Well Name: VACA DRAW 9418 10 FEDERAL

Well Location: T25S / R33E / SEC 10 / NENW /

County or Parish/State:

Well Number: 36H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM97153

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002549316

Well Status: Approved Application for Permit to Drill

Operator: BTA OIL PRODUCERS LLC

Notice of Intent

Sundry ID: 2675970

Type of Submission: Notice of Intent

Type of Action: Other

Date Sundry Submitted: 06/09/2022

Time Sundry Submitted: 01:25

Date proposed operation will begin: 06/09/2022

Procedure Description: BTA OIL PRODUCERS LLC RESPECTFULLY REQUESTS THE FOLLOWING FOOTAGE, DRILLING, CASING DESIGN, AND FIELD & POOL CHANGES TO THE ORIGINAL APD AS APPROVED. PLEASE SEE ATTACHED DOCUMENTS FOR MORE DETAILS. ORIGINAL FIELD AND POOL: RED HILLS / UPPER BONE SPRING SHALE NEW FIELD AND POOL: RED HILLS / 3rd BONE SPRING ORIGINAL FOOTAGES SHL: 140' FNL, 1910' FWL (NO CHANGE) FTP: 100' FNL, 2260' FWL LTP: 100' FSL, 2260' FWL BHL: 50' FSL, 2260' FWL NEW FOOTAGES FTP:100' FNL, 990' FWL LTP: 100' FSL, 990' FWL BHL: 50' FSL, 990' FWL

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Vaca_Draw_36H_WM_20220609132308.pdf

Vaca_Draw_36H_Well_Plan_Rpt_20220609132308.pdf

Signed___Vaca_Draw_9418_36H_C102_20220609132247.pdf

Vaca_Draw_9418_10_Fed_36H_Casing_Design_20220609132247.pdf

Well Name: VACA DRAW 9418 10 FEDERAL

Well Location: T25S / R33E / SEC 10 / NENW /

County or Parish/State:

Well Number: 36H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM97153

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002549316

Well Status: Approved Application for Permit to Drill

Operator: BTA OIL PRODUCERS LLC

Conditions of Approval

Specialist Review

VACA_DRAW_9418_10_FEDERAL_36H_Drilling_Sundry_2675970_COA_OTA_20220627150249.pdf

Operator

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

Operator Electronic Signature: SAMMY HAJAR

Signed on: JUN 09, 2022 01:20 PM

Name: BTA OIL PRODUCERS LLC

Title: Regulatory Analyst

Street Address: 104 S. Pecos

City: Midland **State:** TX

Phone: (432) 682-3753

Email address: shajar@btaoil.com

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: AJIBOLA OLABODE

BLM POC Title: Engineer

BLM POC Phone: 5752342231

BLM POC Email Address: OAJIBOLAEIT@BLM.GOV

Disposition: Approved

Disposition Date: 06/27/2022

Signature: Olabode Thomas Ajibola

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**BTA OIL PRODUCERS LLC**
LEASE NO.:	**NMNM97153**
WELL NAME & NO.:	VACA DRAW 9418 10 FEDERAL 36H
SURFACE HOLE FOOTAGE:	140'/N & 1910'/W
BOTTOM HOLE FOOTAGE	50'/S & 990'/W
LOCATION:	Section 10, T.25 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	( ) Multibowl	(•) Both
Other	[ ] 4 String Area	[ ] Capitan Reef	[ ] WIPP
Other	[x] Fluid Filled	[ ] Cement Squeeze	[ ] Pilot Hole
Special Requirements	[ ] Water Disposal	[ ] COM	[ ] Unit

All Previous COAs Still Apply.

A. CASING

Casing Design:

1. The **10-3/4** inch surface casing shall be set at approximately **1,150** feet (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength,

whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing, which shall be set at approximately **12,402** feet is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
  Excess cement calculates to -31%, additional cement might be required

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
   Excess cement calculates to 17%, additional cement might be required

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

B. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

OTA06262022

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-49316		Red Hills ; 3rd Bone Spring

Property Code	Property Name	Well Number
	VACA DRAW 9418 10 FEDERAL	36H

OGRID No.	Operator Name	Elevation
260297	BTA OIL PRODUCERS, LLC	3421'

