

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

RECEIVED

State of New Mexico
Energy, Minerals & Natural Resources Department
DEC 16 2019 CONSERVATION DIVISION
1220 South St. Francis Dr.
DISTRICT IV - ARTESIA, NM 87505

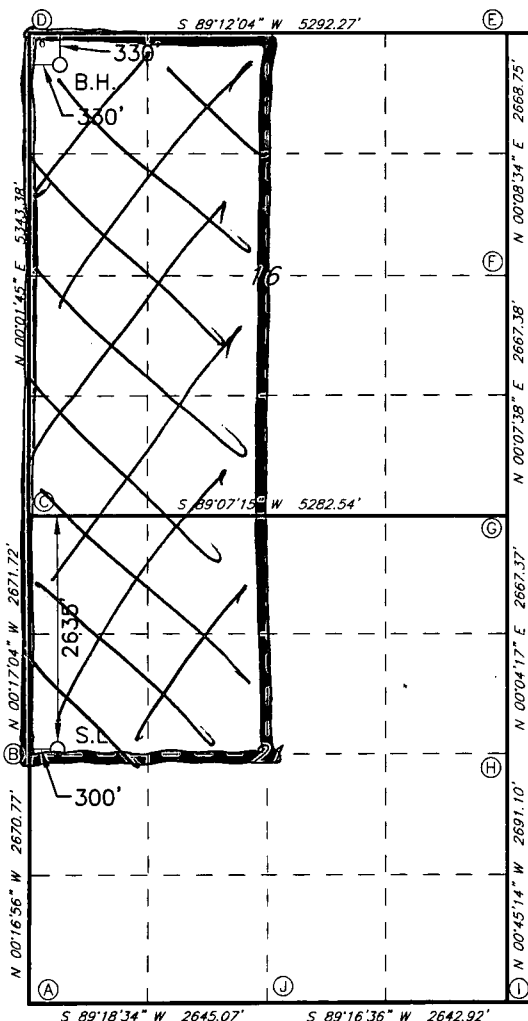
Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT
as drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-44887		² Pool Code 98220		³ Pool Name Purple Sage Wolfcamp (gas)	
⁴ Property Code 321200		⁵ Property Name CREEDENCE 21/16 W1ED STATE COM		⁶ Well Number 1H	
⁷ OGRID NO. 14744		⁸ Operator Name MEWBOURNE OIL COMPANY		⁹ Elevation 3037'	
¹⁰ Surface Location					
UL or lot no. E	Section 21	Township 24S	Range 28E	Lot Idn 2635	Feet from the NORTH 300
East/West line WEST			County EDDY		
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. D	Section 16	Township 24S	Range 28E	Lot Idn 331	Feet from the NORTH 330
East/West line WEST			County EDDY		
¹² Dedicated Acres		¹³ Joint or Infill	¹⁴ Consolidation Code		¹⁵ Order No.

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



GEODETIC DATA
NAD 83 GRID - NM EAST

SURFACE LOCATION
N: 437784.0 - E: 613435.2

LAT: 32.2033305° N
LONG: 104.1002356° W

BOTTOM HOLE
N: 445430.7 - E: 613454.6

LAT: 32.2243502° N
LONG: 104.1001191° W

CORNER DATA
NAD 83 GRID - NM EAST

A: FOUND BRASS CAP "1942"
N: 435072.6 - E: 613148.6

B: FOUND BRASS CAP "1942"
N: 437742.8 - E: 613135.4

C: CALCULATED CORNER
N: 440413.8 - E: 613122.2

D: FOUND 100D NAIL
N: 445756.0 - E: 613124.9

E: CALCULATED CORNER
N: 445829.8 - E: 618415.5

F: FOUND BRASS CAP "1942"
N: 443161.6 - E: 618408.8

G: CALCULATED CORNER
N: 440494.9 - E: 618402.9

H: FOUND BRASS CAP "1942"
N: 437828.1 - E: 618399.6

I: FOUND BRASS CAP "1942"
N: 435137.9 - E: 618435.0

J: FOUND BRASS CAP "1942"
N: 435104.5 - E: 615792.9

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Ruby Caballero*
Date: 12/11/19
Printed Name: Ruby Caballero
E-mail Address: rcaballero@newbourne.com

¹⁸ 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.

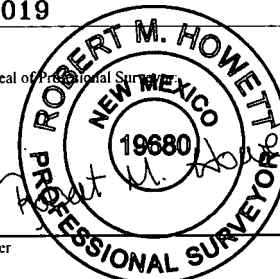
3-6-2019

Date of Survey

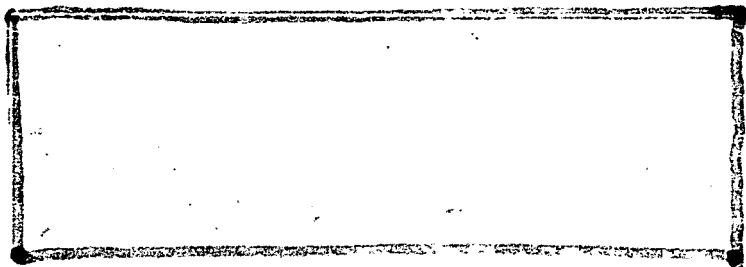
Signature and Seal of Professional Surveyor

19680

Certificate Number



RRC - Job No.: LS19030317



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RECEIVED

DEC 19 2019

Intent ☐ As Drilled ☒

DISTRICT 7 - ARTESIA O.C.D.

API #
30-015-44887

Operator Name: Mewbourne Oil Company	Property Name: Creedence 21/16 W1ED St Com	Well Number #1H
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Kick Off Point (KOP)

UL E	Section 21	Township 24S	Range 28E	Lot	Feet 2539	From N/S N	Feet 325	From E/W W	County Eddy
Latitude 32.2035961					Longitude -104.1001556			NAD 83	

First Take Point (FTP)

UL E	Section 21	Township 24S	Range 28E	Lot	Feet 260	From N/S N	Feet 324	From E/W W	County Eddy
Latitude 32.2045806					Longitude -104.1001606			NAD 83	

Last Take Point (LTP)

UL D	Section 16	Township 24S	Range 28E	Lot	Feet 331	From N/S N	Feet 330	From E/W W	County Eddy
Latitude 32.2243267					Longitude -104.1001033			NAD 83	

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

Yes

Is this well an infill well?

No

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

STRYKER

DIRECTIONAL

September 10, 2019

New Mexico Energy, Minerals and Natural Resources Department
Attn: Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

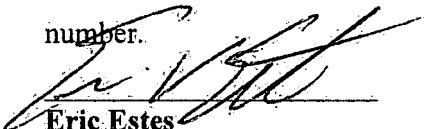
Attn: Jackie Lathan

Re: Mewbourne Oil Company
Creedence 21 16 W1ED State Com #1H
Purple Sage; Wolfcamp (Gas)
Eddy County, New Mexico
API# 30-015-44887

Enclosed please find the original and one (1) copy of the survey performed on the reference well by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C. Other information required by your office is as follows:

<u>Name & Title</u>	<u>Drainhole No.</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Type Survey</u>
Glenn Thompson	Original Hole	393ft. to 16,889ft.	05-11-19 to 05-27-19	MWD Survey

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Eric Estes

Enclosures

CC:

Mewbourne Oil Company
Attn: Frosty Lathan
P.O. Box 5720
Hobbs, NM 88241

Mewbourne Oil Company
Attn: Robin Terrell
P.O. Box 5720
Hobbs, NM 88241

NMEMaNRD\Mewbourne Oil\Creedence 21 16 W1ED State Com #1H\191079

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

Office (936) 582-7296 * Fax (936)-588-4163



September 10, 2019

Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Eric Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of May 11, 2019, through May 27, 2019 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 393 feet to a depth of 16,889 feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Creedence 21 16 W1ED State Com #1H, well API # 30-015-44887 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

A handwritten signature in black ink, appearing to read "Eric Estes", is written over a horizontal line.

