



HOBBS OCD

MAY 15 2019

RECEIVED

RECEIVED

MAY 02 2019

DISTRICT II-ARTESIA O.C.D.



30-085-44341

Verna Rae Fed No. 133H

Lea County, NM

November 12, 2018

Job No. LNM5186518

ORIGINAL

Certified Report



PRODIRECTIONAL

Survey Certification Letter

November 12, 2018



Operator Name: Matador Resources
Well Name: Verna Rae Fed No. 133H
County/Parish: Lea County,
State: NM
Rig Name: Patterson 809
Job Number: LNM5186518

This is to certify the surveys performed on the referenced well by Professional Directional Ent., Inc. are true and correct MWD Surveys, data provided as follows:

<u>Surveyor</u>	<u>Surveyed Depths</u>	<u>Projection to Bit</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
ProDirectional	171' MD – 15,690' MD	15,752' MD	09/29/18 – 10/20/18	MWD-OWSG

Sincerely,

Mike Coats
Regulatory Specialist
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266

prodirectional.com

The Standard of Excellence in Directional Supervision



Matador Resources

Lea County, NM

Verna Rae Fed

No. 133H

OH

Survey: ProDirectional

Survey Report

12 November, 2018





ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 133H
Wellbore: OH
Design: MWD-171'-15690', Proj. 15752'

Local Co-ordinate Reference: Well No. 133H
TVD Reference: Well @ 3648.50usft
MD Reference: Well @ 3648.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Project	Lea County, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Verna Rae Fed		
Site Position:		Northing: 585,985.00 usft	Latitude: 32.608764
From: Map		Easting: 768,196.00 usft	Longitude: -103.596603
Position Uncertainty: 0.00 usft		Slot Radius: 13-3/16 "	Grid Convergence: 0.40 °

Well	No. 133H		
Well Position	+N/-S 0.00 usft	Northing: 585,985.00 usft	Latitude: 32.608764
	+E/-W 0.00 usft	Easting: 768,196.00 usft	Longitude: -103.596603
Position Uncertainty	0.00 usft	Wellhead Elevation: usft	Ground Level: 3,620.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/26/2018	6.67	60.55	48,225.80

Design		MWD-171'-15690', Proj. 15752'		
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.95

Survey Program	Date 11/12/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
171.00	15,752.00	Survey #1 (OH)	MWD+HDGM	OWSG MWD + HRGM



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 133H
Wellbore: OH
Design: MWD-171'-15690', Proj. 15752'

