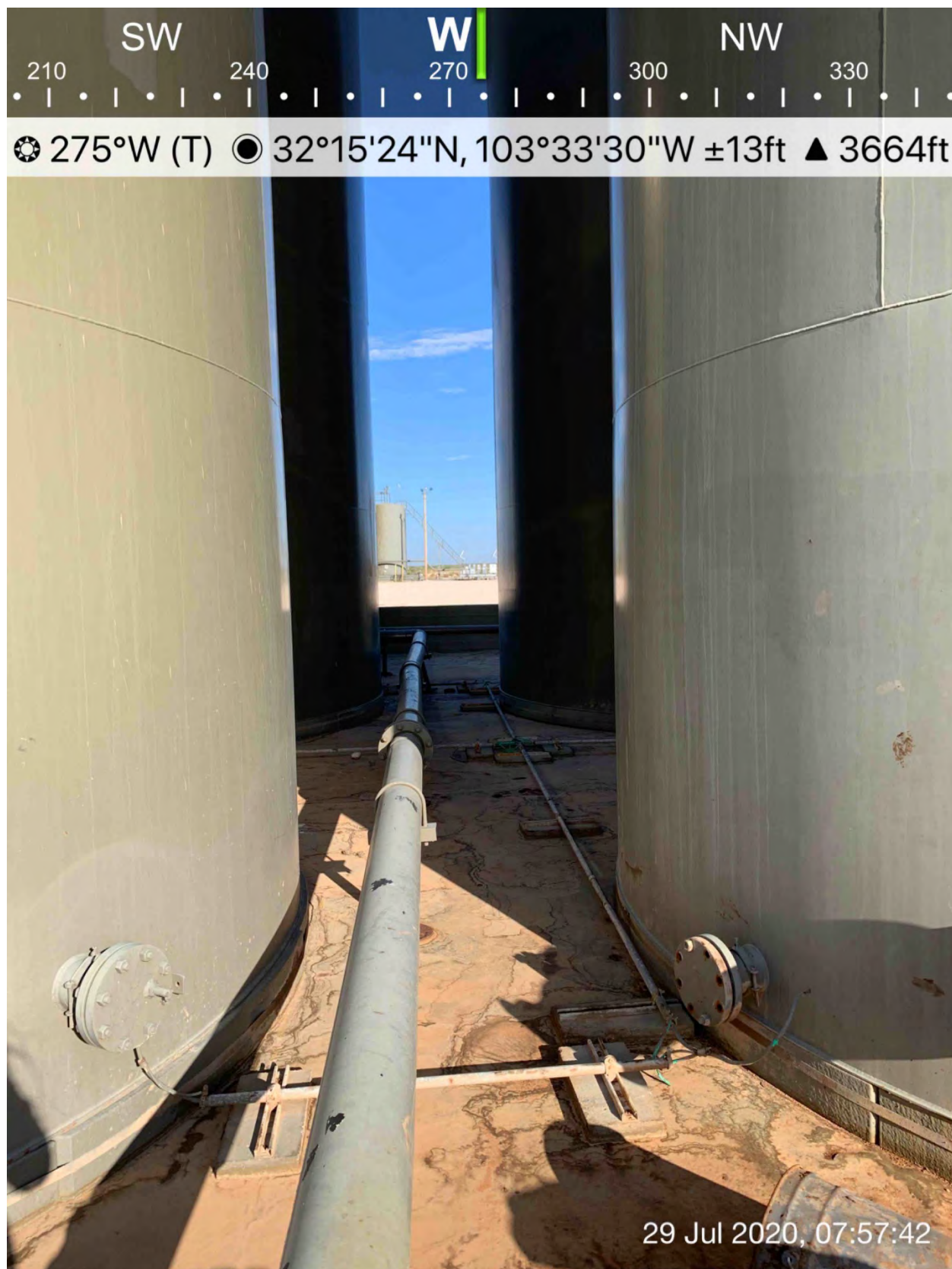
Appendix A
PHOTO LOG & FIELD NOTES

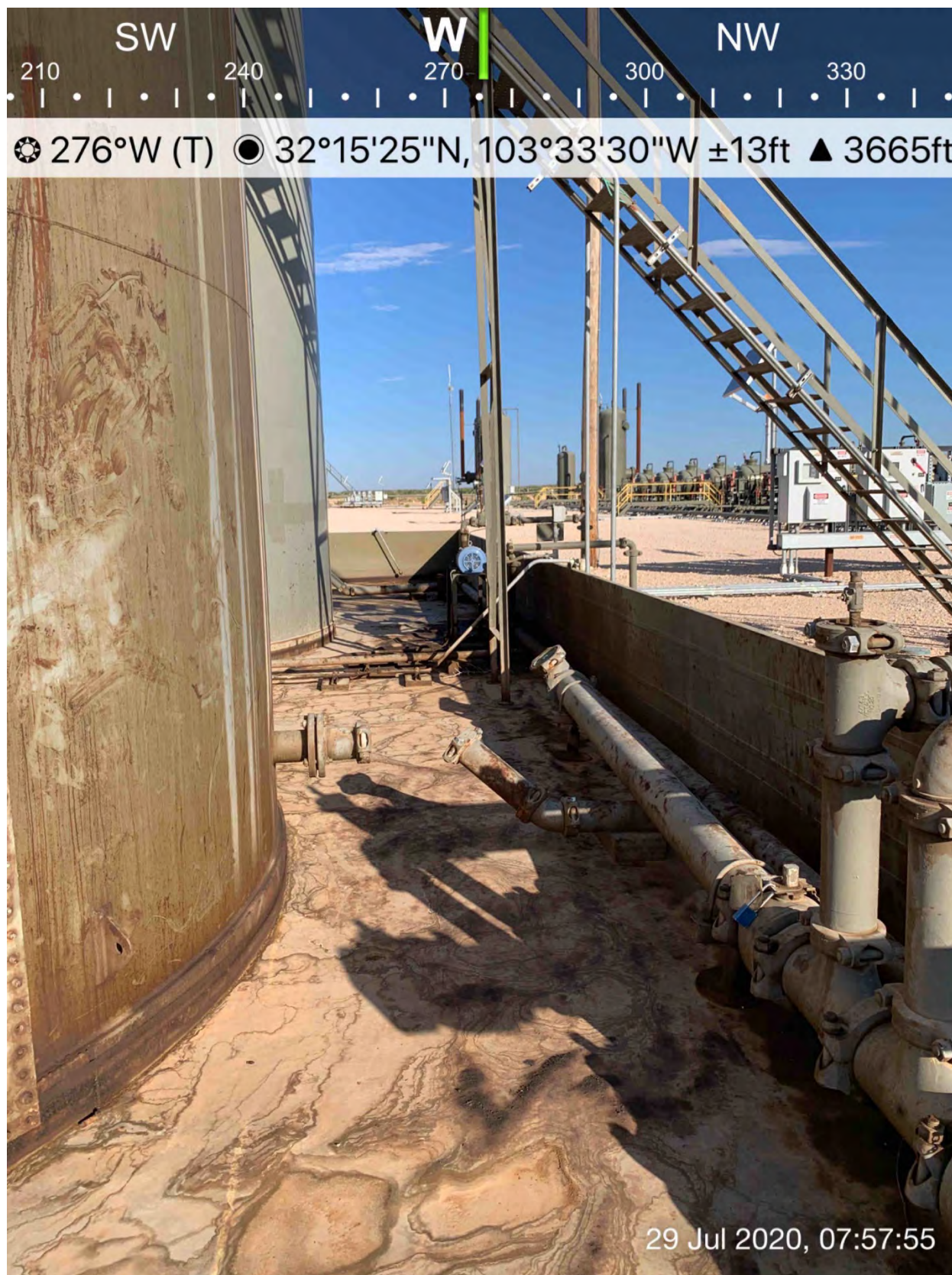


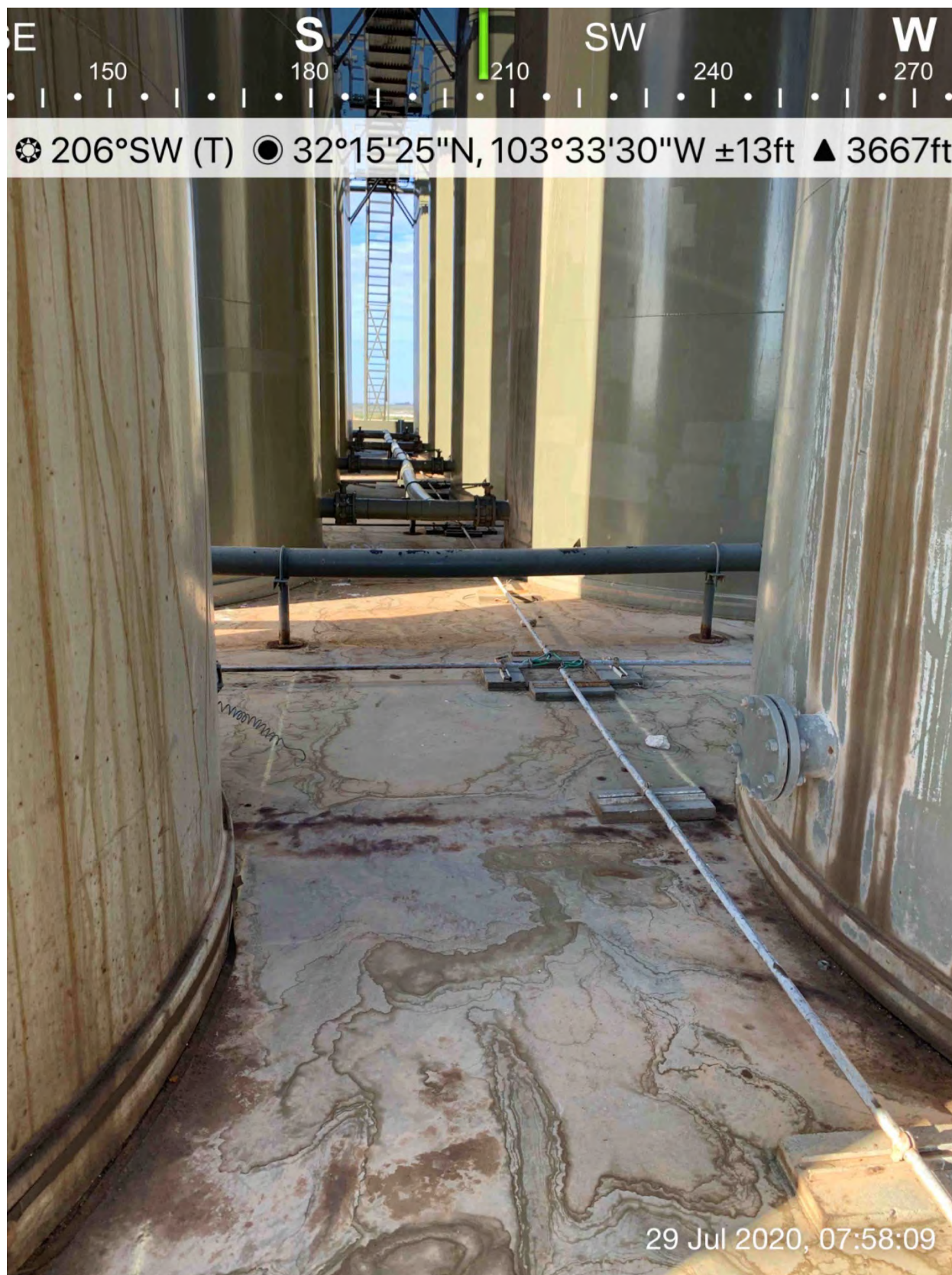




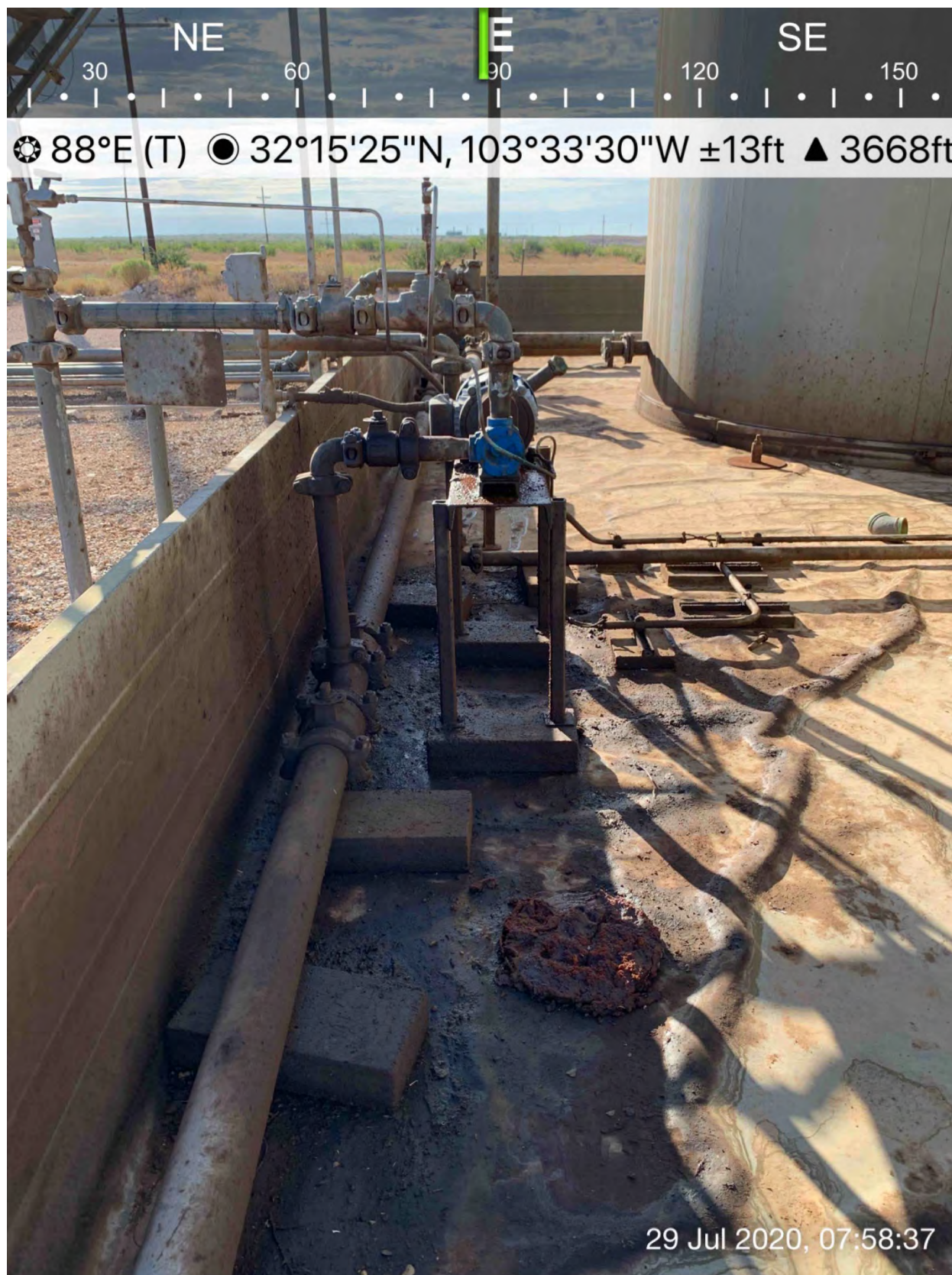




