

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

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

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address BTA OIL PRODUCERS, LLC 104 S. PECOS MIDLAND, TX 79701		² OGRID Number 260297
		³ Reason for Filing Code/ Effective Date NEW WELL 08/31/2021
⁴ API Number 30 – 015-47701	⁵ Pool Name PURPLE SAGE – WOLFCAMP	⁶ Pool Code 98220
⁷ Property Code 328285	⁸ Property Name HARROUN RANCH 20702 20-17 FEDERAL COM	⁹ Well Number 8H

II. ¹⁰ Surface Location

UL or lot no. N	Section 20	Township 23S	Range 29E	Lot Idn	Feet from the 893	North/South Line SOUTH	Feet from the 2458	East/West line WEST	County EDDY
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¹¹ Bottom Hole Location

UL or lot no. C	Section 17	Township 23S	Range 29E	Lot Idn	Feet from the 76.8	North/South line NORTH	Feet from the 1630.3	East/West line WEST	County EDDY
¹² Lse Code F	¹³ Producing Method FLOWING	¹⁴ Gas Connection DATE 08/31/2021	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
14035	MARATHON OIL CO P O BOX 1324 ARTESIA, NM.	O
327139	SENDERO CARLSBAD MIDSTREAM, LLC 1000 LOUISIANA AVE., SUITE 6900 HOUSTON, TX. 77002	G

IV. Well Completion Data

²¹ Spud Date 06/02/2021	²² Ready Date 08/31/2021	²³ TD 20,362	²⁴ PBTD 20,331	²⁵ Perforations 10,150 – 20,096	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size		²⁹ Depth Set	³⁰ Sacks Cement
14.75		10.75		465	355
9.875		7.625		9474	1,610
6.75		5.5		9240	1,655
6.75		5		20,334	1,655

V. Well Test Data

³¹ Date New Oil 08/31/2021	³² Gas Delivery Date 08/31/2021	³³ Test Date 09/09/2021	³⁴ Test Length 24 HOURS	³⁵ Tbg. Pressure	³⁶ Csg. Pressure 2225
³⁷ Choke Size 41/64	³⁸ Oil 1,322	³⁹ Water 5,176	⁴⁰ Gas 2,973		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			OIL CONSERVATION DIVISION Approved by: 		
Printed name: KATY REDDELL			Title: Petroleum Engineer		
Title: REGULATORY ANALYST			Approval Date: 08/19/22		
E-mail Address: kreddell@btaoil.com			COA: File 3160-4 Completion Report within 10 days to NMOCD after BLM approval.		
Date: 10/13/2021		Phone: 432-682-3753			

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

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

☒ AMENDED REPORT
AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-47701	Pool Code 98220	Pool Name PURPLE SAGE - WOLFCAMP
Property Code 328285	Property Name HARROUN RANCH 20702 20-17 FEDERAL COM	Well Number 8H
OGRID No. 260297	Operator Name BTA OIL PRODUCERS, LLC	Elevation 2971'

Surface Location

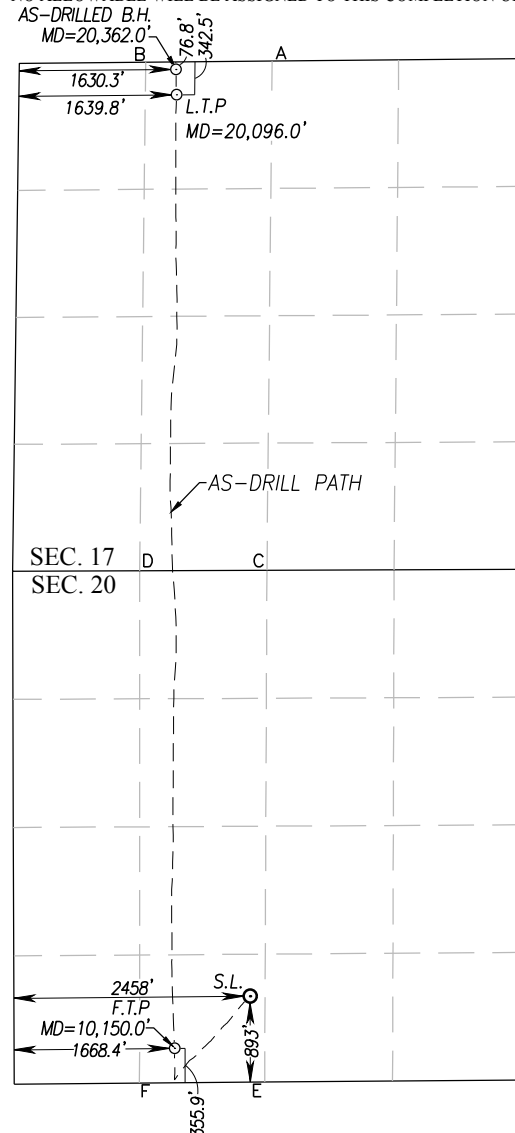
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	20	23-S	29-E		893	SOUTH	2458	WEST	EDDY

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
C	17	23-S	29-E		76.8	NORTH	1630.3	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

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'

AS-DRILLED BOTTOM HOLE LOCATION	AS-DRILLED BOTTOM HOLE LOCATION
NAD 83 NME	NAD 27 NME
Y=477457.5 N	Y=477397.9 N
X=641231.0 E	X=600048.0 E
LAT.=32.312189° N	LAT.=32.312068° N
LONG.=104.009984° W	LONG.=104.009491° W
LAST TAKE POINT	LAST TAKE POINT
NAD 83 NME	NAD 27 NME
Y=477192.0 N	Y=477132.4 N
X=641236.9 E	X=600054.0 E
LAT.=32.311459° N	LAT.=32.311338° N
LONG.=104.009968° W	LONG.=104.009475° W

CORNER COORDINATES TABLE

NAD 27 NME	
A - Y= 477483.9 N, X= 601051.2 E	
B - Y= 477471.7 N, X= 599735.2 E	
C - Y= 472180.9 N, X= 600996.0 E	
D - Y= 472176.3 N, X= 599672.6 E	
E - Y= 466853.3 N, X= 600973.0 E	
F - Y= 466841.9 N, X= 599669.7 E	

CORNER COORDINATES TABLE

NAD 83 NME	
A - Y= 477543.6 N, X= 642234.1 E	
B - Y= 477531.4 N, X= 640918.1 E	
C - Y= 472240.4 N, X= 642179.1 E	
D - Y= 472235.8 N, X= 640855.7 E	
E - Y= 466912.7 N, X= 642156.3 E	
F - Y= 466901.3 N, X= 640852.9 E	

FIRST TAKE POINT	FIRST TAKE POINT
NAD 83 NME	NAD 27 NME
Y=467260.3 N	Y=467200.9 N
X=641216.3 E	X=600033.1 E
LAT.=32.284159° N	LAT.=32.284037° N
LONG.=104.010131° W	LONG.=104.009639° W

SURFACE LOCATION	SURFACE LOCATION
GEODETIC COORDINATES	GEODETIC COORDINATES
NAD 83 NME	NAD 27 NME
Y=467804.2 N	Y=467744.8 N
X=642003.7 E	X=600820.5 E
LAT.=32.285648° N	LAT.=32.285526° N
LONG.=104.007578° W	LONG.=104.007086° 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 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 9/28/2021

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 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.