Local Co-ordinate Reference: Well No. 133H
TVD Reference: Well @ 3648.50usft
MD Reference: Well @ 3648.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	585,985.00	768,196.00
171.00	0.30	214.30	171.00	0.37	-0.37	-0.25	0.45	214.30	585,984.63	768,195.75
Pro MWD First Survey: 171' MD										
326.00	0.40	199.90	326.00	1.21	-1.21	-0.67	1.38	208.72	585,983.79	768,195.33
419.00	0.40	350.40	419.00	1.20	-1.20	-0.83	1.46	214.69	585,983.80	768,195.17
512.00	1.90	350.80	511.97	-0.64	0.64	-1.13	1.30	299.64	585,985.64	768,194.87
601.00	3.30	358.70	600.88	-4.66	4.66	-1.42	4.87	343.01	585,989.66	768,194.58
692.00	3.30	352.40	691.73	-9.88	9.88	-1.83	10.04	349.50	585,994.88	768,194.17
782.00	3.00	349.70	781.59	-14.76	14.76	-2.59	14.99	350.03	585,999.76	768,193.41
871.00	2.60	346.00	870.49	-19.01	19.01	-3.50	19.33	349.57	586,004.01	768,192.50
962.00	2.90	359.40	961.38	-23.32	23.31	-4.02	23.66	350.21	586,008.31	768,191.98
1,056.00	3.00	353.10	1,055.26	-28.14	28.13	-4.34	28.47	351.23	586,013.13	768,191.66
1,149.00	2.00	358.80	1,148.17	-32.18	32.17	-4.67	32.51	351.74	586,017.17	768,191.33
1,243.00	2.00	352.20	1,242.11	-35.44	35.44	-4.93	35.78	352.09	586,020.44	768,191.07
1,337.00	1.70	359.90	1,336.06	-38.46	38.46	-5.15	38.80	352.37	586,023.46	768,190.85
1,430.00	1.70	349.90	1,429.02	-41.20	41.20	-5.40	41.55	352.54	586,026.20	768,190.60
1,535.00	1.60	347.50	1,533.98	-44.16	44.16	-5.99	44.56	352.28	586,029.16	768,190.01
1,711.00	1.10	354.60	1,709.93	-48.25	48.24	-6.68	48.70	352.12	586,033.24	768,189.32
1,805.00	2.50	351.40	1,803.88	-51.17	51.17	-7.07	51.65	352.14	586,036.17	768,188.93
1,898.00	5.00	343.60	1,896.68	-57.07	57.06	-8.52	57.69	351.51	586,042.06	768,187.48
1,992.00	7.70	339.80	1,990.09	-66.91	66.90	-11.85	67.94	349.96	586,051.90	768,184.15
2,085.00	7.60	340.50	2,082.26	-78.56	78.55	-16.05	80.17	348.45	586,063.55	768,179.95
2,178.00	7.80	325.80	2,174.43	-89.58	89.56	-21.65	92.14	346.41	586,074.56	768,174.35
2,272.00	8.50	319.20	2,267.49	-100.12	100.10	-29.78	104.43	343.43	586,085.10	768,166.22
2,365.00	7.30	303.60	2,359.61	-108.61	108.57	-39.19	115.43	340.15	586,093.57	768,156.81
2,459.00	6.70	276.20	2,452.94	-112.51	112.47	-49.62	122.93	336.19	586,097.47	768,146.38
2,552.00	6.60	268.50	2,545.31	-112.97	112.92	-60.36	128.04	331.87	586,097.92	768,135.64



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 133H
Wellbore: OH
Design: MWD-171'-15690', Proj. 15752'