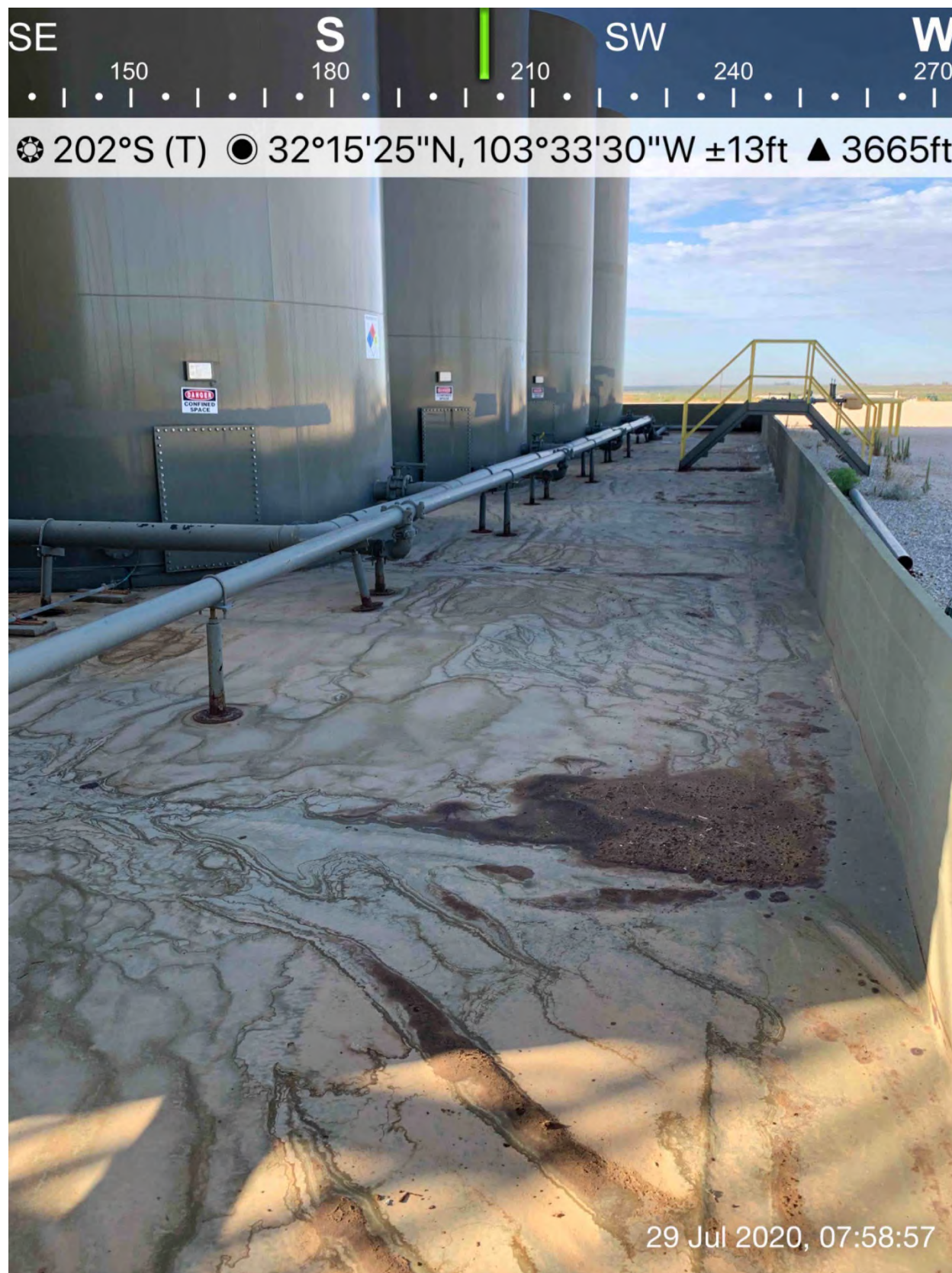




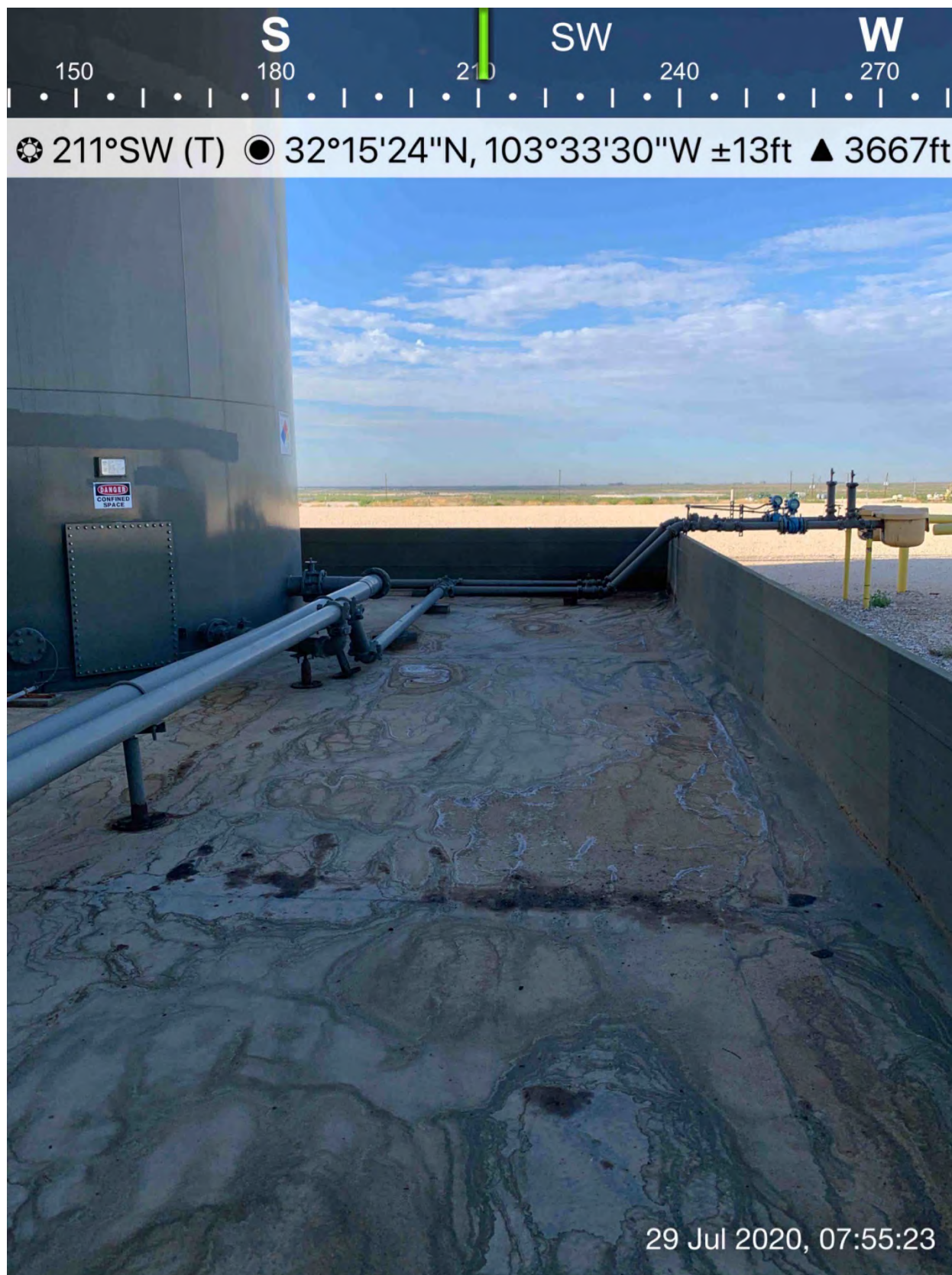




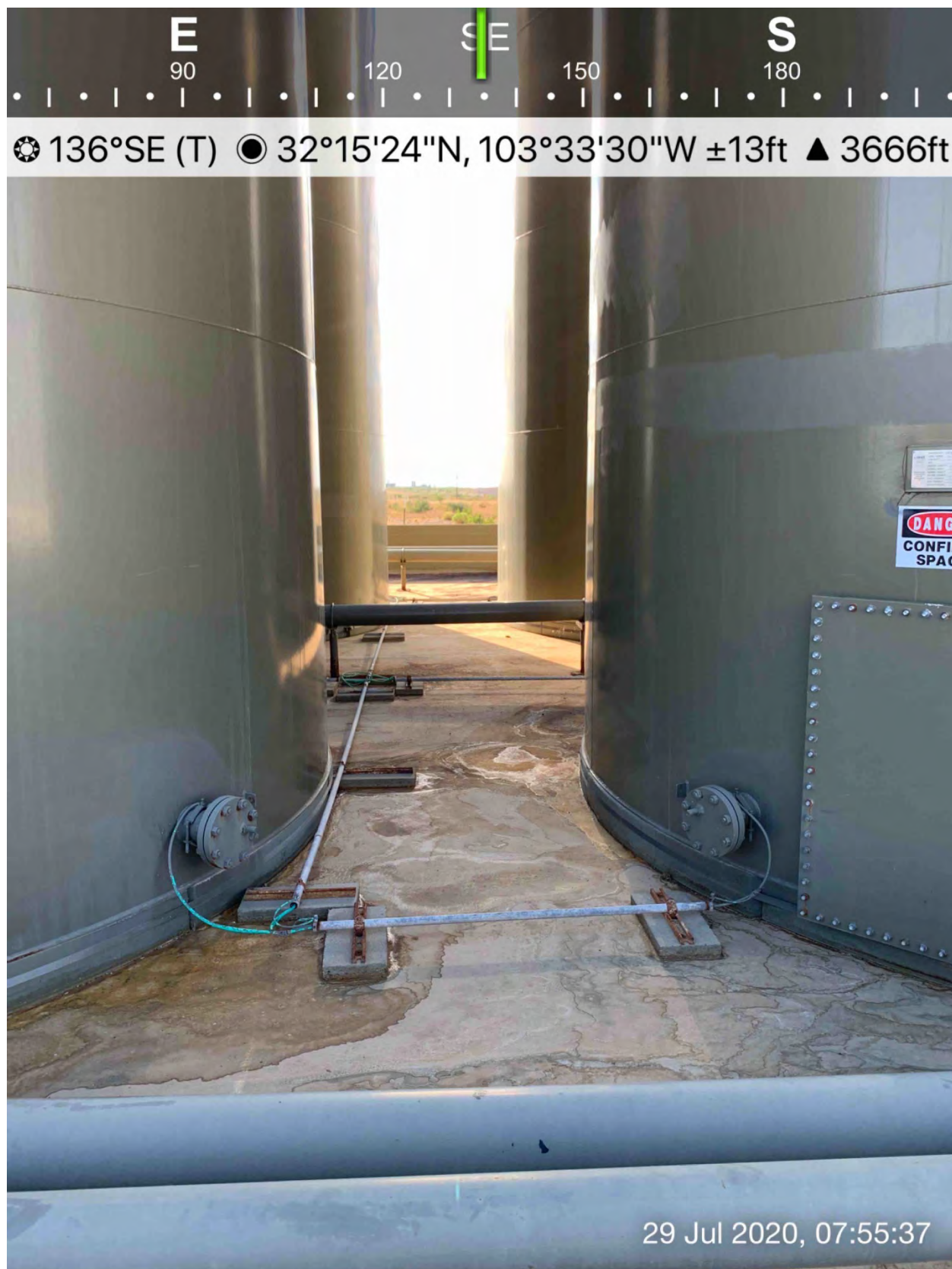


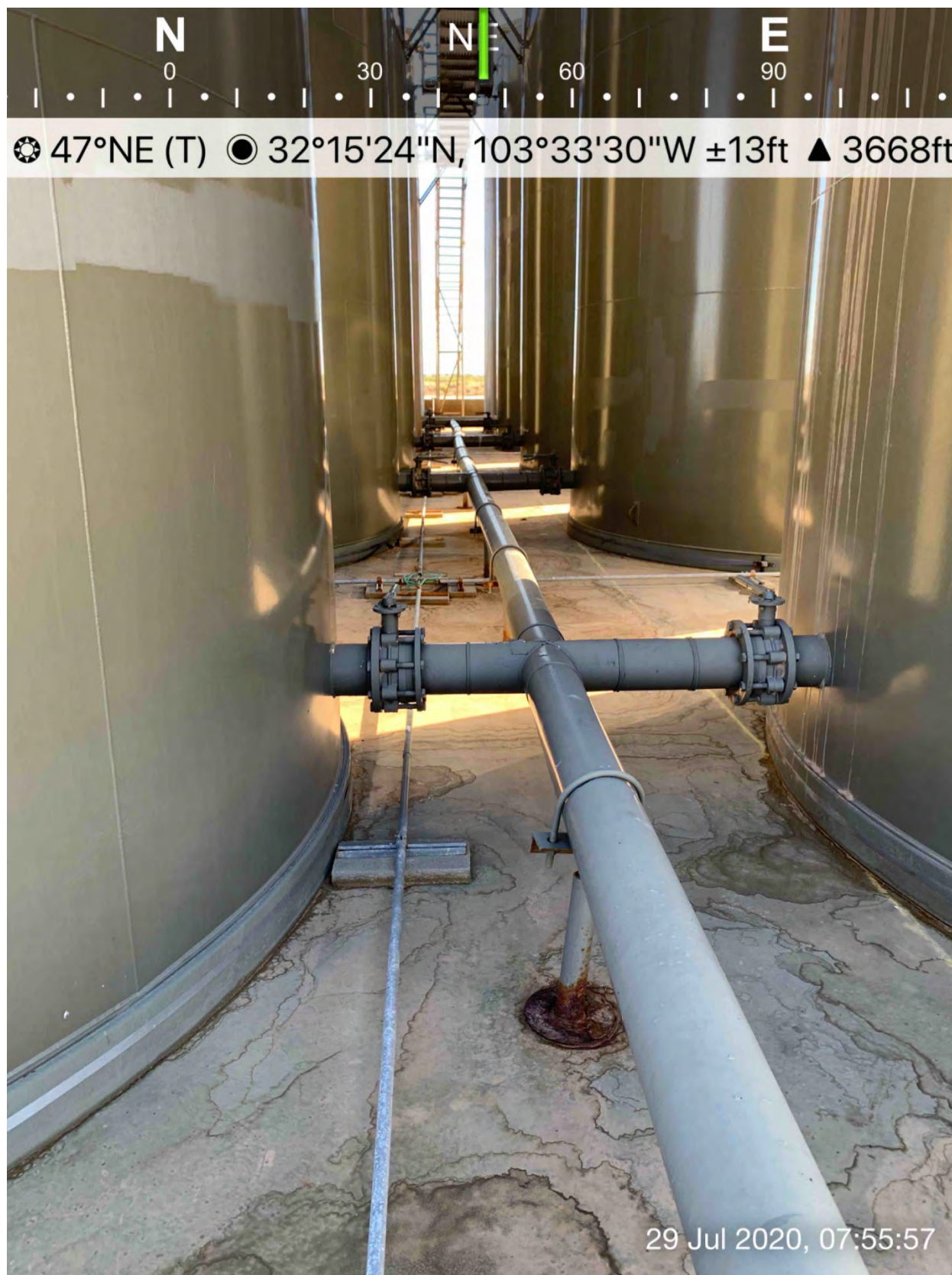


















**Souder, Miller & Associates
Liner Inspection Form**

