

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, Division Director
Oil Conservation Division



4/8/2020

Operator Notice Regarding
C-104 Denial and Request for Information

OCD is providing notice to operators that it will deny your C-104 – *Request for Allowable and Authorization to Transport* if it fails to provide complete and accurate information, including:

30-015-45943

Test Allowable, New Well and Recompleted Well

Amend C-104, see attached

- ☐ C-103 (or BLM equivalent) for all casing strings
 - ☐ Spud Notice
 - ☐ Surface Casing
 - ☐ Intermediate Casing (if applicable)
 - ☐ Additional Intermediate Casing (if applicable)
 - ☒ Production Casing or Liner Missing TD reached, and Date.

☐ Applicable Order (NSL, NSP, Other _____)

☐ Deviation Survey for Vertical Wells

☐ Directional Survey

☒ C-102 (As-Drilled Plat for Horizontal Well) Is C-102 AS-DRILLED? If so, mark it.

New Well and Recompleted Well Only

☒ C-103 Completion Sundry (or BLM equivalent) Amend C-103 by adding PBTD and date.
Currently in well files.

☒ C-105 Completion Report (or BLM equivalent) Amend C-105

☒ All Logs Run on Well All logs ran? If so, electronically submit them via e docs.

The sale or transport of product without an approved C-104 violates the Oil and Gas Act and the implementing rules, including 19.15.7.15 and 19.15.16.19 NMAC. If OCD determines that your C-104 is incomplete or inaccurate, it will give you notice to resubmit your C-104 within 30 days. Failure to comply with this notice may result in enforcement action.

Once C-104 and attachments are amended and complete, please submit electronically via e docs
If you have any questions, please contact the local OCD District Office.

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

State of New Mexico
Energy, Minerals & Natural Resources

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

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MAR 04 2020

Form C-104
Revised August 1, 2011

Submit one copy to appropriate District Office

EMNRD-OCDARTESIA

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address BTA OIL PRODUCERS, LLC		² OGRID Number 260297
		³ Reason for Filing Code/ Effective Date
⁴ API Number 30 -015-45943	⁵ Pool Name PURPLE SAGE (WOLFCAMP)	⁶ Pool Code 98820
⁷ Property Code 325477	⁸ Property Name PARDUE 8808	⁹ Well Number 2H

II. ¹⁰ Surface Location

UL or lot no. D	Section 11	Township 23S	Range 28E	Lot Idn	Feet from the 220	North/South Line NORTH	Feet from the 1065	East/West line WEST	County EDDY
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¹¹ Bottom Hole Location

UL or lot no. M	Section 11	Township 23S	Range 28E	Lot Idn	Feet from the 27.8	North/South line SOUTH	Feet from the 1001.7	East/West line WEST	County EDDY
¹² Lse Code 325477	¹³ Producing Method Code F	¹⁴ Gas Connection Date 2/14/2020	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
214984	PLAINS MARKETING LP P O BOX 4648 HOUSTON, TX 77210-4648	O
	SENDERO CARLSBAD MIDSTREAM, LLC 1000 LOUISIANA AVE., SUITE 6900 HOUSTON, TX. 77002	G

IV. Well Completion Data

²¹ Spud Date 7/28/2019	²² Ready Date 1/06/2020	²³ TD 14,635'	²⁴ PBTD	²⁵ Perforations 9,735 - 14,325'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17 1/2"	13 3/8"	507'	425		
12 1/4"	9 5/8"	2,604'	800		
8 3/4"	7"	9,658'	700		
6 1/8"	4 1/2"	9,112' - 14,625'	420		

V. Well Test Data

³¹ Date New Oil 1/8/2020	³² Gas Delivery Date 1/08/2020	³³ Test Date 1/11/2020	³⁴ Test Length 24 hour	³⁵ Tbg. Pressure 1750	³⁶ Csg. Pressure 1800
³⁷ Choke Size 42/64	³⁸ Oil 1120	³⁹ Water 4936	⁴⁰ Gas 2451	1750	⁴¹ Test Method FLOWING

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Katy Reddell

Printed name:

KATY REDDELL

REGULATORY ANALYST

E-mail Address: Kreddell@btaoil

Date: 2/28/2020

Phone:

432-682-3753

Approved by:

Title:

Approval Date:

OIL CONSERVATION DIVISION

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Form C-102

Revised August 1, 2011

DISTRICT I

1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720

DISTRICT II

811 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-9720

DISTRICT III

1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

EMNRD-OCD ARTESIA

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-45943	Pool Code 98820	Pool Name PURPLE SAGE (WOLFCAMP)
Property Code 325477	Property Name PARDUE 8808	Well Number 2H
OGRID No. 260297	Operator Name BTA OIL PRODUCERS, LLC	Elevation 2996'