Local Co-ordinate Reference: Well No. 133H
TVD Reference: Well @ 3648.50usft
MD Reference: Well @ 3648.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
2,646.00	6.10	270.80	2,638.74	-112.91	112.85	-70.75	133.19	327.91	586,097.85	768,125.25
2,739.00	5.80	271.40	2,731.23	-113.10	113.03	-80.39	138.70	324.58	586,098.03	768,115.61
2,833.00	5.10	274.10	2,824.81	-113.52	113.44	-89.30	144.38	321.79	586,098.44	768,106.70
2,926.00	4.50	276.40	2,917.48	-114.23	114.15	-97.05	149.83	319.63	586,099.15	768,098.95
3,020.00	3.70	275.90	3,011.24	-114.96	114.87	-103.73	154.78	317.92	586,099.87	768,092.27
3,113.00	4.70	268.00	3,103.99	-115.14	115.04	-110.53	159.54	316.15	586,100.04	768,085.47
3,207.00	8.00	270.30	3,197.40	-115.05	114.94	-120.92	166.84	313.55	586,099.94	768,075.08
3,300.00	9.10	272.90	3,289.37	-115.47	115.35	-134.74	177.37	310.57	586,100.35	768,061.26
3,394.00	8.50	273.70	3,382.26	-116.30	116.17	-149.09	189.01	307.93	586,101.17	768,046.91
3,487.00	8.10	272.80	3,474.29	-117.08	116.94	-162.50	200.20	305.74	586,101.94	768,033.50
3,580.00	7.60	273.30	3,566.41	-117.77	117.61	-175.18	211.00	303.88	586,102.61	768,020.82
3,674.00	7.20	273.70	3,659.63	-118.51	118.35	-187.26	221.53	302.29	586,103.35	768,008.74
3,767.00	6.60	275.60	3,751.96	-119.42	119.25	-198.40	231.48	301.01	586,104.25	767,997.60
3,861.00	7.60	273.90	3,845.24	-120.38	120.20	-209.98	241.95	299.79	586,105.20	767,986.02
3,954.00	8.70	272.50	3,937.29	-121.12	120.92	-223.14	253.80	298.45	586,105.92	767,972.86
4,048.00	8.50	273.10	4,030.24	-121.82	121.61	-237.18	266.54	297.15	586,106.61	767,958.82
4,141.00	8.40	275.70	4,122.23	-122.87	122.66	-250.80	279.19	296.06	586,107.66	767,945.20
4,235.00	8.10	276.60	4,215.26	-124.33	124.10	-264.21	291.91	295.16	586,109.10	767,931.79
4,328.00	8.30	275.00	4,307.31	-125.68	125.44	-277.41	304.45	294.33	586,110.44	767,918.59
4,422.00	8.10	275.90	4,400.34	-126.96	126.71	-290.76	317.17	293.55	586,111.71	767,905.24
4,516.00	7.80	277.50	4,493.44	-128.49	128.22	-303.67	329.63	292.89	586,113.22	767,892.33
4,609.00	7.60	277.80	4,585.60	-130.16	129.88	-316.02	341.67	292.34	586,114.88	767,879.98
4,703.00	7.60	277.70	4,678.78	-131.84	131.56	-328.34	353.71	291.83	586,116.56	767,867.66
4,797.00	7.60	278.10	4,771.95	-133.56	133.27	-340.65	365.79	291.37	586,118.27	767,855.35
4,890.00	7.40	278.00	4,864.15	-135.27	134.97	-352.67	377.61	290.94	586,119.97	767,843.33
4,983.00	7.30	279.60	4,956.39	-137.10	136.78	-364.42	389.25	290.57	586,121.78	767,831.58
5,077.00	7.40	278.50	5,049.62	-139.00	138.67	-376.30	401.04	290.23	586,123.67	767,819.70



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 133H
Wellbore: OH
Design: MWD-171'-15690', Proj. 15752'

