Incident ID	nAB1817140869
District RP	2RP-4811
Facility ID	N/A
Application ID	pending

February 13, 2019

Mike Bratcher & Robert Hamlet
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210

Yolanda Jimenez
United States Department of the Interior
Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220

Re: **Site Assessment and Closure Report**
Site Name: Lusitano 27 34 Federal Com 336H (South Frac Pond)
GPS: Latitude: 32.14996 Longitude: -103.73968
Legals: UL "D", Sec. 12, T25S, R31E
Eddy County, New Mexico
NMOCD Ref. No. 2RP-4811

Lowry Environmental & Associates, LLC (LEA), on behalf of Fluid Delivery Solutions, LLC, has prepared this Site Assessment and Closure Report for the Release Site known as the Lusitano 27 34 Federal Com 336H (South Frac Pond). Details of the release are summarized on the table below:

Nature and Volume of Release			
Date Release Discovered	6/1/2018	**Source of Release**	Water Transfer Line
Type of Release	Produced Water	**Volume Released (bbls)**	12.43
		Volume Recovered (bbls)	0
Cause of Release The release was attributed to a hose on the fresh water pump being disconnected.			
Affected Area The release occurred on top of the berm and is inferred to have flowed down into a low lying area on the south side of the frac pond.			
Was this a major release? No		**If YES, for what reasons (s) is this considered a major release?** N/A	
If Yes, was immediate notice given to the OCD? By whom? To whom? When and by what means? Yes; Mike Shoemaker; Mike Bratcher, Crystal Weaver and Shelly Tucker; 6/2/2018; NA			

A copy of the Release Notification (NMOCD Form C-141) is provided as Attachment #9.

Incident ID	nAB1817140869
District RP	2RP-4811
Facility ID	N/A
Application ID	pending

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

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey was conducted in an effort to determine the average depth to groundwater within a 1 Mile radius of the Site and identify any registered water wells within a 1/2 Mile radius of the Site. If none where identified, or the results were inconclusive, the approximate depth to groundwater was extrapolated from available data including the Depth to Groundwater Map utilized by the NMOCD.

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

Closure Criteria for Soil Impacted by a Release	
Benzene	**10 mg/kg**
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX)	**50 mg/kg**
Total Petroleum Hydrocarbons	**2,500 mg/kg**
Combined GRO and DRO	**1,000 mg/kg**
Chloride	**20,000 mg/kg**

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figures 1 & 2. Depth to groundwater information is provided as Attachment #4. A Photographic Log is provided as Attachment #8.

Incident ID	nAB1817140869
District RP	2RP-4811
Facility ID	N/A
Application ID	pending

INITIAL SITE ASSESSMENT

On **January 25, 2019,** an initial assessment was conducted at the Site. During the initial assessment, five (5) soil samples were collected from low lying areas adjacent to the release point in an effort to determine if soil had been affected above the NMOCD Closure Criteria. The collected soil samples were submitted to an NMOCD-approved laboratory for analysis of BTEX, TPH and/or chloride concentrations.

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

Concentrations of BTEX, TPH and/or Chloride in Soil

Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C_6-C_{10} (mg/kg)	DRO C_{10}-C_{28} (mg/kg)	GRO + DRO C_6-C_{28} (mg/kg)	ORO C_{28}-C_{36} (mg/kg)	TPH C_6-C_{36} (mg/kg)	Chloride (mg/kg)
SP #1 6"	1/25/19	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SP #1 18"	1/25/19	18"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SP #2 18"	1/25/19	18"	In-Situ	-	-	-	-	-	-	-	64.0
SP #3 18"	1/25/19	18"	In-Situ	-	-	-	-	-	-	-	32.0
SP #4 18"	1/25/19	18"	In-Situ	-	-	-	-	-	-	-	64.0
Closure Criteria				**10**	**50**	**-**	**-**	**1,000**	**-**	**2,500**	**20,000**

A "Site & Sample Location Map" is provided as Attachment #3. Field Data, if applicable, is provided as Attachment #5. Soil profile observations are provided on Attachment #6. Laboratory analytical reports are provided as Attachment #7.

Based on laboratory analytical results it was determined that the release substance may have been fresh water and/or primarily fresh water. The reportable status of the release was not known at the time of the initial investigation, therefore two (2) soil samples were not submitted from each borehole. Based on the age and location of the release, boreholes were advanced to 18-inches bgs in an effort to determine if soil contaminants had been pushed down by precipitation.

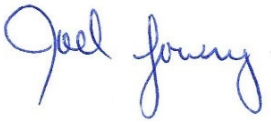
Incident ID	nAB1817140869
District RP	2RP-4811
Facility ID	N/A
Application ID	pending

CLOSURE REQUEST

Laboratory analytical results from soil samples collected during the initial site assessment indicate soil was not affected above the NMOCD Closure Criteria and/or BLM Reclamation Standards. Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment, LEA recommends Fluid Delivery Solutions, LLC, provide copies of this *Site Assessment and Closure Report* to the NMOCD and BLM and request closure be granted to the Lusitano 27 34 Federal Com 336H (South Frac Pond Site) Site.