Surface Location

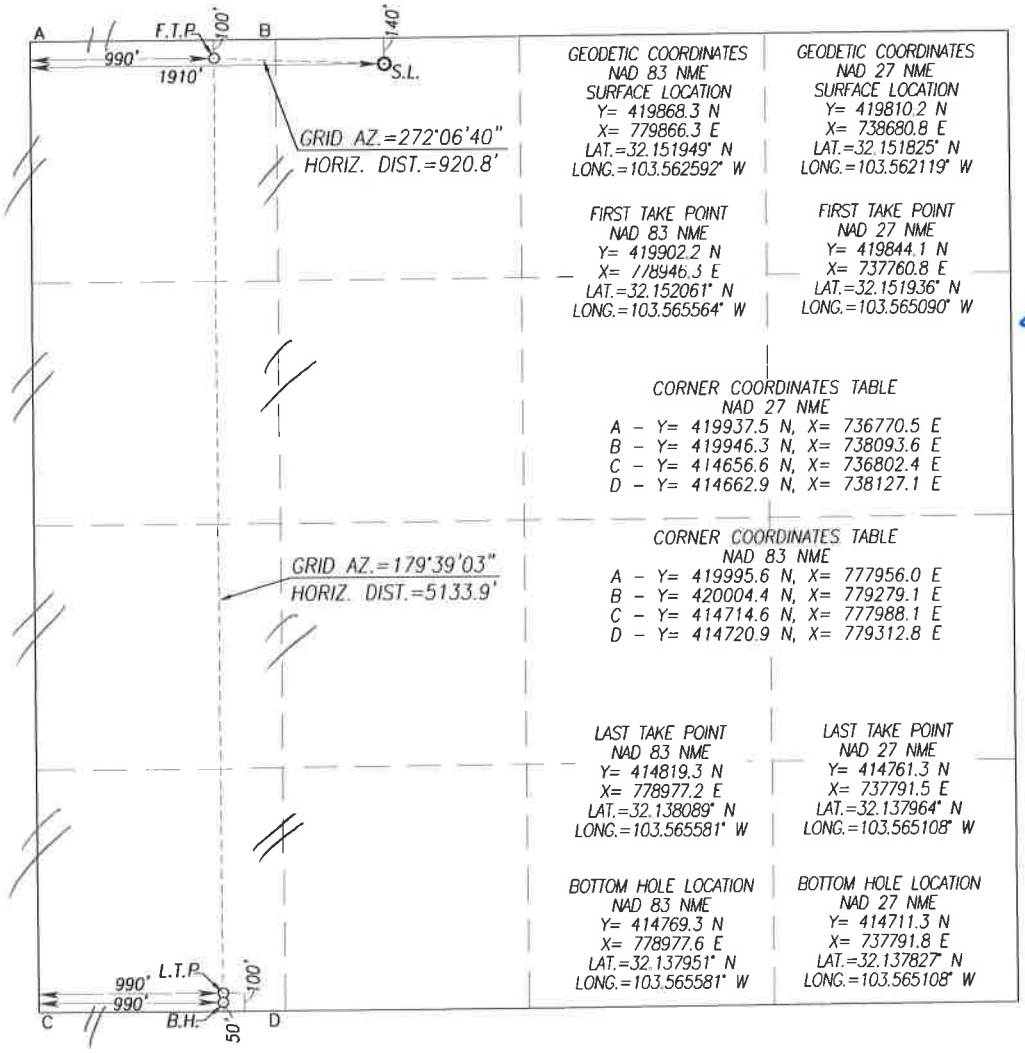
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	10	25-S	33-E		140	NORTH	1910	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	10	25-S	33-E		50	SOUTH	990	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



GEODETIC COORDINATES
NAD 83 NME
SURFACE LOCATION
Y= 419868.3 N
X= 779866.3 E
LAT.=32.151949° N
LONG.=103.562592° W

GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y= 419810.2 N
X= 738680.8 E
LAT.=32.151825° N
LONG.=103.562119° W

FIRST TAKE POINT
NAD 83 NME
Y= 419902.2 N
X= 778946.3 E
LAT.=32.152061° N
LONG.=103.565564° W

FIRST TAKE POINT
NAD 27 NME
Y= 419844.1 N
X= 737760.8 E
LAT.=32.151936° N
LONG.=103.565090° W

CORNER COORDINATES TABLE
NAD 27 NME
A - Y= 419937.5 N, X= 736770.5 E
B - Y= 419946.3 N, X= 738093.6 E
C - Y= 414656.6 N, X= 736802.4 E
D - Y= 414662.9 N, X= 738127.1 E

CORNER COORDINATES TABLE
NAD 83 NME
A - Y= 419995.6 N, X= 777956.0 E
B - Y= 420004.4 N, X= 779279.1 E
C - Y= 414714.6 N, X= 777988.1 E
D - Y= 414720.9 N, X= 779312.8 E

LAST TAKE POINT
NAD 83 NME
Y= 414819.3 N
X= 778977.2 E
LAT.=32.138089° N
LONG.=103.565581° W

LAST TAKE POINT
NAD 27 NME
Y= 414761.3 N
X= 737791.5 E
LAT.=32.137964° N
LONG.=103.565108° W

BOTTOM HOLE LOCATION
NAD 83 NME
Y= 414769.3 N
X= 778977.6 E
LAT.=32.137951° N
LONG.=103.565581° W

BOTTOM HOLE LOCATION
NAD 27 NME
Y= 414711.3 N
X= 737791.8 E
LAT.=32.137827° N
LONG.=103.565108° 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.

Sammy Hajar 6/9/2022
Signature Date

Sammy Hajar
Printed Name

SHAJAR@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.

JULY 8, 2020

Date of Survey

3239
Signature & Seal of Professional Surveyor

RONALD J. EIDSON
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR

Ronald J Eidson 06/02/2022
Certificate Number Gary G. Eidson 12641
Ronald J. Eidson 3239

ACK REL W.O.: 20110344 JWSC W.O. 22.13.0199

BTA Oil Producers, LLC

WELL DETAILS: Vaca Draw #36H					
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.0	0.0	419868.30	779866.30	32° 9' 7.017 N	103° 33' 45.332 W