Local Co-ordinate Reference: Well No. 133H
TVD Reference: Well @ 3648.50usft
MD Reference: Well @ 3648.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
5,170.00	7.40	279.10	5,141.84	-140.85	140.51	-388.14	412.79	289.90	586,125.51	767,807.86
5,264.00	7.30	277.00	5,235.07	-142.54	142.19	-400.04	424.56	289.57	586,127.19	767,795.96
5,349.00	7.10	276.40	5,319.40	-143.79	143.44	-410.62	434.95	289.26	586,128.44	767,785.38
5,448.00	6.30	251.70	5,417.74	-142.78	142.41	-421.86	445.25	288.65	586,127.41	767,774.14
5,542.00	6.10	276.30	5,511.21	-141.72	141.34	-431.72	454.27	288.13	586,126.34	767,764.28
5,635.00	5.90	276.50	5,603.70	-142.81	142.42	-441.39	463.79	287.88	586,127.42	767,754.61
5,729.00	5.40	273.50	5,697.25	-143.63	143.24	-450.60	472.82	287.63	586,128.24	767,745.40
5,822.00	5.10	272.30	5,789.85	-144.07	143.67	-459.10	481.05	287.38	586,128.67	767,736.90
5,915.00	5.00	251.70	5,882.50	-142.97	142.57	-467.08	488.35	286.97	586,127.57	767,728.92
6,009.00	4.80	271.20	5,976.16	-141.78	141.36	-474.90	495.49	286.58	586,126.36	767,721.10
6,102.00	4.80	273.20	6,068.84	-142.08	141.66	-482.67	503.03	286.36	586,126.66	767,713.33
6,195.00	4.70	270.50	6,161.52	-142.34	141.91	-490.37	510.49	286.14	586,126.91	767,705.63
6,289.00	4.40	269.30	6,255.22	-142.34	141.90	-497.83	517.65	285.91	586,126.90	767,698.17
6,383.00	4.40	269.80	6,348.95	-142.29	141.85	-505.04	524.58	285.69	586,126.85	767,690.96
6,476.00	4.20	265.60	6,441.68	-142.02	141.57	-512.00	531.21	285.46	586,126.57	767,684.00
6,569.00	3.00	307.10	6,534.51	-143.23	142.78	-517.34	536.68	285.43	586,127.78	767,678.66
6,663.00	1.90	228.70	6,628.45	-143.69	143.23	-520.47	539.82	285.39	586,128.23	767,675.53
6,756.00	1.90	219.40	6,721.40	-141.48	141.03	-522.61	541.30	285.10	586,126.03	767,673.39
6,850.00	1.90	213.00	6,815.35	-138.97	138.51	-524.45	542.43	284.79	586,123.51	767,671.55
6,943.00	1.80	314.10	6,908.32	-138.70	138.24	-526.33	544.19	284.72	586,123.24	767,669.67
7,036.00	2.20	326.00	7,001.26	-141.20	140.73	-528.38	546.80	284.91	586,125.73	767,667.62
7,130.00	2.10	318.50	7,095.19	-143.98	143.52	-530.53	549.60	285.14	586,128.52	767,665.47
7,223.00	1.90	301.10	7,188.14	-146.06	145.59	-532.98	552.51	285.28	586,130.59	767,663.02
7,317.00	1.70	295.60	7,282.09	-147.47	147.00	-535.57	555.38	285.35	586,132.00	767,660.43
7,411.00	1.90	298.80	7,376.05	-148.82	148.35	-538.20	558.27	285.41	586,133.35	767,657.80
7,505.00	1.70	302.20	7,470.00	-150.32	149.85	-540.74	561.12	285.49	586,134.85	767,655.26
7,599.00	1.60	294.10	7,563.96	-151.60	151.13	-543.12	563.75	285.55	586,136.13	767,652.88



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 133H
Wellbore: OH
Design: MWD-171'-15690', Proj. 15752'