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

Respectfully,



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

Attachments:

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

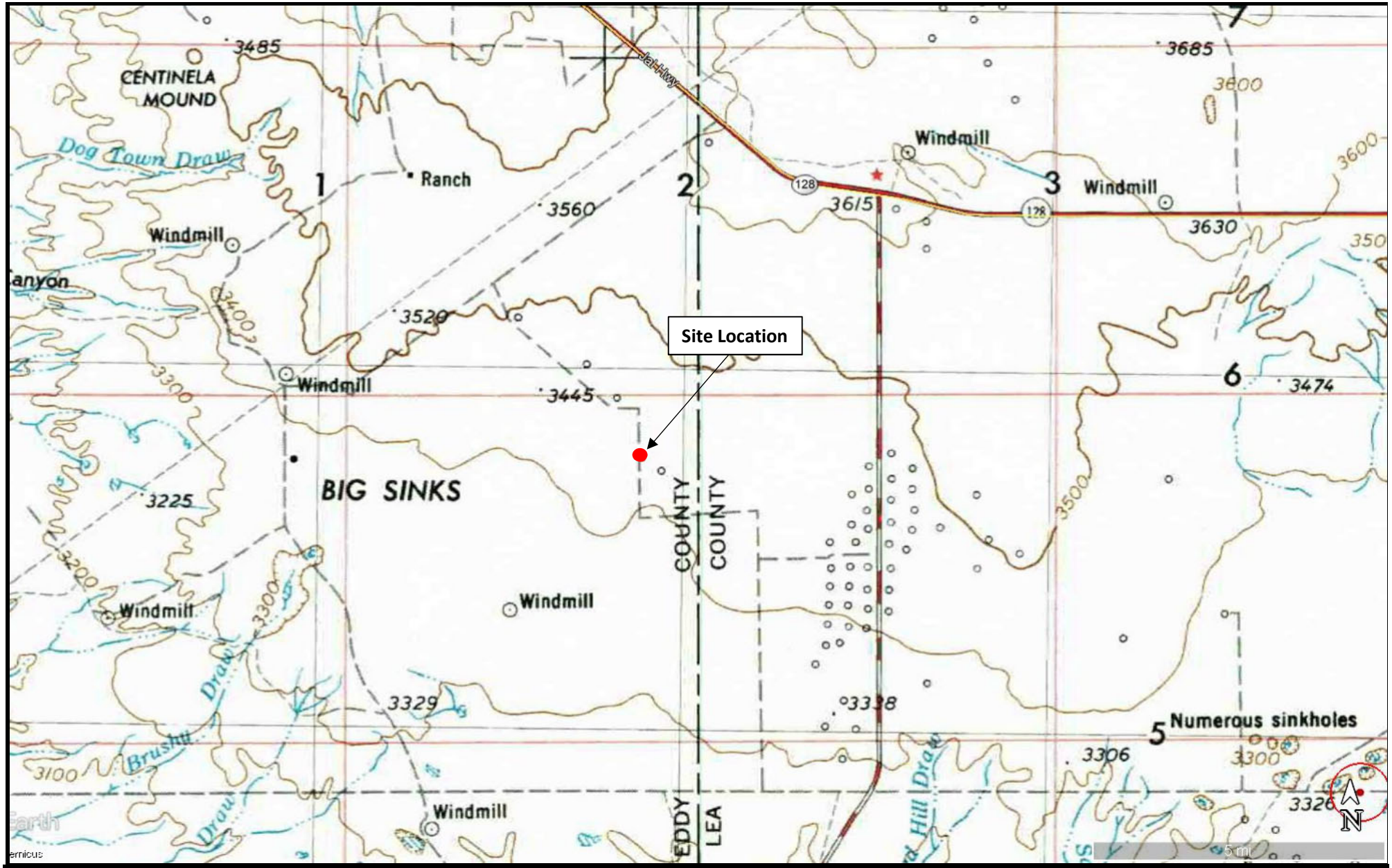
LIMITATIONS

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

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

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

Attachment #1
Figure 1 - Topographic Map



LEGEND:

- Site Location

Figure 1

Topographic Map

Fluid Delivery Solutions, LLC

Lusitano 27 34 Federal Com 336H (South Frac Pond)

GPS: 32.14996, -103.73968

Eddy County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 2/13/2019

Attachment #2
Figure 2 - Aerial Map

LEGEND:

- Site Location
- OSE Fresh Water Well
- 100-Year Floodplain
- High/Critical Karst
- Non-Inustrial Building
- Subsurface Mine
- 1/2 Mile Radius
- Wetland

Figure 2

Aerial Map

Fluid Delivery Solutions, LLC

Lusitano 27 34 Federal Com 336H (South Frac Pond)

