



Hudson 1 Federal Well #007

WORK PLAN

API No. 30-015-31513

Release Date: October 6, 2016

Unit Letter F, Section 1, Township 23 South, Range 30 East

NMOCD Case #: 2R-3955

June 26, 2017

Prepared by:

Michael Alves

Diversified Field Service, Inc.

206 W. Snyder

Hobbs, NM 88240

Phone: (575)964-8394

Fax: (575)393-8396

Mike Bratcher
Environmental Protection Specialist
New Mexico Oil Conservation District
811 S First St
Artesia, NM 88210

RE: **XTO – Hudson 1 Federal Well #007**
Remediation Work Plan
UL/F, Section 1, T23S, R30E
API No. 30-015-31513
NMOCD Case #: 2R-3955
NMOCD Score: 0

Mr. Bratcher,

XTO Energy (XTO) has retained Diversified Environmental (DFSI) to address environmental issues for the site detailed herein.

The site is located northwest of Loving, NM, in Eddy County. The spill site resulted from a ruptured poly line, releasing a total of approximately 2 barrels of oil and 8 barrels of produced water, with 2 barrels of produced water and no oil recovered. An initial C-141 was submitted to NMOCD on October 21, 2016 and approved on October 24, 2016 (Appendix I).

Site Assessment

Beginning June 16, 2017 DFSI personnel were on site to obtain samples at regular intervals within the release area (Figure 1). Three samples were obtained and field tested for chloride levels, as well as BTEX (Appendix II). The samples were screened using a Mini Rae Photoionization Detector (PID). Clean field samples were submitted for laboratory analysis at Cardinal Laboratory of Hobbs, NM to obtain confirmation (Appendix III).

DFSI has conducted a groundwater study of the area and has determined, according to the New Mexico Office of the State Engineer, the average depth to groundwater beneath this site is approximately 105 ft (Appendix IV).

Conclusion

After careful review DFSI, on behalf of XTO, would like to propose the following:

The release area will be excavated to a depth of 4' bgs. The excavated soil will be properly disposed of at an approved NMOCD facility. At the base of the excavation, a 20-mil, reinforced poly liner will be installed and properly seated. The excavation will be backfilled with clean, imported soil to ground surface and contoured to the surrounding area. The entire area will be tilled and seeded with a blend of native vegetation.

Following the approval and completion of the above plan, DFSI will submit all proper closure documentation to the NMOCD and BLM in accordance to the State and Federal Guidelines set forth.

Please feel free to contact with any questions concerning this remediation plan request.

Sincerely,

Michael Alves
Environmental Supervisor | Diversified Field Service, Inc.
206 West Snyder | Hobbs, NM 88240
Office: (575)964-8394 | Mobile: (575)631-3364
Fax: (575)964-8396 | Email: malves@diversifiedfsi.com

