

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:

30-015-45944

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

RECEIVED

MAR 07 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 -015-45944	⁵ Pool Name PURPLE SAGE (WOLFCAMP)	⁶ Pool Code 98820
⁷ Property Code 325477	⁸ Property Name PARDUE 8808	⁹ Well Number 3H

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 1095	East/West line WEST	County EDDY
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¹¹ Bottom Hole Location

UL or lot no. N	Section 11	Township 23S	Range 28E	Lot Idn	Feet from the 44.8	North/South line SOUTH	Feet from the 1666.7	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 7/30/2019	²² Ready Date 2/12/2020	²³ TD 15,530'	²⁴ PBDT	²⁵ Perforations 10,630-15,238	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"	9,966'	725		
6 1/8"	4 1/2"	9,801-15,515	425		

V. Well Test Data

³¹ Date New Oil 2/12/2020	³² Gas Delivery Date 2/14/2020	³³ Test Date 2/19/2020	³⁴ Test Length 24 hour	³⁵ Tbg. Pressure 2400	³⁶ Csg. Pressure 2200
³⁷ Choke Size 40/64	³⁸ Oil 813	³⁹ Water 4113	⁴⁰ Gas 6737	2400	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

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos 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) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

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MAR 04 2020

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

EMNRD-OCD ARTESIA

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45944	Pool Code 98820	Pool Name PURPLE SAGE (WOLFCAMP)
Property Code 325477	Property Name PARDUE 8808	
OGRID No. 260297	Operator Name BTA OIL PRODUCERS, LLC	
		Well Number 3H
		Elevation 2996'

Surface Location

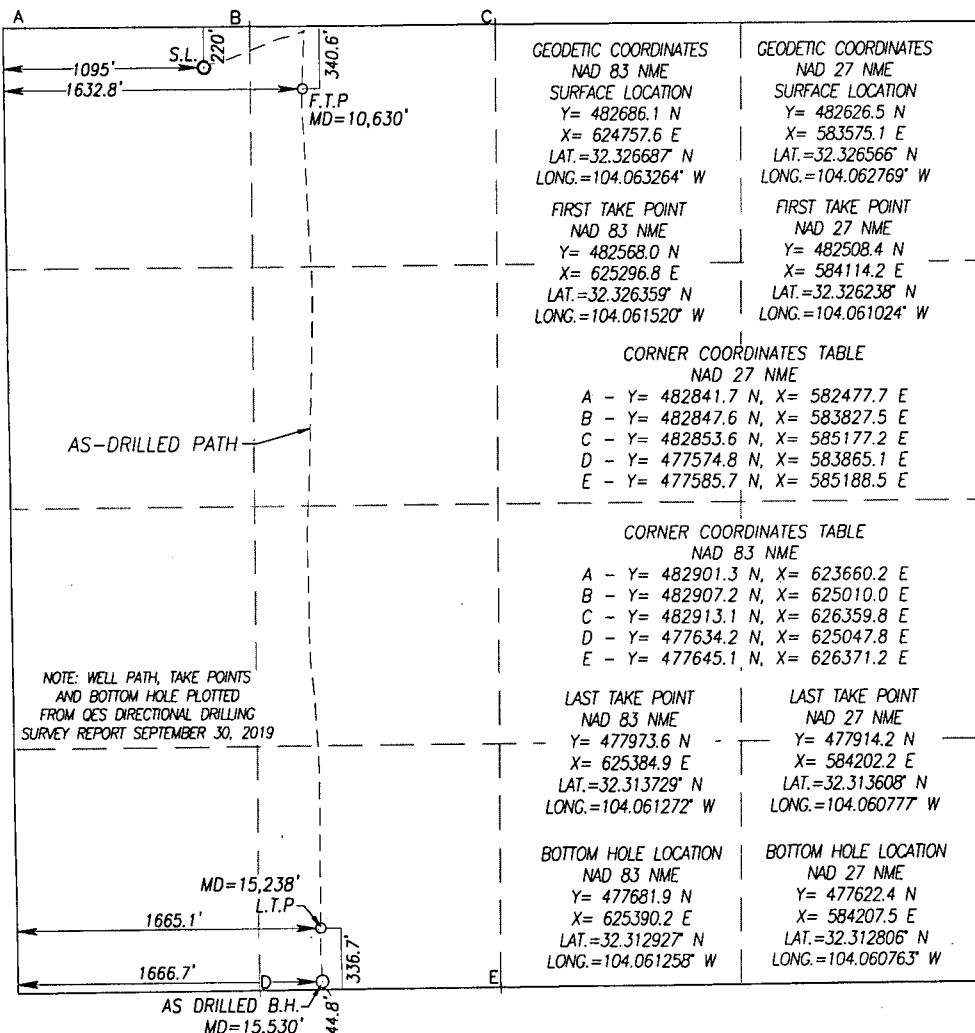
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	11	23-S	28-E		220	NORTH	1095	WEST	EDDY