DECEMBER 9, 2019

Date of Survey
Signature & Seal of Professional Surveyor:

Ronald J. Eidson 09/03/2021
Certificate Number Gary G. Eidson 12641
Ronald J. Eidson 3239
ACK REL. W.O.:1911293 JWSC W.O.: 21.13.0348



BTA Oil Producers, LLC

Eddy County, New Mexico (NAD 83)

Sec 20, T23-S, R29-E

Harroun Ranch 20702 20-17 Fed Com #8H

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

24 July, 2021





KLX
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Harroun Ranch 20702 20-17 Fed Com #8H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 2996.0usft (Patterson #288)
Site:	Sec 20, T23-S, R29-E	MD Reference:	WELL @ 2996.0usft (Patterson #288)
Well:	Harroun Ranch 20702 20-17 Fed Com #8H	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 20, T23-S, R29-E		
Site Position:		Northing:	467,071.70 usft
From:	Map	Easting:	642,041.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 17' 1.081 N
		Longitude:	104° 0' 26.864 W
		Grid Convergence:	0.17 °

Well	Harroun Ranch 20702 20-17 Fed Com #8H		
Well Position	+N/-S	0.0 usft	Northing: 467,804.19 usft
	+E/-W	0.0 usft	Easting: 642,003.70 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 17' 8.331 N
		Longitude:	104° 0' 27.281 W
		Ground Level:	2,971.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2021	5/27/2021	6.85	59.97	47,704.60000000

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	355.53	

Survey Program	Date	7/24/2021			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
113.0	20,362.0	KLX MWD (Wellbore #1)	MWD	OWSG MWD - Standard	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	467,804.19	642,003.70	32° 17' 8.331 N	104° 0' 27.281 W
113.0	0.20	179.80	113.0	-0.2	0.0	467,804.00	642,003.71	32° 17' 8.329 N	104° 0' 27.281 W
First MWD Survey @ 113.0' MD / 113.0' TVD									
232.0	0.10	259.30	232.0	-0.4	-0.1	467,803.77	642,003.60	32° 17' 8.327 N	104° 0' 27.282 W
424.0	0.30	198.90	424.0	-0.9	-0.4	467,803.26	642,003.28	32° 17' 8.322 N	104° 0' 27.286 W
584.0	0.50	197.30	584.0	-2.0	-0.8	467,802.20	642,002.93	32° 17' 8.311 N	104° 0' 27.290 W
679.0	3.00	215.80	678.9	-4.4	-2.3	467,799.79	642,001.36	32° 17' 8.288 N	104° 0' 27.308 W
774.0	6.70	222.50	773.6	-10.5	-7.5	467,793.68	641,996.16	32° 17' 8.227 N	104° 0' 27.369 W
869.0	7.60	224.90	867.8	-19.0	-15.7	467,785.15	641,987.98	32° 17' 8.143 N	104° 0' 27.464 W
963.0	7.60	225.80	961.0	-27.8	-24.6	467,776.41	641,979.13	32° 17' 8.057 N	104° 0' 27.568 W
1,058.0	7.30	228.50	1,055.2	-36.2	-33.6	467,768.03	641,970.11	32° 17' 7.974 N	104° 0' 27.673 W
1,153.0	7.40	229.70	1,149.4	-44.1	-42.8	467,760.07	641,960.92	32° 17' 7.896 N	104° 0' 27.781 W