Ground Level 3421.0

T G M

Azimuths to Grid North
True North: -0.41°
Magnetic North: 7.33°

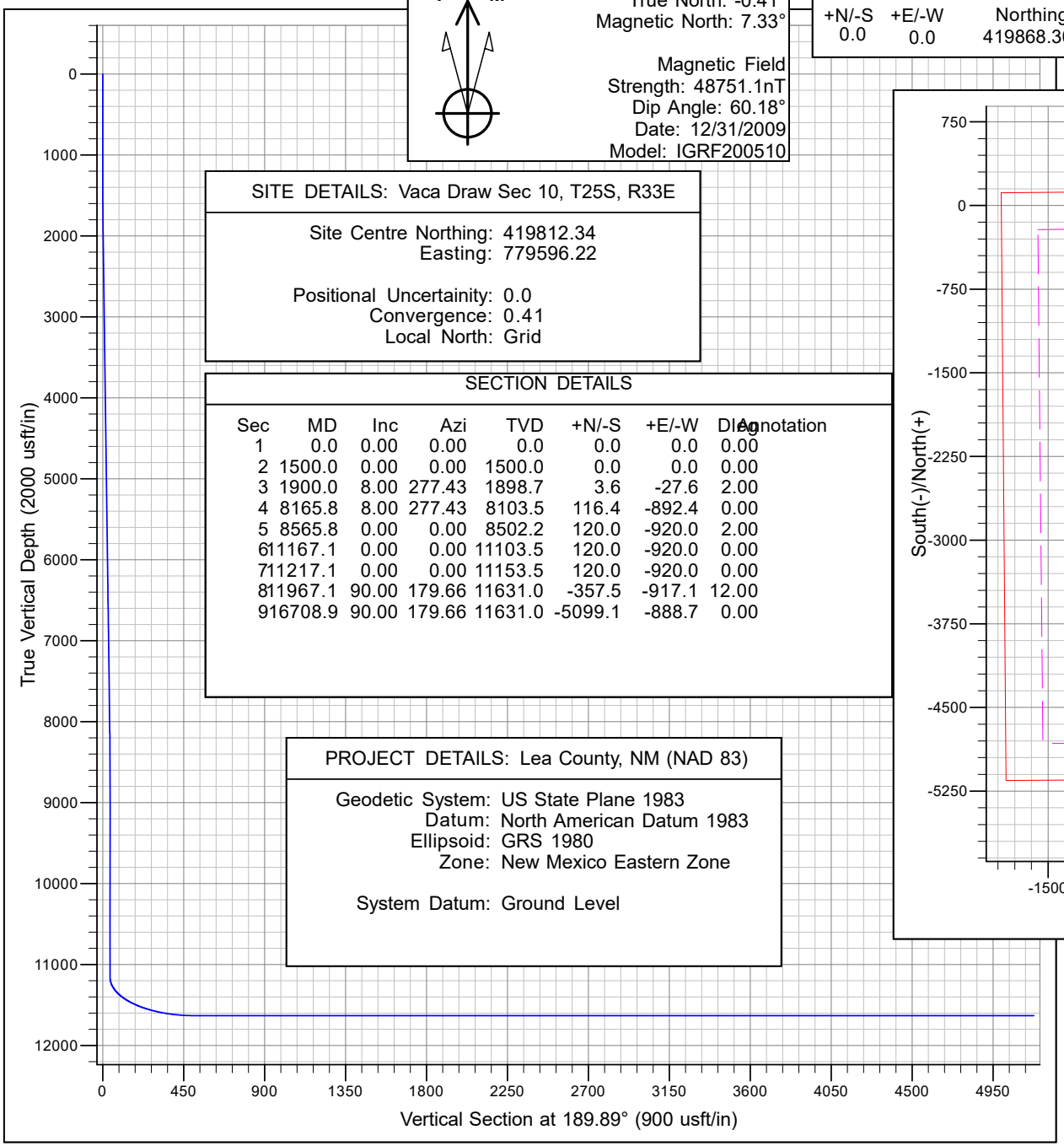
Magnetic Field
Strength: 48751.1nT
Dip Angle: 60.18°
Date: 12/31/2009
Model: IGRF200510

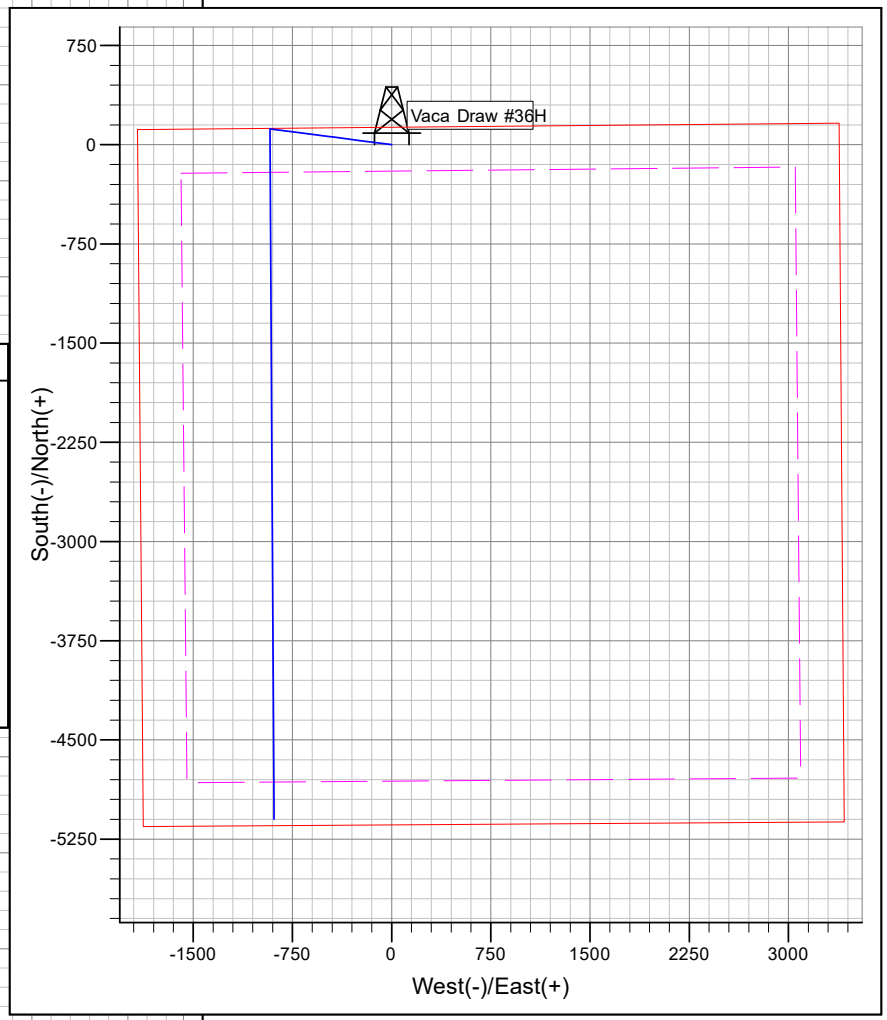
SITE DETAILS: Vaca Draw Sec 10, T25S, R33E	
Site Centre Northing:	419812.34
Easting:	779596.22
Positional Uncertainity:	0.0
Convergence:	0.41
Local North:	Grid