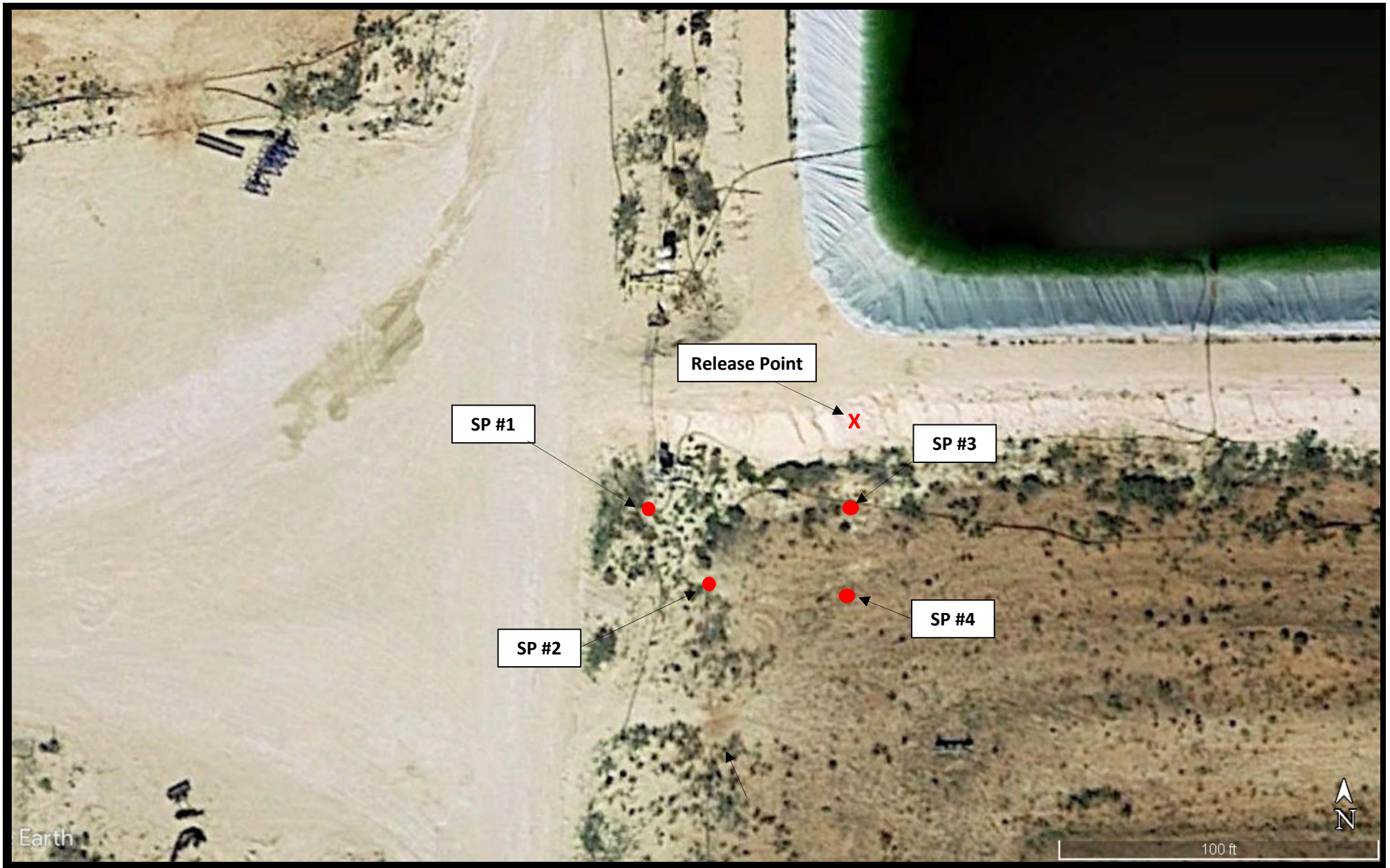
GPS: 32.14996, -103.73968

Eddy County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 2/13/2019

Attachment #3
Figure 3 - Site & Sample Location Map



LEGEND:

X Release Point

● Sample Location

Figure 3

Site & Sample Location Map

Fluid Delivery Solutions, LLC

Lusitano 27 34 Federal Com 336H (South Frac Pond)

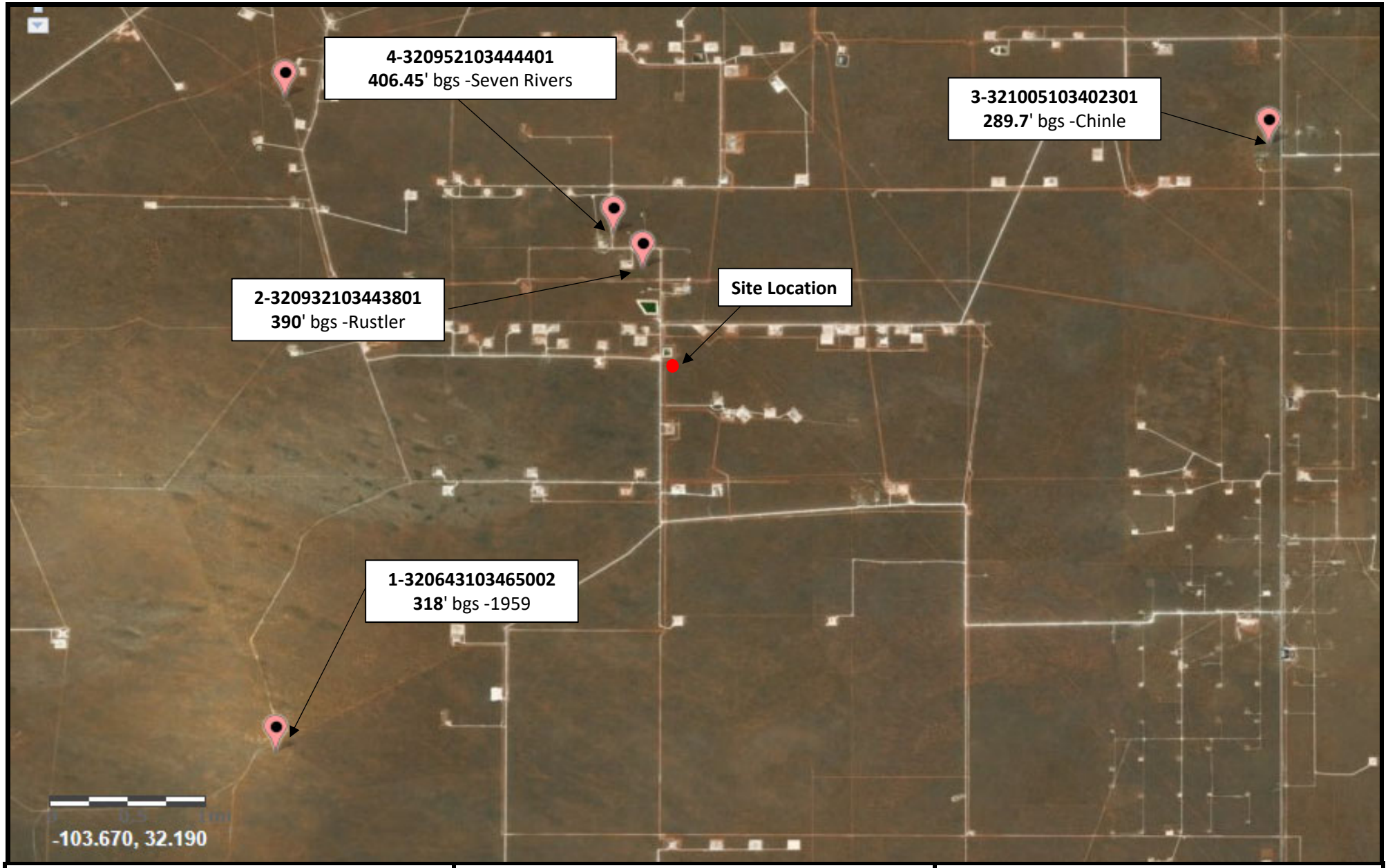
GPS: 32.14996, -103.73968

Eddy County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 2/13/2019

Attachment #4
Depth to Groundwater Information



LEGEND:

- Site Location

Figure 4

USGS Water Well Map

Fluid Delivery Solutions, LLC

Lusitano 27 34 Federal Com 336H (South Frac Pond)

GPS: 32.14996, -103.73968

Eddy County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 2/13/2019

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twp	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03830 POD1		CUB	ED	4	2	4	02	25S	31E	618632	3558432	720	450		
C 02570		CUB	ED	4	2	4	02	25S	31E	618704	3558489*	757	895		
C 02569		CUB	ED	4	4	2	02	25S	31E	618699	3558891*	1155	1016		
C 02568		CUB	ED	4	3	1	01	25S	31E	619103	3558892*	1176	1025		
C 02573		CUB	ED	1	4	2	02	25S	31E	618499	3559091*	1390			
C 02572		CUB	ED	4	2	2	02	25S	31E	618695	3559294*	1556	852		
C 02571		CUB	ED	4	1	2	02	25S	31E	618292	3559294*	1644	860		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 618844.3 **Northing (Y):** 3557744.5 **Radius:** 1680

***UTM location was derived from PLSS - see Help**

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- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320643103465002

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320643103465002 25S.31E.21.413314A

Eddy County, New Mexico
Latitude 32°06'46.0", Longitude 103°46'56.3" NAD83
Land-surface elevation 3,374.00 feet above NGVD29
The depth of the well is 400 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1959-02-17		D	318.02			2	P	U		
2013-01-17	12:40 MST	m					D	S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy		Not determined
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status	D	Site was dry (no water level was recorded).
Status	P	Site was being pumped.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	R	Reported by person other than the owner, driller, or another government agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-02-13 16:54:31 EST
0.46 0.42 nadww01

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320932103443801

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320932103443801 25S.31E.02.23441

Eddy County, New Mexico
Latitude 32°09'37.4", Longitude 103°44'29.6" NAD83
Land-surface elevation 3,460.00 feet above NGVD29
The depth of the well is 1,016 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1966-08-18		D	400.00			2		U		
1976-01-28		D	390.27			2		U		

Explanation

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

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- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321005103402301

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 321005103402301 24S.32E.33.42241

Lea County, New Mexico
Latitude 32°10'21.6", Longitude 103°40'18.9" NAD83
Land-surface elevation 3,499.00 feet above NGVD29
The depth of the well is 367 feet below land surface.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1959-02-18		D	313.40			2		U		
1981-06-12		D	304.40			2		U		
1986-03-11		D	305.21			2		U		
1991-05-29		D	287.45			2		U		
1996-03-14		D	285.40			2		S		
2001-02-27		D	288.68			2		S		
2013-01-17	09:30 MST	m	289.69			2		S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	R	Reported by person other than the owner, driller, or another government agency.
Source of measurement	U	Source is unknown.

Section	Code	Description
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320952103444401

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320952103444401 25S.31E.02.214411

Eddy County, New Mexico
Latitude 32°09'50.0", Longitude 103°44'41.2" NAD83
Land-surface elevation 3,468.0 feet above NGVD29
This well is completed in the Azotea Tongue of Seven Rivers Formation (313AZOT) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1992-11-05	01:50 MST	m	407.44			2		S		
1998-01-29		D	406.45			2		S		