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
N	11	23-S	28-E		44.8	SOUTH	1666.7	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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 03/02/2020
Signature Date

KATY REDDELL

Printed Name

kreddell@btaoil.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from the best of my knowledge and belief, and that the same is true and correct to the best of my belief.

RONALD J. EIDSON
FEBRUARY 26, 2020
Date of Survey
Signature of Registered Professional Surveyor

Ronald J. Eidson 01/21/2020
Certificate Number Gary G. Eidson 12641
Ronald J. Eidson 3239

LSL Rel. w.o.#19110214 JWSC W.O.: 20.13.0010

Intent ☐ As Drilled ☒

API # 30-015-45944			
Operator Name: BTA OIL PRODUCERS, LLC		Property Name: PARDUE 8808	Well Number 3H

Kick Off Point (KOP)

UL D	Section 11	Township 23S	Range 28E	Lot	Feet 220	From N/S N	Feet 1095	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 340	From N/S N	Feet 1632	From E/W W	County EDDY
Latitude 32.326359					Longitude 104.061520				NAD 83

Last Take Point (LTP)

UL M	Section 11	Township 23S	Range 28E	Lot	Feet 336	From N/S S	Feet 1665	From E/W W	County EDDY
Latitude 32.313729					Longitude 104.061272				NAD 83

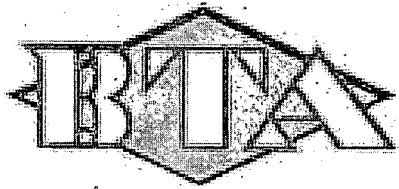
Is this well the defining well for the Horizontal Spacing Unit? ☐ NO

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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EMNRD-OCDARTESIA

BTA Oil Producers, LLC

Eddy County, New Mexico (NAD 83)

Sec 11, T23-S, R28-E

Pardue 8808 #3H

Wellbore #1

Design: Wellbore #1

QES Survey Report

30 September, 2019





Survey Report



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #3H
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 #3H	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 #3H		
Well Position	+N/-S	0.0 usft	Northing: 482,686.10 usft
	+E/-W	0.0 usft	Easting: 624,757.60 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 19' 36.074 N
		Longitude:	104° 3' 47.752 W
		Ground Level:	2,996.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	HDGM	9/17/2019	7.08
			Dip Angle (°)
			60.05
			Field Strength (nT)
			47,885.50000000

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 (°)
			172.98

Survey Program	Date 9/30/2019		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
145.0	15,530.0	QES MWD Surveys (Wellbore #1)	OWSG (Rev2) MWD
			Description
			OWSG MWD - Standard

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
First MWD Survey @ 145.0' MD / 145.0' TVD									
145.0	0.70	13.30	145.0	0.9	0.2	-0.8	0.48	0.48	0.00
243.0	2.20	27.80	243.0	3.1	1.2	-2.9	1.56	1.53	14.80
354.0	1.40	35.60	353.9	6.1	3.0	-5.7	0.75	-0.72	7.03
469.0	0.40	345.50	468.9	7.6	3.7	-7.1	1.03	-0.87	-43.57
603.0	0.70	341.30	602.9	8.9	3.3	-8.4	0.23	0.22	-3.13
695.0	0.80	313.30	694.9	9.8	2.7	-9.4	0.41	0.11	-30.43
790.0	1.00	303.80	789.9	10.7	1.5	-10.5	0.26	0.21	-10.00
883.0	1.10	302.10	882.9	11.7	0.1	-11.6	0.11	0.11	-1.83
978.0	1.30	301.70	977.8	12.7	-1.6	-12.8	0.21	0.21	-0.42