KLX
Survey Report - Geographic



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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
1,248.0	6.90	232.20	1,243.7	-51.6	-52.0	467,752.62	641,951.75	32° 17' 7.822 N	104° 0' 27.888 W
1,343.0	6.70	230.70	1,338.0	-58.6	-60.8	467,745.61	641,942.95	32° 17' 7.753 N	104° 0' 27.990 W
1,438.0	8.10	220.70	1,432.2	-67.2	-69.4	467,737.03	641,934.30	32° 17' 7.669 N	104° 0' 28.092 W
1,532.0	8.50	220.00	1,525.3	-77.5	-78.2	467,726.69	641,925.51	32° 17' 7.567 N	104° 0' 28.194 W
1,627.0	8.40	220.40	1,619.2	-88.2	-87.2	467,716.02	641,916.50	32° 17' 7.461 N	104° 0' 28.300 W
1,722.0	7.90	220.10	1,713.3	-98.4	-95.9	467,705.74	641,907.80	32° 17' 7.360 N	104° 0' 28.401 W
1,817.0	6.80	218.10	1,807.5	-107.9	-103.6	467,696.32	641,900.12	32° 17' 7.267 N	104° 0' 28.491 W
1,912.0	6.20	221.00	1,901.9	-116.2	-110.4	467,688.03	641,893.29	32° 17' 7.185 N	104° 0' 28.571 W
2,007.0	7.60	217.60	1,996.2	-125.0	-117.6	467,679.18	641,886.09	32° 17' 7.098 N	104° 0' 28.655 W
2,102.0	8.00	207.80	2,090.3	-135.8	-124.5	467,668.35	641,879.17	32° 17' 6.991 N	104° 0' 28.736 W
2,197.0	7.80	217.90	2,184.4	-146.8	-131.6	467,657.42	641,872.13	32° 17' 6.883 N	104° 0' 28.819 W
2,292.0	7.50	220.20	2,278.6	-156.6	-139.5	467,647.59	641,864.17	32° 17' 6.786 N	104° 0' 28.912 W
2,387.0	6.90	212.50	2,372.8	-166.1	-146.6	467,638.05	641,857.10	32° 17' 6.691 N	104° 0' 28.994 W
2,482.0	8.50	222.70	2,467.0	-176.1	-154.4	467,628.07	641,849.27	32° 17' 6.593 N	104° 0' 29.086 W
2,577.0	9.50	222.60	2,560.8	-187.1	-164.5	467,617.14	641,839.20	32° 17' 6.485 N	104° 0' 29.204 W
2,672.0	9.10	218.90	2,654.5	-198.7	-174.5	467,605.52	641,829.18	32° 17' 6.370 N	104° 0' 29.321 W
2,767.0	8.60	219.20	2,748.4	-210.0	-183.7	467,594.17	641,819.97	32° 17' 6.258 N	104° 0' 29.428 W
2,862.0	8.30	219.50	2,842.4	-220.8	-192.6	467,583.38	641,811.12	32° 17' 6.152 N	104° 0' 29.532 W
2,957.0	7.90	218.70	2,936.4	-231.2	-201.0	467,572.99	641,802.68	32° 17' 6.049 N	104° 0' 29.631 W
3,052.0	8.10	219.60	3,030.5	-241.5	-209.4	467,562.74	641,794.33	32° 17' 5.948 N	104° 0' 29.728 W
3,147.0	7.80	218.80	3,124.6	-251.6	-217.7	467,552.56	641,786.02	32° 17' 5.848 N	104° 0' 29.825 W
3,242.0	8.00	216.70	3,218.7	-262.0	-225.7	467,542.23	641,778.03	32° 17' 5.746 N	104° 0' 29.919 W
3,338.0	7.90	228.30	3,313.8	-271.7	-234.6	467,532.49	641,769.11	32° 17' 5.650 N	104° 0' 30.023 W
3,433.0	7.80	229.00	3,407.9	-280.3	-244.3	467,523.92	641,759.37	32° 17' 5.565 N	104° 0' 30.137 W
3,528.0	7.80	228.00	3,502.0	-288.8	-254.0	467,515.37	641,749.72	32° 17' 5.481 N	104° 0' 30.250 W
3,622.0	7.60	228.30	3,595.2	-297.2	-263.4	467,506.97	641,740.34	32° 17' 5.398 N	104° 0' 30.359 W
3,717.0	7.40	225.40	3,689.3	-305.7	-272.4	467,498.49	641,731.29	32° 17' 5.314 N	104° 0' 30.465 W
3,812.0	7.20	223.20	3,783.6	-314.3	-280.8	467,489.86	641,722.86	32° 17' 5.229 N	104° 0' 30.563 W
3,907.0	7.20	222.80	3,877.8	-323.0	-289.0	467,481.15	641,714.74	32° 17' 5.143 N	104° 0' 30.658 W
4,002.0	6.80	220.10	3,972.1	-331.7	-296.6	467,472.48	641,707.07	32° 17' 5.058 N	104° 0' 30.748 W
4,097.0	6.70	220.00	4,066.5	-340.3	-303.8	467,463.93	641,699.89	32° 17' 4.973 N	104° 0' 30.832 W
4,192.0	6.80	219.10	4,160.8	-348.9	-310.9	467,455.32	641,692.78	32° 17' 4.888 N	104° 0' 30.915 W
4,287.0	6.60	217.00	4,255.2	-357.6	-317.8	467,446.60	641,685.94	32° 17' 4.802 N	104° 0' 30.995 W
4,382.0	8.00	223.30	4,349.4	-366.8	-325.6	467,437.43	641,678.12	32° 17' 4.712 N	104° 0' 31.086 W
4,477.0	8.50	223.20	4,443.4	-376.7	-334.9	467,427.50	641,668.78	32° 17' 4.614 N	104° 0' 31.195 W
4,572.0	8.20	221.70	4,537.4	-386.9	-344.2	467,417.32	641,659.47	32° 17' 4.513 N	104° 0' 31.304 W
4,668.0	8.20	220.90	4,632.4	-397.2	-353.3	467,407.04	641,650.43	32° 17' 4.412 N	104° 0' 31.410 W
4,762.0	8.10	221.40	4,725.5	-407.2	-362.0	467,397.00	641,641.67	32° 17' 4.313 N	104° 0' 31.512 W
4,858.0	8.20	220.80	4,820.5	-417.4	-371.0	467,386.75	641,632.72	32° 17' 4.211 N	104° 0' 31.617 W
4,952.0	8.00	219.90	4,913.6	-427.5	-379.6	467,376.65	641,624.14	32° 17' 4.112 N	104° 0' 31.717 W
5,047.0	7.80	218.60	5,007.7	-437.7	-387.8	467,366.54	641,615.88	32° 17' 4.012 N	104° 0' 31.814 W
5,142.0	7.90	218.60	5,101.8	-447.8	-395.9	467,356.40	641,607.79	32° 17' 3.912 N	104° 0' 31.909 W
5,237.0	7.60	217.30	5,195.9	-457.9	-403.8	467,346.30	641,599.91	32° 17' 3.812 N	104° 0' 32.001 W
5,332.0	7.70	227.60	5,290.1	-467.2	-412.3	467,337.01	641,591.40	32° 17' 3.720 N	104° 0' 32.100 W
5,427.0	7.30	229.00	5,384.2	-475.4	-421.6	467,328.76	641,582.14	32° 17' 3.639 N	104° 0' 32.208 W
5,522.0	7.30	226.60	5,478.5	-483.5	-430.5	467,320.66	641,573.20	32° 17' 3.559 N	104° 0' 32.313 W
5,617.0	7.00	224.70	5,572.7	-491.8	-439.0	467,312.39	641,564.75	32° 17' 3.478 N	104° 0' 32.412 W
5,712.0	9.10	226.80	5,666.8	-501.1	-448.5	467,303.14	641,555.20	32° 17' 3.386 N	104° 0' 32.523 W
5,807.0	9.50	228.00	5,760.5	-511.4	-459.8	467,292.75	641,543.90	32° 17' 3.284 N	104° 0' 32.655 W
5,901.0	9.00	226.90	5,853.3	-521.7	-470.9	467,282.53	641,532.76	32° 17' 3.183 N	104° 0' 32.785 W
5,996.0	8.90	225.80	5,947.2	-531.9	-481.6	467,272.33	641,522.07	32° 17' 3.082 N	104° 0' 32.910 W
6,091.0	8.60	225.10	6,041.1	-542.0	-491.9	467,262.20	641,511.77	32° 17' 2.982 N	104° 0' 33.030 W
6,186.0	8.50	225.40	6,135.0	-551.9	-502.0	467,252.25	641,501.74	32° 17' 2.884 N	104° 0' 33.148 W
6,281.0	8.30	224.70	6,229.0	-561.7	-511.8	467,242.45	641,491.92	32° 17' 2.788 N	104° 0' 33.262 W
6,376.0	8.30	223.40	6,323.0	-571.6	-521.3	467,232.59	641,482.38	32° 17' 2.690 N	104° 0' 33.374 W