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	
3	1900.0	8.00	277.43	1898.7	3.6	-27.6	2.00	
4	8165.8	8.00	277.43	8103.5	116.4	-892.4	0.00	
5	8565.8	0.00	0.00	8502.2	120.0	-920.0	2.00	
6	11167.1	0.00	0.00	11103.5	120.0	-920.0	0.00	
7	11217.1	0.00	0.00	11153.5	120.0	-920.0	0.00	
8	11967.1	90.00	179.66	11631.0	-357.5	-917.1	12.00	
9	16708.9	90.00	179.66	11631.0	-5099.1	-888.7	0.00	

PROJECT DETAILS: Lea County, NM (NAD 83)	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Ground Level





BTA Oil Producers, LLC

Lea County, NM (NAD 83)
Vaca Draw Sec 10, T25S, R33E
Vaca Draw #36H

Wellbore #1

Plan: Design #1

Standard Planning Report - Geographic

09 June, 2022

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well Vaca Draw #36H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3421.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3421.0usft
Site:	Vaca Draw Sec 10, T25S, R33E	**North Reference:**	Grid
Well:	Vaca Draw #36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project Lea County, NM (NAD 83), Lea County, NM

Map System:	US State Plane 1983	**System Datum:**	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site Vaca Draw Sec 10, T25S, R33E

Site Position:		**Northing:**	419,812.34 usft	**Latitude:**	32° 9' 6.483 N
From:	Map	**Easting:**	779,596.21 usft	**Longitude:**	103° 33' 48.478 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well Vaca Draw #36H

Well Position	**+N/-S**	0.0 usft	**Northing:**	419,868.30 usft	**Latitude:**	32° 9' 7.017 N
	+E/-W	0.0 usft	**Easting:**	779,866.30 usft	**Longitude:**	103° 33' 45.332 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,421.0 usft
Grid Convergence:		0.41 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.74	60.18	48,751.09570929

Design Design #1

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	189.89

Plan Survey Tool Program **Date** 6/9/2022

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	16,708.9	Design #1 (Wellbore #1)		

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well Vaca Draw #36H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3421.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3421.0usft
Site:	Vaca Draw Sec 10, T25S, R33E	**North Reference:**	Grid
Well:	Vaca Draw #36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,900.0	8.00	277.43	1,898.7	3.6	-27.6	2.00	2.00	0.00	277.43	
8,165.8	8.00	277.43	8,103.5	116.4	-892.4	0.00	0.00	0.00	0.00	
8,565.8	0.00	0.00	8,502.2	120.0	-920.0	2.00	-2.00	0.00	180.00	
11,167.1	0.00	0.00	11,103.5	120.0	-920.0	0.00	0.00	0.00	0.00	
11,217.1	0.00	0.00	11,153.5	120.0	-920.0	0.00	0.00	0.00	0.00	
11,967.1	90.00	179.66	11,631.0	-357.5	-917.1	12.00	12.00	0.00	179.66	
16,708.9	90.00	179.66	11,631.0	-5,099.1	-888.7	0.00	0.00	0.00	0.00	Vaca Draw #36H BHL