Local Co-ordinate Reference: Well No. 133H
TVD Reference: Well @ 3648.50usft
MD Reference: Well @ 3648.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
7,693.00	1.90	296.00	7,657.92	-152.82	152.34	-545.72	566.58	285.60	586,137.34	767,650.28
7,786.00	1.50	293.90	7,750.88	-153.99	153.51	-548.22	569.30	285.64	586,138.51	767,647.78
7,880.00	1.40	334.50	7,844.85	-155.53	155.05	-549.83	571.28	285.75	586,140.05	767,646.17
7,974.00	1.50	356.10	7,938.82	-157.79	157.31	-550.41	572.45	285.95	586,142.31	767,645.59
8,067.00	1.70	350.10	8,031.78	-160.37	159.89	-550.73	573.47	286.19	586,144.89	767,645.27
8,160.00	1.60	345.40	8,124.74	-162.98	162.50	-551.30	574.75	286.42	586,147.50	767,644.70
8,253.00	1.20	335.40	8,217.72	-165.12	164.64	-552.03	576.06	286.61	586,149.64	767,643.97
8,347.00	1.00	343.10	8,311.70	-166.80	166.32	-552.68	577.16	286.75	586,151.32	767,643.32
8,440.00	0.90	1.80	8,404.69	-168.31	167.83	-552.89	577.80	286.89	586,152.83	767,643.11
8,534.00	1.10	309.20	8,498.67	-169.62	169.14	-553.57	578.83	286.99	586,154.14	767,642.43
8,627.00	0.60	44.30	8,591.67	-170.53	170.05	-553.92	579.43	287.07	586,155.05	767,642.08
8,721.00	0.60	83.30	8,685.66	-170.94	170.46	-553.09	578.76	287.13	586,155.46	767,642.91
8,814.00	1.00	74.00	8,778.65	-171.22	170.74	-551.82	577.63	287.19	586,155.74	767,644.18
8,907.00	0.50	64.90	8,871.64	-171.62	171.14	-550.68	576.65	287.26	586,156.14	767,645.32
9,000.00	0.50	213.80	8,964.64	-171.45	170.97	-550.53	576.47	287.25	586,155.97	767,645.47
9,094.00	0.30	173.20	9,058.64	-170.87	170.39	-550.73	576.49	287.19	586,155.39	767,645.27
9,188.00	0.40	129.50	9,152.64	-170.41	169.93	-550.45	576.08	287.16	586,154.93	767,645.55
9,281.00	0.70	137.10	9,245.63	-169.79	169.31	-549.81	575.29	287.12	586,154.31	767,646.19
9,374.00	1.10	126.30	9,338.62	-168.84	168.37	-548.71	573.96	287.06	586,153.37	767,647.29
9,468.00	1.40	133.00	9,432.60	-167.53	167.05	-547.14	572.07	286.98	586,152.05	767,648.86
9,561.00	1.50	141.70	9,525.57	-165.79	165.32	-545.55	570.05	286.86	586,150.32	767,650.45
9,655.00	1.80	145.40	9,619.53	-163.61	163.14	-543.95	567.89	286.69	586,148.14	767,652.05
9,748.00	1.60	143.40	9,712.49	-161.37	160.89	-542.35	565.71	286.52	586,145.89	767,653.65
9,842.00	1.20	137.20	9,806.46	-159.59	159.12	-540.90	563.82	286.39	586,144.12	767,655.10
9,935.00	1.50	134.10	9,899.44	-158.03	157.56	-539.36	561.90	286.28	586,142.56	767,656.64
10,029.00	1.60	136.70	9,993.40	-156.21	155.74	-537.58	559.69	286.16	586,140.74	767,658.42
10,123.00	1.40	138.90	10,087.37	-154.39	153.92	-535.92	557.59	286.02	586,138.92	767,660.08



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 133H
Wellbore: OH
Design: MWD-171'-15690', Proj. 15752'