Cc: Shelly Tucker, BLM

Figures: Site Diagram
Proposed Work

Appendices: Initial C-141
Site Photos
Laboratory Analysis
Groundwater Study

Site Diagram

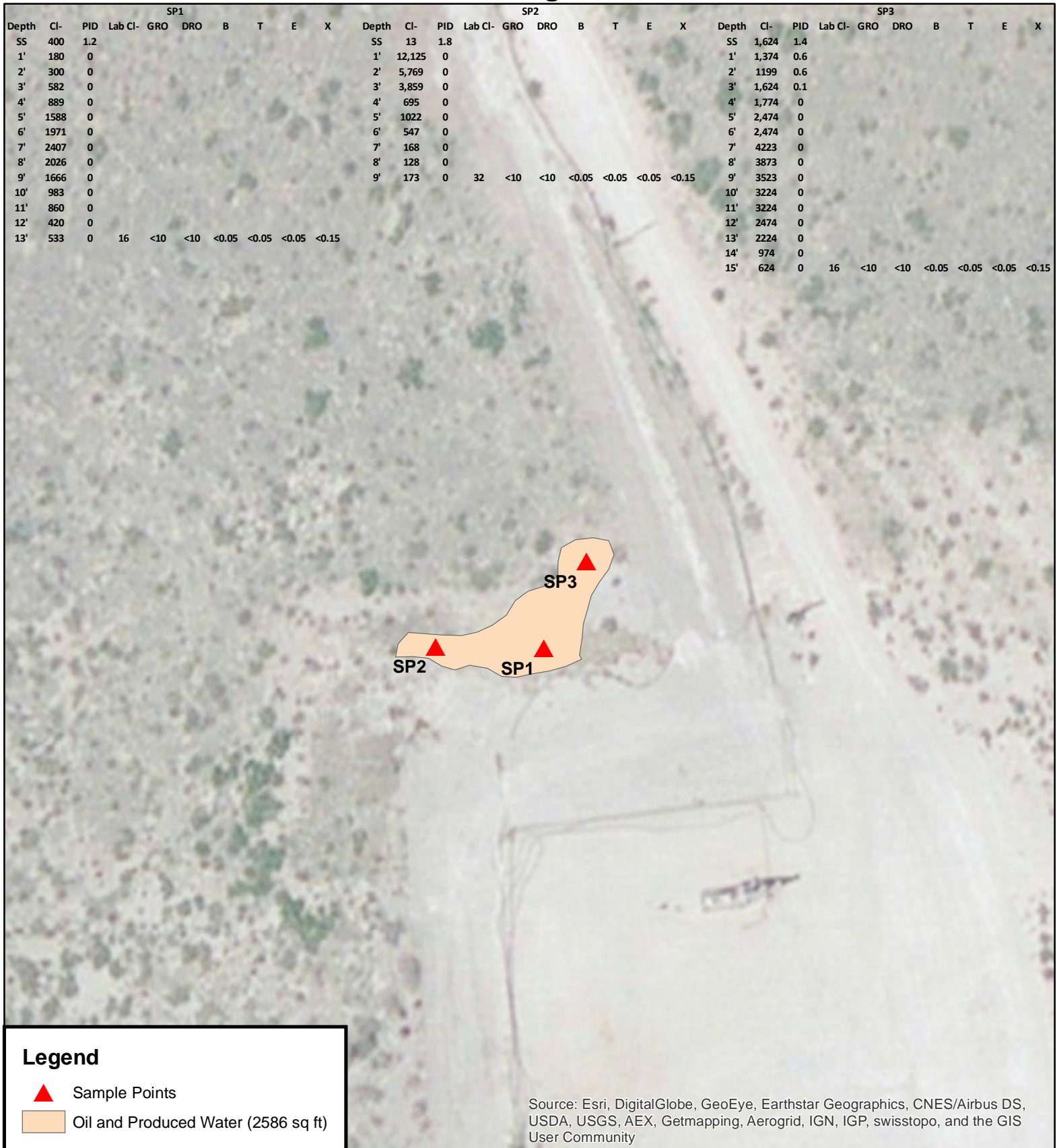


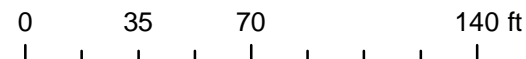
Figure 1



Hudson 1 Federal #007
Unit Letter F, Section 1, T23S, R30E
Eddy County, NM

API #: 30-015-31513

NMOCD Case #: 2R-3955



Proposed Work

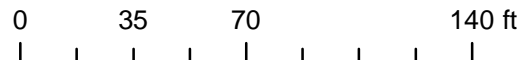


Figure 2



**Hudson 1 Federal #007
Unit Letter F, Section 1, T23S, R30E
Eddy County, NM**

**API #: 30-015-31513
NMOCD Case #: 2R-3955**



Appendix I

INITIAL C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141
Revised August 8, 2011

OCT 21 2016

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

RECEIVED

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 200737 Contact: Amy Ruth
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220 Telephone No. 575-887-7329
Facility Name: Hudson 1 Federal well #7 Facility Type: Exploration and Production