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well Vaca Draw #36H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3421.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3421.0usft
Site:	Vaca Draw Sec 10, T25S, R33E	**North Reference:**	Grid
Well:	Vaca Draw #36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
100.0	0.00	0.00	100.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
200.0	0.00	0.00	200.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
300.0	0.00	0.00	300.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
400.0	0.00	0.00	400.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
500.0	0.00	0.00	500.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
600.0	0.00	0.00	600.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
700.0	0.00	0.00	700.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
800.0	0.00	0.00	800.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
900.0	0.00	0.00	900.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	419,868.30	779,866.30	32° 9' 7.017 N	103° 33' 45.332 W
1,600.0	2.00	277.43	1,600.0	0.2	-1.7	419,868.53	779,864.57	32° 9' 7.020 N	103° 33' 45.352 W
1,700.0	4.00	277.43	1,699.8	0.9	-6.9	419,869.20	779,859.38	32° 9' 7.027 N	103° 33' 45.413 W
1,800.0	6.00	277.43	1,799.5	2.0	-15.6	419,870.33	779,850.74	32° 9' 7.039 N	103° 33' 45.513 W
1,900.0	8.00	277.43	1,898.7	3.6	-27.6	419,871.91	779,838.65	32° 9' 7.055 N	103° 33' 45.654 W
2,000.0	8.00	277.43	1,997.7	5.4	-41.4	419,873.71	779,824.85	32° 9' 7.074 N	103° 33' 45.814 W
2,100.0	8.00	277.43	2,096.8	7.2	-55.2	419,875.51	779,811.05	32° 9' 7.093 N	103° 33' 45.974 W
2,200.0	8.00	277.43	2,195.8	9.0	-69.0	419,877.31	779,797.25	32° 9' 7.111 N	103° 33' 46.135 W
2,300.0	8.00	277.43	2,294.8	10.8	-82.8	419,879.11	779,783.45	32° 9' 7.130 N	103° 33' 46.295 W
2,400.0	8.00	277.43	2,393.8	12.6	-96.6	419,880.91	779,769.65	32° 9' 7.149 N	103° 33' 46.455 W
2,500.0	8.00	277.43	2,492.9	14.4	-110.4	419,882.71	779,755.85	32° 9' 7.168 N	103° 33' 46.616 W
2,600.0	8.00	277.43	2,591.9	16.2	-124.2	419,884.51	779,742.05	32° 9' 7.187 N	103° 33' 46.776 W
2,700.0	8.00	277.43	2,690.9	18.0	-138.0	419,886.31	779,728.25	32° 9' 7.205 N	103° 33' 46.937 W
2,800.0	8.00	277.43	2,789.9	19.8	-151.8	419,888.11	779,714.45	32° 9' 7.224 N	103° 33' 47.097 W
2,900.0	8.00	277.43	2,889.0	21.6	-165.6	419,889.91	779,700.65	32° 9' 7.243 N	103° 33' 47.257 W
3,000.0	8.00	277.43	2,988.0	23.4	-179.5	419,891.71	779,686.85	32° 9' 7.262 N	103° 33' 47.418 W
3,100.0	8.00	277.43	3,087.0	25.2	-193.3	419,893.51	779,673.05	32° 9' 7.281 N	103° 33' 47.578 W
3,200.0	8.00	277.43	3,186.1	27.0	-207.1	419,895.31	779,659.25	32° 9' 7.299 N	103° 33' 47.738 W
3,300.0	8.00	277.43	3,285.1	28.8	-220.9	419,897.11	779,645.45	32° 9' 7.318 N	103° 33' 47.899 W
3,400.0	8.00	277.43	3,384.1	30.6	-234.7	419,898.91	779,631.65	32° 9' 7.337 N	103° 33' 48.059 W
3,500.0	8.00	277.43	3,483.1	32.4	-248.5	419,900.71	779,617.85	32° 9' 7.356 N	103° 33' 48.219 W
3,600.0	8.00	277.43	3,582.2	34.2	-262.3	419,902.51	779,604.05	32° 9' 7.374 N	103° 33' 48.380 W
3,700.0	8.00	277.43	3,681.2	36.0	-276.1	419,904.31	779,590.25	32° 9' 7.393 N	103° 33' 48.540 W
3,800.0	8.00	277.43	3,780.2	37.8	-289.9	419,906.11	779,576.45	32° 9' 7.412 N	103° 33' 48.701 W
3,900.0	8.00	277.43	3,879.2	39.6	-303.7	419,907.91	779,562.65	32° 9' 7.431 N	103° 33' 48.861 W
4,000.0	8.00	277.43	3,978.3	41.4	-317.5	419,909.71	779,548.85	32° 9' 7.450 N	103° 33' 49.021 W
4,100.0	8.00	277.43	4,077.3	43.2	-331.3	419,911.51	779,535.05	32° 9' 7.468 N	103° 33' 49.182 W
4,200.0	8.00	277.43	4,176.3	45.0	-345.1	419,913.31	779,521.25	32° 9' 7.487 N	103° 33' 49.342 W
4,300.0	8.00	277.43	4,275.3	46.8	-358.9	419,915.11	779,507.45	32° 9' 7.506 N	103° 33' 49.502 W
4,400.0	8.00	277.43	4,374.4	48.6	-372.7	419,916.91	779,493.65	32° 9' 7.525 N	103° 33' 49.663 W
4,500.0	8.00	277.43	4,473.4	50.4	-386.5	419,918.71	779,479.85	32° 9' 7.544 N	103° 33' 49.823 W
4,600.0	8.00	277.43	4,572.4	52.2	-400.3	419,920.51	779,466.05	32° 9' 7.562 N	103° 33' 49.983 W
4,700.0	8.00	277.43	4,671.5	54.0	-414.1	419,922.31	779,452.25	32° 9' 7.581 N	103° 33' 50.144 W
4,800.0	8.00	277.43	4,770.5	55.8	-427.9	419,924.11	779,438.45	32° 9' 7.600 N	103° 33' 50.304 W
4,900.0	8.00	277.43	4,869.5	57.6	-441.7	419,925.91	779,424.65	32° 9' 7.619 N	103° 33' 50.465 W
5,000.0	8.00	277.43	4,968.5	59.4	-455.5	419,927.71	779,410.85	32° 9' 7.637 N	103° 33' 50.625 W
5,100.0	8.00	277.43	5,067.6	61.2	-469.3	419,929.51	779,397.05	32° 9' 7.656 N	103° 33' 50.785 W
5,200.0	8.00	277.43	5,166.6	63.0	-483.1	419,931.31	779,383.25	32° 9' 7.675 N	103° 33' 50.946 W
5,300.0	8.00	277.43	5,265.6	64.8	-496.9	419,933.11	779,369.45	32° 9' 7.694 N	103° 33' 51.106 W
5,400.0	8.00	277.43	5,364.6	66.6	-510.7	419,934.91	779,355.65	32° 9' 7.713 N	103° 33' 51.266 W