Explanation

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

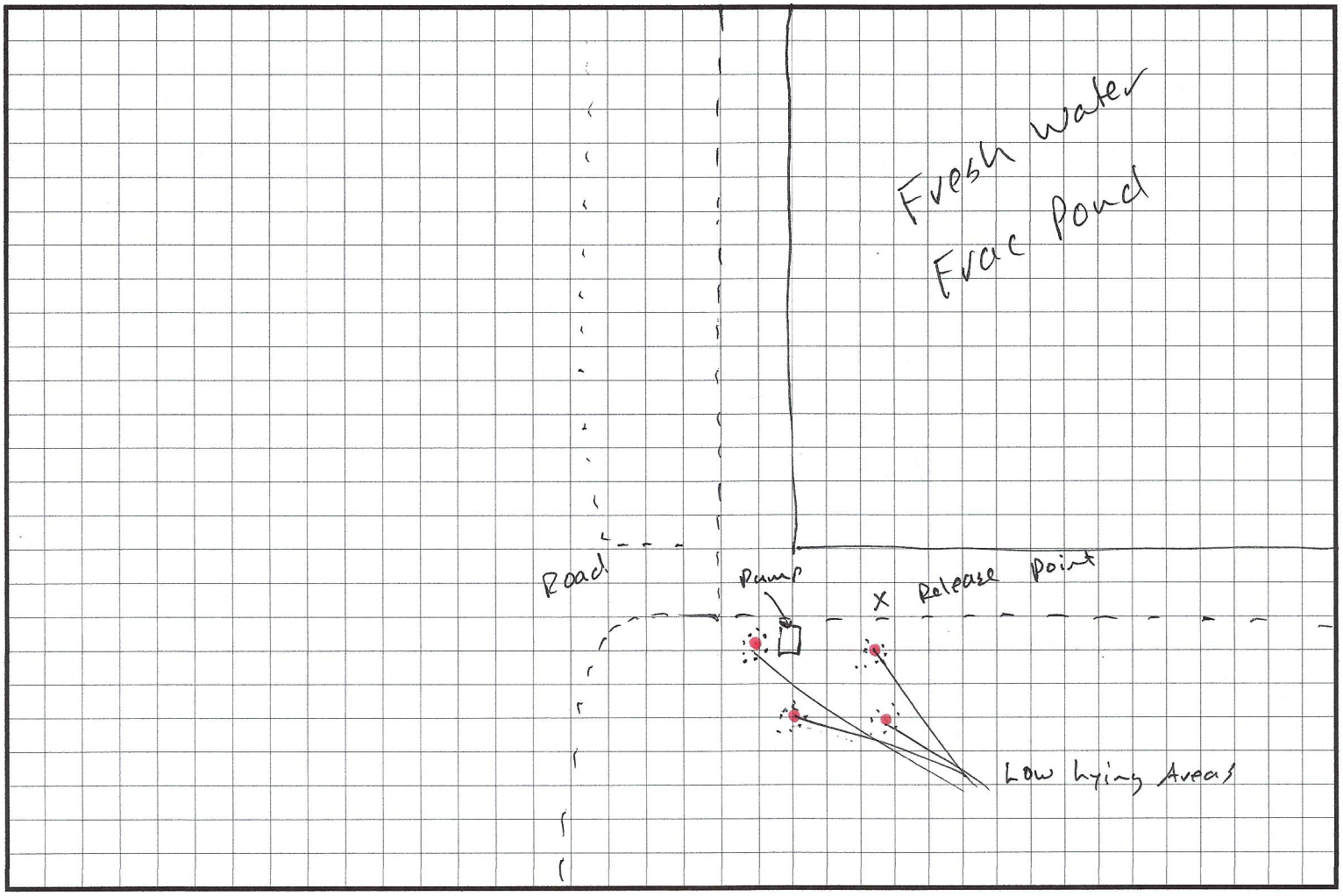
Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-02-13 16:59:14 EST
6.15 0.42 nadww01

Attachment #5
Field Data

FIELD NOTES

Site Name: South Frac Pond

Date: 1/25/19



- Map site, search for evidences of chloride impacts, none found
- Advance Bores to 18" to see if contamination has migrated
- Run Cl⁻ field screens

Field ID	Odor/PID	Chloride
SP#1@0-4	None	<120
SP#1@6"	"	<120
SP#1@18"	"	<120

Field ID	Odor/PID	Chloride
SP#2@6"	None	<120
SP#2@18"	"	<120

Field ID	Odor/PID	Chloride
SP#3@6"	None	<120
SP#3@18"	"	<120

Field ID	Odor/PID	Chloride
SP#4@6"	None	<120
SP#4@18"	"	<120

Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride

Attachment #6
Soil Profile

SOIL PROFILE

Site Name: South Frac Pond

Date: 1/25/2019

Description		Depth (ft. bgs)
Red Sand		1
		2
	TD	3
		4
		5
		6
		7
		8
		9
		0
		1
		2
		3
		4
		5
		6
		7
		8
		9
		0
		1
		2
		3
		4
		5
		6
		7
		8
		9
		0
		1
		2
		3
		4
		5
		6
		7
		8
		9
		0

Attachment #7
Laboratory Analytical Reports

CARDINAL Laboratories

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

February 06, 2019

JOEL LOWRY

LOWRY ENVIROMENTAL & ASSOCIATES

PO BOX 296

LOVINGTON, NM 88260

RE: COTTON DRAW SOUTH FRAC POND

Enclosed are the results of analyses for samples received by the laboratory on 01/30/19 13:35.

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

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LOWRY ENVIROMENTAL & ASSOCIATES PO BOX 296 LOVINGTON NM, 88260	Project: COTTON DRAW SOUTH FRAC PON Project Number: NONE GIVEN Project Manager: JOEL LOWRY Fax To:	Reported: 06-Feb-19 08:49

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP #1 6"	H900321-01	Soil	25-Jan-19 00:00	30-Jan-19 13:35
SP #1 18"	H900321-02	Soil	25-Jan-19 00:00	30-Jan-19 13:35
SP #2 18"	H900321-03	Soil	25-Jan-19 00:00	30-Jan-19 13:35
SP #3 18"	H900321-04	Soil	25-Jan-19 00:00	30-Jan-19 13:35
SP #4 18"	H900321-05	Soil	25-Jan-19 00:00	30-Jan-19 13:35

BTEX and TPH added to samples -01 and -02 as per Joel 01/31/19. This is the revised report and will replace the one sent on 01/31/19.

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LOWRY ENVIROMENTAL & ASSOCIATES PO BOX 296 LOVINGTON NM, 88260	Project: COTTON DRAW SOUTH FRAC PON Project Number: NONE GIVEN Project Manager: JOEL LOWRY Fax To:	Reported: 06-Feb-19 08:49

SP #1 6"

H900321-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**112**		16.0	mg/kg	4	9013008	AC	31-Jan-19	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	9020303	ms	03-Feb-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9020303	ms	03-Feb-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9020303	ms	03-Feb-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9020303	ms	03-Feb-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9020303	ms	03-Feb-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*97.0 %*	*73.3-129*		*9020303*	ms	*03-Feb-19*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	9013116	MS	01-Feb-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9013116	MS	01-Feb-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9013116	MS	01-Feb-19	8015B	
Surrogate: 1-Chlorooctane			*94.9 %*	*41-142*		*9013116*	MS	*01-Feb-19*	*8015B*	
Surrogate: 1-Chlorooctadecane			*95.6 %*	*37.6-147*		*9013116*	MS	*01-Feb-19*	*8015B*	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LOWRY ENVIROMENTAL & ASSOCIATES PO BOX 296 LOVINGTON NM, 88260	Project: COTTON DRAW SOUTH FRAC PON Project Number: NONE GIVEN Project Manager: JOEL LOWRY Fax To:	Reported: 06-Feb-19 08:49