KLX
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Harroun Ranch 20702 20-17 Fed Com #8H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 2996.0usft (Patterson #288)
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Well:	Harroun Ranch 20702 20-17 Fed Com #8H	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
6,471.0	8.20	222.40	6,417.0	-581.6	-530.6	467,222.61	641,473.10	32° 17' 2.592 N	104° 0' 33.482 W
6,566.0	7.90	221.60	6,511.1	-591.5	-539.5	467,212.72	641,464.20	32° 17' 2.494 N	104° 0' 33.586 W
6,660.0	7.50	221.40	6,604.2	-600.9	-547.9	467,203.29	641,455.85	32° 17' 2.401 N	104° 0' 33.684 W
6,755.0	7.20	222.40	6,698.4	-610.0	-556.0	467,194.24	641,447.74	32° 17' 2.312 N	104° 0' 33.779 W
6,850.0	6.70	226.50	6,792.7	-618.2	-564.0	467,186.03	641,439.70	32° 17' 2.231 N	104° 0' 33.873 W
6,945.0	5.80	227.80	6,887.2	-625.2	-571.6	467,178.99	641,432.13	32° 17' 2.161 N	104° 0' 33.961 W
7,039.0	5.90	230.40	6,980.7	-631.5	-578.8	467,172.72	641,424.89	32° 17' 2.100 N	104° 0' 34.046 W
7,133.0	7.20	231.70	7,074.1	-638.2	-587.2	467,165.99	641,416.54	32° 17' 2.033 N	104° 0' 34.143 W
7,228.0	6.50	240.60	7,168.4	-644.5	-596.5	467,159.66	641,407.18	32° 17' 1.971 N	104° 0' 34.252 W
7,323.0	7.80	233.70	7,262.7	-651.0	-606.4	467,153.21	641,397.30	32° 17' 1.907 N	104° 0' 34.368 W
7,418.0	7.00	234.60	7,356.9	-658.2	-616.3	467,146.04	641,387.39	32° 17' 1.837 N	104° 0' 34.483 W
7,513.0	6.80	228.60	7,451.2	-665.2	-625.3	467,138.96	641,378.45	32° 17' 1.767 N	104° 0' 34.588 W
7,607.0	6.20	225.70	7,544.6	-672.5	-633.1	467,131.74	641,370.64	32° 17' 1.696 N	104° 0' 34.679 W
7,705.0	5.80	227.40	7,642.0	-679.5	-640.5	467,124.69	641,363.21	32° 17' 1.626 N	104° 0' 34.766 W
7,800.0	7.50	217.80	7,736.4	-687.7	-647.8	467,116.54	641,355.88	32° 17' 1.546 N	104° 0' 34.852 W
7,894.0	6.90	217.70	7,829.7	-697.0	-655.0	467,107.23	641,348.66	32° 17' 1.454 N	104° 0' 34.936 W
7,989.0	8.50	218.40	7,923.8	-707.0	-662.9	467,097.21	641,340.81	32° 17' 1.355 N	104° 0' 35.028 W
8,084.0	7.60	219.20	8,017.9	-717.4	-671.2	467,086.84	641,332.48	32° 17' 1.252 N	104° 0' 35.125 W
8,179.0	10.50	218.00	8,111.7	-729.0	-680.5	467,075.14	641,323.18	32° 17' 1.137 N	104° 0' 35.234 W
8,274.0	10.10	216.60	8,205.1	-742.6	-690.8	467,061.64	641,312.88	32° 17' 1.004 N	104° 0' 35.354 W
8,369.0	9.20	214.60	8,298.8	-755.5	-700.1	467,048.70	641,303.60	32° 17' 0.876 N	104° 0' 35.463 W
8,464.0	8.50	212.90	8,392.7	-767.6	-708.2	467,036.55	641,295.48	32° 17' 0.756 N	104° 0' 35.558 W
8,558.0	8.30	220.20	8,485.7	-778.7	-716.4	467,025.54	641,287.33	32° 17' 0.647 N	104° 0' 35.653 W
8,653.0	8.20	220.10	8,579.7	-789.1	-725.2	467,015.12	641,278.54	32° 17' 0.544 N	104° 0' 35.756 W
8,748.0	7.80	220.80	8,673.7	-799.1	-733.7	467,005.05	641,269.96	32° 17' 0.445 N	104° 0' 35.856 W
8,844.0	7.30	218.90	8,768.9	-808.8	-741.8	466,995.38	641,261.87	32° 17' 0.350 N	104° 0' 35.951 W
8,938.0	8.70	220.20	8,862.0	-818.9	-750.2	466,985.30	641,253.53	32° 17' 0.250 N	104° 0' 36.048 W
9,033.0	9.00	213.30	8,955.9	-830.6	-758.9	466,973.60	641,244.82	32° 17' 0.135 N	104° 0' 36.150 W
9,127.0	8.50	210.60	9,048.8	-842.7	-766.5	466,961.47	641,237.24	32° 17' 0.015 N	104° 0' 36.239 W
9,222.0	6.40	215.90	9,143.0	-853.1	-773.1	466,951.14	641,230.56	32° 16' 59.913 N	104° 0' 36.317 W
9,317.0	4.40	217.50	9,237.5	-860.2	-778.5	466,943.96	641,225.24	32° 16' 59.842 N	104° 0' 36.379 W
9,428.0	2.30	214.20	9,348.3	-865.5	-782.3	466,938.74	641,221.40	32° 16' 59.790 N	104° 0' 36.424 W
9,514.0	2.00	212.30	9,434.3	-868.2	-784.1	466,936.04	641,219.62	32° 16' 59.764 N	104° 0' 36.445 W
9,609.0	5.90	350.10	9,529.1	-864.7	-785.8	466,939.46	641,217.90	32° 16' 59.797 N	104° 0' 36.465 W
9,705.0	21.00	1.10	9,622.3	-842.5	-786.3	466,961.65	641,217.37	32° 17' 0.017 N	104° 0' 36.470 W
9,799.0	30.70	4.40	9,706.7	-801.7	-784.2	467,002.51	641,219.54	32° 17' 0.421 N	104° 0' 36.444 W
9,894.0	36.30	358.00	9,786.0	-749.3	-783.3	467,054.85	641,220.42	32° 17' 0.939 N	104° 0' 36.432 W
9,988.0	49.20	357.50	9,854.8	-685.7	-785.8	467,118.47	641,217.89	32° 17' 1.569 N	104° 0' 36.459 W
10,083.0	63.60	0.40	9,907.3	-606.8	-787.1	467,197.37	641,216.61	32° 17' 2.350 N	104° 0' 36.471 W
10,123.4	70.27	359.50	9,923.1	-569.7	-787.1	467,234.52	641,216.57	32° 17' 2.717 N	104° 0' 36.470 W
330' HL Crossed @ 10123.4'MD / 9923.1' TVD									
10,178.0	79.30	358.40	9,937.4	-517.1	-788.1	467,287.14	641,215.60	32° 17' 3.238 N	104° 0' 36.480 W
10,204.0	84.60	358.20	9,941.1	-491.3	-788.9	467,312.86	641,214.84	32° 17' 3.493 N	104° 0' 36.488 W
10,299.0	87.90	357.30	9,947.3	-396.6	-792.6	467,407.57	641,211.11	32° 17' 4.430 N	104° 0' 36.528 W
10,393.0	90.10	359.00	9,948.9	-302.7	-795.6	467,501.50	641,208.08	32° 17' 5.360 N	104° 0' 36.560 W
10,487.0	91.40	358.20	9,947.7	-208.7	-797.9	467,595.46	641,205.78	32° 17' 6.290 N	104° 0' 36.583 W
10,582.0	91.90	357.50	9,944.9	-113.8	-801.5	467,690.36	641,202.22	32° 17' 7.229 N	104° 0' 36.621 W
10,677.0	90.20	358.00	9,943.2	-18.9	-805.2	467,785.26	641,198.49	32° 17' 8.168 N	104° 0' 36.661 W
10,772.0	90.30	358.80	9,942.8	76.0	-807.9	467,880.22	641,195.84	32° 17' 9.108 N	104° 0' 36.689 W
10,867.0	90.90	357.40	9,941.8	171.0	-811.0	467,975.16	641,192.69	32° 17' 10.047 N	104° 0' 36.722 W
10,961.0	89.50	359.10	9,941.5	264.9	-813.9	468,069.11	641,189.82	32° 17' 10.977 N	104° 0' 36.753 W
11,056.0	87.60	0.20	9,943.9	359.9	-814.5	468,164.08	641,189.24	32° 17' 11.917 N	104° 0' 36.756 W
11,150.0	88.70	0.80	9,946.9	453.8	-813.6	468,258.02	641,190.06	32° 17' 12.847 N	104° 0' 36.743 W
11,245.0	90.90	0.00	9,947.2	548.8	-813.0	468,353.01	641,190.72	32° 17' 13.787 N	104° 0' 36.732 W
11,340.0	92.00	359.50	9,944.8	643.8	-813.4	468,447.98	641,190.31	32° 17' 14.726 N	104° 0' 36.734 W