Eric Estes

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

Office (936) 582-7296 * Fax (936)-588-4163



Mewbourne Oil Company

**Eddy County, N.M. Nad (83)
Section 21-28-24S-28E Kansas
Creedence 21 16 W1ED St Com 1H**

Original Hole

Design: Original Hole

Standard Survey Report

29 May, 2019

STRYKER
DIRECTIONAL



Microsoft
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Creedence 21 16 W1ED St Com 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Well:	Creedence 21 16 W1ED St Com 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

Project	Eddy County, N.M. 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	Section 21-28-24S-28E Kansas		
Site Position:	Northing:	437,785.10 usft	Latitude: 32° 12' 11.999 N
From: Map	Easting:	613,495.10 usft	Longitude: 104° 6' 0.151 W
Position Uncertainty: 0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.12 °

Well	Creedence 21 16 W1ED St Com 1H		
Well Position	+N/-S	0.0 usft	Northing: 437,784.00 usft
	+E/-W	0.0 usft	Easting: 613,435.20 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	28.0 usft
		Ground Level:	3,037.0 usft

Wellbore	Original Hole		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	03/28/19	7.00	59.94	47,689.88674478

Design	Original Hole		
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Audit Notes:			
Version: 1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°) 0.18

Survey Program	Date 05/28/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
393.0	16,945.0	MWD Survey (Original Hole)	MWD+IGRF
			Description OWSG MWD + IGRF or WMM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
393.0	1.90	312.10	392.7	5.8	-9.2	5.8	0.00	0.00	0.00
469.0	2.80	310.00	468.6	7.8	-11.6	7.8	1.19	1.18	-2.76
556.0	0.40	308.20	555.6	9.4	-13.4	9.3	2.76	-2.76	-2.07
750.0	1.10	76.00	749.6	10.3	-12.1	10.2	0.71	0.36	65.88
939.0	2.00	134.50	938.5	8.4	-8.0	8.4	0.90	0.48	30.95
1,128.0	1.90	127.60	1,127.4	4.2	-3.2	4.2	0.13	-0.05	-3.65
1,317.0	3.40	188.20	1,316.2	-3.3	-1.5	-3.3	1.57	0.79	32.06
1,505.0	0.80	176.20	1,504.1	-10.1	-2.2	-10.1	1.40	-1.38	-6.38
1,696.0	1.20	201.60	1,695.1	-13.3	-2.9	-13.3	0.31	0.21	13.30
1,887.0	2.20	144.60	1,886.0	-18.2	-1.5	-18.2	0.97	0.52	-29.84



Microsoft
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Creedence 21 16 W1ED St Com 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Well:	Creedence 21 16 W1ED St Com 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,076.0	2.60	166.80	2,074.8	-25.3	1.6	-25.3	0.53	0.21	11.75
2,266.0	2.90	184.30	2,264.6	-34.3	2.2	-34.3	0.47	0.16	9.21
2,433.0	2.30	195.50	2,431.4	-41.7	1.0	-41.7	0.47	-0.36	6.71
2,492.0	1.90	205.40	2,490.4	-43.7	0.3	-43.7	0.91	-0.68	16.78
2,648.0	0.70	173.60	2,646.4	-47.0	-0.7	-47.0	0.87	-0.77	-20.38
2,836.0	0.50	181.70	2,834.4	-49.0	-0.6	-49.0	0.12	-0.11	4.31
3,025.0	0.50	159.60	3,023.3	-50.6	-0.4	-50.6	0.10	0.00	-11.69
3,215.0	1.80	14.00	3,213.3	-48.5	0.6	-48.5	1.17	0.68	-76.63
3,405.0	1.70	7.90	3,403.2	-42.8	1.8	-42.8	0.11	-0.05	-3.21
3,595.0	1.80	6.40	3,593.1	-37.0	2.5	-37.0	0.06	0.05	-0.79
3,784.0	1.80	1.30	3,782.0	-31.1	2.9	-31.1	0.08	0.00	-2.70
3,973.0	1.50	1.70	3,971.0	-25.7	3.0	-25.7	0.16	-0.16	0.21
4,163.0	1.30	354.50	4,160.9	-21.0	2.9	-21.0	0.14	-0.11	-3.79
4,353.0	1.70	353.80	4,350.8	-16.1	2.4	-16.1	0.21	0.21	-0.37
4,543.0	1.30	350.90	4,540.8	-11.2	1.7	-11.2	0.21	-0.21	-1.53
4,733.0	0.90	14.80	4,730.7	-7.6	1.8	-7.6	0.32	-0.21	12.58
4,922.0	1.50	17.40	4,919.7	-3.8	2.9	-3.8	0.32	0.32	1.38
5,112.0	2.20	11.30	5,109.6	2.2	4.3	2.2	0.38	0.37	-3.21
5,302.0	2.10	12.20	5,299.5	9.1	5.8	9.2	0.06	-0.05	0.47
5,491.0	1.80	2.50	5,488.4	15.5	6.7	15.5	0.24	-0.16	-5.13
5,680.0	1.60	3.30	5,677.3	21.1	6.9	21.1	0.11	-0.11	0.42
5,869.0	1.20	14.30	5,866.2	25.6	7.6	25.7	0.25	-0.21	5.82
6,058.0	0.90	17.00	6,055.2	29.0	8.5	29.0	0.16	-0.16	1.43
6,248.0	1.90	20.20	6,245.1	33.4	10.0	33.4	0.53	0.53	1.68
6,437.0	2.40	10.60	6,434.0	40.2	11.8	40.2	0.33	0.26	-5.08
6,626.0	1.40	283.40	6,622.9	44.6	10.3	44.6	1.44	-0.53	-46.14
6,815.0	1.80	298.60	6,811.8	46.6	5.5	46.6	0.31	0.21	8.04
7,004.0	2.20	25.60	7,000.8	51.3	4.4	51.3	1.46	0.21	46.03
7,193.0	1.60	20.60	7,189.7	57.0	6.9	57.0	0.33	-0.32	-2.65
7,382.0	1.10	54.60	7,378.6	60.5	9.3	60.6	0.49	-0.26	17.99
7,571.0	0.50	3.20	7,567.6	62.4	10.8	62.4	0.47	-0.32	-27.20
7,760.0	0.90	52.60	7,756.6	64.1	12.1	64.2	0.36	0.21	26.14
7,949.0	2.00	57.20	7,945.5	66.8	16.0	66.9	0.58	0.58	2.43
8,139.0	2.20	30.30	8,135.4	71.8	20.7	71.8	0.52	0.11	-14.16
8,329.0	2.30	11.50	8,325.3	78.6	23.3	78.7	0.39	0.05	-9.89
8,518.0	2.20	22.80	8,514.1	85.7	25.4	85.8	0.24	-0.05	5.98
8,707.0	1.20	17.20	8,703.0	90.9	27.4	91.0	0.54	-0.53	-2.96
8,897.0	1.40	318.90	8,893.0	94.6	26.5	94.7	0.67	0.11	-30.68
9,004.2	1.67	318.46	9,000.2	96.7	24.6	96.8	0.25	0.25	-0.41
B.B. Creedence 21 16 W2ED St Com 1H									
9,054.0	1.80	318.30	9,049.9	97.9	23.6	97.9	0.25	0.25	-0.32
9,103.0	2.60	327.20	9,098.9	99.4	22.5	99.5	1.77	1.63	18.16
9,135.0	6.00	345.60	9,130.8	101.6	21.6	101.7	11.33	10.63	57.50
9,166.0	10.80	351.00	9,161.5	106.1	20.8	106.1	15.67	15.48	17.42