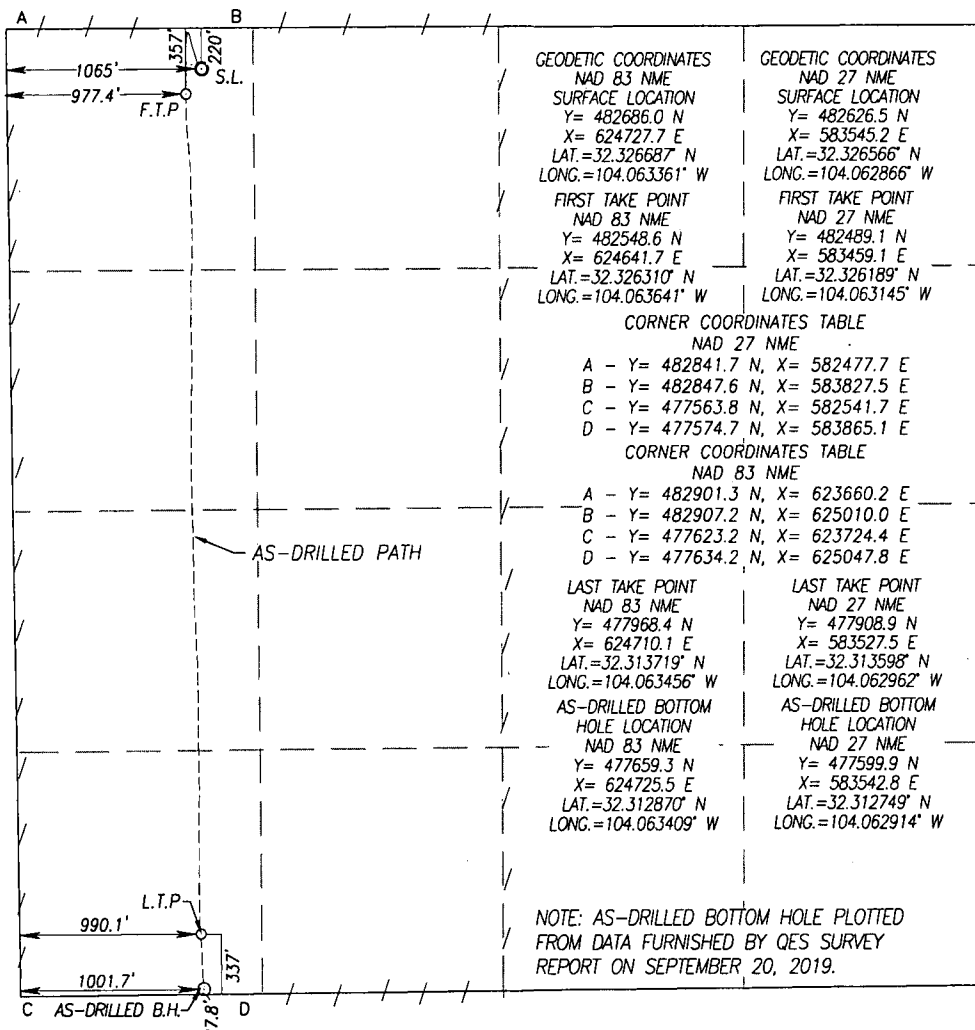
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	11	23-S	28-E		220	NORTH	1065	WEST	EDDY

As-Drilled Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	11	23-S	28-E		27.8	SOUTH	1001.7	WEST	EDDY
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Katy Reddell 2/28/2020

Signature

Date

KATY REDDELL

Printed Name

kreddell@btaoil.com

E-mail Address

SURVEY ORDER CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

3239
JUNE 6, 2018

Date of Survey

Signature of Registered Professional Surveyor:

Ronald J. Eidson 01/22/2020

Certificate Number

Gary G. Eidson 12641

Ronald J. Eidson 3239

ACK

REL. W.O.:19110213

JWSC W.O.:20.13.0009

Intent ☐ As Drilled ☒

API # 30-015-45943		
Operator Name: BTA OIL PRODUCERS, LLC	Property Name: PARDUE 8808	Well Number 2H

Kick Off Point (KOP)

UL D	Section 11	Township 23S	Range 28E	Lot	Feet 220	From N/S N	Feet 1065	From E/W W	County eddy
Latitude 32.326687					Longitude 104.063361				NAD 83

First Take Point (FTP)

UL D	Section 11	Township 23S	Range 28E	Lot	Feet 357	From N/S N	Feet 977	From E/W W	County EDDY
Latitude 32.326310					Longitude 104.063641				NAD 83

Last Take Point (LTP)

UL M	Section 11	Township 23S	Range 28E	Lot	Feet 337	From N/S S	Feet 990	From E/W W	County EDDY
Latitude 32.313719					Longitude 104.063456				NAD 83