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well Vaca Draw #36H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3421.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3421.0usft
Site:	Vaca Draw Sec 10, T25S, R33E	**North Reference:**	Grid
Well:	Vaca Draw #36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,500.0	8.00	277.43	5,463.7	68.4	-524.5	419,936.71	779,341.85	32° 9' 7.731 N	103° 33' 51.427 W
5,600.0	8.00	277.43	5,562.7	70.2	-538.3	419,938.51	779,328.05	32° 9' 7.750 N	103° 33' 51.587 W
5,700.0	8.00	277.43	5,661.7	72.0	-552.1	419,940.31	779,314.25	32° 9' 7.769 N	103° 33' 51.748 W
5,800.0	8.00	277.43	5,760.7	73.8	-565.9	419,942.11	779,300.45	32° 9' 7.788 N	103° 33' 51.908 W
5,900.0	8.00	277.43	5,859.8	75.6	-579.7	419,943.91	779,286.65	32° 9' 7.807 N	103° 33' 52.068 W
6,000.0	8.00	277.43	5,958.8	77.4	-593.5	419,945.71	779,272.85	32° 9' 7.825 N	103° 33' 52.229 W
6,100.0	8.00	277.43	6,057.8	79.2	-607.3	419,947.51	779,259.05	32° 9' 7.844 N	103° 33' 52.389 W
6,200.0	8.00	277.43	6,156.9	81.0	-621.1	419,949.31	779,245.25	32° 9' 7.863 N	103° 33' 52.549 W
6,300.0	8.00	277.43	6,255.9	82.8	-634.9	419,951.11	779,231.45	32° 9' 7.882 N	103° 33' 52.710 W
6,400.0	8.00	277.43	6,354.9	84.6	-648.7	419,952.91	779,217.65	32° 9' 7.901 N	103° 33' 52.870 W
6,500.0	8.00	277.43	6,453.9	86.4	-662.5	419,954.71	779,203.85	32° 9' 7.919 N	103° 33' 53.030 W
6,600.0	8.00	277.43	6,553.0	88.2	-676.3	419,956.51	779,190.05	32° 9' 7.938 N	103° 33' 53.191 W
6,700.0	8.00	277.43	6,652.0	90.0	-690.1	419,958.31	779,176.25	32° 9' 7.957 N	103° 33' 53.351 W
6,800.0	8.00	277.43	6,751.0	91.8	-703.9	419,960.11	779,162.45	32° 9' 7.976 N	103° 33' 53.512 W
6,900.0	8.00	277.43	6,850.0	93.6	-717.7	419,961.91	779,148.65	32° 9' 7.994 N	103° 33' 53.672 W
7,000.0	8.00	277.43	6,949.1	95.4	-731.5	419,963.71	779,134.85	32° 9' 8.013 N	103° 33' 53.832 W
7,100.0	8.00	277.43	7,048.1	97.2	-745.3	419,965.51	779,121.05	32° 9' 8.032 N	103° 33' 53.993 W
7,200.0	8.00	277.43	7,147.1	99.0	-759.1	419,967.31	779,107.25	32° 9' 8.051 N	103° 33' 54.153 W
7,300.0	8.00	277.43	7,246.1	100.8	-772.9	419,969.11	779,093.45	32° 9' 8.070 N	103° 33' 54.313 W
7,400.0	8.00	277.43	7,345.2	102.6	-786.7	419,970.91	779,079.65	32° 9' 8.088 N	103° 33' 54.474 W
7,500.0	8.00	277.43	7,444.2	104.4	-800.5	419,972.71	779,065.85	32° 9' 8.107 N	103° 33' 54.634 W
7,600.0	8.00	277.43	7,543.2	106.2	-814.3	419,974.51	779,052.05	32° 9' 8.126 N	103° 33' 54.794 W
7,700.0	8.00	277.43	7,642.3	108.0	-828.1	419,976.31	779,038.25	32° 9' 8.145 N	103° 33' 54.955 W
7,800.0	8.00	277.43	7,741.3	109.8	-841.9	419,978.11	779,024.45	32° 9' 8.164 N	103° 33' 55.115 W
7,900.0	8.00	277.43	7,840.3	111.6	-855.7	419,979.91	779,010.65	32° 9' 8.182 N	103° 33' 55.276 W
8,000.0	8.00	277.43	7,939.3	113.4	-869.5	419,981.71	778,996.85	32° 9' 8.201 N	103° 33' 55.436 W
8,100.0	8.00	277.43	8,038.4	115.2	-883.3	419,983.51	778,983.05	32° 9' 8.220 N	103° 33' 55.596 W
8,165.8	8.00	277.43	8,103.5	116.4	-892.4	419,984.69	778,973.97	32° 9' 8.232 N	103° 33' 55.702 W
8,200.0	7.32	277.43	8,137.4	117.0	-896.9	419,985.28	778,969.45	32° 9' 8.238 N	103° 33' 55.754 W
8,300.0	5.32	277.43	8,236.8	118.4	-907.8	419,986.70	778,958.54	32° 9' 8.253 N	103° 33' 55.881 W
8,400.0	3.32	277.43	8,336.5	119.4	-915.2	419,987.68	778,951.08	32° 9' 8.263 N	103° 33' 55.968 W
8,500.0	1.32	277.43	8,436.4	119.9	-919.3	419,988.20	778,947.07	32° 9' 8.269 N	103° 33' 56.014 W
8,565.8	0.00	0.00	8,502.2	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
8,600.0	0.00	0.00	8,536.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
8,700.0	0.00	0.00	8,636.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
8,800.0	0.00	0.00	8,736.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
8,900.0	0.00	0.00	8,836.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
9,000.0	0.00	0.00	8,936.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
9,100.0	0.00	0.00	9,036.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
9,200.0	0.00	0.00	9,136.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
9,300.0	0.00	0.00	9,236.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
9,400.0	0.00	0.00	9,336.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
9,500.0	0.00	0.00	9,436.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
9,600.0	0.00	0.00	9,536.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
9,700.0	0.00	0.00	9,636.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
9,800.0	0.00	0.00	9,736.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
9,900.0	0.00	0.00	9,836.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
10,000.0	0.00	0.00	9,936.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
10,100.0	0.00	0.00	10,036.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
10,200.0	0.00	0.00	10,136.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
10,300.0	0.00	0.00	10,236.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
10,400.0	0.00	0.00	10,336.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
10,500.0	0.00	0.00	10,436.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
10,600.0	0.00	0.00	10,536.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
10,700.0	0.00	0.00	10,636.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well Vaca Draw #36H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3421.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3421.0usft
Site:	Vaca Draw Sec 10, T25S, R33E	**North Reference:**	Grid
Well:	Vaca Draw #36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,800.0	0.00	0.00	10,736.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
10,900.0	0.00	0.00	10,836.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
11,000.0	0.00	0.00	10,936.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
11,100.0	0.00	0.00	11,036.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
11,167.1	0.00	0.00	11,103.5	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
11,200.0	0.00	0.00	11,136.4	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
11,217.1	0.00	0.00	11,153.5	120.0	-920.0	419,988.30	778,946.32	32° 9' 8.270 N	103° 33' 56.023 W
11,300.0	9.95	179.66	11,236.0	112.8	-920.0	419,981.12	778,946.36	32° 9' 8.199 N	103° 33' 56.023 W
11,400.0	21.95	179.66	11,332.0	85.4	-919.8	419,953.70	778,946.53	32° 9' 7.927 N	103° 33' 56.024 W
11,500.0	33.95	179.66	11,420.2	38.6	-919.5	419,906.92	778,946.81	32° 9' 7.465 N	103° 33' 56.024 W
11,600.0	45.95	179.66	11,496.7	-25.5	-919.1	419,842.83	778,947.19	32° 9' 6.830 N	103° 33' 56.025 W
11,700.0	57.95	179.66	11,558.2	-104.1	-918.7	419,764.24	778,947.66	32° 9' 6.053 N	103° 33' 56.026 W
11,800.0	69.95	179.66	11,602.1	-193.7	-918.1	419,674.56	778,948.20	32° 9' 5.165 N	103° 33' 56.027 W
11,900.0	81.95	179.66	11,626.3	-290.6	-917.5	419,577.74	778,948.78	32° 9' 4.207 N	103° 33' 56.029 W
11,967.1	90.00	179.66	11,631.0	-357.5	-917.1	419,510.85	778,949.18	32° 9' 3.545 N	103° 33' 56.029 W
12,000.0	90.00	179.66	11,631.0	-390.3	-916.9	419,477.96	778,949.38	32° 9' 3.220 N	103° 33' 56.030 W
12,100.0	90.00	179.66	11,631.0	-490.3	-916.3	419,377.97	778,949.98	32° 9' 2.230 N	103° 33' 56.031 W
12,200.0	90.00	179.66	11,631.0	-590.3	-915.7	419,277.97	778,950.58	32° 9' 1.241 N	103° 33' 56.033 W
12,300.0	90.00	179.66	11,631.0	-690.3	-915.1	419,177.98	778,951.18	32° 9' 0.251 N	103° 33' 56.034 W
12,400.0	90.00	179.66	11,631.0	-790.3	-914.5	419,077.98	778,951.78	32° 8' 59.262 N	103° 33' 56.035 W
12,500.0	90.00	179.66	11,631.0	-890.3	-913.9	418,977.99	778,952.38	32° 8' 58.272 N	103° 33' 56.036 W
12,600.0	90.00	179.66	11,631.0	-990.3	-913.3	418,877.99	778,952.97	32° 8' 57.283 N	103° 33' 56.038 W
12,700.0	90.00	179.66	11,631.0	-1,090.3	-912.7	418,777.99	778,953.57	32° 8' 56.293 N	103° 33' 56.039 W
12,800.0	90.00	179.66	11,631.0	-1,190.3	-912.1	418,678.00	778,954.17	32° 8' 55.304 N	103° 33' 56.040 W
12,900.0	90.00	179.66	11,631.0	-1,290.3	-911.5	418,578.00	778,954.77	32° 8' 54.314 N	103° 33' 56.042 W
13,000.0	90.00	179.66	11,631.0	-1,390.3	-910.9	418,478.01	778,955.37	32° 8' 53.324 N	103° 33' 56.043 W
13,100.0	90.00	179.66	11,631.0	-1,490.3	-910.3	418,378.01	778,955.97	32° 8' 52.335 N	103° 33' 56.044 W
13,200.0	90.00	179.66	11,631.0	-1,590.3	-909.8	418,278.02	778,956.57	32° 8' 51.345 N	103° 33' 56.046 W
13,300.0	90.00	179.66	11,631.0	-1,690.3	-909.2	418,178.02	778,957.17	32° 8' 50.356 N	103° 33' 56.047 W
13,400.0	90.00	179.66	11,631.0	-1,790.3	-908.6	418,078.03	778,957.77	32° 8' 49.366 N	103° 33' 56.048 W
13,500.0	90.00	179.66	11,631.0	-1,890.3	-908.0	417,978.03	778,958.37	32° 8' 48.377 N	103° 33' 56.050 W
13,600.0	90.00	179.66	11,631.0	-1,990.3	-907.4	417,878.03	778,958.97	32° 8' 47.387 N	103° 33' 56.051 W
13,700.0	90.00	179.66	11,631.0	-2,090.3	-906.8	417,778.04	778,959.57	32° 8' 46.398 N	103° 33' 56.052 W
13,800.0	90.00	179.66	11,631.0	-2,190.3	-906.2	417,678.04	778,960.17	32° 8' 45.408 N	103° 33' 56.054 W
13,900.0	90.00	179.66	11,631.0	-2,290.3	-905.6	417,578.05	778,960.77	32° 8' 44.419 N	103° 33' 56.055 W
14,000.0	90.00	179.66	11,631.0	-2,390.3	-905.0	417,478.05	778,961.36	32° 8' 43.429 N	103° 33' 56.056 W
14,100.0	90.00	179.66	11,631.0	-2,490.3	-904.4	417,378.06	778,961.96	32° 8' 42.440 N	103° 33' 56.058 W
14,200.0	90.00	179.66	11,631.0	-2,590.3	-903.8	417,278.06	778,962.56	32° 8' 41.450 N	103° 33' 56.059 W
14,300.0	90.00	179.66	11,631.0	-2,690.3	-903.2	417,178.06	778,963.16	32° 8' 40.461 N	103° 33' 56.060 W
14,400.0	90.00	179.66	11,631.0	-2,790.3	-902.6	417,078.07	778,963.76	32° 8' 39.471 N	103° 33' 56.062 W
14,500.0	90.00	179.66	11,631.0	-2,890.3	-902.0	416,978.07	778,964.36	32° 8' 38.482 N	103° 33' 56.063 W
14,600.0	90.00	179.66	11,631.0	-2,990.3	-901.4	416,878.08	778,964.96	32° 8' 37.492 N	103° 33' 56.064 W
14,700.0	90.00	179.66	11,631.0	-3,090.3	-900.8	416,778.08	778,965.56	32° 8' 36.503 N	103° 33' 56.066 W
14,800.0	90.00	179.66	11,631.0	-3,190.3	-900.2	416,678.09	778,966.16	32° 8' 35.513 N	103° 33' 56.067 W
14,900.0	90.00	179.66	11,631.0	-3,290.3	-899.6	416,578.09	778,966.76	32° 8' 34.523 N	103° 33' 56.068 W
15,000.0	90.00	179.66	11,631.0	-3,390.3	-899.0	416,478.10	778,967.36	32° 8' 33.534 N	103° 33' 56.070 W
15,100.0	90.00	179.66	11,631.0	-3,490.3	-898.4	416,378.10	778,967.96	32° 8' 32.544 N	103° 33' 56.071 W
15,200.0	90.00	179.66	11,631.0	-3,590.3	-897.8	416,278.10	778,968.56	32° 8' 31.555 N	103° 33' 56.072 W
15,300.0	90.00	179.66	11,631.0	-3,690.3	-897.2	416,178.11	778,969.15	32° 8' 30.565 N	103° 33' 56.074 W
15,400.0	90.00	179.66	11,631.0	-3,790.3	-896.6	416,078.11	778,969.75	32° 8' 29.576 N	103° 33' 56.075 W
15,500.0	90.00	179.66	11,631.0	-3,890.3	-896.0	415,978.12	778,970.35	32° 8' 28.586 N	103° 33' 56.076 W
15,600.0	90.00	179.66	11,631.0	-3,990.3	-895.4	415,878.12	778,970.95	32° 8' 27.597 N	103° 33' 56.077 W
15,700.0	90.00	179.66	11,631.0	-4,090.3	-894.8	415,778.13	778,971.55	32° 8' 26.607 N	103° 33' 56.079 W
15,800.0	90.00	179.66	11,631.0	-4,190.3	-894.2	415,678.13	778,972.15	32° 8' 25.618 N	103° 33' 56.080 W
15,900.0	90.00	179.66	11,631.0	-4,290.3	-893.6	415,578.13	778,972.75	32° 8' 24.628 N	103° 33' 56.081 W