Survey Report



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #3H
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 #3H	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)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,073.0	1.00	42.10	1,072.8	13.9	-2.0	-14.0	1.87	-0.32	105.68
1,167.0	1.20	57.90	1,166.8	15.0	-0.6	-15.0	0.38	0.21	16.81
1,262.0	1.10	54.00	1,261.8	16.1	1.0	-15.9	0.13	-0.11	-4.11
1,356.0	2.50	75.80	1,355.7	17.1	3.7	-16.5	1.63	1.49	23.19
1,451.0	4.20	80.40	1,450.6	18.2	9.2	-17.0	1.81	1.79	4.84
1,546.0	5.30	79.90	1,545.2	19.6	16.9	-17.4	1.16	1.16	-0.53
1,641.0	5.90	80.20	1,639.8	21.2	26.0	-17.8	0.63	0.63	0.32
1,736.0	5.20	83.60	1,734.3	22.5	35.1	-18.0	0.81	-0.74	3.58
1,831.0	5.50	90.90	1,828.9	22.9	44.0	-17.3	0.78	0.32	7.68
1,926.0	6.00	88.00	1,923.5	23.0	53.5	-16.3	0.61	0.53	-3.05
2,021.0	7.20	73.50	2,017.8	24.9	64.1	-16.8	2.15	1.26	-15.26
2,116.0	6.90	78.60	2,112.1	27.7	75.4	-18.2	0.73	-0.32	5.37
2,211.0	7.10	84.10	2,206.4	29.4	86.9	-18.6	0.74	0.21	5.79
2,306.0	8.10	70.70	2,300.6	32.2	99.0	-19.9	2.13	1.05	-14.11
2,401.0	8.50	67.60	2,394.6	37.1	111.8	-23.2	0.63	0.42	-3.26
2,496.0	7.80	70.40	2,488.6	41.9	124.4	-26.4	0.85	-0.74	2.95
2,564.0	7.00	70.70	2,556.1	44.9	132.7	-28.3	1.18	-1.18	0.44
2,666.0	6.50	67.90	2,657.3	49.1	143.9	-31.1	0.59	-0.49	-2.75
2,761.0	6.40	70.20	2,751.7	52.9	153.9	-33.7	0.29	-0.11	2.42
2,856.0	6.40	70.20	2,846.2	56.5	163.8	-36.1	0.00	0.00	0.00
2,952.0	6.70	69.00	2,941.5	60.3	174.1	-38.6	0.34	0.31	-1.25
3,047.0	6.50	69.50	3,035.9	64.2	184.3	-41.2	0.22	-0.21	0.53
3,142.0	6.40	69.30	3,130.3	67.9	194.3	-43.7	0.11	-0.11	-0.21
3,237.0	6.00	67.90	3,224.7	71.7	203.8	-46.2	0.45	-0.42	-1.47
3,330.0	6.20	67.90	3,317.2	75.4	213.0	-48.8	0.22	0.22	0.00
3,425.0	5.70	66.30	3,411.7	79.2	222.1	-51.5	0.55	-0.53	-1.68
3,519.0	5.00	69.00	3,505.3	82.6	230.2	-53.8	0.79	-0.74	2.87
3,614.0	6.90	68.40	3,599.8	86.2	239.3	-56.3	2.00	2.00	-0.63
3,709.0	7.10	68.30	3,694.1	90.4	250.1	-59.2	0.21	0.21	-0.11
3,803.0	7.30	68.30	3,787.3	94.8	261.0	-62.2	0.21	0.21	0.00
3,898.0	7.30	68.30	3,881.6	99.2	272.3	-65.2	0.00	0.00	0.00
3,993.0	7.20	67.90	3,975.8	103.7	283.4	-68.3	0.12	-0.11	-0.42
4,088.0	7.50	68.10	4,070.0	108.3	294.6	-71.4	0.32	0.32	0.21
4,183.0	7.30	70.20	4,164.2	112.6	306.1	-74.4	0.35	-0.21	2.21
4,278.0	7.00	67.20	4,258.5	116.9	317.1	-77.3	0.50	-0.32	-3.16
4,374.0	7.00	67.20	4,353.8	121.4	327.9	-80.5	0.00	0.00	0.00
4,468.0	7.40	68.60	4,447.0	125.9	338.8	-83.5	0.46	0.43	1.49
4,563.0	7.60	67.70	4,541.2	130.5	350.3	-86.7	0.24	0.21	-0.95
4,658.0	7.60	67.60	4,635.4	135.3	361.9	-90.0	0.01	0.00	-0.11
4,752.0	7.40	68.80	4,728.6	139.8	373.3	-93.2	0.27	-0.21	1.28
4,847.0	7.00	68.60	4,822.8	144.1	384.4	-96.1	0.42	-0.42	-0.21
4,943.0	6.80	68.60	4,918.1	148.4	395.1	-99.0	0.21	-0.21	0.00
5,036.0	6.10	69.20	5,010.5	152.1	404.9	-101.5	0.76	-0.75	0.65



