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By A. Bustamante at 3:10 pm, Oct 16, 2019

Form C-102

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) 334-6174 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

Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT
As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-44340	Pool Code 98220	Pool Name PURPLE SAGE (WOLFCAMP) GAS
Property Code 320813	Property Name OGDEN 20509 32-29 FEDERAL COM	Well Number 6H
OGRID No. 260297	Operator Name BTA OIL PRODUCERS, LLC	Elevation 3107'

Surface Location

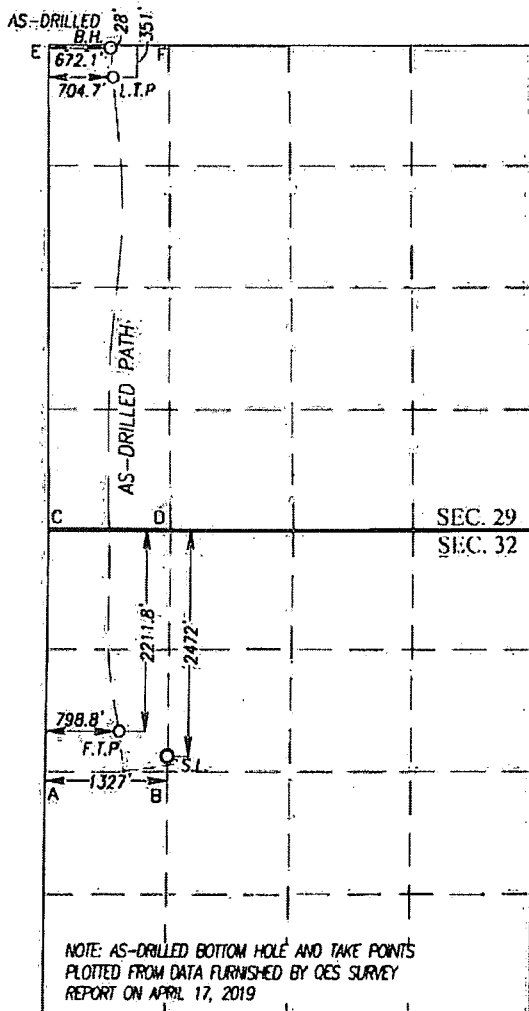
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	32	23-S	28-E		2472	NORTH	1327	WEST	EDDY

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
D	29	23-S	28-E		28	NORTH	672.1	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
240	480		

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



SCALE: 1"=2000'

GEODETIC COORDINATES NAD 83 NME BOTTOM HOLE LOCATION	GEODETIC COORDINATES NAD 27 NME BOTTOM HOLE LOCATION
Y=466841.3 N X=608515.9 E LAT.=32.283234° N LONG.=104.115950° W	Y=466782.4 N X=567333.2 E LAT.=32.283114° N LONG.=104.115454° W
GEODETIC COORDINATES NAD 83 NME LAST TAKE POINT	GEODETIC COORDINATES NAD 27 NME LAST TAKE POINT
Y=466518.5 N X=608550.2 E LAT.=32.282346° N LONG.=104.115841° W	Y=466459.6 N X=567367.4 E LAT.=32.282226° N LONG.=104.115345° W

CORNER COORDINATES TABLE

NAD 27 NME	
A - Y= 458876.9 N, X= 566665.6 E	
B - Y= 458878.7 N, X= 568001.6 E	
C - Y= 461521.6 N, X= 566688.3 E	
D - Y= 461518.4 N, X= 568027.7 E	
E - Y= 466808.6 N, X= 566661.1 E	
F - Y= 466812.1 N, X= 567978.9 E	

CORNER COORDINATES TABLE

NAD 83 NME	
A - Y= 458935.7 N, X= 607848.5 E	
B - Y= 458937.5 N, X= 609184.5 E	
C - Y= 461580.4 N, X= 607871.1 E	
D - Y= 461577.2 N, X= 609210.5 E	
E - Y= 466867.5 N, X= 607843.8 E	
F - Y= 466871.1 N, X= 609161.6 E	
SURFACE LOCATION NAD 83 NME	
Y= 459105.8 N X= 609176.7 E LAT.=32.261966° N LONG.=104.113863° W	
SURFACE LOCATION NAD 27 NME	
Y= 459047.1 N X= 567993.8 E LAT.=32.261846° N LONG.=104.113368° W	

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 proposed 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

Signature _____ Date **9/19/19**
Printed Name **KATY REDDELL**
E-mail Address **kreddell@btaoil.com**

SURVEYOR 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.