Project Name: Devon Thistle Unit 34 Inspection Date: 7/29/2020
Client Name: Devon Energy
Client Representative(s): _____
SMA Inspector(s): Alicia A. Lopez
Project Location: _____ Latitude: 32.256886 Longitude: -103.558408

Inspection Parameters as Outlined in 19.15.29.11.A(5) NMAC**PRIOR TO INSPECTION:**

Two (2) Business Day Notification of Inspection to Appropriate Division Office (Y/N): Y
Date of Notice: 7/27/2020

Material Covering Liner Removed by Client (Y/N): Y

Affected Areas Exposed by Client (Y/N): Y

INSPECTION:

Liner Thoroughly Inspected for Damage (Y/N): Y

All Damaged Areas Observed Marked in **White Paint** on Liner
Photos and Field Notes Detailing Failures Attached to This Form

To Be Completed by Client Representative:

Can Responsible Party Demonstrate:
Liner Integrity Was Maintained (per SMA Inspection) (Y/N): _____
Release Was Contained to Lined Containment Area (Y/N): _____
Liner Was Able to Contain the Leak (Y/N): _____

If YES:

Certify on Form C-141 That Liner Remains Intact

If NO to Any of Above:

Responsible Party Must Delineate Horizontal & Vertical Extent

Depending on Release:

See Table 1 19.15.29.12 NMAC

See Subparagraph (e) Paragraph (5) of Subsection A 19.15.29.11 NMAC

Additional Comments:**SMA INSPECTOR SIGNATURE**


Date: 7/29/2020

CLIENT REPRESENTATIVE

Tom Bynum
Date: 7/29/2020

Devon Energy Production Company
Devon Thistle Unit 34 CTB

5E29133, BG53

APPENDIX B INCIDENT DETAIL

Searches

Operator Data

Hearing Fee Application

OCD Permitting

[Home](#) [Searches](#) [Incidents](#) [Incident Details](#)

NOY1727957654 2017 MAJOR A SWS @ FOY1727957510

General Incident Information

Site Name:

Well:

Facility: [\[FOY1727957510\]](#) Devon Thistle Unit 34 CTB 2Operator: [\[6137\]](#) DEVON ENERGY PRODUCTION COMPANY, LP

Status: Closure Not Approved

Type: Produced Water Release

District: Hobbs

Severity: Major

Surface Owner: State

County: Lea (25)

Incident Location: P-34-23S-33E 0 FL 0 FL

Lat/Long: 32.256886,-103.558408

Directions:

Quic

- [Gene](#)
- [Mater](#)
- [Event](#)
- [Order](#)

Assoc

- [Facilit](#)
- [Incide](#)

New

- [New I](#)
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Notes

Source of Referral: Industry Rep

Action / Escalation:

Resulted In Fire: ☐Will or Has Reached Watercourse: ☐Endangered Public Health: ☐Property Or Environmental Damage: ☐

Contact Details

Contact Name:

Contact Title:

Event Dates

Date of Discovery: 10/06/2017

Extension Date: 11/15/2018

OCD Notified of Major Release: 09/23/2017

Cancelled Date:

Initial C-141 Received:

Characterization Report Received:

Remediation Plan Received:

Closure Report Received:

Characterization Report Approved:

Remediation Plan Approved:

Remediation Due:

Closure Report Approved:

Incidents Materials

Cause	Source	Material	Volume				Units
			Unk.	Spilled	Recovered	Lost	
Other	Other (Specify)	Produced Water	<input type="checkbox"/>	34	34	0	BBL
Other	Other (Specify)	Crude Oil	<input type="checkbox"/>	1	1	0	BBL

Incident Events

Date

Detail

Orders

No Orders Found

New Mexico Energy, Minerals and Natural Resources Department | Copyright 2012
1220 South St. Francis Drive | Santa Fe, NM 87505 | P: (505) 476-3200 | F: (505) 476-3220

State of New Mexico
Oil Conservation Division

Incident ID	nOY1727957654
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>400</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	nOY1727957654
District RP	
Facility ID	
Application ID	

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

Printed Name: Tom Bynum Title: EHS Consultant
Signature: *Tom Bynum* Date: 8/6/2020
email: tom.bynum@dnv.com Telephone: 575-748-0176

OCD Only

Received by: _____ Date: _____

Incident ID	nOY1727957654
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant
Signature: Tom Bynum Date: 8/6/2020
email: tom.bynum@dv.com Telephone: 575-748-0176

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nOY1727957654
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant
Signature: Tom Bynum Date: 8/6/2020
email: tom.bynum@dvn.com Telephone: 575-748-0176

OCD Only

Received by: OCD Date: 8/7/2020

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

Closure Approved by: Ashley Maxwell Date: 9/20/2022
Printed Name: Ashley Maxwell Title: Environmental Specialist

Devon Energy Production Company
Devon Thistle Unit 34 CTB

5E29133, BG53

APPENDIX C WATER WELL DATA



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
C_02281		CUB	LE	3	4	4	28	23S	33E	634495	3571183*	1879	545	400	145
C_02280		CUB	LE	3	2	4	28	23S	33E	634489	3571586*	2192	650	400	250
C_02279		CUB	LE	3	4	3	28	23S	33E	633691	3571173*	2497	650	400	250
C_02278		CUB	LE	3	4	2	28	23S	33E	634484	3571989*	2530	650	400	250
C_02308		CUB	LE	1	3	1	10	24S	33E	634953	3567364*	2596	40	20	20
C_02284		CUB	LE	4	2	4	26	23S	33E	637907	3571626*	2780	325	225	100

Average Depth to Water: **307 feet**

Minimum Depth: **20 feet**

Maximum Depth: **400 feet**

Record Count: 6

UTM NAD83 Radius Search (in meters):

Easting (X): 635791

Northing (Y): 3569822

Radius: 3000

*UTM location was derived from PLSS - see Help

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

7/29/20 3:27 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

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 9558

CONDITIONS

Operator: Pima Environmental Services, LLC 5614 N Lovington Hwy Hobbs, NM 88240	OGRID: 329999
	Action Number: 9558
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

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