KLX
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Harroun Ranch 20702 20-17 Fed Com #8H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 2996.0usft (Patterson #288)
Site:	Sec 20, T23-S, R29-E	MD Reference:	WELL @ 2996.0usft (Patterson #288)
Well:	Harroun Ranch 20702 20-17 Fed Com #8H	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
11,435.0	92.00	358.60	9,941.5	738.7	-815.0	468,542.91	641,188.73	32° 17' 15.666 N	104° 0' 36.749 W
11,529.0	88.90	0.30	9,940.8	832.7	-815.9	468,636.88	641,187.83	32° 17' 16.596 N	104° 0' 36.756 W
11,623.0	89.50	359.90	9,942.1	926.7	-815.7	468,730.87	641,188.00	32° 17' 17.526 N	104° 0' 36.751 W
11,717.0	88.20	359.20	9,944.0	1,020.7	-816.4	468,824.85	641,187.26	32° 17' 18.456 N	104° 0' 36.756 W
11,812.0	86.60	3.10	9,948.3	1,115.5	-814.5	468,919.71	641,189.16	32° 17' 19.395 N	104° 0' 36.730 W
11,906.0	89.20	2.50	9,951.7	1,209.3	-810.0	469,013.53	641,193.75	32° 17' 20.323 N	104° 0' 36.674 W
12,001.0	87.70	0.10	9,954.3	1,304.3	-807.8	469,108.46	641,195.90	32° 17' 21.262 N	104° 0' 36.645 W
12,095.0	89.20	2.10	9,956.8	1,398.2	-806.0	469,202.40	641,197.71	32° 17' 22.192 N	104° 0' 36.621 W
12,189.0	90.60	1.60	9,957.0	1,492.2	-803.0	469,296.35	641,200.74	32° 17' 23.121 N	104° 0' 36.582 W
12,284.0	91.30	1.00	9,955.4	1,587.1	-800.8	469,391.31	641,202.90	32° 17' 24.061 N	104° 0' 36.554 W
12,378.0	88.90	358.60	9,955.3	1,681.1	-801.1	469,485.30	641,202.57	32° 17' 24.991 N	104° 0' 36.554 W
12,474.0	87.20	358.60	9,958.5	1,777.0	-803.5	469,581.21	641,200.23	32° 17' 25.940 N	104° 0' 36.578 W
12,570.0	89.20	0.20	9,961.5	1,873.0	-804.5	469,677.15	641,199.22	32° 17' 26.890 N	104° 0' 36.587 W
12,664.0	91.70	0.30	9,960.8	1,966.9	-804.1	469,771.14	641,199.63	32° 17' 27.820 N	104° 0' 36.579 W
12,759.0	92.70	1.10	9,957.2	2,061.9	-802.9	469,866.06	641,200.79	32° 17' 28.759 N	104° 0' 36.562 W
12,854.0	92.61	1.30	9,952.8	2,156.7	-800.9	469,960.93	641,202.78	32° 17' 29.698 N	104° 0' 36.535 W
12,949.0	92.70	0.60	9,948.4	2,251.6	-799.4	470,055.82	641,204.35	32° 17' 30.637 N	104° 0' 36.514 W
13,044.0	90.80	0.30	9,945.5	2,346.6	-798.6	470,150.77	641,205.10	32° 17' 31.576 N	104° 0' 36.502 W
13,139.0	90.20	0.10	9,944.6	2,441.6	-798.3	470,245.76	641,205.43	32° 17' 32.516 N	104° 0' 36.494 W
13,234.0	90.00	358.90	9,944.5	2,536.6	-799.1	470,340.76	641,204.60	32° 17' 33.456 N	104° 0' 36.501 W
13,330.0	89.70	0.40	9,944.7	2,632.6	-799.7	470,436.75	641,204.01	32° 17' 34.406 N	104° 0' 36.504 W
13,424.0	90.90	2.40	9,944.2	2,726.5	-797.4	470,530.72	641,206.31	32° 17' 35.336 N	104° 0' 36.474 W
13,520.0	90.40	0.90	9,943.1	2,822.5	-794.6	470,626.67	641,209.07	32° 17' 36.286 N	104° 0' 36.438 W
13,613.0	87.60	358.90	9,944.8	2,915.4	-794.8	470,719.64	641,208.91	32° 17' 37.206 N	104° 0' 36.437 W
13,709.0	90.90	1.00	9,946.0	3,011.4	-794.9	470,815.61	641,208.83	32° 17' 38.155 N	104° 0' 36.435 W
13,803.0	90.10	0.40	9,945.2	3,105.4	-793.7	470,909.60	641,209.98	32° 17' 39.085 N	104° 0' 36.418 W