NOVEMBER 30, 2016

Date of Survey _____
Signature _____
Professional Surveyor:
RONALD J. EIDSON
NEW MEXICO
3239
Certificate Number **12641**
Ronald J. Eidson **3239**
L.S.I. REL. W.O. 18130170 JWSC W.O. 19.13 0924

RNP 10-22-19

NM OIL CONSERVATION
ARTESIA DISTRICT

SEP 05 2019

Intent ☐ As Drilled ☒

API #
30-015-44339

RECEIVED

Operator Name: BTA OIL PRODUCERS, LLC	Property Name: OGDEN 20509 32-29	Well Number 6H
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Kick Off Point (KOP)

UL F	Section 32	Township 23S	Range 28E	Lot	Feet 2472	From N/S NORTH	Feet 1327	From E/W WEST	County EDDY
Latitude 32.261966					Longitude -104.113663			NAD 83	

First Take Point (FTP)

UL F	Section 32	Township 23S	Range 28E	Lot	Feet 2310	From N/S NORTH	Feet 660	From E/W WEST	County EDDY
Latitude 32.262420					Longitude -104.116014			NAD 83	

Last Take Point (LTP)

UL C	Section 29	Township 23S	Range 28E	Lot	Feet 300	From N/S NORTH	Feet 1979	From E/W WEST	County EDDY
Latitude 32.262404					Longitude -104.115866			NAD 83	

Is this well the defining well for the Horizontal Spacing Unit?

☐ NO

Is this well an infill well?

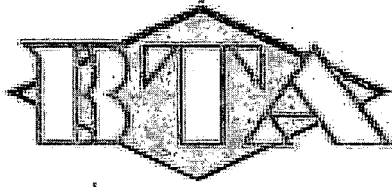
☐ YES

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

API #
30-015-44340

Operator Name: BTA OIL PRODUCERS, LLC	Property Name: OGDEN 20509 32-29	Well Number 1H
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KZ 06/29/2018



NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 05 2019

RECEIVED

BTA Oil Producers, LLC

Eddy County, New Mexico (NAD 83)

Sec 32, T23-S, R28-E

Ogden 20509 32-29 Fed Com #6H

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

17 April, 2019





Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Ogden 20509 32-29 Fed Com #6H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3132.0usft (Patterson #594)
Site:	Sec 32, T23-S, R28-E	MD Reference:	WELL @ 3132.0usft (Patterson #594)
Well:	Ogden 20509 32-29 Fed Com #6H	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 32, T23-S, R28-E		
Site Position:	Map	Northing:	459,105.80 usft
From:		Easting:	609,206.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 15' 43.078 N
		Longitude:	104° 6' 49.556 W
		Grid Convergence:	0.12 °

Well	Ogden 20509 32-29 Fed Com #6H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 15' 43.078 N
		Longitude:	104° 6' 49.906 W
		Ground Level:	3,107.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	4/3/2019	7.01
			Dip Angle
			(°)
			Field Strength
			(nT)
			59.99
			47,720.91805028

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)
			Direction
			(°)
	0.0	0.0	0.0
			355.02