Survey Report



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #3H
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 #3H	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)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,130.0	7.30	74.20	5,103.9	155.5	415.3	-103.6	1.42	1.28	5.32	
5,225.0	7.10	74.10	5,198.1	158.8	426.8	-105.4	0.21	-0.21	-0.11	
5,320.0	6.60	77.20	5,292.5	161.6	437.7	-106.9	0.65	-0.53	3.26	
5,414.0	6.20	77.20	5,385.9	163.9	447.9	-107.9	0.43	-0.43	0.00	
5,509.0	6.00	79.30	5,480.3	166.0	457.8	-108.8	0.32	-0.21	2.21	
5,602.0	5.60	79.90	5,572.9	167.7	467.1	-109.3	0.44	-0.43	0.65	
5,697.0	6.90	71.60	5,667.3	170.3	477.1	-110.7	1.66	1.37	-8.74	
5,791.0	7.10	69.90	5,760.6	174.1	487.9	-113.1	0.31	0.21	-1.81	
5,885.0	6.90	72.10	5,853.9	177.8	498.7	-115.5	0.36	-0.21	2.34	
5,980.0	6.50	70.60	5,948.3	181.3	509.2	-117.7	0.46	-0.42	-1.58	
6,075.0	6.00	73.50	6,042.7	184.5	519.0	-119.7	0.62	-0.53	3.05	
6,169.0	5.30	75.30	6,136.2	187.0	527.9	-121.1	0.77	-0.74	1.91	
6,264.0	5.40	58.10	6,230.8	190.5	536.0	-123.6	1.69	0.11	-18.11	
6,359.0	4.80	53.70	6,325.5	195.2	543.0	-127.4	0.75	-0.63	-4.63	
6,454.0	4.10	50.90	6,420.2	199.7	548.8	-131.1	0.77	-0.74	-2.95	
6,549.0	1.80	70.90	6,515.0	202.3	552.9	-133.3	2.62	-2.42	21.05	
6,644.0	0.70	195.40	6,610.0	202.3	554.1	-133.0	2.39	-1.16	131.05	
6,739.0	1.70	207.30	6,705.0	200.5	553.3	-131.3	1.08	1.05	12.53	
6,834.0	2.60	196.40	6,799.9	197.1	552.1	-128.2	1.04	0.95	-11.47	
6,929.0	0.90	202.00	6,894.9	194.4	551.2	-125.6	1.80	-1.79	5.89	
7,024.0	1.20	219.80	6,989.9	192.9	550.3	-124.2	0.46	0.32	18.74	
7,118.0	1.50	212.10	7,083.8	191.1	549.0	-122.6	0.37	0.32	-8.19	
7,213.0	1.50	206.60	7,178.8	189.0	547.8	-120.6	0.15	0.00	-5.79	
7,308.0	0.50	316.30	7,273.8	188.1	546.9	-119.9	1.82	-1.05	115.47	
7,402.0	0.70	338.40	7,367.8	189.0	546.4	-120.8	0.32	0.21	23.51	
7,497.0	1.10	326.10	7,462.8	190.3	545.7	-122.2	0.47	0.42	-12.95	
7,589.0	1.00	321.20	7,554.8	191.6	544.7	-123.6	0.15	-0.11	-5.33	
7,684.0	1.10	312.60	7,649.7	192.9	543.5	-125.0	0.20	0.11	-9.05	
7,780.0	0.90	309.80	7,745.7	194.0	542.3	-126.3	0.21	-0.21	-2.92	
7,875.0	0.40	266.20	7,840.7	194.5	541.3	-126.8	0.71	-0.53	-45.89	
7,970.0	0.60	293.30	7,935.7	194.6	540.6	-127.1	0.32	0.21	28.53	
8,065.0	0.30	298.40	8,030.7	195.0	539.9	-127.5	0.32	-0.32	5.37	
8,159.0	0.20	340.90	8,124.7	195.2	539.6	-127.8	0.22	-0.11	45.21	
8,254.0	0.10	155.80	8,219.7	195.3	539.6	-127.9	0.32	-0.11	184.11	
8,349.0	0.30	199.90	8,314.7	195.0	539.5	-127.6	0.25	0.21	46.42	
8,444.0	0.80	199.90	8,409.7	194.1	539.2	-126.8	0.53	0.53	0.00	
8,539.0	1.70	201.70	8,504.7	192.2	538.5	-125.0	0.95	0.95	1.89	
8,633.0	0.90	167.80	8,598.7	190.2	538.1	-123.0	1.15	-0.85	-36.06	
8,729.0	2.00	166.20	8,694.6	187.8	538.7	-120.6	1.15	1.15	-1.67	
8,824.0	0.60	68.80	8,789.6	186.4	539.5	-119.1	2.27	-1.47	-102.53	
8,918.0	1.10	33.50	8,883.6	187.3	540.5	-119.9	0.75	0.53	-37.55	
9,012.0	0.70	25.40	8,977.6	188.6	541.2	-121.0	0.45	-0.43	-8.62	
9,108.0	0.40	38.70	9,073.6	189.4	541.7	-121.8	0.34	-0.31	13.85	