SP #1 18"

H900321-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**96.0**		16.0	mg/kg	4	9013008	AC	31-Jan-19	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	9020303	ms	03-Feb-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9020303	ms	03-Feb-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9020303	ms	03-Feb-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9020303	ms	03-Feb-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9020303	ms	03-Feb-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*98.6 %*	*73.3-129*		*9020303*	ms	*03-Feb-19*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	9013116	MS	01-Feb-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9013116	MS	01-Feb-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9013116	MS	01-Feb-19	8015B	
Surrogate: 1-Chlorooctane			*96.3 %*	*41-142*		*9013116*	MS	*01-Feb-19*	*8015B*	
Surrogate: 1-Chlorooctadecane			*95.6 %*	*37.6-147*		*9013116*	MS	*01-Feb-19*	*8015B*	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LOWRY ENVIROMENTAL & ASSOCIATES PO BOX 296 LOVINGTON NM, 88260	Project: COTTON DRAW SOUTH FRAC PON Project Number: NONE GIVEN Project Manager: JOEL LOWRY Fax To:	Reported: 06-Feb-19 08:49

SP #2 18"

H900321-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**64.0**		16.0	mg/kg	4	9013008	AC	31-Jan-19	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LOWRY ENVIROMENTAL & ASSOCIATES PO BOX 296 LOVINGTON NM, 88260	Project: COTTON DRAW SOUTH FRAC PON Project Number: NONE GIVEN Project Manager: JOEL LOWRY Fax To:	Reported: 06-Feb-19 08:49

SP #3 18"

H900321-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**32.0**		16.0	mg/kg	4	9013008	AC	31-Jan-19	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LOWRY ENVIROMENTAL & ASSOCIATES PO BOX 296 LOVINGTON NM, 88260	Project: COTTON DRAW SOUTH FRAC PON Project Number: NONE GIVEN Project Manager: JOEL LOWRY Fax To:	Reported: 06-Feb-19 08:49

SP #4 18"

H900321-05 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**64.0**		16.0	mg/kg	4	9013112	AC	31-Jan-19	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LOWRY ENVIROMENTAL & ASSOCIATES PO BOX 296 LOVINGTON NM, 88260	Project: COTTON DRAW SOUTH FRAC PON Project Number: NONE GIVEN Project Manager: JOEL LOWRY Fax To:	Reported: 06-Feb-19 08:49

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9013008 - General Prep - Wet Chem										
Blank (9013008-BLK1)				Prepared & Analyzed: 30-Jan-19						
Chloride	ND	16.0	mg/kg							
LCS (9013008-BS1)				Prepared & Analyzed: 30-Jan-19						
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9013008-BSD1)				Prepared & Analyzed: 30-Jan-19						
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	
Batch 9013112 - General Prep - Wet Chem										
Blank (9013112-BLK1)				Prepared & Analyzed: 31-Jan-19						
Chloride	ND	16.0	mg/kg							
LCS (9013112-BS1)				Prepared & Analyzed: 31-Jan-19						
Chloride	416	16.0	mg/kg	400		104	80-120			
LCS Dup (9013112-BSD1)				Prepared & Analyzed: 31-Jan-19						
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LOWRY ENVIROMENTAL & ASSOCIATES PO BOX 296 LOVINGTON NM, 88260	Project: COTTON DRAW SOUTH FRAC PON Project Number: NONE GIVEN Project Manager: JOEL LOWRY Fax To:	Reported: 06-Feb-19 08:49

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9020303 - Volatiles										
Blank (9020303-BLK1)				Prepared & Analyzed: 03-Feb-19						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*0.0995*		mg/kg	*0.100*		*99.5*	*73.3-129*			
LCS (9020303-BS1)				Prepared & Analyzed: 03-Feb-19						
Benzene	2.17	0.050	mg/kg	2.00		108	72.2-131			
Toluene	2.06	0.050	mg/kg	2.00		103	71.7-126			
Ethylbenzene	2.04	0.050	mg/kg	2.00		102	68.9-126			
Total Xylenes	6.19	0.150	mg/kg	6.00		103	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0988*		mg/kg	*0.100*		*98.8*	*73.3-129*			
LCS Dup (9020303-BSD1)				Prepared & Analyzed: 03-Feb-19						
Benzene	2.18	0.050	mg/kg	2.00		109	72.2-131	0.766	6.91	
Toluene	2.06	0.050	mg/kg	2.00		103	71.7-126	0.165	7.12	
Ethylbenzene	2.00	0.050	mg/kg	2.00		100	68.9-126	1.83	7.88	
Total Xylenes	6.10	0.150	mg/kg	6.00		102	71.4-125	1.33	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0971*		mg/kg	*0.100*		*97.1*	*73.3-129*			

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LOWRY ENVIROMENTAL & ASSOCIATES PO BOX 296 LOVINGTON NM, 88260	Project: COTTON DRAW SOUTH FRAC PON Project Number: NONE GIVEN Project Manager: JOEL LOWRY Fax To:	Reported: 06-Feb-19 08:49