Local Co-ordinate Reference: Well No. 133H
TVD Reference: Well @ 3648.50usft
MD Reference: Well @ 3648.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
10,216.00	1.20	120.20	10,180.35	-153.04	152.58	-534.34	555.69	285.94	586,137.58	767,661.66
10,255.00	1.40	119.00	10,219.34	-152.61	152.14	-533.57	554.83	285.91	586,137.14	767,662.43
10,312.00	1.50	129.90	10,276.32	-151.79	151.33	-532.39	553.47	285.87	586,136.33	767,663.61
10,359.00	6.40	155.30	10,323.19	-149.01	148.55	-530.82	551.21	285.63	586,133.55	767,665.18
10,406.00	12.40	161.30	10,369.54	-141.84	141.38	-528.10	546.70	284.99	586,126.38	767,667.90
10,500.00	19.40	166.90	10,459.90	-117.04	116.59	-521.32	534.20	282.61	586,101.59	767,674.68
10,593.00	26.30	178.00	10,545.59	-81.34	80.89	-517.09	523.38	278.89	586,065.89	767,678.91
10,687.00	35.20	182.60	10,626.30	-33.36	32.91	-517.60	518.64	273.64	586,017.91	767,678.40
10,734.00	41.40	181.40	10,663.17	-4.27	3.82	-518.59	518.61	270.42	585,988.82	767,677.41
10,780.00	46.90	180.90	10,696.16	27.75	-28.21	-519.23	519.99	266.89	585,956.79	767,676.77
10,873.00	59.00	176.30	10,752.11	101.78	-102.23	-517.18	527.19	258.82	585,882.77	767,678.82
10,967.00	66.80	174.00	10,794.90	185.09	-185.53	-510.05	542.75	250.01	585,799.47	767,685.95
11,060.00	75.90	179.70	10,824.63	272.95	-273.39	-505.34	574.55	241.59	585,711.61	767,690.66
11,153.00	79.90	182.10	10,844.12	363.84	-364.28	-506.78	624.12	234.29	585,620.72	767,689.22
11,247.00	89.30	182.00	10,852.96	457.26	-457.70	-510.12	685.36	228.10	585,527.30	767,685.88
11,340.00	89.90	181.80	10,853.61	550.20	-550.65	-513.20	752.72	222.98	585,434.35	767,682.80
11,434.00	90.90	182.00	10,852.95	644.14	-644.59	-516.32	825.89	218.69	585,340.41	767,679.68
11,527.00	92.00	182.10	10,850.60	737.05	-737.50	-519.65	902.19	215.17	585,247.50	767,676.35
11,620.00	90.50	181.90	10,848.57	829.96	-830.42	-522.89	981.33	212.20	585,154.58	767,673.11
11,714.00	89.00	181.00	10,848.98	923.93	-924.39	-525.27	1,063.20	209.61	585,060.61	767,670.73
11,808.00	90.00	180.80	10,849.80	1,017.91	-1,018.37	-526.75	1,146.53	207.35	584,966.63	767,669.25
11,901.00	90.40	180.20	10,849.48	1,110.90	-1,111.37	-527.56	1,230.22	205.39	584,873.63	767,668.44
11,994.00	91.30	179.60	10,848.10	1,203.89	-1,204.35	-527.40	1,314.77	203.65	584,780.65	767,668.60
12,088.00	88.80	179.10	10,848.02	1,297.88	-1,298.34	-526.33	1,400.97	202.07	584,686.66	767,669.67
12,181.00	89.50	178.40	10,849.40	1,390.85	-1,391.31	-524.30	1,486.82	200.65	584,593.69	767,671.70
12,275.00	87.20	179.60	10,852.10	1,484.79	-1,485.24	-522.66	1,574.52	199.39	584,499.76	767,673.34
12,369.00	87.30	179.30	10,856.61	1,578.68	-1,579.13	-521.76	1,663.10	198.28	584,405.87	767,674.24



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 133H
Wellbore: OH
Design: MWD-171'-15690', Proj. 15752'