Survey Report



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Pardue 8808 #3H
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 #3H	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)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,203.0	0.60	94.30	9,168.6	189.6	542.4	-121.9	0.53	0.21	58.53
9,298.0	0.50	98.20	9,263.6	189.5	543.3	-121.7	0.11	-0.11	4.11
9,392.0	0.40	112.00	9,357.6	189.3	544.0	-121.4	0.16	-0.11	14.68
9,487.0	0.70	129.80	9,452.6	188.8	544.8	-120.8	0.36	0.32	18.74
9,582.0	0.70	144.70	9,547.6	188.0	545.6	-119.9	0.19	0.00	15.68
9,676.0	1.00	36.80	9,641.6	188.2	546.4	-120.0	1.47	0.32	-114.79
9,771.0	1.40	36.10	9,736.5	189.8	547.6	-121.4	0.42	0.42	-0.74
9,865.0	1.40	20.50	9,830.5	191.8	548.6	-123.3	0.40	0.00	-16.60
9,928.0	1.40	6.20	9,893.5	193.3	549.0	-124.7	0.55	0.00	-22.70
10,031.0	1.20	27.80	9,996.5	195.5	549.6	-126.8	0.51	-0.19	20.97
10,125.0	14.20	183.60	10,089.6	184.8	549.4	-116.2	16.28	13.83	165.74
10,219.0	20.80	181.30	10,179.2	156.5	548.3	-88.4	7.06	7.02	-2.45
10,313.0	32.90	179.90	10,262.9	114.2	547.9	-46.4	12.89	12.87	-1.49
10,407.0	42.40	182.00	10,337.2	56.8	546.9	10.4	10.20	10.11	2.23
10,502.0	48.80	183.60	10,403.7	-10.9	543.5	77.3	6.84	6.74	1.68
10,597.0	60.00	182.20	10,458.9	-87.9	539.7	153.2	11.85	11.79	-1.47
Cross 330' HL@ 10619.4' MD / 10469.6' TVD									
10,619.4	63.11	181.51	10,469.6	-107.6	539.0	172.7	14.14	13.87	-3.08
10,692.0	73.20	179.50	10,496.5	-174.9	538.5	239.4	14.14	13.90	-2.77
10,785.0	92.00	177.60	10,508.5	-266.7	540.8	330.8	20.32	20.22	-2.04
10,883.0	92.90	176.70	10,504.3	-364.5	545.7	428.4	1.30	0.92	-0.92