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9013116 - General Prep - Organics										
Blank (9013116-BLK1)				Prepared: 31-Jan-19 Analyzed: 01-Feb-19						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*42.2*		mg/kg	*50.0*		*84.4*	*41-142*			
Surrogate: 1-Chlorooctadecane	*41.1*		mg/kg	*50.0*		*82.3*	*37.6-147*			
LCS (9013116-BS1)				Prepared: 31-Jan-19 Analyzed: 01-Feb-19						
GRO C6-C10	160	10.0	mg/kg	200		80.2	76.5-133			
DRO >C10-C28	180	10.0	mg/kg	200		90.1	72.9-138			
Total TPH C6-C28	340	10.0	mg/kg	400		85.1	78-132			
Surrogate: 1-Chlorooctane	*44.3*		mg/kg	*50.0*		*88.6*	*41-142*			
Surrogate: 1-Chlorooctadecane	*44.2*		mg/kg	*50.0*		*88.3*	*37.6-147*			
LCS Dup (9013116-BSD1)				Prepared: 31-Jan-19 Analyzed: 01-Feb-19						
GRO C6-C10	177	10.0	mg/kg	200		88.3	76.5-133	9.64	20.6	
DRO >C10-C28	192	10.0	mg/kg	200		95.9	72.9-138	6.28	20.6	
Total TPH C6-C28	368	10.0	mg/kg	400		92.1	78-132	7.88	18	
Surrogate: 1-Chlorooctane	*45.4*		mg/kg	*50.0*		*90.8*	*41-142*			
Surrogate: 1-Chlorooctadecane	*46.4*		mg/kg	*50.0*		*92.7*	*37.6-147*			

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

1 of 1

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Fluid Delivery
Project Manager:	Joel Lowry
Address:	PO 896
City:	Lovington **State:** NM **Zip #**
Phone #:	432-466-4450 **Fax #:**
Project #:	**Project Owner:**
Project Name:	Cotton Draw South Frac Pond
Project Location:	Lea County, New Mexico
Sampler Name:	Joel Lowry

BILL TO

P.O. #:	
Company:	Lowry Environmental
Attn:	CO Joel Lowry
Address:	
City:	
State:	**Zip:**
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH 8015	BTEX 8021
H900321																	
1	SP #1 6"	G	1			x					x		1/25/19		x	X	X
2	SP #1 18"	G	1			x					x		1/25/19		x	X	X
3	SP #2 18"	G	1			x					x		1/25/19		x		
4	SP #3 18"	G	1			x					x		1/25/19		x		
5	SP #4 18"	G	1			x					x		1/25/19		x		

added 1/31/19

Relinquished By: Joel Lowry	**Date:** 1/30/19 **Time:** 13:35	**Received By:** Jodi Henson	
Relinquished By:	**Date:** **Time:**	**Received By:**	

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.9°C / #97

Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No

CHECKED BY: (Initials) JH

Phone Result:	☐ Yes	☐ No	**Add'l Phone #:**
Fax Result:	☐ Yes	☐ No	**Add'l Fax #:**
REMARKS:			

joel@lowryenvironmental.com

FORM-006 R 2.0

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

Attachment #8
Photographic Log

PHOTOLOG

Photo 1: View of affected area and sample location.

Photo 2: View of affected area and sample locations.

PHOTOLOG

Photo 3: View of affected area and sample location.

Photo 4: View of affected area and sample locations.

PHOTOLOG

Photo 5: View of affected area and sample location.

Attachment #9
Release Notification (FORM C-141)

RECEIVED

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

State of New Mexico
Energy Minerals and Natural Resources

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

JUN 14 2018
DISTRICT II-ARTESIA O.C.D.

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

nAB1817140869

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Devon Energy Production Co LP (6137)	Contact: Stephen Richards, Completions Foreman
Address: PO Box 250, Artesia, NM 88211	Telephone No: 575-252-3717
Facility Name: Lusitano 27 34 Federal Com 336H (Release occurred near the Cotton Draw (South) #2 FW Pond at the provided GPS coordinates)	Facility Type: Oil Well

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-44425

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	12	25S	31E					Eddy

Latitude__32.149967 N_____ **Longitude**___-103.739685 W_____ NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 12.43 BPW	Volume Recovered: 0 BPW
Source of Release: Water transfer line	Date and Hour of Occurrence 6/1/18; 10:30 AM MST	Date and Hour of Discovery 6/1/18; 10:30 AM MST
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher and Crystal Weaver – OCD Shelly Tucker - BLM	
By Whom? Mike Shoemaker - EHS	Date and Hour: 6/2/18; 3:38 PM MST	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
While pigging the transfer line from the Lusitanano 27-34 FED COM 336H Loc. to the Trionyx TW frac pond, a valve tying in the freshwater pump at the CDU (South) FW pond leaked by. Fresh water pump had been disconnected and hose was laid on top of the berm at the frac pond.

Describe Area Affected and Cleanup Action Taken.*
Approximately 12.43 barrels of produced water was released and 0 barrels were recovered. An environmental contractor will be contacted to assist with delineation and remediation efforts.

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

Signature: Denise A. Menoud	OIL CONSERVATION DIVISION	
Printed Name: Denise Menoud	Signed By Mike Bratcher Approved by Environmental Specialist:	
Title: Admin Tech	Approval Date: 6/15/18	Expiration Date: N/A
E-mail Address: denise.menoud@dvn.com	Conditions of Approved: See attached	Attached ☒ 2RP-4811
Date: 6/5/2018 Phone: 575-746-5544		

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 6/14/2018 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4811 has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 7/14/2018. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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