13,897.0	89.10	1.70	9,945.9	3,199.4	-792.0	471,003.58	641,211.70	32° 17' 40.015 N	104° 0' 36.395 W
13,991.0	90.10	4.10	9,946.5	3,293.3	-787.2	471,097.45	641,216.46	32° 17' 40.944 N	104° 0' 36.336 W
14,086.0	90.10	4.30	9,946.3	3,388.0	-780.3	471,192.19	641,223.41	32° 17' 41.882 N	104° 0' 36.252 W
14,181.0	90.70	3.20	9,945.7	3,482.8	-774.1	471,286.98	641,229.63	32° 17' 42.819 N	104° 0' 36.176 W
14,275.0	88.30	1.00	9,946.5	3,576.7	-770.6	471,380.90	641,233.07	32° 17' 43.749 N	104° 0' 36.132 W
14,370.0	90.50	0.70	9,947.5	3,671.7	-769.2	471,475.88	641,234.48	32° 17' 44.689 N	104° 0' 36.113 W
14,465.0	88.00	359.10	9,948.7	3,766.7	-769.4	471,570.86	641,234.31	32° 17' 45.628 N	104° 0' 36.111 W
14,559.0	91.50	359.40	9,949.1	3,860.6	-770.6	471,664.84	641,233.08	32° 17' 46.558 N	104° 0' 36.122 W
14,653.0	89.30	356.30	9,948.5	3,954.6	-774.1	471,758.76	641,229.56	32° 17' 47.488 N	104° 0' 36.160 W
14,749.0	89.40	357.30	9,949.6	4,050.4	-779.5	471,854.60	641,224.20	32° 17' 48.437 N	104° 0' 36.219 W
14,844.0	89.70	356.80	9,950.3	4,145.3	-784.4	471,949.47	641,219.31	32° 17' 49.376 N	104° 0' 36.273 W
14,939.0	90.10	355.60	9,950.5	4,240.1	-790.7	472,044.26	641,213.01	32° 17' 50.314 N	104° 0' 36.343 W
15,034.0	89.80	354.90	9,950.6	4,334.7	-798.6	472,138.93	641,205.15	32° 17' 51.251 N	104° 0' 36.431 W
15,129.0	89.90	356.00	9,950.8	4,429.4	-806.1	472,233.63	641,197.61	32° 17' 52.188 N	104° 0' 36.516 W
15,224.0	91.50	359.10	9,949.7	4,524.3	-810.2	472,328.52	641,193.55	32° 17' 53.127 N	104° 0' 36.560 W
15,319.0	92.50	358.00	9,946.3	4,619.2	-812.6	472,423.43	641,191.15	32° 17' 54.067 N	104° 0' 36.584 W
15,413.0	93.20	0.00	9,941.7	4,713.1	-814.2	472,517.29	641,189.51	32° 17' 54.995 N	104° 0' 36.600 W
15,507.0	94.30	358.90	9,935.5	4,806.9	-815.1	472,611.09	641,188.61	32° 17' 55.924 N	104° 0' 36.607 W
15,602.0	91.20	358.50	9,931.0	4,901.7	-817.2	472,705.94	641,186.46	32° 17' 56.862 N	104° 0' 36.629 W
15,696.0	91.50	357.80	9,928.8	4,995.7	-820.3	472,799.86	641,183.42	32° 17' 57.792 N	104° 0' 36.661 W
15,791.0	92.20	357.40	9,925.7	5,090.5	-824.3	472,894.73	641,179.45	32° 17' 58.731 N	104° 0' 36.704 W
15,886.0	93.20	356.50	9,921.2	5,185.3	-829.3	472,989.49	641,174.40	32° 17' 59.669 N	104° 0' 36.760 W
15,982.0	92.90	0.20	9,916.1	5,281.1	-832.1	473,085.30	641,171.64	32° 18' 0.617 N	104° 0' 36.788 W
16,076.0	88.70	0.20	9,914.8	5,375.1	-831.7	473,179.27	641,171.97	32° 18' 1.547 N	104° 0' 36.781 W
16,171.0	90.50	0.90	9,915.5	5,470.1	-830.8	473,274.25	641,172.88	32° 18' 2.487 N	104° 0' 36.767 W
16,265.0	85.80	0.80	9,918.5	5,564.0	-829.4	473,368.17	641,174.27	32° 18' 3.416 N	104° 0' 36.748 W
16,360.0	85.20	359.60	9,925.9	5,658.7	-829.1	473,462.87	641,174.60	32° 18' 4.353 N	104° 0' 36.741 W
16,455.0	85.20	1.00	9,933.9	5,753.3	-828.6	473,557.54	641,175.10	32° 18' 5.290 N	104° 0' 36.731 W
16,549.0	87.50	0.60	9,939.9	5,847.1	-827.3	473,651.33	641,176.41	32° 18' 6.218 N	104° 0' 36.713 W