Survey Program	Date: 4/17/2019		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		Description
125.0	17,160.0	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	459,105.80	609,176.70	32° 15' 43.078 N	104° 6' 49.906 W
125.0	0.30	209.10	125.0	-0.3	-0.2	459,105.51	609,176.54	32° 15' 43.076 N	104° 6' 49.908 W
First MWD Survey @ 125.0'MD / 125.0' TVD									
180.0	1.10	201.10	180.0	-0.9	-0.4	459,104.90	609,176.28	32° 15' 43.069 N	104° 6' 49.911 W
276.0	1.20	205.20	276.0	-2.7	-1.2	459,103.13	609,175.52	32° 15' 43.052 N	104° 6' 49.920 W
336.0	1.20	225.10	336.0	-3.7	-1.9	459,102.11	609,174.81	32° 15' 43.042 N	104° 6' 49.928 W
458.0	1.20	217.00	457.9	-5.6	-3.6	459,100.19	609,173.14	32° 15' 43.023 N	104° 6' 49.947 W
580.0	1.10	138.60	579.9	-7.5	-3.6	459,098.29	609,173.14	32° 15' 43.004 N	104° 6' 49.947 W
701.0	1.50	112.40	700.9	-9.0	-1.3	459,096.82	609,175.38	32° 15' 42.989 N	104° 6' 49.921 W
891.0	1.10	117.70	890.8	-10.8	2.6	459,095.02	609,179.29	32° 15' 42.972 N	104° 6' 49.876 W
1,080.0	1.00	130.10	1,079.8	-12.7	5.5	459,093.12	609,182.16	32° 15' 42.953 N	104° 6' 49.843 W
1,270.0	1.30	130.00	1,269.8	-15.1	8.4	459,090.66	609,185.08	32° 15' 42.928 N	104° 6' 49.809 W



Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Ogden 20509 32-29 Fed Com #6H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3132.0usft (Patterson #594)
Site:	Sec 32, T23-S, R28-E	MD Reference:	WELL @ 3132.0usft (Patterson #594)
Well:	Ogden 20509 32-29 Fed Com #6H	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
1,320.7	1.38	130.25	1,320.5	-15.9	9.3	459,089.90	609,185.98	32° 15' 42.921 N	104° 6' 49.798 W
LL Crossed @ 1320.7'MD / 1320.5' TVD									
1,459.0	1.60	130.80	1,458.7	-18.2	12.0	459,087.56	609,188.72	32° 15' 42.898 N	104° 6' 49.766 W
1,649.0	2.30	119.40	1,648.6	-21.8	17.3	459,083.96	609,194.05	32° 15' 42.862 N	104° 6' 49.704 W
1,839.0	2.10	117.80	1,838.5	-25.3	23.7	459,080.46	609,200.45	32° 15' 42.827 N	104° 6' 49.630 W
2,029.0	3.30	106.80	2,028.2	-28.5	32.1	459,077.26	609,208.76	32° 15' 42.795 N	104° 6' 49.533 W
2,218.0	2.40	109.90	2,217.0	-31.5	41.0	459,074.34	609,217.69	32° 15' 42.766 N	104° 6' 49.429 W
2,407.0	1.70	110.30	2,405.9	-33.8	47.3	459,072.02	609,224.04	32° 15' 42.743 N	104° 6' 49.355 W
2,474.0	1.10	101.10	2,472.9	-34.2	48.9	459,071.55	609,225.60	32° 15' 42.738 N	104° 6' 49.337 W
2,667.0	2.60	93.90	2,665.8	-34.9	55.1	459,070.90	609,231.79	32° 15' 42.732 N	104° 6' 49.265 W
2,856.0	6.30	92.20	2,854.2	-35.6	69.7	459,070.21	609,246.43	32° 15' 42.725 N	104° 6' 49.094 W
3,047.0	7.10	103.60	3,043.9	-38.8	91.7	459,067.03	609,268.38	32° 15' 42.693 N	104° 6' 48.839 W
3,236.0	6.30	113.80	3,231.6	-45.7	112.5	459,060.10	609,289.22	32° 15' 42.624 N	104° 6' 48.596 W
3,424.0	6.40	214.30	3,418.9	-58.6	116.1	459,047.25	609,292.76	32° 15' 42.497 N	104° 6' 48.555 W
3,614.0	9.50	244.00	3,607.1	-74.2	96.0	459,031.62	609,272.69	32° 15' 42.342 N	104° 6' 48.790 W
3,804.0	8.40	249.30	3,794.8	-86.0	68.9	459,019.84	609,245.62	32° 15' 42.226 N	104° 6' 49.105 W
3,993.0	7.50	257.90	3,982.0	-93.4	43.9	459,012.37	609,220.64	32° 15' 42.153 N	104° 6' 49.396 W
4,183.0	6.40	266.20	4,170.6	-96.7	21.2	459,009.07	609,197.95	32° 15' 42.121 N	104° 6' 49.661 W
4,295.0	6.70	266.75	4,281.9	-97.5	8.5	459,008.29	609,185.20	32° 15' 42.113 N	104° 6' 49.809 W
LL Crossed @ 4295.0'MD / 4281.9' TVD									
4,372.0	6.90	267.10	4,358.3	-98.0	-0.6	459,007.80	609,176.10	32° 15' 42.109 N	104° 6' 49.915 W
4,562.0	8.40	250.50	4,546.6	-103.2	-25.1	459,002.59	609,151.61	32° 15' 42.057 N	104° 6' 50.200 W
4,752.0	6.90	258.60	4,734.9	-110.1	-49.4	458,995.70	609,127.34	32° 15' 41.990 N	104° 6' 50.483 W
4,942.0	7.40	264.40	4,923.5	-113.6	-72.7	458,992.25	609,103.98	32° 15' 41.956 N	104° 6' 50.755 W
5,132.0	8.30	264.10	5,111.7	-116.2	-98.5	458,989.64	609,078.16	32° 15' 41.931 N	104° 6' 51.056 W
5,322.0	8.10	259.90	5,299.7	-119.9	-125.4	458,985.89	609,051.34	32° 15' 41.894 N	104° 6' 51.369 W