Surface Owner: Federal Mineral Owner: Federal API No. 30-015-31513

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	1	23S	30E	1500	North	1800	West	Eddy

Latitude 32.337062° Longitude -103.837058°

NATURE OF RELEASE

Type of Release	Crude Oil and Produced Water	Volume of Release	2 bbls Oil 8 bbls PW	Volume Recovered	2 bbls PW
Source of Release	Poly flow line	Date and Hour of Occurrence	10/6/2016 time unknown	Date and Hour of Discovery	10/6/2016 approx. 10 am
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	N/A		
By Whom?	N/A	Date and Hour	N/A		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.*

Poly flow line from well ruptured in area of pasture. Pumping unit was shut down and valves were closed for repairs.

Describe Area Affected and Cleanup Action Taken.*

The leak affected approximately 8,170 square feet of pasture (most of area misted) located north of the well. Free standing fluids were recovered.

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.

OIL CONSERVATION DIVISION

Signature: 

Printed Name: Amy C. Ruth

Title: EHS Remediation Specialist

E-mail Address: ACRuth@basspet.com

Date: 10/21/2016 Phone: 432-661-0571

Approved by Environmental Specialist: 

Approval Date: 10/24/16

Expiration Date: N/A

Conditions of Approval:
Remediation per O.C.D. Rules & Guidelines

Attached ☐

SUBMIT REMEDIATION PROPOSAL NO

LATER THAN: 11/26/16

* Attach Additional Sheets If Necessary

280-3955

Appendix II

SITE PHOTOS

HUDSON 1 FEDERAL WELL #007

PHOTO PAGE



Collecting sample by bore installation



Field testing sample



Collecting sample by bore installation

Appendix III

LABORATORY ANALYSIS

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394



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

June 20, 2017

MICHAEL ALVES

DIVERSIFIED FIELD SERVICES, INC.

P. O. BOX 5966

HOBBS, NM 88241

RE: HUDSON 7

Enclosed are the results of analyses for samples received by the laboratory on 06/19/17 8:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

DIVERSIFIED FIELD SERVICES, INC.
MICHAEL ALVES
P. O. BOX 5966
HOBBS NM, 88241
Fax To: (575) 393-2981

Received: 06/19/2017
Reported: 06/20/2017
Project Name: HUDSON 7
Project Number: NONE GIVEN
Project Location: EDDY CO NM

Sampling Date: 06/16/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP1 @ 13' (H701574-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2017	ND	1.98	99.2	2.00	0.678	
Toluene*	<0.050	0.050	06/19/2017	ND	1.88	93.9	2.00	2.14	
Ethylbenzene*	<0.050	0.050	06/19/2017	ND	1.98	98.8	2.00	0.672	
Total Xylenes*	<0.150	0.150	06/19/2017	ND	5.31	88.4	6.00	0.551	
Total BTX	<0.300	0.300	06/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 72-148

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	06/19/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/19/2017	ND	187	93.7	200	3.52	
DRO >C10-C28	<10.0	10.0	06/19/2017	ND	192	96.2	200	3.54	

Surrogate: 1-Chlorooctane 87.3 % 28.3-164

Surrogate: 1-Chlorooctadecane 70.7 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

DIVERSIFIED FIELD SERVICES, INC.
MICHAEL ALVES
P. O. BOX 5966
HOBBS NM, 88241
Fax To: (575) 393-2981

Received: 06/19/2017
Reported: 06/20/2017
Project Name: HUDSON 7
Project Number: NONE GIVEN
Project Location: EDDY CO NM

Sampling Date: 06/16/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP2 @ 9' (H701574-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2017	ND	1.98	99.2	2.00	0.678	
Toluene*	<0.050	0.050	06/19/2017	ND	1.88	93.9	2.00	2.14	
Ethylbenzene*	<0.050	0.050	06/19/2017	ND	1.98	98.8	2.00	0.672	
Total Xylenes*	<0.150	0.150	06/19/2017	ND	5.31	88.4	6.00	0.551	
Total BTX	<0.300	0.300	06/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/19/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/19/2017	ND	187	93.7	200	3.52	
DRO >C10-C28	<10.0	10.0	06/19/2017	ND	192	96.2	200	3.54	