Microsoft
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Creedence 21 16 W1ED St Com 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Well:	Creedence 21 16 W1ED St Com 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,197.0	15.20	349.00	9,191.6	112.9	19.6	113.0	14.27	14.19	-6.45	
9,228.0	17.90	349.10	9,221.4	121.6	17.9	121.6	8.71	8.71	0.32	
9,260.0	20.50	352.70	9,251.6	132.0	16.2	132.0	8.92	8.13	11.25	
9,291.0	24.40	355.50	9,280.2	143.7	15.0	143.8	13.04	12.58	9.03	
9,323.0	27.50	356.50	9,309.0	157.7	14.1	157.8	9.78	9.69	3.13	
9,354.0	29.60	358.40	9,336.2	172.5	13.4	172.6	7.38	6.77	6.13	
9,385.0	33.40	0.50	9,362.7	188.7	13.3	188.7	12.76	12.26	6.77	
9,417.0	36.60	3.10	9,388.9	207.0	13.9	207.1	11.03	10.00	8.13	
9,448.0	38.30	3.20	9,413.5	225.9	14.9	225.9	5.49	5.48	0.32	
9,480.0	41.20	3.50	9,438.1	246.3	16.1	246.3	9.08	9.06	0.94	
9,512.0	43.80	3.50	9,461.7	267.9	17.4	267.9	8.13	8.13	0.00	
9,543.0	45.80	3.50	9,483.7	289.7	18.8	289.7	6.45	6.45	0.00	
9,574.0	48.10	2.60	9,504.8	312.3	20.0	312.3	7.72	7.42	-2.90	
9,606.0	50.20	2.00	9,525.8	336.5	20.9	336.5	6.71	6.56	-1.88	
9,638.0	52.20	2.70	9,545.8	361.4	22.0	361.5	6.48	6.25	2.19	
9,670.0	55.30	2.20	9,564.7	387.2	23.1	387.2	9.77	9.69	-1.56	
9,701.0	58.40	0.70	9,581.7	413.1	23.7	413.2	10.79	10.00	-4.84	
9,733.0	62.10	359.10	9,597.5	440.9	23.7	441.0	12.35	11.56	-5.00	
9,765.0	65.80	358.60	9,611.6	469.6	23.1	469.7	11.65	11.56	-1.56	
9,796.0	69.90	359.00	9,623.3	498.3	22.5	498.4	13.28	13.23	1.29	
9,828.0	73.20	359.60	9,633.4	528.7	22.1	528.7	10.46	10.31	1.88	
9,839.0	74.20	359.80	9,636.5	539.2	22.1	539.3	9.26	9.09	1.82	
9,868.0	77.00	0.50	9,643.7	567.3	22.1	567.4	9.93	9.66	2.41	
9,900.0	79.40	0.60	9,650.3	598.6	22.4	598.7	7.51	7.50	0.31	
9,931.0	81.50	0.50	9,655.4	629.2	22.7	629.3	6.78	6.77	-0.32	
9,963.0	82.00	0.30	9,660.0	660.9	22.9	660.9	1.68	1.56	-0.63	
9,994.0	82.40	0.20	9,664.2	691.6	23.1	691.6	1.33	1.29	-0.32	
10,026.0	84.00	0.30	9,668.0	723.4	23.2	723.4	5.01	5.00	0.31	
10,057.0	85.00	0.30	9,671.0	754.2	23.4	754.3	3.23	3.23	0.00	
10,152.0	90.70	0.40	9,674.5	849.1	24.0	849.2	6.00	6.00	0.11	
10,246.0	93.10	0.60	9,671.4	943.0	24.8	943.1	2.56	2.55	0.21	
10,340.0	90.90	359.10	9,668.1	1,037.0	24.5	1,037.0	2.83	-2.34	-1.60	
10,435.0	89.30	359.10	9,668.0	1,132.0	23.0	1,132.0	1.68	-1.68	0.00	
10,529.0	86.20	359.40	9,671.6	1,225.9	21.8	1,225.9	3.31	-3.30	0.32	
10,623.0	86.00	359.70	9,678.0	1,319.6	21.1	1,319.7	0.38	-0.21	0.32	
10,718.0	88.60	0.70	9,682.5	1,414.5	21.4	1,414.6	2.93	2.74	1.05	
10,812.0	90.90	0.80	9,682.9	1,508.5	22.6	1,508.6	2.45	2.45	0.11	
10,908.0	88.60	0.70	9,683.3	1,604.5	23.9	1,604.6	2.40	-2.40	-0.10	
11,002.0	89.70	1.70	9,684.7	1,698.5	25.9	1,698.5	1.58	1.17	1.06	
11,096.0	90.30	2.10	9,684.7	1,792.4	29.0	1,792.5	0.77	0.64	0.43	
11,190.0	89.20	1.60	9,685.1	1,886.4	32.0	1,886.5	1.29	-1.17	-0.53	
11,285.0	90.00	2.10	9,685.8	1,981.3	35.1	1,981.4	0.99	0.84	0.53	
11,380.0	89.50	2.00	9,686.2	2,076.2	38.5	2,076.4	0.54	-0.53	-0.11	



Microsoft
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Creedence 21 16 W1ED St Com 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Well:	Creedence 21 16 W1ED St Com 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,474.0	89.50	2.60	9,687.0	2,170.2	42.2	2,170.3	0.64	0.00	0.64
11,569.0	93.50	1.90	9,684.6	2,265.0	46.0	2,265.2	4.27	4.21	-0.74
11,663.0	90.60	0.80	9,681.2	2,358.9	48.2	2,359.1	3.30	-3.09	-1.17
11,757.0	91.30	1.10	9,679.6	2,452.9	49.7	2,453.1	0.81	0.74	0.32
11,852.0	90.00	0.30	9,678.6	2,547.9	50.9	2,548.1	1.61	-1.37	-0.84
11,946.0	89.50	0.10	9,679.0	2,641.9	51.2	2,642.0	0.57	-0.53	-0.21
12,039.0	88.70	359.10	9,680.4	2,734.9	50.6	2,735.0	1.38	-0.86	-1.08
12,133.0	90.50	359.10	9,681.1	2,828.9	49.1	2,829.0	1.91	1.91	0.00
12,227.0	89.80	359.30	9,680.8	2,922.9	47.8	2,923.0	0.77	-0.74	0.21
12,321.0	89.80	359.80	9,681.2	3,016.9	47.1	3,017.0	0.53	0.00	0.53
12,417.0	88.90	359.90	9,682.3	3,112.8	46.8	3,113.0	0.94	-0.94	0.10
12,511.0	89.00	0.00	9,684.0	3,206.8	46.7	3,207.0	0.15	0.11	0.11
12,606.0	90.50	359.10	9,684.4	3,301.8	46.0	3,302.0	1.84	1.58	-0.95
12,700.0	91.20	359.50	9,683.0	3,395.8	44.8	3,395.9	0.86	0.74	0.43
12,794.0	94.10	1.20	9,678.7	3,489.7	45.4	3,489.8	3.58	3.09	1.81
12,888.0	90.40	359.50	9,675.0	3,583.6	46.0	3,583.7	4.33	-3.94	-1.81
12,983.0	90.60	359.20	9,674.1	3,678.6	44.9	3,678.7	0.38	0.21	-0.32
13,078.0	85.50	358.60	9,677.4	3,773.5	43.1	3,773.6	5.41	-5.37	-0.63
13,173.0	88.40	358.70	9,682.4	3,868.3	40.8	3,868.4	3.05	3.05	0.11
13,266.0	89.60	359.70	9,684.0	3,961.3	39.5	3,961.4	1.68	1.29	1.08
13,361.0	89.20	0.20	9,685.0	4,056.3	39.5	4,056.4	0.67	-0.42	0.53
13,455.0	88.90	359.30	9,686.6	4,150.3	39.0	4,150.4	1.01	-0.32	-0.96
13,550.0	94.10	0.50	9,684.1	4,245.2	38.9	4,245.3	5.62	5.47	1.26
13,645.0	92.20	1.70	9,678.9	4,340.0	40.7	4,340.1	2.36	-2.00	1.26
13,738.0	89.80	0.20	9,677.3	4,433.0	42.2	4,433.1	3.04	-2.58	-1.61
13,833.0	87.60	0.00	9,679.4	4,528.0	42.4	4,528.1	2.33	-2.32	-0.21
13,927.0	89.70	359.80	9,681.6	4,621.9	42.2	4,622.0	2.24	2.23	-0.21
14,021.0	89.30	359.40	9,682.5	4,715.9	41.6	4,716.0	0.60	-0.43	-0.43
14,116.0	87.40	358.70	9,685.2	4,810.9	40.0	4,811.0	2.13	-2.00	-0.74
14,210.0	90.80	0.40	9,686.7	4,904.8	39.3	4,904.9	4.04	3.62	1.81
14,304.0	91.10	1.40	9,685.1	4,998.8	40.8	4,998.9	1.11	0.32	1.06
14,399.0	90.50	2.50	9,683.8	5,093.7	44.0	5,093.9	1.32	-0.63	1.16
14,493.0	90.40	359.60	9,683.0	5,187.7	45.7	5,187.8	3.09	-0.11	-3.09
14,588.0	89.70	0.60	9,683.0	5,282.7	45.9	5,282.8	1.28	-0.74	1.05
14,682.0	87.20	0.10	9,685.5	5,376.7	46.4	5,376.8	2.71	-2.66	-0.53
14,777.0	88.80	359.10	9,688.8	5,471.6	45.8	5,471.7	1.99	1.68	-1.05
14,871.0	90.20	359.10	9,689.6	5,565.6	44.3	5,565.7	1.49	1.49	0.00
14,966.0	87.80	357.70	9,691.3	5,660.5	41.7	5,660.6	2.92	-2.53	-1.47
15,061.0	92.10	358.80	9,691.4	5,755.5	38.8	5,755.6	4.67	4.53	1.16
15,156.0	92.00	358.10	9,688.0	5,850.4	36.2	5,850.4	0.74	-0.11	-0.74
15,250.0	92.00	358.00	9,684.7	5,944.2	33.0	5,944.3	0.11	0.00	-0.11
15,345.0	91.30	358.00	9,682.0	6,039.2	29.7	6,039.2	0.74	-0.74	0.00
15,439.0	93.90	0.20	9,677.7	6,133.0	28.2	6,133.1	3.62	2.77	2.34
15,534.0	89.70	0.70	9,674.7	6,228.0	28.9	6,228.0	4.45	-4.42	0.53