5,512.0	9.60	259.20	5,487.5	-125.2	-154.1	458,980.57	609,022.60	32° 15' 41.842 N	104° 6' 51.704 W
5,701.0	7.00	260.40	5,674.5	-130.1	-180.9	458,975.70	608,995.76	32° 15' 41.794 N	104° 6' 52.016 W
5,891.0	5.60	272.90	5,863.3	-131.6	-201.6	458,974.23	608,975.08	32° 15' 41.780 N	104° 6' 52.257 W
6,081.0	5.00	271.80	6,052.5	-130.8	-219.2	458,974.96	608,957.54	32° 15' 41.788 N	104° 6' 52.461 W
6,271.0	7.10	263.20	6,241.5	-132.0	-239.1	458,973.83	608,937.61	32° 15' 41.777 N	104° 6' 52.694 W
6,460.0	7.20	254.40	6,429.0	-136.5	-262.1	458,969.26	608,914.60	32° 15' 41.732 N	104° 6' 52.962 W
6,650.0	7.20	262.30	6,617.5	-141.3	-285.4	458,964.47	608,891.33	32° 15' 41.685 N	104° 6' 53.233 W
6,840.0	9.10	260.60	6,805.6	-145.4	-312.0	458,960.42	608,864.71	32° 15' 41.646 N	104° 6' 53.543 W
7,030.0	8.10	266.00	6,993.4	-148.8	-340.2	458,957.03	608,836.53	32° 15' 41.613 N	104° 6' 53.871 W
7,219.0	8.50	267.60	7,180.5	-150.3	-367.4	458,955.52	608,809.29	32° 15' 41.599 N	104° 6' 54.188 W
7,409.0	9.10	266.70	7,368.2	-151.7	-396.4	458,954.06	608,780.26	32° 15' 41.585 N	104° 6' 54.527 W
7,598.0	6.90	254.40	7,555.4	-155.7	-422.3	458,950.15	608,754.40	32° 15' 41.547 N	104° 6' 54.828 W
7,787.0	4.50	265.00	7,743.4	-159.4	-440.6	458,946.45	608,736.08	32° 15' 41.510 N	104° 6' 55.041 W
7,977.0	3.40	285.00	7,933.0	-158.5	-453.5	458,947.26	608,723.21	32° 15' 41.519 N	104° 6' 55.191 W
8,164.0	3.20	290.10	8,119.7	-155.3	-463.8	458,950.49	608,712.95	32° 15' 41.551 N	104° 6' 55.311 W
8,354.0	2.60	296.60	8,309.4	-151.6	-472.6	458,954.24	608,704.12	32° 15' 41.588 N	104° 6' 55.413 W
8,543.0	1.20	281.50	8,498.3	-149.2	-478.4	458,956.55	608,698.34	32° 15' 41.611 N	104° 6' 55.481 W
8,732.0	1.20	336.10	8,687.3	-147.0	-481.1	458,958.76	608,695.60	32° 15' 41.633 N	104° 6' 55.512 W
8,855.0	1.30	319.40	8,810.3	-144.8	-482.5	458,960.99	608,694.17	32° 15' 41.655 N	104° 6' 55.529 W
8,950.0	4.50	352.70	8,905.1	-140.3	-483.7	458,965.51	608,693.00	32° 15' 41.700 N	104° 6' 55.543 W
9,045.0	14.10	3.20	8,998.8	-125.0	-483.5	458,980.80	608,693.17	32° 15' 41.851 N	104° 6' 55.540 W
9,140.0	23.00	358.10	9,088.8	-94.8	-483.5	459,010.96	608,693.20	32° 15' 42.150 N	104° 6' 55.539 W
9,235.0	31.30	352.80	9,173.2	-51.7	-487.2	459,054.08	608,689.49	32° 15' 42.576 N	104° 6' 55.581 W
9,330.0	39.70	352.50	9,250.5	2.9	-494.3	459,108.74	608,682.42	32° 15' 43.117 N	104° 6' 55.662 W
9,426.0	49.10	353.90	9,319.0	69.6	-502.2	459,175.36	608,674.55	32° 15' 43.777 N	104° 6' 55.753 W
9,512.0	56.40	353.20	9,371.0	137.5	-509.9	459,243.34	608,666.84	32° 15' 44.450 N	104° 6' 55.841 W
9,539.6	61.12	353.65	9,385.4	161.0	-512.6	459,266.77	608,664.14	32° 15' 44.682 N	104° 6' 55.872 W
330' HL Crossed @ 9539.6'MD / 9385.4' TVD									
9,543.0	61.70	353.70	9,387.0	163.9	-512.9	459,269.74	608,663.81	32° 15' 44.711 N	104° 6' 55.875 W



Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Ogden 20509 32-29 Fed Com #6H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3132.0usft (Patterson #594)
Site:	Sec 32, T23-S, R28-E	MD Reference:	WELL @ 3132.0usft (Patterson #594)
Well:	Ogden 20509 32-29 Fed Com #6H	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
9,636.0	70.80	351.60	9,424.4	248.3	-523.8	459,354.06	608,652.88	32° 15' 45.546 N	104° 6' 56.001 W
9,730.0	77.00	350.20	9,450.5	337.4	-538.1	459,443.19	608,638.59	32° 15' 46.428 N	104° 6' 56.165 W
9,825.0	79.40	349.30	9,469.9	428.9	-554.7	459,534.69	608,622.04	32° 15' 47.334 N	104° 6' 56.356 W
9,919.0	81.90	349.00	9,485.2	520.0	-572.1	459,625.78	608,604.58	32° 15' 48.236 N	104° 6' 56.557 W
10,013.0	82.10	348.30	9,498.2	611.2	-590.4	459,717.04	608,586.26	32° 15' 49.139 N	104° 6' 56.768 W
10,202.0	95.60	353.70	9,502.0	797.4	-619.9	459,903.18	608,556.80	32° 15' 50.982 N	104° 6' 57.107 W
10,296.0	95.10	353.60	9,493.3	890.4	-630.3	459,996.20	608,546.45	32° 15' 51.902 N	104° 6' 57.225 W
10,391.0	95.60	355.70	9,484.4	984.6	-639.1	460,090.36	608,537.63	32° 15' 52.834 N	104° 6' 57.326 W
10,485.0	95.80	355.70	9,475.1	1,077.8	-646.1	460,183.64	608,530.62	32° 15' 53.758 N	104° 6' 57.405 W
10,579.0	91.90	357.40	9,468.8	1,171.4	-651.7	460,277.23	608,524.98	32° 15' 54.684 N	104° 6' 57.468 W
10,673.0	90.00	0.10	9,467.2	1,265.4	-653.8	460,371.18	608,522.93	32° 15' 55.614 N	104° 6' 57.490 W
10,767.0	90.10	0.20	9,467.1	1,359.4	-653.5	460,465.18	608,523.17	32° 15' 56.544 N	104° 6' 57.485 W
10,862.0	88.70	359.90	9,468.1	1,454.4	-653.4	460,560.18	608,523.26	32° 15' 57.484 N	104° 6' 57.482 W
10,956.0	92.10	1.10	9,467.5	1,548.4	-652.6	460,654.15	608,524.08	32° 15' 58.414 N	104° 6' 57.470 W
11,051.0	90.90	0.80	9,465.0	1,643.3	-651.1	460,749.11	608,525.65	32° 15' 59.353 N	104° 6' 57.449 W
11,146.0	90.10	0.60	9,464.1	1,738.3	-649.9	460,844.10	608,526.81	32° 16' 0.293 N	104° 6' 57.434 W
11,240.0	91.40	0.80	9,462.9	1,832.3	-648.7	460,938.08	608,527.96	32° 16' 1.224 N	104° 6' 57.418 W
11,334.0	89.90	0.80	9,461.8	1,926.3	-647.4	461,032.06	608,529.27	32° 16' 2.154 N	104° 6' 57.401 W
11,429.0	88.10	359.90	9,463.5	2,021.2	-646.9	461,127.04	608,529.85	32° 16' 3.093 N	104° 6' 57.392 W
11,523.0	90.50	0.40	9,464.6	2,115.2	-646.6	461,221.02	608,530.10	32° 16' 4.023 N	104° 6' 57.387 W
11,617.0	91.00	0.80	9,463.4	2,209.2	-645.6	461,315.01	608,531.08	32° 16' 4.954 N	104° 6' 57.373 W
11,712.0	90.70	0.60	9,462.0	2,304.2	-644.5	461,409.99	608,532.24	32° 16' 5.893 N	104° 6' 57.357 W
11,806.0	89.20	358.80	9,462.1	2,398.2	-645.0	461,503.99	608,531.75	32° 16' 6.824 N	104° 6' 57.361 W
11,900.0	88.90	358.30	9,463.6	2,492.1	-647.3	461,597.94	608,529.37	32° 16' 7.753 N	104° 6' 57.386 W
11,994.0	89.30	358.10	9,465.1	2,586.1	-650.3	461,691.88	608,526.42	32° 16' 8.683 N	104° 6' 57.418 W
12,088.0	92.20	359.00	9,463.9	2,680.0	-652.7	461,785.83	608,524.04	32° 16' 9.613 N	104° 6' 57.444 W