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well Vaca Draw #36H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3421.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3421.0usft
Site:	Vaca Draw Sec 10, T25S, R33E	**North Reference:**	Grid
Well:	Vaca Draw #36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,000.0	90.00	179.66	11,631.0	-4,390.3	-893.0	415,478.14	778,973.35	32° 8' 23.639 N	103° 33' 56.083 W
16,100.0	90.00	179.66	11,631.0	-4,490.3	-892.4	415,378.14	778,973.95	32° 8' 22.649 N	103° 33' 56.084 W
16,200.0	90.00	179.66	11,631.0	-4,590.3	-891.8	415,278.15	778,974.55	32° 8' 21.660 N	103° 33' 56.085 W
16,300.0	90.00	179.66	11,631.0	-4,690.3	-891.2	415,178.15	778,975.15	32° 8' 20.670 N	103° 33' 56.087 W
16,400.0	90.00	179.66	11,631.0	-4,790.3	-890.6	415,078.16	778,975.75	32° 8' 19.681 N	103° 33' 56.088 W
16,500.0	90.00	179.66	11,631.0	-4,890.3	-890.0	414,978.16	778,976.35	32° 8' 18.691 N	103° 33' 56.089 W
16,600.0	90.00	179.66	11,631.0	-4,990.3	-889.4	414,878.17	778,976.95	32° 8' 17.701 N	103° 33' 56.091 W
16,700.0	90.00	179.66	11,631.0	-5,090.3	-888.8	414,778.17	778,977.54	32° 8' 16.712 N	103° 33' 56.092 W
16,708.9	90.00	179.66	11,631.0	-5,099.1	-888.7	414,769.30	778,977.60	32° 8' 16.624 N	103° 33' 56.092 W