Microsoft
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Creedence 21 16 W1ED St Com 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Well:	Creedence 21 16 W1ED St Com 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,629.0	89.50	1.10	9,675.4	6,322.9	30.4	6,323.0	0.47	-0.21	0.42
15,723.0	90.10	1.40	9,675.7	6,416.9	32.5	6,417.0	0.71	0.64	0.32
15,818.0	88.40	2.70	9,677.0	6,511.8	35.9	6,511.9	2.25	-1.79	1.37
15,913.0	86.60	1.10	9,681.1	6,606.7	39.0	6,606.8	2.53	-1.89	-1.68
16,007.0	88.30	0.40	9,685.3	6,700.6	40.3	6,700.7	1.96	1.81	-0.74
16,102.0	90.50	359.80	9,686.3	6,795.6	40.4	6,795.7	2.40	2.32	-0.63
16,197.0	90.60	359.50	9,685.4	6,890.6	39.9	6,890.7	0.33	0.11	-0.32
16,291.0	87.90	357.70	9,686.6	6,984.5	37.6	6,984.6	3.45	-2.87	-1.91
16,386.0	91.60	358.80	9,687.0	7,079.5	34.7	7,079.5	4.06	3.89	1.16
16,480.0	92.10	357.70	9,684.0	7,173.4	31.8	7,173.4	1.28	0.53	-1.17
16,575.0	93.00	358.00	9,679.7	7,268.2	28.2	7,268.3	1.00	0.95	0.32
16,670.0	90.20	359.60	9,677.1	7,363.1	26.2	7,363.2	3.39	-2.95	1.68
16,764.0	88.80	359.40	9,677.9	7,457.1	25.4	7,457.2	1.50	-1.49	-0.21
16,858.0	89.80	0.10	9,679.1	7,551.1	25.0	7,551.2	1.30	1.06	0.74
16,889.0	88.30	359.40	9,679.6	7,582.1	24.9	7,582.1	5.34	-4.84	-2.26
16,945.0	88.30	359.40	9,681.2	7,638.1	24.3	7,638.1	0.00	0.00	0.00
16945.0' MD Projected to Bit - PBHL Creedence 21 16 W1ED St Com 1H									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
16,945.0	9,681.2	7,638.1	24.3	16945.0' MD Projected to Bit

RECEIVED

DEC 19 2019



STRICTLY ARTESIANO, C.D.

COMPANY: Mewbourne Oil Company
WELL: Creedence 21 16 W1ED St Com 1H
COUNTY: Eddy County, N.M. N4d (83)
DATUM: North American Datum 1983
RIG: Patterson 231