12,183.0	91.90	358.50	9,460.5	2,775.0	-654.7	461,880.75	608,521.97	32° 16' 10.552 N	104° 6' 57.466 W
12,277.0	90.00	0.60	9,458.9	2,868.9	-655.5	461,974.73	608,521.23	32° 16' 11.482 N	104° 6' 57.472 W
12,372.0	90.00	0.60	9,458.9	2,963.9	-654.5	462,069.72	608,522.23	32° 16' 12.422 N	104° 6' 57.458 W
12,466.0	90.00	0.20	9,458.9	3,057.9	-653.8	462,163.72	608,522.88	32° 16' 13.352 N	104° 6' 57.448 W
12,560.0	89.30	359.40	9,459.5	3,151.9	-654.1	462,257.71	608,522.56	32° 16' 14.283 N	104° 6' 57.450 W
12,654.0	89.40	359.20	9,460.6	3,245.9	-655.3	462,351.70	608,521.41	32° 16' 15.213 N	104° 6' 57.461 W
12,749.0	91.40	359.90	9,459.9	3,340.9	-656.0	462,446.69	608,520.66	32° 16' 16.153 N	104° 6' 57.468 W
12,843.0	91.80	0.20	9,457.3	3,434.9	-656.0	462,540.65	608,520.74	32° 16' 17.083 N	104° 6' 57.464 W
12,937.0	90.00	0.80	9,455.8	3,528.8	-655.1	462,634.63	608,521.56	32° 16' 18.013 N	104° 6' 57.453 W
13,031.0	87.50	359.70	9,457.9	3,622.8	-654.7	462,728.60	608,521.97	32° 16' 18.943 N	104° 6' 57.446 W
13,125.0	88.50	0.20	9,461.1	3,716.7	-654.8	462,822.54	608,521.89	32° 16' 19.872 N	104° 6' 57.444 W
13,219.0	91.80	0.60	9,460.9	3,810.7	-654.2	462,916.53	608,522.55	32° 16' 20.802 N	104° 6' 57.434 W
13,313.0	93.10	1.30	9,456.9	3,904.6	-652.6	463,010.43	608,524.10	32° 16' 21.731 N	104° 6' 57.414 W
13,406.0	87.70	1.80	9,456.2	3,997.6	-650.1	463,103.35	608,526.62	32° 16' 22.651 N	104° 6' 57.383 W
13,500.0	86.90	1.60	9,460.7	4,091.4	-647.3	463,197.21	608,529.41	32° 16' 23.580 N	104° 6' 57.348 W
13,594.0	86.70	1.80	9,465.9	4,185.2	-644.5	463,291.02	608,532.19	32° 16' 24.508 N	104° 6' 57.313 W
13,688.0	86.40	1.80	9,471.6	4,279.0	-641.6	463,384.80	608,535.14	32° 16' 25.436 N	104° 6' 57.277 W
13,783.0	88.50	2.30	9,475.8	4,373.8	-638.2	463,479.64	608,538.53	32° 16' 26.374 N	104° 6' 57.235 W
13,877.0	90.70	3.90	9,476.4	4,467.7	-633.1	463,573.49	608,543.61	32° 16' 27.303 N	104° 6' 57.174 W
13,972.0	90.70	5.30	9,475.3	4,562.4	-625.5	463,668.18	608,551.23	32° 16' 28.240 N	104° 6' 57.083 W
14,066.0	89.40	5.30	9,475.2	4,656.0	-616.8	463,761.77	608,559.92	32° 16' 29.166 N	104° 6' 56.979 W
14,160.0	90.90	5.30	9,475.0	4,749.6	-608.1	463,855.37	608,568.60	32° 16' 30.092 N	104° 6' 56.876 W
14,254.0	92.90	6.00	9,471.8	4,843.1	-598.9	463,948.86	608,577.85	32° 16' 31.017 N	104° 6' 56.766 W
14,348.0	91.00	5.70	9,468.6	4,936.5	-589.3	464,042.31	608,587.42	32° 16' 31.942 N	104° 6' 56.652 W
14,441.0	88.20	5.50	9,469.3	5,029.1	-580.2	464,134.85	608,596.50	32° 16' 32.857 N	104° 6' 56.544 W
14,535.0	88.60	5.30	9,471.9	5,122.6	-571.4	464,228.40	608,605.34	32° 16' 33.783 N	104° 6' 56.439 W
14,630.0	89.00	5.30	9,473.9	5,217.2	-562.6	464,322.97	608,614.11	32° 16' 34.718 N	104° 6' 56.335 W
14,724.0	88.40	4.30	9,476.0	5,310.8	-554.7	464,416.62	608,621.97	32° 16' 35.645 N	104° 6' 56.241 W
14,818.0	88.90	4.10	9,478.3	5,404.5	-547.8	464,510.34	608,628.86	32° 16' 36.572 N	104° 6' 56.159 W



Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Ogden 20509 32-29 Fed Com #6H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3132.0usft (Patterson #594)
Site:	Sec 32, T23-S, R28-E	MD Reference:	WELL @ 3132.0usft (Patterson #594)
Well:	Ogden 20509 32-29 Fed Com #6H	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
14,913.0	91.20	4.80	9,478.2	5,499.2	-540.5	464,605.04	608,636.23	32° 16' 37.509 N	104° 6' 56.070 W
15,007.0	88.90	3.20	9,478.1	5,593.0	-533.9	464,698.81	608,642.78	32° 16' 38.437 N	104° 6' 55.992 W
15,102.0	91.60	4.30	9,477.7	5,687.8	-527.7	464,793.59	608,649.00	32° 16' 39.375 N	104° 6' 55.917 W
15,196.0	90.90	2.50	9,475.6	5,781.6	-522.1	464,887.40	608,654.57	32° 16' 40.303 N	104° 6' 55.850 W
15,290.0	90.90	2.50	9,474.1	5,875.5	-518.0	464,981.30	608,658.67	32° 16' 41.232 N	104° 6' 55.800 W
15,385.0	91.60	1.10	9,472.1	5,970.4	-515.1	465,076.23	608,661.65	32° 16' 42.172 N	104° 6' 55.763 W
15,478.0	86.70	359.00	9,473.5	6,063.4	-515.0	465,169.18	608,661.74	32° 16' 43.091 N	104° 6' 55.760 W
15,572.0	88.60	358.30	9,477.3	6,157.3	-517.2	465,263.07	608,659.52	32° 16' 44.021 N	104° 6' 55.784 W
15,665.0	91.00	357.90	9,477.6	6,250.2	-520.3	465,356.01	608,656.44	32° 16' 44.940 N	104° 6' 55.817 W
15,758.0	90.30	357.10	9,476.6	6,343.1	-524.3	465,448.92	608,652.38	32° 16' 45.860 N	104° 6' 55.862 W
15,853.0	90.60	354.40	9,475.8	6,437.8	-531.4	465,543.64	608,645.34	32° 16' 46.797 N	104° 6' 55.942 W
15,944.0	92.20	355.10	9,473.6	6,528.4	-539.7	465,634.23	608,637.02	32° 16' 47.694 N	104° 6' 56.037 W
16,038.0	92.30	354.10	9,469.9	6,621.9	-548.5	465,727.74	608,628.18	32° 16' 48.620 N	104° 6' 56.138 W
16,131.0	92.50	354.40	9,466.0	6,714.4	-557.8	465,820.19	608,618.87	32° 16' 49.535 N	104° 6' 56.244 W
16,226.0	92.90	354.60	9,461.5	6,808.8	-566.9	465,914.65	608,609.78	32° 16' 50.470 N	104° 6' 56.348 W
16,320.0	91.50	353.90	9,457.9	6,902.3	-576.3	466,008.11	608,600.36	32° 16' 51.395 N	104° 6' 56.455 W
16,414.0	92.10	354.10	9,455.0	6,995.7	-586.2	466,101.54	608,590.54	32° 16' 52.319 N	104° 6' 56.567 W
16,508.0	92.20	354.40	9,451.5	7,089.2	-595.6	466,195.00	608,581.13	32° 16' 53.245 N	104° 6' 56.675 W
16,602.0	92.90	354.60	9,447.3	7,182.7	-604.6	466,288.48	608,572.13	32° 16' 54.170 N	104° 6' 56.777 W
16,697.0	92.60	354.40	9,442.7	7,277.1	-613.7	466,382.93	608,563.04	32° 16' 55.105 N	104° 6' 56.881 W
16,790.0	92.70	354.60	9,438.4	7,369.6	-622.6	466,475.41	608,554.13	32° 16' 56.020 N	104° 6' 56.983 W
16,854.3	93.11	354.87	9,435.2	7,433.6	-628.5	466,539.35	608,548.24	32° 16' 56.653 N	104° 6' 57.050 W
330' HL Crossed @ 16854.3' MD / 9435.2' TVD									
16,885.0	93.30	355.00	9,433.4	7,464.1	-631.2	466,569.88	608,545.53	32° 16' 56.955 N	104° 6' 57.080 W
16,979.0	92.50	354.80	9,428.7	7,557.6	-639.5	466,663.39	608,537.19	32° 16' 57.881 N	104° 6' 57.175 W
17,074.0	89.40	352.50	9,427.1	7,652.0	-650.0	466,757.78	608,526.68	32° 16' 58.815 N	104° 6' 57.296 W
17,107.0	89.60	352.70	9,427.4	7,684.7	-654.3	466,790.50	608,522.43	32° 16' 59.139 N	104° 6' 57.344 W
17,160.0	89.60	352.70	9,427.8	7,737.3	-661.0	466,843.07	608,515.70	32° 16' 59.659 N	104° 6' 57.422 W
TD @ 17160.0' MD / 9427.8' TVD									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
125.0	125.0	-0.3	-0.2	First MWD Survey @ 125.0' MD / 125.0' TVD
1,320.7	1,320.5	-15.9	9.3	LL Crossed @ 1320.7' MD / 1320.5' TVD
4,295.0	4,281.9	-97.5	8.5	LL Crossed @ 4295.0' MD / 4281.9' TVD
9,539.6	9,385.4	161.0	-512.6	330' HL Crossed @ 9539.6' MD / 9385.4' TVD
16,854.3	9,435.2	7,433.6	-628.5	330' HL Crossed @ 16854.3' MD / 9435.2' TVD
17,160.0	9,427.8	7,737.3	-661.0	TD @ 17160.0' MD / 9427.8' TVD