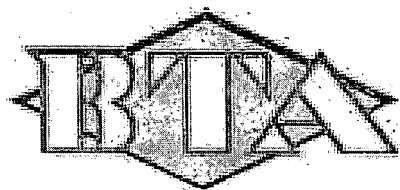
Is this well the defining well for the Horizontal Spacing Unit? ☐ NO

Is this well an infill well? ☐ YES

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-015-45942		
Operator Name: BTA OIL PRODUCERS LLC	Property Name: PARDUE 8808	Well Number 1H

KZ 06/29/2018



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BTA Oil Producers, LLC

Eddy County, New Mexico (NAD 83)

Sec 11, T23-S, R28-E

Pardue 8808 #2H

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

20 September, 2019





Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #2H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3021.0usft (Patterson #597)
Site:	Sec 11, T23-S, R28-E	MD Reference:	WELL @ 3021.0usft (Patterson #597)
Well:	Pardue 8808 #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County, New Mexico (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 11, T23-S, R28-E		
Site Position:		Northing:	482,685.90 usft
From:	Map	Easting:	624,697.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 19' 36.073 N
		Longitude:	104° 3' 48.450 W
		Grid Convergence:	0.14 °

Well	Pardue 8808 #2H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 19' 36.074 N
		Longitude:	104° 3' 48.100 W
		Ground Level:	2,996.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	HDGM	9/10/2019	7.10
			Dip Angle
			(°)
			60.05
			Field Strength
			(nT)
			47,887.50000000

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			180.16

Survey Program	Date 9/20/2019		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		Description
145.0	14,635.0	QES MWD Surveys (Wellbore #1)	OWSG (Rev2) MWD
			OWSG MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting		
(usft)			(usft)			(usft)	(usft)		
0.0	0.00	0.00	0.0	0.0	0.0	482,686.00	624,727.70	32° 19' 36.074 N	104° 3' 48.100 W
145.0	0.90	224.20	145.0	-0.8	-0.8	482,685.18	624,726.91	32° 19' 36.066 N	104° 3' 48.109 W
First MWD Survey @ 145.0' MD / 145.0' TVD									
243.0	1.00	212.20	243.0	-2.1	-1.8	482,683.91	624,725.92	32° 19' 36.053 N	104° 3' 48.121 W
343.0	1.30	208.00	343.0	-3.8	-2.8	482,682.17	624,724.92	32° 19' 36.036 N	104° 3' 48.133 W
476.0	1.20	218.70	475.9	-6.3	-4.4	482,679.75	624,723.34	32° 19' 36.012 N	104° 3' 48.151 W
603.0	1.30	211.40	602.9	-8.5	-5.9	482,677.48	624,721.76	32° 19' 35.989 N	104° 3' 48.170 W
695.0	0.90	233.20	694.9	-9.8	-7.1	482,676.16	624,720.64	32° 19' 35.976 N	104° 3' 48.183 W
790.0	1.20	332.10	789.9	-9.4	-8.1	482,676.59	624,719.57	32° 19' 35.981 N	104° 3' 48.195 W
883.0	1.00	319.60	882.9	-7.9	-9.1	482,678.07	624,718.59	32° 19' 35.995 N	104° 3' 48.207 W
978.0	1.50	3.40	977.8	-6.1	-9.6	482,679.94	624,718.13	32° 19' 36.014 N	104° 3' 48.212 W
1,073.0	1.80	12.00	1,072.8	-3.4	-9.2	482,682.64	624,718.51	32° 19' 36.041 N	104° 3' 48.207 W



Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #2H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3021.0usft (Patterson #597)
Site:	Sec 11, T23-S, R28-E	MD Reference:	WELL @ 3021.0usft (Patterson #597)
Well:	Pardue 8808 #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,167.0	1.70	8.90	1,166.8	-0.5	-8.7	482,685.46	624,719.04	32° 19' 36.069 N	104° 3' 48.201 W
1,262.0	1.70	12.20	1,261.7	2.2	-8.2	482,688.23	624,719.55	32° 19' 36.096 N	104° 3' 48.195 W
1,356.0	1.60	16.60	1,355.7	4.9	-7.5	482,690.85	624,720.22	32° 19' 36.122 N	104° 3' 48.187 W
1,451.0	1.10	346.00	1,450.6	7.0	-7.3	482,693.01	624,720.38	32° 19' 36.143 N	104° 3' 48.185 W
1,546.0	1.10	331.40	1,545.6	8.7	-8.0	482,694.70	624,719.72	32° 19' 36.160 N	104° 3' 48.193 W
1,641.0	1.10	334.80	1,640.6	10.3	-8.8	482,696.32	624,718.90	32° 19' 36.176 N	104° 3' 48.202 W
1,736.0	0.60	332.80	1,735.6	11.6	-9.4	482,697.59	624,718.28	32° 19' 36.189 N	104° 3' 48.210 W
1,831.0	0.70	122.60	1,830.6	11.7	-9.2	482,697.72	624,718.54	32° 19' 36.190 N	104° 3' 48.207 W
1,926.0	1.90	120.50	1,925.6	10.6	-7.3	482,696.61	624,720.39	32° 19' 36.179 N	104° 3' 48.185 W
2,021.0	0.10	83.00	2,020.6	9.8	-5.9	482,695.82	624,721.83	32° 19' 36.171 N	104° 3' 48.168 W
2,116.0	0.70	331.80	2,115.6	10.3	-6.1	482,696.34	624,721.64	32° 19' 36.176 N	104° 3' 48.171 W
2,211.0	0.90	88.10	2,210.5	10.9	-5.6	482,696.88	624,722.11	32° 19' 36.181 N	104° 3' 48.165 W
2,306.0	1.60	93.80	2,305.5	10.8	-3.5	482,696.81	624,724.18	32° 19' 36.181 N	104° 3' 48.141 W
2,401.0	0.50	112.60	2,400.5	10.6	-1.8	482,696.56	624,725.88	32° 19' 36.178 N	104° 3' 48.121 W
2,496.0	1.20	251.60	2,495.5	10.1	-2.4	482,696.09	624,725.32	32° 19' 36.174 N	104° 3' 48.128 W
2,559.0	1.20	245.80	2,558.5	9.6	-3.6	482,695.61	624,724.09	32° 19' 36.169 N	104° 3' 48.142 W
2,664.0	1.30	238.80	2,663.5	8.5	-5.6	482,694.55	624,722.07	32° 19' 36.158 N	104° 3' 48.165 W
2,759.0	2.30	326.50	2,758.4	9.6	-7.6	482,695.58	624,720.10	32° 19' 36.169 N	104° 3' 48.188 W
2,854.0	2.70	333.20	2,853.3	13.2	-9.7	482,699.16	624,718.04	32° 19' 36.204 N	104° 3' 48.212 W
2,950.0	2.60	330.70	2,949.2	17.1	-11.8	482,703.08	624,715.95	32° 19' 36.243 N	104° 3' 48.237 W
3,045.0	2.60	327.00	3,044.1	20.8	-14.0	482,706.77	624,713.72	32° 19' 36.279 N	104° 3' 48.262 W
3,140.0	3.70	334.80	3,139.0	25.3	-16.5	482,711.35	624,711.25	32° 19' 36.325 N	104° 3' 48.291 W
3,234.0	4.00	336.30	3,232.8	31.1	-19.1	482,717.09	624,708.64	32° 19' 36.382 N	104° 3' 48.321 W
3,328.0	3.90	336.90	3,326.6	37.0	-21.6	482,723.04	624,706.06	32° 19' 36.441 N	104° 3' 48.351 W
3,517.0	2.80	339.00	3,515.2	47.3	-25.8	482,733.26	624,701.89	32° 19' 36.542 N	104° 3' 48.400 W
3,612.0	2.60	337.00	3,610.1	51.4	-27.5	482,737.41	624,700.21	32° 19' 36.583 N	104° 3' 48.419 W