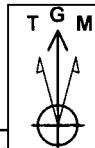


OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.88°

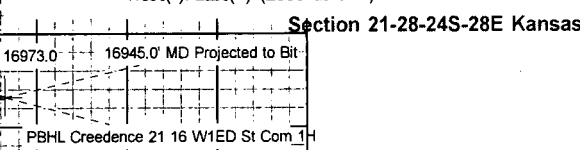
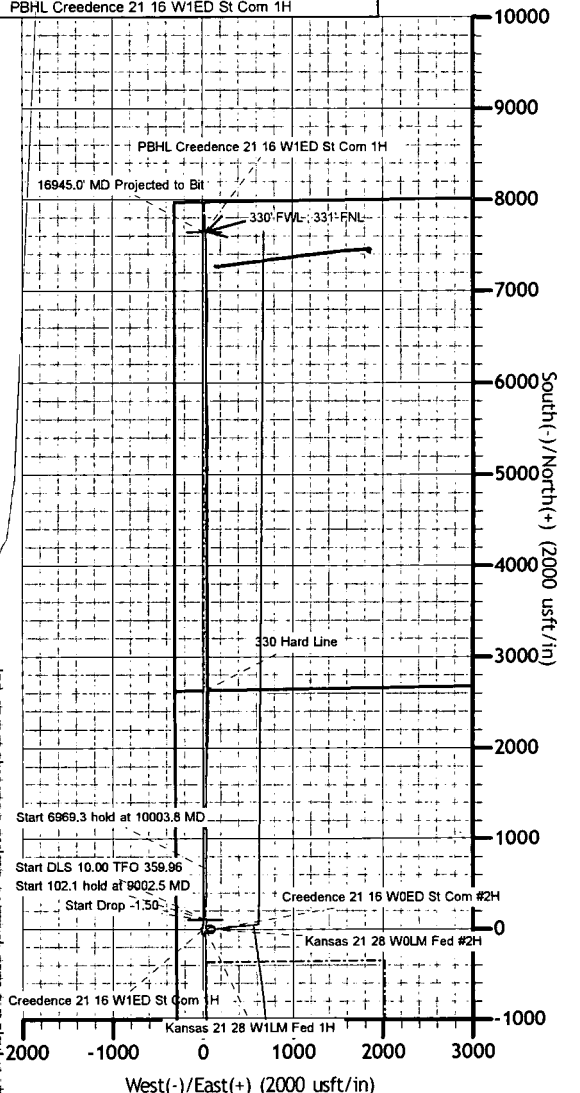
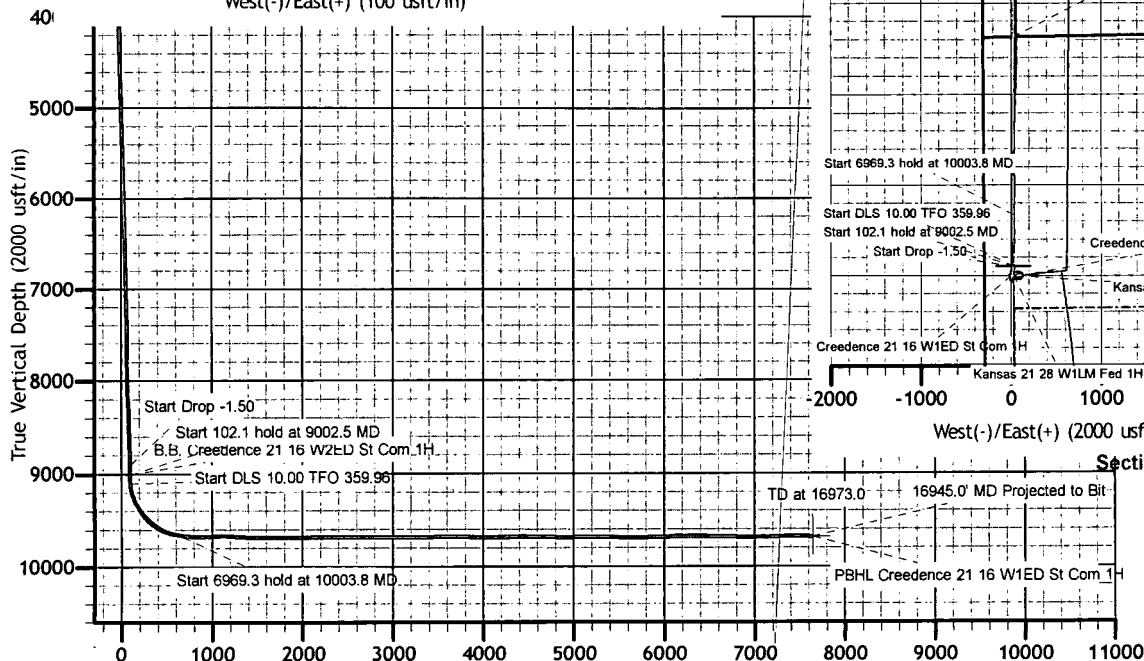
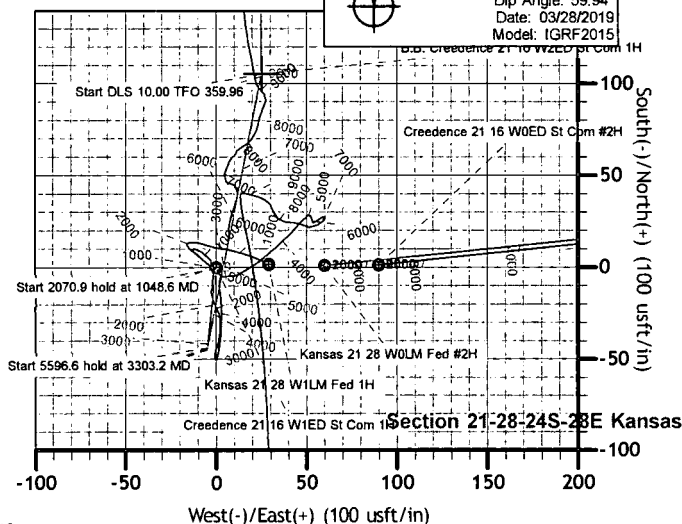
GEODETIC ZONE: New Mexico Eastern Zone										Slot
3037 +28 @ 3065.0usft (Patterson 231)										
GROUND ELEVATION: 3037.0										
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude					
0.0	0.0	437784.00	613435.20	32° 12' 11.990 N	104° 6' 0.848 W					
PLAN SECTIONS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1048.6	1.21	186.34	1048.6	-0.5	-0.1	2.50	186.34	-0.5	
4	3119.5	1.21	186.34	3119.0	-44.1	-4.9	0.00	0.00	-44.2	
5	3200.5	0.00	0.00	3200.0	-45.0	-5.0	1.50	180.00	-45.0	
6	3303.2	1.54	11.29	3302.7	-43.6	-4.7	1.50	11.29	-43.7	
7	8899.8	1.54	11.29	8897.3	103.9	24.7	0.00	0.00	104.0	
8	9002.5	0.00	0.00	9000.0	105.3	25.0	1.50	180.00	105.4	B.B. Creedence 21 16 W2ED St Com 1H
9	9104.6	0.00	0.00	9102.1	105.3	25.0	0.00	0.00	105.4	
10	10003.8	89.92	359.96	9675.0	677.4	24.6	10.00	359.96	677.5	
11	16973.0	89.92	359.96	9685.0	7646.7	19.4	0.00	0.00	7646.7	PBHL Creedence 21 16 W1ED St Com 1H

SHL: 2435 FNL; 300' FWL
Section 21-24S-28E
PBHL: 330' FNL; 330' FWL
Section 16-24S-28E



Azimuths to Grid North
True North: -0.12°
Magnetic North: 6.88°

Magnetic Field
Strength: 47889.9nT
Dip Angle: 59.94°
Date: 03/28/2019
Model: IGRF2015





Mewbourne Oil Company

**Eddy County, N.M. Nad (83)
Section 21-28-24S-28E Kansas
Creedence 21 16 W1ED St Com 1H**

Original Hole

Design: Original Hole

Survey Report - Geographic

29 May, 2019





Microsoft
Survey Report - Geographic



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Creedence 21 16 W1ED St Com 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Well:	Creedence 21 16 W1ED St Com 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

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

Site	Section 21-28-24S-28E Kansas	
Site Position:	Northing:	437,785.10 usft
From:	Easting:	613,495.10 usft
Position Uncertainty:	Slot Radius:	13-3/16 "
	Latitude:	32° 12' 11.999 N
	Longitude:	104° 6' 0.151 W
	Grid Convergence:	0.12 °

Well	Creedence 21 16 W1ED St Com 1H	
Well Position	+N/-S	0.0 usft
	+E/-W	0.0 usft
Position Uncertainty	Wellhead Elevation:	28.0 usft
	Latitude:	32° 12' 11.990 N
	Longitude:	104° 6' 0.848 W
	Ground Level:	3,037.0 usft

Wellbore	Original Hole	
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	03/28/19	7.00	59.94	47,689.88674478

Design	Original Hole	
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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	0.18	

Survey Program	Date	05/28/19			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
393.0	16,945.0	MWD Survey (Original Hole)	MWD+IGRF	OWSG MWD + IGRF or WMM	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
393.0	1.90	312.10	392.7	5.8	-9.2	437,789.80	613,426.00	32° 12' 12.047 N	104° 6' 0.955 W	
469.0	2.80	310.00	468.6	7.8	-11.6	437,791.84	613,423.65	32° 12' 12.067 N	104° 6' 0.982 W	
556.0	0.40	308.20	555.6	9.4	-13.4	437,793.39	613,421.78	32° 12' 12.083 N	104° 6' 1.004 W	
750.0	1.10	76.00	749.6	10.3	-12.1	437,794.26	613,423.05	32° 12' 12.091 N	104° 6' 0.989 W	
939.0	2.00	134.50	938.5	8.4	-8.0	437,792.39	613,427.17	32° 12' 12.073 N	104° 6' 0.941 W	
1,128.0	1.90	127.60	1,127.4	4.2	-3.2	437,788.16	613,432.00	32° 12' 12.031 N	104° 6' 0.885 W	
1,317.0	3.40	188.20	1,316.2	-3.3	-1.5	437,780.70	613,433.69	32° 12' 11.957 N	104° 6' 0.866 W	
1,505.0	0.80	176.20	1,504.1	-10.1	-2.2	437,773.88	613,432.98	32° 12' 11.889 N	104° 6' 0.874 W	
1,696.0	1.20	201.60	1,695.1	-13.3	-2.9	437,770.69	613,432.33	32° 12' 11.858 N	104° 6' 0.882 W	
1,887.0	2.20	144.60	1,886.0	-18.2	-1.5	437,765.84	613,433.72	32° 12' 11.810 N	104° 6' 0.866 W	
2,076.0	2.60	166.80	2,074.8	-25.3	1.6	437,758.71	613,436.80	32° 12' 11.739 N	104° 6' 0.830 W	
2,266.0	2.90	184.30	2,264.6	-34.3	2.2	437,749.72	613,437.42	32° 12' 11.650 N	104° 6' 0.823 W	