10,977.0	92.50	176.40	10,499.8	-458.2	551.4	522.1	0.53	-0.43	-0.32
11,072.0	90.00	178.30	10,497.8	-553.1	555.7	616.8	3.30	-2.63	2.00
11,166.0	89.30	177.10	10,498.3	-647.0	559.5	710.5	1.48	-0.74	-1.28
11,260.0	88.60	176.60	10,500.1	-740.8	564.7	804.3	0.92	-0.74	-0.53
11,355.0	89.50	177.40	10,501.6	-835.7	569.6	899.0	1.27	0.95	0.84
11,449.0	88.70	176.20	10,503.1	-929.5	574.9	992.8	1.53	-0.85	-1.28
11,544.0	86.50	176.40	10,507.1	-1,024.2	581.0	1,087.6	2.33	-2.32	0.21
11,638.0	88.00	177.60	10,511.6	-1,118.0	585.9	1,181.2	2.04	1.60	1.28
11,733.0	88.20	178.50	10,514.8	-1,212.9	589.2	1,275.8	0.97	0.21	0.95
11,827.0	89.10	180.40	10,517.0	-1,306.8	590.1	1,369.2	2.24	0.96	2.02
11,921.0	88.60	179.20	10,518.9	-1,400.8	590.4	1,462.5	1.38	-0.53	-1.28
12,015.0	92.00	181.10	10,518.4	-1,494.8	590.1	1,555.7	4.14	3.62	2.02
12,108.0	92.20	181.50	10,515.0	-1,587.7	588.0	1,647.7	0.48	0.22	0.43
12,202.0	92.30	181.70	10,511.3	-1,681.6	585.4	1,740.6	0.24	0.11	0.21
12,297.0	91.50	181.30	10,508.1	-1,776.5	582.9	1,834.5	0.94	-0.84	-0.42
12,391.0	91.50	181.50	10,505.7	-1,870.5	580.6	1,927.4	0.21	0.00	0.21
12,485.0	90.60	180.60	10,503.9	-1,964.4	578.9	2,020.5	1.35	-0.96	-0.96
12,579.0	90.90	181.30	10,502.7	-2,058.4	577.4	2,113.5	0.81	0.32	0.74
12,673.0	89.10	180.60	10,502.7	-2,152.4	575.8	2,206.6	2.05	-1.91	-0.74
12,766.0	87.30	181.50	10,505.6	-2,245.3	574.1	2,298.7	2.16	-1.94	0.97
12,860.0	90.10	183.20	10,507.8	-2,339.2	570.2	2,391.4	3.48	2.98	1.81
12,954.0	89.10	183.40	10,508.4	-2,433.1	564.8	2,483.8	1.08	-1.06	0.21
13,048.0	85.00	181.70	10,513.2	-2,526.8	560.7	2,576.4	4.72	-4.36	-1.81