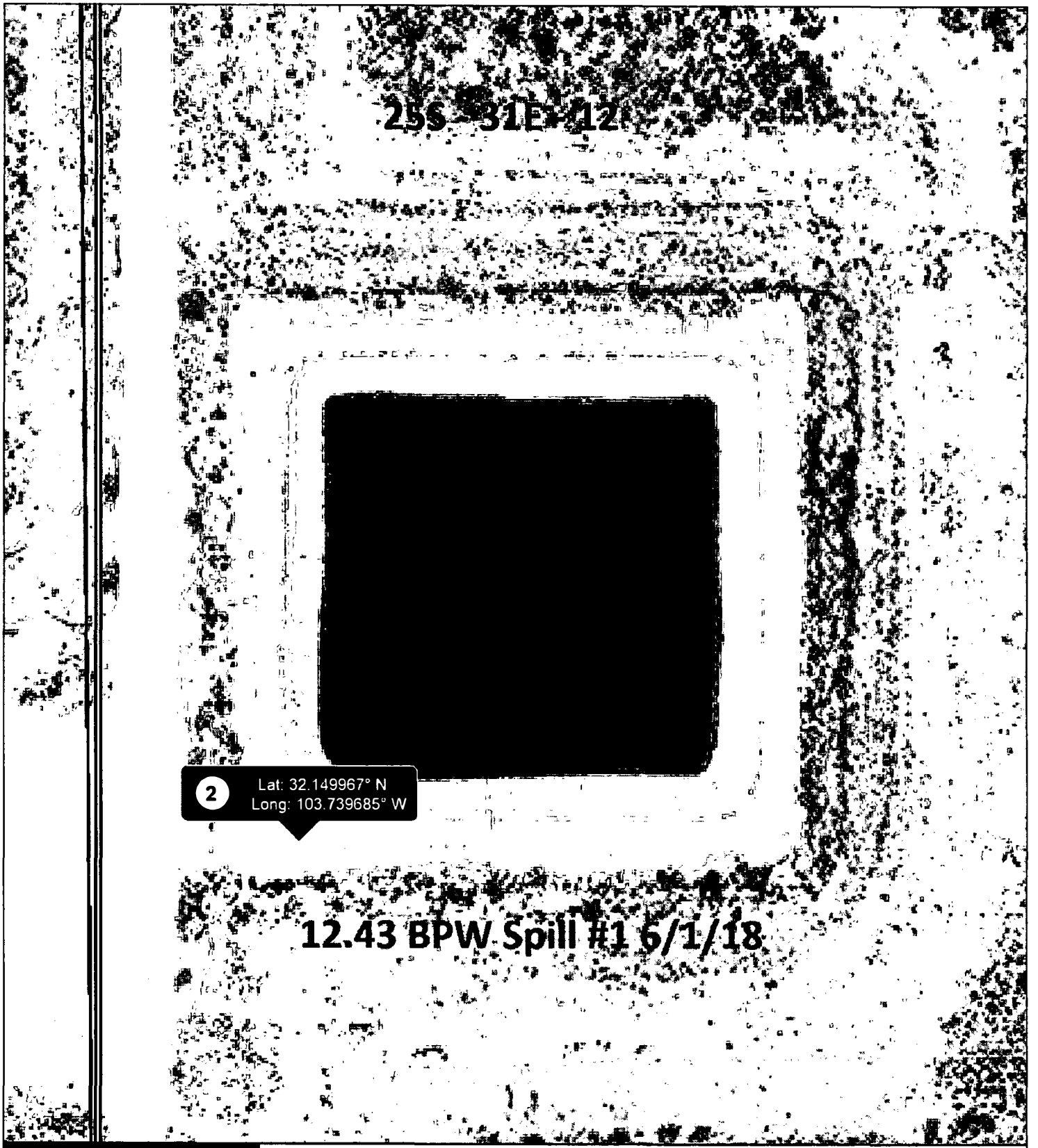
•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less,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

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

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

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

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



Luisitana 27-34 FC 336H

Spill #1 6/1/18

devon

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

WGS_1984_Web_Mercator_Auxiliary_Sphere
Prepared by: Menoud
Map is current as of: 14-Jun-2018

N

Miles
0 0.00 0.01 0.02 1:889

Bratcher, Mike, EMNRD

From: Menoud, Denise <Denise.Menoud@dvn.com>
Sent: Thursday, June 14, 2018 4:18 PM
To: Bratcher, Mike, EMNRD; Shelly Tucker
Cc: Shoemaker, Mike; Menoud, Denise
Subject: FW: Luisitano 27-34 FC 336H Spill #1 in AM
Attachments: Luisitano 27-34 FC 336H_Initial C141 spill 6.1.18 AM.doc; Luisitano 27-34 FC 336H_GIS 6.1.18.pdf

Please see attached Initial C-141 on the Spill that occurred the morning of 6/1/18 for the Lusitano 27-34 Fed Com 336H and the GIS image.

Thank you.

Denise Menoud
Admin Field Support 4 / Completions
Devon Energy Production Co. LP/Artesia NM
Denise.Menoud@dvn.com
575-746-5544

Bratcher, Mike, EMNRD

From: Shoemaker, Mike <Mike.Shoemaker@dvn.com>
Sent: Saturday, June 2, 2018 3:38 PM
To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; Shelly Tucker (stucker@blm.gov)
Cc: Fulks, Brett
Subject: Lusitano 27-34 [redacted]om 336H (API #30-015-44425)

Mike and Shelly,

Devon had the following release occu[redacted]10:30 AM MST on 06/01/18. The incident is described below.

1. Lusitano 27-34 Fed Com 336H (API #30-015-44425)
    a. While pigging the transfer line from the Lusitanano 27-34 FED COM 336H Loc. to the Trionyx TW frac pond a valve tying in the freshwater pump at the CDU (South) FW pond leaked by. Fresh water pump had been disconnected and hose was laid on top of the berm at the frac pond. Approximately 12.43 bbls of produced water was released. I am currently working to get a GPS coordinate of the exact point of the release and will provide you all with an update once I receive that information. 0 bbls were recovered.

A C-141 will be prepared and submitted with GPS coordinates of the area affected.

Thanks,

Mike Shoemaker
EHS Representative

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