Microsoft
Survey Report - Geographic



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Creedence 21 16 W1ED St Com 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Well:	Creedence 21 16 W1ED St Com 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
2,433.0	2.30	195.50	2,431.4	-41.7	1.0	437,742.28	613,436.21	32° 12' 11.577 N	104° 6' 0.837 W
2,492.0	1.90	205.40	2,490.4	-43.7	0.3	437,740.25	613,435.47	32° 12' 11.557 N	104° 6' 0.846 W
2,648.0	0.70	173.60	2,646.4	-47.0	-0.7	437,736.97	613,434.47	32° 12' 11.524 N	104° 6' 0.858 W
2,836.0	0.50	181.70	2,834.4	-49.0	-0.6	437,735.01	613,434.57	32° 12' 11.505 N	104° 6' 0.857 W
3,025.0	0.50	159.60	3,023.3	-50.6	-0.4	437,733.41	613,434.84	32° 12' 11.489 N	104° 6' 0.854 W
3,215.0	1.80	14.00	3,213.3	-48.5	0.6	437,735.53	613,435.85	32° 12' 11.510 N	104° 6' 0.842 W
3,405.0	1.70	7.90	3,403.2	-42.8	1.8	437,741.22	613,436.96	32° 12' 11.566 N	104° 6' 0.829 W
3,595.0	1.80	6.40	3,593.1	-37.0	2.5	437,746.97	613,437.68	32° 12' 11.623 N	104° 6' 0.820 W
3,784.0	1.80	1.30	3,782.0	-31.1	2.9	437,752.89	613,438.08	32° 12' 11.682 N	104° 6' 0.815 W
3,973.0	1.50	1.70	3,971.0	-25.7	3.0	437,758.33	613,438.22	32° 12' 11.736 N	104° 6' 0.814 W
4,163.0	1.30	354.50	4,160.9	-21.0	2.9	437,762.96	613,438.08	32° 12' 11.781 N	104° 6' 0.815 W
4,353.0	1.70	353.80	4,350.8	-16.1	2.4	437,767.91	613,437.57	32° 12' 11.830 N	104° 6' 0.821 W
4,543.0	1.30	350.90	4,540.8	-11.2	1.7	437,772.84	613,436.93	32° 12' 11.879 N	104° 6' 0.828 W
4,733.0	0.90	14.80	4,730.7	-7.6	1.8	437,776.41	613,436.97	32° 12' 11.914 N	104° 6' 0.828 W
4,922.0	1.50	17.40	4,919.7	-3.8	2.9	437,780.21	613,438.09	32° 12' 11.952 N	104° 6' 0.815 W
5,112.0	2.20	11.30	5,109.6	2.2	4.3	437,786.15	613,439.54	32° 12' 12.011 N	104° 6' 0.797 W
5,302.0	2.10	12.20	5,299.5	9.1	5.8	437,793.13	613,440.99	32° 12' 12.080 N	104° 6' 0.780 W
5,491.0	1.80	2.50	5,488.4	15.5	6.7	437,799.48	613,441.86	32° 12' 12.143 N	104° 6' 0.770 W
5,680.0	1.60	3.30	5,677.3	21.1	6.9	437,805.08	613,442.14	32° 12' 12.198 N	104° 6' 0.767 W
5,869.0	1.20	14.30	5,866.2	25.6	7.6	437,809.63	613,442.78	32° 12' 12.243 N	104° 6' 0.759 W
6,058.0	0.90	17.00	6,055.2	29.0	8.5	437,812.97	613,443.70	32° 12' 12.276 N	104° 6' 0.748 W
6,248.0	1.90	20.20	6,245.1	33.4	10.0	437,817.36	613,445.22	32° 12' 12.319 N	104° 6' 0.731 W
6,437.0	2.40	10.60	6,434.0	40.2	11.8	437,824.19	613,447.03	32° 12' 12.387 N	104° 6' 0.709 W
6,626.0	1.40	283.40	6,622.9	44.6	10.3	437,828.61	613,445.52	32° 12' 12.431 N	104° 6' 0.727 W
6,815.0	1.80	298.60	6,811.8	46.6	5.5	437,830.57	613,440.66	32° 12' 12.450 N	104° 6' 0.783 W
7,004.0	2.20	25.60	7,000.8	51.3	4.4	437,835.26	613,439.63	32° 12' 12.497 N	104° 6' 0.795 W
7,193.0	1.60	20.60	7,189.7	57.0	6.9	437,841.00	613,442.12	32° 12' 12.554 N	104° 6' 0.766 W
7,382.0	1.10	54.60	7,378.6	60.5	9.3	437,844.52	613,444.53	32° 12' 12.588 N	104° 6' 0.738 W
7,571.0	0.50	3.20	7,567.6	62.4	10.8	437,846.40	613,446.05	32° 12' 12.607 N	104° 6' 0.720 W
7,760.0	0.90	52.60	7,756.6	64.1	12.1	437,848.12	613,447.28	32° 12' 12.624 N	104° 6' 0.706 W
7,949.0	2.00	57.20	7,945.5	66.8	16.0	437,850.81	613,451.23	32° 12' 12.650 N	104° 6' 0.660 W
8,139.0	2.20	30.30	8,135.4	71.8	20.7	437,855.76	613,455.86	32° 12' 12.699 N	104° 6' 0.606 W
8,329.0	2.30	11.50	8,325.3	78.6	23.3	437,862.64	613,458.46	32° 12' 12.767 N	104° 6' 0.575 W
8,518.0	2.20	22.80	8,514.1	85.7	25.4	437,869.70	613,460.62	32° 12' 12.837 N	104° 6' 0.550 W
8,707.0	1.20	17.20	8,703.0	90.9	27.4	437,874.94	613,462.61	32° 12' 12.889 N	104° 6' 0.527 W
8,897.0	1.40	318.90	8,893.0	94.6	26.5	437,878.59	613,461.67	32° 12' 12.925 N	104° 6' 0.538 W
9,004.2	1.67	318.46	9,000.2	96.7	24.6	437,880.74	613,459.77	32° 12' 12.946 N	104° 6' 0.560 W
B.B. Creedence 21 16 W2ED St Com 1H									
9,054.0	1.80	318.30	9,049.9	97.9	23.6	437,881.87	613,458.77	32° 12' 12.958 N	104° 6' 0.571 W
9,103.0	2.60	327.20	9,098.9	99.4	22.5	437,883.38	613,457.66	32° 12' 12.973 N	104° 6' 0.584 W
9,135.0	6.00	345.60	9,130.8	101.6	21.6	437,885.61	613,456.85	32° 12' 12.995 N	104° 6' 0.594 W
9,166.0	10.80	351.00	9,161.5	106.1	20.8	437,890.05	613,455.99	32° 12' 13.039 N	104° 6' 0.603 W
9,197.0	15.20	349.00	9,191.6	112.9	19.6	437,896.91	613,454.76	32° 12' 13.107 N	104° 6' 0.618 W
9,228.0	17.90	349.10	9,221.4	121.6	17.9	437,905.58	613,453.08	32° 12' 13.192 N	104° 6' 0.637 W
9,260.0	20.50	352.70	9,251.6	132.0	16.2	437,915.97	613,451.44	32° 12' 13.295 N	104° 6' 0.656 W
9,291.0	24.40	355.50	9,280.2	143.7	15.0	437,927.74	613,450.25	32° 12' 13.412 N	104° 6' 0.669 W
9,323.0	27.50	356.50	9,309.0	157.7	14.1	437,941.71	613,449.28	32° 12' 13.550 N	104° 6' 0.680 W
9,354.0	29.60	358.40	9,336.2	172.5	13.4	437,956.51	613,448.63	32° 12' 13.696 N	104° 6' 0.687 W
9,385.0	33.40	0.50	9,362.7	188.7	13.3	437,972.70	613,448.49	32° 12' 13.857 N	104° 6' 0.689 W
9,417.0	36.60	3.10	9,388.9	207.0	13.9	437,991.04	613,449.08	32° 12' 14.038 N	104° 6' 0.681 W
9,448.0	38.30	3.20	9,413.5	225.9	14.9	438,009.86	613,450.12	32° 12' 14.224 N	104° 6' 0.669 W
9,480.0	41.20	3.50	9,438.1	246.3	16.1	438,030.29	613,451.31	32° 12' 14.426 N	104° 6' 0.654 W
9,512.0	43.80	3.50	9,461.7	267.9	17.4	438,051.86	613,452.63	32° 12' 14.640 N	104° 6' 0.638 W
9,543.0	45.80	3.50	9,483.7	289.7	18.8	438,073.66	613,453.97	32° 12' 14.856 N	104° 6' 0.622 W
9,574.0	48.10	2.60	9,504.8	312.3	20.0	438,096.28	613,455.17	32° 12' 15.080 N	104° 6' 0.608 W