3,706.0	4.60	339.70	3,703.9	56.9	-29.6	482,742.91	624,698.07	32° 19' 36.637 N	104° 3' 48.444 W
3,801.0	4.90	341.60	3,798.6	64.3	-32.2	482,750.33	624,695.47	32° 19' 36.711 N	104° 3' 48.474 W
3,895.0	4.70	343.70	3,892.3	71.8	-34.6	482,757.84	624,693.12	32° 19' 36.785 N	104° 3' 48.501 W
3,991.0	4.50	344.20	3,988.0	79.2	-36.7	482,765.23	624,690.99	32° 19' 36.859 N	104° 3' 48.526 W
4,086.0	4.00	344.40	4,082.7	86.0	-38.6	482,772.01	624,689.09	32° 19' 36.926 N	104° 3' 48.548 W
4,181.0	5.90	342.80	4,177.3	93.9	-41.0	482,779.87	624,686.75	32° 19' 37.004 N	104° 3' 48.575 W
4,276.0	6.20	343.00	4,271.8	103.4	-43.9	482,789.44	624,683.81	32° 19' 37.098 N	104° 3' 48.609 W
4,371.0	6.20	342.30	4,366.3	113.2	-47.0	482,799.23	624,680.75	32° 19' 37.195 N	104° 3' 48.644 W
4,465.0	6.30	343.20	4,459.7	123.0	-50.0	482,809.00	624,677.72	32° 19' 37.292 N	104° 3' 48.679 W
4,560.0	6.20	345.00	4,554.1	132.9	-52.8	482,818.95	624,674.88	32° 19' 37.391 N	104° 3' 48.712 W
4,656.0	6.20	345.70	4,649.6	143.0	-55.4	482,828.98	624,672.26	32° 19' 37.490 N	104° 3' 48.742 W
4,750.0	5.70	344.80	4,743.1	152.4	-57.9	482,838.40	624,669.78	32° 19' 37.583 N	104° 3' 48.771 W
4,845.0	5.10	344.80	4,837.6	161.0	-60.3	482,847.03	624,667.44	32° 19' 37.669 N	104° 3' 48.798 W
4,940.0	4.60	346.20	4,932.3	168.8	-62.3	482,854.80	624,665.42	32° 19' 37.746 N	104° 3' 48.821 W
5,034.0	4.00	344.20	5,026.0	175.6	-64.1	482,861.62	624,663.63	32° 19' 37.813 N	104° 3' 48.842 W
5,128.0	3.20	345.50	5,119.9	181.3	-65.6	482,867.31	624,662.08	32° 19' 37.869 N	104° 3' 48.860 W
5,223.0	3.00	342.80	5,214.7	186.3	-67.0	482,872.26	624,660.68	32° 19' 37.918 N	104° 3' 48.876 W
5,317.0	2.70	342.30	5,308.6	190.7	-68.4	482,876.72	624,659.28	32° 19' 37.963 N	104° 3' 48.892 W
5,411.0	2.40	339.20	5,402.5	194.7	-69.8	482,880.66	624,657.91	32° 19' 38.002 N	104° 3' 48.908 W
5,506.0	1.20	329.00	5,497.5	197.4	-71.0	482,883.38	624,656.69	32° 19' 38.029 N	104° 3' 48.922 W
5,600.0	0.70	208.50	5,591.5	197.7	-71.8	482,883.72	624,655.91	32° 19' 38.032 N	104° 3' 48.931 W
5,694.0	0.70	208.40	5,685.4	196.7	-72.3	482,882.71	624,655.36	32° 19' 38.022 N	104° 3' 48.937 W
5,788.0	0.60	202.70	5,779.4	195.7	-72.8	482,881.75	624,654.90	32° 19' 38.012 N	104° 3' 48.943 W
5,882.0	0.70	195.00	5,873.4	194.7	-73.1	482,880.74	624,654.56	32° 19' 38.003 N	104° 3' 48.947 W
5,978.0	0.70	185.20	5,969.4	193.6	-73.3	482,879.59	624,654.36	32° 19' 37.991 N	104° 3' 48.949 W
6,073.0	1.00	181.50	6,064.4	192.2	-73.4	482,878.18	624,654.28	32° 19' 37.977 N	104° 3' 48.950 W
6,167.0	1.20	179.50	6,158.4	190.4	-73.4	482,876.38	624,654.27	32° 19' 37.959 N	104° 3' 48.950 W
6,261.0	0.50	334.20	6,252.4	189.8	-73.6	482,875.76	624,654.10	32° 19' 37.953 N	104° 3' 48.952 W
6,356.0	0.40	307.20	6,347.4	190.3	-74.1	482,876.34	624,653.65	32° 19' 37.959 N	104° 3' 48.958 W



Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #2H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3021.0usft (Patterson #597)
Site:	Sec 11, T23-S, R28-E	MD Reference:	WELL @ 3021.0usft (Patterson #597)
Well:	Pardue 8808 #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,451.0	0.50	226.80	6,442.4	190.3	-74.6	482,876.25	624,653.09	32° 19' 37.958 N	104° 3' 48.964 W
6,546.0	1.80	342.00	6,537.4	191.4	-75.4	482,877.39	624,652.32	32° 19' 37.969 N	104° 3' 48.973 W
6,641.0	1.70	331.90	6,632.3	194.0	-76.5	482,880.05	624,651.20	32° 19' 37.996 N	104° 3' 48.986 W
6,736.0	1.50	315.20	6,727.3	196.2	-78.0	482,882.18	624,649.66	32° 19' 38.017 N	104° 3' 49.004 W
6,831.0	1.80	306.50	6,822.3	197.9	-80.1	482,883.95	624,647.58	32° 19' 38.034 N	104° 3' 49.028 W
6,926.0	1.40	350.90	6,917.2	200.0	-81.5	482,885.98	624,646.20	32° 19' 38.055 N	104° 3' 49.044 W
7,021.0	1.10	327.90	7,012.2	201.9	-82.2	482,887.90	624,645.53	32° 19' 38.074 N	104° 3' 49.052 W
7,115.0	1.00	329.80	7,106.2	203.4	-83.1	482,889.37	624,644.64	32° 19' 38.088 N	104° 3' 49.062 W
7,210.0	0.70	305.00	7,201.2	204.4	-84.0	482,890.42	624,643.75	32° 19' 38.099 N	104° 3' 49.073 W
7,305.0	0.60	268.10	7,296.2	204.7	-84.9	482,890.74	624,642.78	32° 19' 38.102 N	104° 3' 49.084 W
7,399.0	0.50	265.30	7,390.2	204.7	-85.8	482,890.69	624,641.88	32° 19' 38.101 N	104° 3' 49.094 W
7,494.0	1.10	271.70	7,485.2	204.7	-87.2	482,890.68	624,640.55	32° 19' 38.101 N	104° 3' 49.110 W
7,587.0	0.90	113.10	7,578.1	204.4	-87.4	482,890.42	624,640.33	32° 19' 38.099 N	104° 3' 49.112 W
7,682.0	0.50	129.80	7,673.1	203.9	-86.4	482,889.86	624,641.33	32° 19' 38.093 N	104° 3' 49.101 W
7,777.0	0.90	142.50	7,768.1	203.0	-85.6	482,889.00	624,642.11	32° 19' 38.085 N	104° 3' 49.092 W
7,872.0	0.80	128.40	7,863.1	202.0	-84.6	482,888.00	624,643.08	32° 19' 38.075 N	104° 3' 49.080 W
7,968.0	1.10	132.80	7,959.1	201.0	-83.4	482,886.96	624,644.28	32° 19' 38.064 N	104° 3' 49.066 W
8,063.0	1.40	156.70	8,054.1	199.3	-82.3	482,885.27	624,645.41	32° 19' 38.048 N	104° 3' 49.053 W
8,157.0	1.80	181.30	8,148.1	196.7	-81.9	482,882.74	624,645.83	32° 19' 38.023 N	104° 3' 49.049 W
8,252.0	0.10	3.80	8,243.0	195.3	-81.9	482,881.33	624,645.80	32° 19' 38.009 N	104° 3' 49.049 W
8,347.0	0.40	8.00	8,338.0	195.7	-81.8	482,881.74	624,645.85	32° 19' 38.013 N	104° 3' 49.048 W
8,441.0	1.30	158.80	8,432.0	195.1	-81.4	482,881.07	624,646.29	32° 19' 38.006 N	104° 3' 49.043 W
8,537.0	1.80	195.20	8,528.0	192.6	-81.4	482,878.60	624,646.28	32° 19' 37.982 N	104° 3' 49.043 W
8,631.0	1.30	206.40	8,622.0	190.2	-82.3	482,876.22	624,645.42	32° 19' 37.958 N	104° 3' 49.053 W
8,726.0	0.80	89.00	8,717.0	189.3	-82.1	482,875.27	624,645.61	32° 19' 37.949 N	104° 3' 49.051 W
8,821.0	0.70	75.50	8,811.9	189.4	-80.9	482,875.43	624,646.83	32° 19' 37.950 N	104° 3' 49.037 W