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Vaca Draw #36H BHL - plan hits target center - Point	0.00	0.00	11,631.0	-5,099.1	-888.7	414,769.30	778,977.60	32° 8' 16.624 N	103° 33' 56.092 W

BTA Oil Producers, LLC
104 S Pecos
Midland, TX 79701

WELL: Vaca Draw 9418 10 Fed #36H
TVD: 11631
MD: 16709

DRILLING PLAN

Casing Program

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/ Buoyant	Mud Weight (ppg)
14 3/4	10 3/4	0	1150	0	1150	No	40.5	J-55	STC	3.2	6.3	13.5	9.0	Dry	8.3
9 7/8	7 5/8	0	12402	0	12349	No	29.7	P110	Buttress	1.6	1.6	2.6	2.6	Dry	9.4
6 3/4	5 1/2	0	12202	0	12149	Yes	20	P110	Buttress	1.3	1.4	2.6	2.7	Dry	9.7
6 3/4	5	12202	16709	12149	11631	Yes	18	P110	Buttress	1.4	1.4	2.5	2.8	Dry	9.7

*7 5/8" has DV Tool @ 5093'

Dv Tool Depth 5093

Cementing Program

Csg. Size		Stage Tool Depth	Top MD of Segment	Bottom MD of Segment	Cement Type	Quantity (sk)	Yield (cu. Ft./sk)	Density (lbs. gal)	Volume (cu.ft.)	% Excess	Additives
10 3/4	Lead		0	905	Class C	560	1.8	13.5	1008	100%	2% CaCl2
	Tail		905	1150	Class C	200	1.34	14.8	268	100%	2% CaCl2
7 5/8	Stg 2 Lead		0	4665	Class C	750	2.19	12.7	1642.5	50%	0.5% CaCl2
	Stg 2 Tail		4665	5093	Class C	150	1.33	14.8	199.5	50%	1% CaCl2
	Stg 1 Lead		5093	11845	Class H	2160	2.64	10.5	5702.4	15%	0.5% CaCl2
	Stg 1 Tail		11845	12402	Class H	400	1.19	15.6	476	15%	1% CaCl2
5 1/2	Lead										
	Tail		11300	12202							
5	Lead										
	Tail		12202	16709	Class H	505	1.27	14.8	641.35	10%	0.1% Fluid Loss

BOP/CHOKE

Pressure Rating: 5M

Rating Depth: 14000

Requesting Variance? 5M Annular on 10M BOPE
Choke Hose
Multi Bowl Wellhead

Pressure

Anticipated Bottom Hole Pressure: 5,867 psi

Anticipated Bottom Hole Temperature: 174 °F

Anticipated abnormal pressures, temperatures, or potential geologic hazards? None

Anticipated Bottom Surface Pressure: 3,308 psi

Hydrogen sulfide drilling operations plan required? Yes

Circulating Medium Table

Depth (TVD)		Type	Weight (ppg)
From	To		
0	1150	FW Spud	8.3 - 8.4
1150	12402	DBE	9.0 - 9.4
12402	11631	DBE	9.0-9.7

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

CONDITIONS

Action 121191

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 121191
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	PREVIOUS COA's APPLY	7/29/2022