Microsoft
Survey Report - Geographic



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Creedence 21 16 W1ED St Com 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Well:	Creedence 21 16 W1ED St Com 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,606.0	50.20	2.00	9,525.8	336.5	20.9	438,120.47	613,456.14	32° 12' 15.319 N	104° 6' 0.596 W
9,638.0	52.20	2.70	9,545.8	361.4	22.0	438,145.38	613,457.16	32° 12' 15.565 N	104° 6' 0.583 W
9,670.0	55.30	2.20	9,564.7	387.2	23.1	438,171.16	613,458.26	32° 12' 15.820 N	104° 6' 0.570 W
9,701.0	58.40	0.70	9,581.7	413.1	23.7	438,197.11	613,458.91	32° 12' 16.077 N	104° 6' 0.562 W
9,733.0	62.10	359.10	9,597.5	440.9	23.7	438,224.88	613,458.86	32° 12' 16.352 N	104° 6' 0.562 W
9,765.0	65.80	358.60	9,611.6	469.6	23.1	438,253.62	613,458.28	32° 12' 16.636 N	104° 6' 0.568 W
9,796.0	69.90	359.00	9,623.3	498.3	22.5	438,282.32	613,457.68	32° 12' 16.920 N	104° 6' 0.574 W
9,828.0	73.20	359.60	9,633.4	528.7	22.1	438,312.67	613,457.31	32° 12' 17.221 N	104° 6' 0.577 W
9,839.0	74.20	359.80	9,636.5	539.2	22.1	438,323.23	613,457.26	32° 12' 17.325 N	104° 6' 0.578 W
9,868.0	77.00	0.50	9,643.7	567.3	22.1	438,351.31	613,457.33	32° 12' 17.603 N	104° 6' 0.576 W
9,900.0	79.40	0.60	9,650.3	598.6	22.4	438,382.63	613,457.63	32° 12' 17.913 N	104° 6' 0.572 W
9,931.0	81.50	0.50	9,655.4	629.2	22.7	438,413.20	613,457.92	32° 12' 18.216 N	104° 6' 0.568 W
9,963.0	82.00	0.30	9,660.0	660.9	22.9	438,444.87	613,458.15	32° 12' 18.529 N	104° 6' 0.564 W
9,994.0	82.40	0.20	9,664.2	691.6	23.1	438,475.58	613,458.28	32° 12' 18.833 N	104° 6' 0.562 W
10,026.0	84.00	0.30	9,668.0	723.4	23.2	438,507.35	613,458.42	32° 12' 19.147 N	104° 6' 0.560 W
10,057.0	85.00	0.30	9,671.0	754.2	23.4	438,538.21	613,458.58	32° 12' 19.453 N	104° 6' 0.557 W
10,152.0	90.70	0.40	9,674.5	849.1	24.0	438,633.10	613,459.16	32° 12' 20.392 N	104° 6' 0.548 W
10,246.0	93.10	0.60	9,671.4	943.0	24.8	438,727.04	613,459.98	32° 12' 21.321 N	104° 6' 0.536 W
10,340.0	90.90	359.10	9,668.1	1,037.0	24.5	438,820.97	613,459.73	32° 12' 22.251 N	104° 6' 0.536 W
10,435.0	89.30	359.10	9,668.0	1,132.0	23.0	438,915.96	613,458.24	32° 12' 23.191 N	104° 6' 0.551 W
10,529.0	86.20	359.40	9,671.6	1,225.9	21.8	439,009.87	613,457.01	32° 12' 24.120 N	104° 6' 0.563 W
10,623.0	86.00	359.70	9,678.0	1,319.6	21.1	439,103.65	613,456.27	32° 12' 25.048 N	104° 6' 0.569 W
10,718.0	88.60	0.70	9,682.5	1,414.5	21.4	439,198.53	613,456.61	32° 12' 25.987 N	104° 6' 0.563 W
10,812.0	90.90	0.80	9,682.9	1,508.5	22.6	439,292.52	613,457.84	32° 12' 26.917 N	104° 6' 0.546 W
10,908.0	88.60	0.70	9,683.3	1,604.5	23.9	439,388.50	613,459.09	32° 12' 27.867 N	104° 6' 0.529 W
11,002.0	89.70	1.70	9,684.7	1,698.5	25.9	439,482.47	613,461.06	32° 12' 28.797 N	104° 6' 0.504 W
11,096.0	90.30	2.10	9,684.7	1,792.4	29.0	439,576.41	613,464.18	32° 12' 29.727 N	104° 6' 0.466 W
11,190.0	89.20	1.60	9,685.1	1,886.4	32.0	439,670.36	613,467.21	32° 12' 30.656 N	104° 6' 0.428 W
11,285.0	90.00	2.10	9,685.8	1,981.3	35.1	439,765.31	613,470.28	32° 12' 31.596 N	104° 6' 0.390 W
11,380.0	89.50	2.00	9,686.2	2,076.2	38.5	439,860.25	613,473.68	32° 12' 32.535 N	104° 6' 0.348 W
11,474.0	89.50	2.60	9,687.0	2,170.2	42.2	439,954.17	613,477.45	32° 12' 33.465 N	104° 6' 0.301 W
11,569.0	93.50	1.90	9,684.6	2,265.0	46.0	440,049.04	613,481.18	32° 12' 34.403 N	104° 6' 0.256 W
11,663.0	90.60	0.80	9,681.2	2,358.9	48.2	440,142.94	613,483.39	32° 12' 35.333 N	104° 6' 0.228 W
11,757.0	91.30	1.10	9,679.6	2,452.9	49.7	440,236.92	613,484.95	32° 12' 36.263 N	104° 6' 0.207 W
11,852.0	90.00	0.30	9,678.6	2,547.9	50.9	440,331.90	613,486.11	32° 12' 37.203 N	104° 6' 0.191 W
11,946.0	89.50	0.10	9,679.0	2,641.9	51.2	440,425.90	613,486.44	32° 12' 38.133 N	104° 6' 0.185 W
12,039.0	88.70	359.10	9,680.4	2,734.9	50.6	440,518.88	613,485.79	32° 12' 39.053 N	104° 6' 0.190 W
12,133.0	90.50	359.10	9,681.1	2,828.9	49.1	440,612.87	613,484.31	32° 12' 39.983 N	104° 6' 0.205 W
12,227.0	89.80	359.30	9,680.8	2,922.9	47.8	440,706.86	613,483.00	32° 12' 40.913 N	104° 6' 0.218 W
12,321.0	89.80	359.80	9,681.2	3,016.9	47.1	440,800.85	613,482.26	32° 12' 41.843 N	104° 6' 0.224 W
12,417.0	88.90	359.90	9,682.3	3,112.8	46.8	440,896.85	613,482.01	32° 12' 42.793 N	104° 6' 0.225 W
12,511.0	89.00	0.00	9,684.0	3,206.8	46.7	440,990.83	613,481.93	32° 12' 43.723 N	104° 6' 0.223 W
12,606.0	90.50	359.10	9,684.4	3,301.8	46.0	441,085.82	613,481.18	32° 12' 44.663 N	104° 6' 0.229 W
12,700.0	91.20	359.50	9,683.0	3,395.8	44.8	441,179.80	613,480.03	32° 12' 45.594 N	104° 6' 0.240 W
12,794.0	94.10	1.20	9,678.7	3,489.7	45.4	441,273.69	613,480.61	32° 12' 46.523 N	104° 6' 0.231 W
12,888.0	90.40	359.50	9,675.0	3,583.6	46.0	441,367.59	613,481.18	32° 12' 47.452 N	104° 6' 0.222 W
12,983.0	90.60	359.20	9,674.1	3,678.6	44.9	441,462.58	613,480.10	32° 12' 48.392 N	104° 6' 0.233 W
13,078.0	85.50	358.60	9,677.4	3,773.5	43.1	441,557.48	613,478.28	32° 12' 49.331 N	104° 6' 0.251 W
13,173.0	88.40	358.70	9,682.4	3,868.3	40.8	441,652.31	613,476.04	32° 12' 50.270 N	104° 6' 0.275 W
13,266.0	89.60	359.70	9,684.0	3,961.3	39.5	441,745.28	613,474.75	32° 12' 51.190 N	104° 6' 0.288 W
13,361.0	89.20	0.20	9,685.0	4,056.3	39.5	441,840.28	613,474.66	32° 12' 52.130 N	104° 6' 0.286 W
13,455.0	88.90	359.30	9,686.6	4,150.3	39.0	441,934.26	613,474.25	32° 12' 53.060 N	104° 6' 0.289 W
13,550.0	94.10	0.50	9,684.1	4,245.2	38.9	442,029.19	613,474.09	32° 12' 53.999 N	104° 6' 0.288 W
13,645.0	92.20	1.70	9,678.9	4,340.0	40.7	442,124.03	613,475.91	32° 12' 54.938 N	104° 6' 0.265 W
13,738.0	89.80	0.20	9,677.3	4,433.0	42.2	442,216.99	613,477.45	32° 12' 55.858 N	104° 6' 0.244 W