8,915.0	0.70	86.60	8,905.9	189.6	-79.7	482,875.61	624,647.96	32° 19' 37.952 N	104° 3' 49.024 W
9,010.0	0.50	157.90	9,000.9	189.3	-79.0	482,875.26	624,648.70	32° 19' 37.948 N	104° 3' 49.015 W
9,043.0	0.60	163.50	9,033.9	189.0	-78.9	482,874.96	624,648.80	32° 19' 37.945 N	104° 3' 49.014 W
9,132.0	4.70	189.00	9,122.8	184.9	-79.3	482,870.91	624,648.36	32° 19' 37.905 N	104° 3' 49.019 W
9,227.0	14.60	185.90	9,216.4	169.1	-81.2	482,855.11	624,646.52	32° 19' 37.749 N	104° 3' 49.041 W
9,321.0	23.40	182.90	9,305.2	138.6	-83.4	482,824.63	624,644.35	32° 19' 37.447 N	104° 3' 49.067 W
9,416.0	30.30	179.90	9,389.9	95.8	-84.3	482,781.77	624,643.44	32° 19' 37.023 N	104° 3' 49.079 W
9,510.0	38.30	179.40	9,467.5	42.8	-83.9	482,728.84	624,643.78	32° 19' 36.500 N	104° 3' 49.077 W
9,617.0	53.50	181.50	9,541.7	-33.8	-84.7	482,652.24	624,643.00	32° 19' 35.742 N	104° 3' 49.088 W
9,690.0	63.40	180.60	9,579.9	-95.9	-85.8	482,590.12	624,641.89	32° 19' 35.127 N	104° 3' 49.103 W
9,706.1	65.80	180.47	9,586.8	-110.4	-86.0	482,575.57	624,641.75	32° 19' 34.983 N	104° 3' 49.105 W
330' PA Crossed @ 9706.1' MD / 9586.8' TVD									
9,753.0	72.80	180.10	9,603.3	-154.3	-86.2	482,531.73	624,641.54	32° 19' 34.549 N	104° 3' 49.109 W
9,847.0	84.70	177.30	9,621.6	-246.3	-84.0	482,439.74	624,643.67	32° 19' 33.639 N	104° 3' 49.087 W
9,941.0	90.00	175.70	9,626.0	-340.0	-78.3	482,346.05	624,649.41	32° 19' 32.711 N	104° 3' 49.023 W
10,035.0	91.80	176.00	9,624.5	-433.7	-71.5	482,252.31	624,656.21	32° 19' 31.784 N	104° 3' 48.946 W
10,130.0	91.40	175.70	9,621.8	-528.4	-64.6	482,157.60	624,663.08	32° 19' 30.846 N	104° 3' 48.869 W
10,223.0	92.20	180.20	9,618.9	-621.3	-61.3	482,064.73	624,666.41	32° 19' 29.927 N	104° 3' 48.833 W
10,318.0	86.40	178.10	9,620.1	-716.2	-59.9	481,969.79	624,667.81	32° 19' 28.988 N	104° 3' 48.819 W
10,412.0	86.10	177.60	9,626.2	-809.9	-56.4	481,876.06	624,671.33	32° 19' 28.060 N	104° 3' 48.781 W
10,506.0	86.10	179.50	9,632.6	-903.7	-54.0	481,782.31	624,673.71	32° 19' 27.132 N	104° 3' 48.756 W
10,601.0	89.20	180.60	9,636.5	-998.6	-54.1	481,687.40	624,673.62	32° 19' 26.193 N	104° 3' 48.760 W
10,696.0	90.00	181.80	9,637.2	-1,093.6	-56.1	481,592.43	624,671.63	32° 19' 25.253 N	104° 3' 48.786 W
10,790.0	90.00	183.10	9,637.2	-1,187.5	-60.1	481,498.52	624,667.61	32° 19' 24.324 N	104° 3' 48.835 W
10,884.0	89.50	180.10	9,637.6	-1,281.4	-62.7	481,404.56	624,664.99	32° 19' 23.394 N	104° 3' 48.869 W
10,979.0	86.40	178.30	9,641.0	-1,376.4	-61.4	481,309.65	624,666.31	32° 19' 22.455 N	104° 3' 48.856 W
11,073.0	87.10	178.10	9,646.3	-1,470.2	-58.4	481,215.85	624,669.26	32° 19' 21.527 N	104° 3' 48.824 W
11,168.0	88.10	178.50	9,650.3	-1,565.0	-55.6	481,120.98	624,672.08	32° 19' 20.588 N	104° 3' 48.794 W
11,262.0	93.60	181.70	9,648.9	-1,659.0	-55.8	481,027.03	624,671.91	32° 19' 19.658 N	104° 3' 48.799 W