Survey Report



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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 #3H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User-Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,142.0	84.90	179.70	10,521.5	-2,620.4	559.5	2,669.2	2.12	-0.11	-2.13
13,236.0	86.10	178.50	10,528.9	-2,714.1	561.0	2,762.3	1.80	1.28	-1.28
13,330.0	87.90	177.40	10,533.8	-2,807.9	564.3	2,855.9	2.24	1.91	-1.17
13,424.0	91.70	179.90	10,534.1	-2,901.9	566.6	2,949.4	4.84	4.04	2.66
13,518.0	91.50	180.10	10,531.5	-2,995.8	566.6	3,042.6	0.30	-0.21	0.21
13,612.0	90.20	178.10	10,530.1	-3,089.8	568.0	3,136.1	2.54	-1.38	-2.13
13,707.0	91.00	178.70	10,529.1	-3,184.8	570.7	3,230.6	1.05	0.84	0.63
13,801.0	90.70	174.40	10,527.7	-3,278.6	576.3	3,324.4	4.59	-0.32	-4.57
13,895.0	88.70	173.90	10,528.2	-3,372.1	585.9	3,418.4	2.19	-2.13	-0.53
13,989.0	90.50	174.30	10,528.9	-3,465.6	595.6	3,512.4	1.96	1.91	0.43
14,084.0	89.90	176.20	10,528.6	-3,560.2	603.4	3,607.3	2.10	-0.63	2.00
14,178.0	90.70	177.30	10,528.1	-3,654.1	608.8	3,701.1	1.45	0.85	1.17
14,272.0	88.90	175.70	10,528.4	-3,747.9	614.5	3,794.9	2.56	-1.91	-1.70
14,366.0	90.70	179.20	10,528.7	-3,841.8	618.7	3,888.6	4.19	1.91	3.72
14,460.0	89.80	178.50	10,528.3	-3,935.8	620.6	3,982.1	1.21	-0.96	-0.74
14,554.0	89.60	178.30	10,528.8	-4,029.7	623.2	4,075.7	0.30	-0.21	-0.21
14,648.0	91.10	180.80	10,528.2	-4,123.7	623.9	4,169.1	3.10	1.60	2.66
14,742.0	90.70	180.60	10,526.8	-4,217.7	622.8	4,262.2	0.48	-0.43	-0.21
14,836.0	89.00	179.40	10,527.0	-4,311.7	622.8	4,355.5	2.21	-1.81	-1.28
14,930.0	88.50	178.70	10,529.0	-4,405.7	624.4	4,448.9	0.91	-0.53	-0.74
15,023.0	87.40	178.50	10,532.4	-4,498.6	626.6	4,541.4	1.20	-1.18	-0.22
15,117.0	92.20	180.40	10,532.7	-4,592.5	627.5	4,634.8	5.49	5.11	2.02
15,211.0	90.90	179.90	10,530.2	-4,686.5	627.3	4,728.0	1.48	-1.38	-0.53
Cross 330' HL @ 15243.6' MD / 10529.7' TVD									
15,243.6	90.73	179.76	10,529.7	-4,719.1	627.4	4,760.4	0.68	-0.53	-0.43
15,305.0	90.40	179.50	10,529.1	-4,780.5	627.8	4,821.4	0.68	-0.53	-0.43
15,399.0	87.60	178.30	10,530.7	-4,874.4	629.6	4,914.8	3.24	-2.98	-1.28
15,480.0	88.50	178.80	10,533.5	-4,955.4	631.6	4,995.4	1.27	1.11	0.62
TD @ 15530.0' MD / 10534.8' TVD									
15,530.0	88.50	178.80	10,534.8	-5,005.3	632.7	5,045.1	0.00	0.00	0.00

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
145.0	145.0	0.9	0.2	First MWD Survey @ 145.0' MD / 145.0' TVD
10,619.4	10,469.6	-107.6	539.0	Cross 330' HL @ 10619.4' MD / 10469.6' TVD
15,243.6	10,529.7	-4,719.1	627.4	Cross 330' HL @ 15243.6' MD / 10529.7' TVD
15,530.0	10,534.8	-5,005.3	632.7	TD @ 15530.0' MD / 10534.8' TVD