Microsoft
Survey Report - Geographic



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Creedence 21 16 W1ED St Com 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3037 +28 @ 3065.0usft (Patterson 231)
Well:	Creedence 21 16 W1ED St Com 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,833.0	87.60	0.00	9,679.4	4,528.0	42.4	442,311.96	613,477.61	32° 12' 56.797 N	104° 6' 0.240 W
13,927.0	89.70	359.80	9,681.6	4,621.9	42.2	442,405.93	613,477.45	32° 12' 57.727 N	104° 6' 0.240 W
14,021.0	89.30	359.40	9,682.5	4,715.9	41.6	442,499.92	613,476.79	32° 12' 58.657 N	104° 6' 0.245 W
14,116.0	87.40	358.70	9,685.2	4,810.9	40.0	442,594.87	613,475.22	32° 12' 59.597 N	104° 6' 0.261 W
14,210.0	90.80	0.40	9,686.7	4,904.8	39.3	442,688.83	613,474.48	32° 13' 0.527 N	104° 6' 0.267 W
14,304.0	91.10	1.40	9,685.1	4,998.8	40.8	442,782.81	613,475.96	32° 13' 1.457 N	104° 6' 0.247 W
14,399.0	90.50	2.50	9,683.8	5,093.7	44.0	442,877.74	613,479.19	32° 13' 2.396 N	104° 6' 0.207 W
14,493.0	90.40	359.60	9,683.0	5,187.7	45.7	442,971.71	613,480.91	32° 13' 3.326 N	104° 6' 0.185 W
14,588.0	89.70	0.60	9,683.0	5,282.7	45.9	443,066.71	613,481.08	32° 13' 4.266 N	104° 6' 0.181 W
14,682.0	87.20	0.10	9,685.5	5,376.7	46.4	443,160.67	613,481.65	32° 13' 5.196 N	104° 6' 0.172 W
14,777.0	88.80	359.10	9,688.8	5,471.6	45.8	443,255.60	613,480.99	32° 13' 6.136 N	104° 6' 0.177 W
14,871.0	90.20	359.10	9,689.6	5,565.6	44.3	443,349.59	613,479.51	32° 13' 7.066 N	104° 6' 0.192 W
14,966.0	87.80	357.70	9,691.3	5,660.5	41.7	443,444.52	613,476.86	32° 13' 8.005 N	104° 6' 0.220 W
15,061.0	92.10	358.80	9,691.4	5,755.5	38.8	443,539.46	613,473.96	32° 13' 8.945 N	104° 6' 0.252 W
15,156.0	92.00	358.10	9,688.0	5,850.4	36.2	443,634.36	613,471.39	32° 13' 9.884 N	104° 6' 0.279 W
15,250.0	92.00	358.00	9,684.7	5,944.2	33.0	443,728.25	613,468.20	32° 13' 10.813 N	104° 6' 0.314 W
15,345.0	91.30	358.00	9,682.0	6,039.2	29.7	443,823.15	613,464.88	32° 13' 11.752 N	104° 6' 0.350 W
15,439.0	93.90	0.20	9,677.7	6,133.0	28.2	443,917.03	613,463.41	32° 13' 12.681 N	104° 6' 0.365 W
15,534.0	89.70	0.70	9,674.7	6,228.0	28.9	444,011.96	613,464.15	32° 13' 13.621 N	104° 6' 0.354 W
15,629.0	89.50	1.10	9,675.4	6,322.9	30.4	444,106.94	613,465.64	32° 13' 14.561 N	104° 6' 0.334 W
15,723.0	90.10	1.40	9,675.7	6,416.9	32.5	444,200.92	613,467.70	32° 13' 15.491 N	104° 6' 0.308 W
15,818.0	88.40	2.70	9,677.0	6,511.8	35.9	444,295.85	613,471.09	32° 13' 16.430 N	104° 6' 0.266 W
15,913.0	86.60	1.10	9,681.1	6,606.7	39.0	444,390.70	613,474.24	32° 13' 17.369 N	104° 6' 0.227 W
16,007.0	88.30	0.40	9,685.3	6,700.6	40.3	444,484.59	613,475.47	32° 13' 18.298 N	104° 6' 0.210 W
16,102.0	90.50	359.80	9,686.3	6,795.6	40.4	444,579.58	613,475.63	32° 13' 19.238 N	104° 6' 0.206 W
16,197.0	90.60	359.50	9,685.4	6,890.6	39.9	444,674.57	613,475.05	32° 13' 20.178 N	104° 6' 0.210 W
16,291.0	87.90	357.70	9,686.6	6,984.5	37.6	444,768.52	613,472.76	32° 13' 21.108 N	104° 6' 0.234 W
16,386.0	91.60	358.80	9,687.0	7,079.5	34.7	444,863.46	613,469.86	32° 13' 22.047 N	104° 6' 0.266 W
16,480.0	92.10	357.70	9,684.0	7,173.4	31.8	444,957.37	613,466.99	32° 13' 22.977 N	104° 6' 0.297 W
16,575.0	93.00	358.00	9,679.7	7,268.2	28.2	445,052.20	613,463.43	32° 13' 23.915 N	104° 6' 0.336 W
16,670.0	90.20	359.60	9,677.1	7,363.1	26.2	445,147.13	613,461.44	32° 13' 24.855 N	104° 6' 0.357 W
16,764.0	88.80	359.40	9,677.9	7,457.1	25.4	445,241.12	613,460.62	32° 13' 25.785 N	104° 6' 0.364 W
16,858.0	89.80	0.10	9,679.1	7,551.1	25.0	445,335.11	613,460.21	32° 13' 26.715 N	104° 6' 0.366 W
16,889.0	88.30	359.40	9,679.6	7,582.1	24.9	445,366.11	613,460.08	32° 13' 27.022 N	104° 6' 0.367 W
16,945.0	88.30	359.40	9,681.2	7,638.1	24.3	445,422.08	613,459.49	32° 13' 27.576 N	104° 6' 0.372 W

16945.0' MD Projected to Bit - PBHL Creedence 21 16 W1ED St Com 1H

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
16,945.0	9,681.2	7,638.1	24.3	16945.0' MD Projected to Bit