Surrogate: 1-Chlorooctane 78.5 % 28.3-164

Surrogate: 1-Chlorooctadecane 66.2 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

DIVERSIFIED FIELD SERVICES, INC.
MICHAEL ALVES
P. O. BOX 5966
HOBBS NM, 88241
Fax To: (575) 393-2981

Received: 06/19/2017
Reported: 06/20/2017
Project Name: HUDSON 7
Project Number: NONE GIVEN
Project Location: EDDY CO NM

Sampling Date: 06/16/2017
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP3 @ 15' (H701574-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2017	ND	1.98	99.2	2.00	0.678	
Toluene*	<0.050	0.050	06/19/2017	ND	1.88	93.9	2.00	2.14	
Ethylbenzene*	<0.050	0.050	06/19/2017	ND	1.98	98.8	2.00	0.672	
Total Xylenes*	<0.150	0.150	06/19/2017	ND	5.31	88.4	6.00	0.551	
Total BTX	<0.300	0.300	06/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/19/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/19/2017	ND	187	93.7	200	3.52	
DRO >C10-C28	<10.0	10.0	06/19/2017	ND	192	96.2	200	3.54	

Surrogate: 1-Chlorooctane 81.8 % 28.3-164

Surrogate: 1-Chlorooctadecane 68.2 % 34.7-157

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

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*=Accredited Analyte

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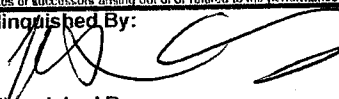

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>XTO Energy</u>				BILL TO				ANALYSIS REQUEST																					
Project Manager: <u>Hudson 007 Amy Ruth</u>				P.O. #:																									
Address:				Company: <u>XTO</u>																									
City:				Attn: <u>Amy Ruth</u>																									
Phone #:				Address:																									
Project #:				City:																									
Project Name:				State: Zip:																									
Project Location: <u>Hudson 007</u>				Phone #:																									
Sampler Name: <u>H. Alva</u>				Fax #:																									
FOR LAB USE ONLY				MATRIX				PRESERV.				SAMPLING																	
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	CL	TPH	STEX												
#701579-													6/14/17	8:30	X	X	X												
1 Sp. 10 13'						X							6/14/17	9:30	X	X	X												
2 Sp. 20 9'						X							6/14/17	10:30	X	X	X												
3 Sp. 30 15'						X																							

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Relinquished By: 	Date: <u>6/14/17</u> Time: <u>8:25AM</u>	Received By: 	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No REMARKS:
Relinquished By:	Date: <u>8-25AM</u> Time:	Received By:	E-mail Results To: <u>Ngadden@diversifiedfsi.com</u> malves <u>Rpons@diversifiedfsi.com</u> iflores
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <u>#75 -3.10C</u>	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	CHECKED BY: (Initials) <u>VIN</u>	

* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Appendix IV

GROUNDWATER STUDY

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394



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	DepthWell	DepthWater	Water Column
C 02492			ED	4	4	4	06	23S	31E	612056	3577320*	135	85	50
C 02492 POD2		C	ED	3	2	2	07	23S	31E	611767	3576996	400	125	275
C 02865			ED	4	4	4	06	23S	31E	612056	3577320*	174		
C 03520 POD1		C	ED	3	1	1	07	23S	31E	610733	3576905	500		

Average Depth to Water: 105 feet

Minimum Depth: 85 feet

Maximum Depth: 125 feet

Record Count: 4

PLSS Search:

Section(s): 6, 7

Township: 23S

Range: 31E

*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.

6/21/17 9:25 AM

WATER COLUMN/ AVERAGE DEPTH TO
WATER



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

No records found.

PLSS Search:

Section(s): 31

Township: 22S

Range: 31E

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.

6/21/17 9:25 AM

WATER COLUMN/ AVERAGE
DEPTH TO WATER