KLX
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Harroun Ranch 20702 20-17 Fed Com #8H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 2996.0usft (Patterson #288)
Site:	Sec 20, T23-S, R29-E	MD Reference:	WELL @ 2996.0usft (Patterson #288)
Well:	Harroun Ranch 20702 20-17 Fed Com #8H	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
16,644.0	89.50	0.70	9,942.4	5,942.1	-826.2	473,746.29	641,177.49	32° 18' 7.158 N	104° 0' 36.697 W
16,738.0	90.10	2.10	9,942.7	6,036.1	-823.9	473,840.25	641,179.78	32° 18' 8.088 N	104° 0' 36.667 W
16,833.0	88.70	359.80	9,943.7	6,131.0	-822.3	473,935.23	641,181.36	32° 18' 9.027 N	104° 0' 36.645 W
16,928.0	88.90	2.10	9,945.7	6,226.0	-820.8	474,030.19	641,182.93	32° 18' 9.967 N	104° 0' 36.624 W
17,022.0	89.50	6.00	9,947.0	6,319.7	-814.1	474,123.93	641,189.57	32° 18' 10.894 N	104° 0' 36.543 W
17,117.0	90.10	7.20	9,947.3	6,414.1	-803.2	474,218.29	641,200.49	32° 18' 11.828 N	104° 0' 36.412 W
17,212.0	90.00	6.40	9,947.2	6,508.4	-792.0	474,312.62	641,211.74	32° 18' 12.761 N	104° 0' 36.278 W
17,306.0	90.30	5.90	9,947.0	6,601.9	-781.9	474,406.08	641,221.81	32° 18' 13.686 N	104° 0' 36.157 W
17,402.0	91.90	6.10	9,945.1	6,697.3	-771.9	474,501.54	641,231.84	32° 18' 14.630 N	104° 0' 36.037 W
17,496.0	90.60	2.90	9,943.1	6,791.0	-764.5	474,595.21	641,239.21	32° 18' 15.557 N	104° 0' 35.948 W
17,591.0	89.30	1.10	9,943.2	6,886.0	-761.2	474,690.15	641,242.53	32° 18' 16.496 N	104° 0' 35.906 W
17,685.0	88.20	359.60	9,945.2	6,979.9	-760.6	474,784.12	641,243.10	32° 18' 17.426 N	104° 0' 35.896 W
17,780.0	89.20	359.40	9,947.4	7,074.9	-761.4	474,879.09	641,242.27	32° 18' 18.366 N	104° 0' 35.902 W
17,874.0	93.20	0.80	9,945.4	7,168.9	-761.3	474,973.05	641,242.44	32° 18' 19.295 N	104° 0' 35.897 W
17,969.0	90.20	0.20	9,942.6	7,263.8	-760.4	475,067.99	641,243.26	32° 18' 20.235 N	104° 0' 35.884 W
18,064.0	89.70	358.80	9,942.7	7,358.8	-761.3	475,162.98	641,242.43	32° 18' 21.175 N	104° 0' 35.890 W
18,158.0	91.00	358.40	9,942.1	7,452.8	-763.6	475,256.95	641,240.14	32° 18' 22.105 N	104° 0' 35.914 W
18,253.0	89.90	357.30	9,941.4	7,547.7	-767.1	475,351.88	641,236.57	32° 18' 23.045 N	104° 0' 35.952 W
18,348.0	88.20	358.40	9,942.9	7,642.6	-770.7	475,446.79	641,233.01	32° 18' 23.984 N	104° 0' 35.990 W
18,443.0	88.30	0.50	9,945.8	7,737.5	-771.6	475,541.74	641,232.10	32° 18' 24.923 N	104° 0' 35.998 W
18,538.0	89.30	0.30	9,947.8	7,832.5	-770.9	475,636.71	641,232.76	32° 18' 25.863 N	104° 0' 35.986 W
18,632.0	89.80	359.80	9,948.6	7,926.5	-770.9	475,730.71	641,232.84	32° 18' 26.793 N	104° 0' 35.982 W
18,727.0	91.00	0.50	9,947.9	8,021.5	-770.6	475,825.71	641,233.09	32° 18' 27.734 N	104° 0' 35.976 W
18,821.0	88.90	358.30	9,948.0	8,115.5	-771.6	475,919.69	641,232.11	32° 18' 28.664 N	104° 0' 35.984 W
18,916.0	89.40	359.80	9,949.4	8,210.5	-773.2	476,014.66	641,230.53	32° 18' 29.603 N	104° 0' 35.999 W
19,011.0	93.80	0.60	9,946.7	8,305.4	-772.8	476,109.60	641,230.86	32° 18' 30.543 N	104° 0' 35.992 W
19,106.0	93.80	359.60	9,940.4	8,400.2	-772.7	476,204.39	641,231.03	32° 18' 31.481 N	104° 0' 35.987 W
19,201.0	90.70	0.60	9,936.7	8,495.1	-772.5	476,299.31	641,231.20	32° 18' 32.420 N	104° 0' 35.981 W
19,295.0	91.60	0.70	9,934.8	8,589.1	-771.4	476,393.28	641,232.26	32° 18' 33.350 N	104° 0' 35.966 W
19,390.0	90.70	359.10	9,932.9	8,684.1	-771.6	476,488.26	641,232.10	32° 18' 34.290 N	104° 0' 35.964 W
19,484.0	90.70	358.20	9,931.8	8,778.0	-773.8	476,582.22	641,229.88	32° 18' 35.220 N	104° 0' 35.987 W
19,579.0	90.90	0.70	9,930.4	8,873.0	-774.7	476,677.20	641,228.97	32° 18' 36.160 N	104° 0' 35.994 W
19,673.0	91.30	0.40	9,928.6	8,967.0	-773.8	476,771.18	641,229.87	32° 18' 37.090 N	104° 0' 35.980 W
19,768.0	91.60	359.60	9,926.2	9,062.0	-773.8	476,866.15	641,229.87	32° 18' 38.030 N	104° 0' 35.977 W
19,862.0	89.00	1.80	9,925.7	9,155.9	-772.7	476,960.13	641,231.02	32° 18' 38.960 N	104° 0' 35.960 W
19,957.0	90.20	1.60	9,926.4	9,250.9	-769.9	477,055.08	641,233.84	32° 18' 39.899 N	104° 0' 35.924 W
20,051.0	90.60	1.30	9,925.8	9,344.9	-767.5	477,149.05	641,236.22	32° 18' 40.829 N	104° 0' 35.893 W
20,106.3	88.15	0.02	9,926.4	9,400.1	-766.8	477,204.33	641,236.86	32° 18' 41.768 N	104° 0' 35.884 W
330' HL Crossed @ 20106.3' MD / 9926.4' TVD									
20,146.0	86.40	359.10	9,928.2	9,439.8	-767.2	477,243.99	641,236.55	32° 18' 41.768 N	104° 0' 35.886 W
20,240.0	87.10	358.50	9,933.6	9,533.6	-769.1	477,337.81	641,234.59	32° 18' 42.697 N	104° 0' 35.905 W
20,303.0	86.90	358.10	9,936.9	9,596.5	-771.0	477,400.70	641,232.72	32° 18' 43.319 N	104° 0' 35.925 W
20,362.0	86.90	358.10	9,940.1	9,655.4	-772.9	477,459.58	641,230.77	32° 18' 43.902 N	104° 0' 35.946 W
TD @ 20362.0' MD / 9940.1' TVD									