Survey Report - Geographic



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Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3021.0usft (Patterson #597)
Site:	Sec 11, T23-S, R28-E	MD Reference:	WELL @ 3021.0usft (Patterson #597)
Well:	Pardue 8808 #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,356.0	93.00	181.30	9,643.5	-1,752.8	-58.2	480,933.22	624,669.46	32° 19' 18.730 N	104° 3' 48.830 W
11,450.0	93.20	181.10	9,638.4	-1,846.6	-60.2	480,839.38	624,667.49	32° 19' 17.801 N	104° 3' 48.856 W
11,545.0	92.20	180.60	9,633.9	-1,941.5	-61.6	480,744.50	624,666.09	32° 19' 16.862 N	104° 3' 48.875 W
11,640.0	90.30	179.40	9,631.9	-2,036.5	-61.6	480,649.53	624,666.09	32° 19' 15.923 N	104° 3' 48.878 W
11,735.0	93.30	179.90	9,628.9	-2,131.4	-61.0	480,554.59	624,666.67	32° 19' 14.983 N	104° 3' 48.874 W
11,828.0	93.40	179.50	9,623.4	-2,224.3	-60.6	480,461.75	624,667.15	32° 19' 14.064 N	104° 3' 48.871 W
11,922.0	92.10	178.80	9,618.9	-2,318.1	-59.2	480,367.87	624,668.55	32° 19' 13.135 N	104° 3' 48.858 W
12,016.0	89.00	178.70	9,618.0	-2,412.1	-57.1	480,273.91	624,670.60	32° 19' 12.205 N	104° 3' 48.836 W
12,110.0	88.90	178.50	9,619.8	-2,506.1	-54.8	480,179.95	624,672.89	32° 19' 11.276 N	104° 3' 48.812 W
12,204.0	89.20	178.70	9,621.3	-2,600.0	-52.5	480,085.99	624,675.19	32° 19' 10.346 N	104° 3' 48.788 W
12,298.0	93.20	180.10	9,619.3	-2,694.0	-51.5	479,992.04	624,676.17	32° 19' 9.416 N	104° 3' 48.780 W
12,392.0	89.30	179.20	9,617.3	-2,787.9	-51.0	479,898.08	624,676.75	32° 19' 8.486 N	104° 3' 48.776 W
12,486.0	85.90	178.10	9,621.2	-2,881.8	-48.7	479,804.21	624,678.96	32° 19' 7.557 N	104° 3' 48.753 W
12,580.0	85.80	177.40	9,628.0	-2,975.5	-45.1	479,710.52	624,682.64	32° 19' 6.630 N	104° 3' 48.713 W
12,674.0	85.20	177.60	9,635.4	-3,069.1	-41.0	479,616.90	624,686.73	32° 19' 5.703 N	104° 3' 48.668 W
12,768.0	87.60	177.80	9,641.3	-3,162.8	-37.2	479,523.17	624,690.49	32° 19' 4.776 N	104° 3' 48.627 W
12,861.0	85.80	176.70	9,646.7	-3,255.6	-32.8	479,430.44	624,694.94	32° 19' 3.858 N	104° 3' 48.577 W
12,956.0	90.90	179.00	9,649.4	-3,350.4	-29.2	479,335.58	624,698.50	32° 19' 2.919 N	104° 3' 48.539 W
13,049.0	91.90	179.50	9,647.1	-3,443.4	-28.0	479,242.62	624,699.72	32° 19' 1.999 N	104° 3' 48.527 W
13,144.0	90.50	180.10	9,645.1	-3,538.4	-27.7	479,147.64	624,700.05	32° 19' 1.059 N	104° 3' 48.526 W
13,238.0	87.80	179.50	9,646.5	-3,632.3	-27.3	479,053.66	624,700.38	32° 19' 0.129 N	104° 3' 48.525 W
13,332.0	87.00	179.50	9,650.8	-3,726.2	-26.5	478,959.77	624,701.20	32° 18' 59.200 N	104° 3' 48.518 W
13,426.0	87.80	179.90	9,655.1	-3,820.1	-26.0	478,865.86	624,701.69	32° 18' 58.271 N	104° 3' 48.515 W
13,520.0	88.20	178.80	9,658.3	-3,914.1	-24.9	478,771.93	624,702.76	32° 18' 57.341 N	104° 3' 48.506 W
13,614.0	91.20	181.10	9,658.8	-4,008.1	-24.9	478,677.95	624,702.84	32° 18' 56.411 N	104° 3' 48.508 W
13,708.0	91.50	180.80	9,656.6	-4,102.0	-26.4	478,583.99	624,701.28	32° 18' 55.482 N	104° 3' 48.528 W
13,803.0	89.00	179.20	9,656.2	-4,197.0	-26.4	478,489.00	624,701.28	32° 18' 54.542 N	104° 3' 48.531 W
13,897.0	91.40	180.10	9,655.9	-4,291.0	-25.8	478,395.01	624,701.85	32° 18' 53.611 N	104° 3' 48.527 W
13,991.0	91.00	179.90	9,653.9	-4,385.0	-25.8	478,301.03	624,701.85	32° 18' 52.681 N	104° 3' 48.530 W
14,086.0	90.00	179.40	9,653.1	-4,480.0	-25.3	478,206.04	624,702.43	32° 18' 51.741 N	104° 3' 48.526 W
14,179.0	91.50	179.00	9,651.9	-4,572.9	-24.0	478,113.06	624,703.73	32° 18' 50.821 N	104° 3' 48.514 W
14,273.0	86.80	176.60	9,653.3	-4,666.8	-20.4	478,019.17	624,707.34	32° 18' 49.892 N	104° 3' 48.474 W
14,330.9	89.66	177.33	9,655.0	-4,724.6	-17.3	477,961.38	624,710.40	32° 18' 49.320 N	104° 3' 48.440 W
330° PA Crossed @ 14330.9' MD / 9655.0' TVD									
14,368.0	91.50	177.80	9,654.7	-4,761.7	-15.7	477,924.32	624,711.98	32° 18' 48.953 N	104° 3' 48.423 W
14,462.0	93.50	177.40	9,650.6	-4,855.5	-11.8	477,830.50	624,715.91	32° 18' 48.025 N	104° 3' 48.380 W
14,555.0	93.80	176.60	9,644.6	-4,948.2	-6.9	477,737.81	624,720.77	32° 18' 47.108 N	104° 3' 48.326 W
14,635.0	93.80	176.60	9,639.3	-5,027.9	-2.2	477,658.13	624,725.50	32° 18' 46.319 N	104° 3' 48.273 W
TD @ 14635.0' MD / 9639.3' TVD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
145.0	145.0	-0.8	-0.8	First MWD Survey @ 145.0' MD / 145.0' TVD
9,706.1	9,586.8	-110.4	-86.0	330° PA Crossed @ 9706.1' MD / 9586.8' TVD
14,330.9	9,655.0	-4,724.6	-17.3	330° PA Crossed @ 14330.9' MD / 9655.0' TVD
14,635.0	9,639.3	-5,027.9	-2.2	TD @ 14635.0' MD / 9639.3' TVD

Checked By: _____

Approved By: _____

Date: _____