KLX
Survey Report - Geographic



Company:	BTA Oil Producers, LLC	Local Co-ordinate Reference:	Well Harroun Ranch 20702 20-17 Fed Com #8H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 2996.0usft (Patterson #288)
Site:	Sec 20, T23-S, R29-E	MD Reference:	WELL @ 2996.0usft (Patterson #288)
Well:	Harroun Ranch 20702 20-17 Fed Com #8H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
113.0	113.0	-0.2	0.0	First MWD Survey @ 113.0' MD / 113.0' TVD
10,123.4	9,923.1	-569.7	-787.1	330' HL Crossed @ 10123.4'MD / 9923.1' TVD
20,106.3	9,926.4	9,400.1	-766.8	330' HL Crossed @ 20106.3'MD / 9926.4' TVD
20,362.0	9,940.1	9,655.4	-772.9	TD @ 20362.0' MD / 9940.1' TVD

Checked By: _____ Approved By: _____ Date: _____

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

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

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Well Name: HARROUN RANCH 20702 20-17 FEDE	Well Location: T23S / R29E / SEC 20 / SESE / 32.284134 / -104.001136	County or Parish/State: EDDY / NM
Well Number: 8H	Type of Well: OTHER	Allottee or Tribe Name:
Lease Number: NMNM119271	Unit or CA Name:	Unit or CA Number: NMNM137573
US Well Number: 3001547701	Well Status: Drilling Well	Operator: BTA OIL PRODUCERS LLC

Subsequent Report

Sundry ID: 2636351

Type of Submission: Subsequent Report	Type of Action: Hydraulic Fracturing
Date Sundry Submitted: 09/28/2021	Time Sundry Submitted: 01:41
Date Operation Actually Began: 08/31/2020	

Actual Procedure: TD @ 20,362" REACHED: 07/25/2021. 08/09/2021 THRU 08/23/2021: PERFORATE AND FRAC WOLFCAMP 10,150' - 20,096' WITH 532,440 TOTAL FLUID AND 24,237,887 #S OF 100 MESH SAND 08/27/2021: Complete Drillout. 08/31/2021: OPEN WELL. START FLOWING BACK AND TESTING. Page

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: KATY REDDELL	Signed on: SEP 28, 2021 01:41 PM
Name: BTA OIL PRODUCERS LLC	
Title: Regulatory Analyst	
Street Address: 104 S Pecos	
City: Midland	State: TX
Phone: (432) 682-3753	
Email address: Kredell@btaoil.com	

Field Representative

Representative Name:

Street Address:

City:	State:	Zip:
Phone:		
Email address:		

Well Name: HARROUN RANCH 20702 20-17 FEDE	Well Location: T23S / R29E / SEC 20 / SESE / 32.284134 / -104.001136	County or Parish/State: EDDY / NM
Well Number: 8H	Type of Well: OTHER	Allottee or Tribe Name:
Lease Number: NMNM119271	Unit or CA Name:	Unit or CA Number: NMNM137573
US Well Number: 3001547701	Well Status: Drilling Well	Operator: BTA OIL PRODUCERS LLC

BLM Point of Contact

BLM POC Name: Jonathon W Shepard	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752345972	BLM POC Email Address: jshepard@blm.gov
Disposition: Accepted	Disposition Date: 10/15/2021
Signature: Jonathon Shepard	

Submit To Appropriate District Office Two Copies <u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 <u>District IV</u> 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			Form C-105 Revised April 3, 2017													
					1. WELL API NO. 30-015-47701													
					2. Type of Lease ☐ STATE ☐ FEE ☒ FED/INDIAN													
					2. State Oil & Gas Lease No. NMNM119271													
WELL COMPLETION OR RECOMPLETION REPORT AND LOG																		
4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)					5. Lease Name or Unit Agreement Name HARROUN RANCH 20702 20-17 FEDERAL COM													
					6. Well Number: 8H													
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER _____																		
8. Name of Operator BTA OIL PRODUCERS, LLC					9. OGRID 260297													
10. Address of Operator 104 S. PECOS; MIDLAND, TX. 79701					11. Pool name or Wildcat PURPLE SAGE WOLFCAMP													
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County								
Surface:	N	20	23S	29E		893	S	2458	W	EDDY								
BH:	C	17	23S	29E		76.8	N	1630.3	W	EDDY								
13. Date Spudded 6/02/2021	14. Date T.D. Reached 7/25/2021	15. Date Rig Released 7/27/2021			16. Date Completed (Ready to Produce) 08/31/2021			17. Elevations (DF and RKB, RT, GR, etc.) 3017										
18. Total Measured Depth of Well 20,362'			19. Plug Back Measured Depth 20,331			20. Was Directional Survey Made? YES		21. Type Electric and Other Logs Run MWD										
22. Producing Interval(s), of this completion - Top, Bottom, Name 10,150 – 20,096 WOLFCAMP																		
23. CASING RECORD (Report all strings set in well)																		
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED								
10.75		40.5		465'		14.75		355										
7.625		29.7		9,474'		9.875		1,610										
5.5		20		9,240'		6.75		1,655										
5		18		20,334'		6.75		1,655										
24. LINER RECORD																		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN														
				2 7/8"														
26. Perforation record (interval, size, and number) 10,150' – 20,096' (0.42 hole size) 2,304 holes						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>DEPTH INTERVAL</th> <th>AMOUNT AND KIND MATERIAL USED</th> </tr> <tr> <td>10,150' – 20,096'</td> <td>532,440 TOTAL FLUID AND 24,237,887 #S OF 100 MESH SAND</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>					DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED	10,150' – 20,096'	532,440 TOTAL FLUID AND 24,237,887 #S OF 100 MESH SAND				
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED																	
10,150' – 20,096'	532,440 TOTAL FLUID AND 24,237,887 #S OF 100 MESH SAND																	
28. PRODUCTION																		
Date First Production 08/31/2021		Production Method (<i>Flowing, gas lift, pumping - Size and type pump</i>) FLOWING					Well Status (<i>Prod. or Shut-in</i>) PROD											
Date of Test 09/09/2021	Hours Tested 24	Choke Size 21/64	Prod'n For Test Period	Oil - Bbl 1322	Gas - MCF 2973	Water - Bbl. 5176	Gas - Oil Ratio											
Flow Tubing Press.	Casing Pressure 2225	Calculated 24- Hour Rate	Oil - Bbl. 1322	Gas - MCF 2973	Water - Bbl. 5176	Oil Gravity - API - (<i>Corr.</i>)												
29. Disposition of Gas (<i>Sold, used for fuel, vented, etc.</i>) SOLD							30. Test Witnessed By											
31. List Attachments																		
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.							33. Rig Release Date:											
34. If an on-site burial was used at the well, report the exact location of the on-site burial:																		
Latitude _____ Longitude _____ NAD83																		

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Printed

Signature *Katy Reddell* Name KATY REDDELL Title REGULATORY ANALYST Date 04/06/2022

E-mail Address

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon 2792	T. Ojo Alamo	T. Penn A"
T. SalT 526	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt 2586	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand 2847	T. Morrison	
T. Drinkard	T. Bone Springs 6544	T. Todilto	
T. Abo	T.	T. Entrada	
T. Wolfcamp 9823	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

OIL OR GAS SANDS OR ZONES

No. 1, from.....to.....
 No. 2, from.....to.....
 No. 3, from.....to.....
 No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology	From	To	Thickness In Feet	Lithology
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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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

ACKNOWLEDGMENTS

Action 96394

ACKNOWLEDGMENTS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 96394
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

District I
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 96394

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 96394
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
Ilowe	COA: File 3160-4 Completion Report within 10 days to NMOCD after BLM approval.	8/19/2022