Local Co-ordinate Reference: Well No. 133H
TVD Reference: Well @ 3648.50usft
MD Reference: Well @ 3648.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
12,463.00	87.40	178.90	10,860.96	1,672.57	-1,673.02	-520.28	1,752.05	197.27	584,311.98	767,675.72
12,557.00	89.30	178.60	10,863.67	1,766.50	-1,766.95	-518.23	1,841.38	196.35	584,218.05	767,677.77
12,651.00	88.20	179.80	10,865.72	1,860.47	-1,860.92	-516.92	1,931.38	195.52	584,124.08	767,679.08
12,745.00	88.70	180.00	10,868.26	1,954.43	-1,954.88	-516.76	2,022.03	194.81	584,030.12	767,679.24
12,838.00	89.00	180.30	10,870.12	2,047.41	-2,047.87	-517.00	2,112.12	194.17	583,937.13	767,679.00
12,931.00	89.80	180.30	10,871.10	2,140.41	-2,140.86	-517.49	2,202.51	193.59	583,844.14	767,678.51
13,025.00	90.10	180.00	10,871.18	2,234.41	-2,234.86	-517.73	2,294.04	193.04	583,750.14	767,678.27
13,117.00	91.50	180.60	10,869.90	2,326.39	-2,326.84	-518.22	2,383.85	192.56	583,658.16	767,677.78
13,211.00	88.90	182.30	10,869.57	2,420.35	-2,420.80	-520.59	2,476.15	192.14	583,564.20	767,675.41
13,304.00	88.60	182.80	10,871.60	2,513.23	-2,513.69	-524.73	2,567.87	191.79	583,471.31	767,671.27
13,398.00	86.10	182.50	10,875.94	2,607.02	-2,607.48	-529.07	2,660.61	191.47	583,377.52	767,666.93
13,492.00	85.70	182.30	10,882.66	2,700.69	-2,701.16	-533.00	2,753.24	191.16	583,283.84	767,663.00
13,585.00	86.20	182.10	10,889.23	2,793.39	-2,793.86	-536.56	2,844.91	190.87	583,191.14	767,659.44
13,678.00	86.90	179.70	10,894.83	2,886.20	-2,886.67	-538.02	2,936.38	190.56	583,098.33	767,657.98
13,772.00	89.10	177.70	10,898.11	2,980.11	-2,980.58	-535.89	3,028.37	190.19	583,004.42	767,660.11
13,865.00	90.00	177.10	10,898.84	3,073.01	-3,073.48	-531.67	3,119.12	189.81	582,911.52	767,664.33
13,958.00	91.30	177.10	10,897.79	3,165.89	-3,166.35	-526.96	3,209.90	189.45	582,818.65	767,669.04
14,052.00	91.20	178.80	10,895.73	3,259.80	-3,260.26	-523.60	3,302.04	189.12	582,724.74	767,672.40
14,146.00	91.80	178.80	10,893.27	3,353.75	-3,354.21	-521.63	3,394.53	188.84	582,630.79	767,674.37
14,239.00	91.00	180.20	10,891.00	3,446.72	-3,447.18	-520.82	3,486.30	188.59	582,537.82	767,675.18
14,332.00	91.80	180.60	10,888.73	3,539.69	-3,540.14	-521.47	3,578.35	188.38	582,444.86	767,674.53
14,426.00	90.30	181.70	10,887.01	3,633.65	-3,634.11	-523.36	3,671.60	188.19	582,350.89	767,672.64
14,520.00	91.10	182.20	10,885.86	3,727.58	-3,728.04	-526.55	3,765.05	188.04	582,256.96	767,669.45
14,613.00	89.20	182.00	10,885.61	3,820.51	-3,820.98	-529.96	3,857.55	187.90	582,164.02	767,666.04
14,706.00	89.20	181.90	10,886.91	3,913.45	-3,913.91	-533.13	3,950.06	187.76	582,071.09	767,662.87
14,800.00	86.90	182.00	10,890.11	4,007.33	-4,007.80	-536.32	4,043.52	187.62	581,977.20	767,659.68
14,894.00	87.50	179.30	10,894.70	4,101.20	-4,101.67	-537.39	4,136.72	187.46	581,883.33	767,658.61



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 133H
Wellbore: OH
Design: MWD-171'-15690', Proj. 15752'

Local Co-ordinate Reference: Well No. 133H
TVD Reference: Well @ 3648.50usft
MD Reference: Well @ 3648.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
14,988.00	89.90	178.40	10,896.84	4,195.15	-4,195.62	-535.50	4,229.66	187.27	581,789.38	767,660.50
15,081.00	92.10	178.40	10,895.21	4,288.10	-4,288.56	-532.91	4,321.55	187.08	581,696.44	767,663.09
15,175.00	93.20	178.40	10,890.87	4,381.96	-4,382.42	-530.28	4,414.39	186.90	581,602.58	767,665.72
15,269.00	91.80	179.70	10,886.77	4,475.85	-4,476.32	-528.73	4,507.44	186.74	581,508.68	767,667.27
15,362.00	89.40	180.50	10,885.79	4,568.84	-4,569.31	-528.89	4,599.81	186.60	581,415.69	767,667.11
15,455.00	88.90	180.40	10,887.17	4,661.83	-4,662.29	-529.62	4,692.28	186.48	581,322.71	767,666.38
15,549.00	89.80	180.50	10,888.24	4,755.82	-4,756.28	-530.36	4,785.76	186.36	581,228.72	767,665.64
15,643.00	90.50	180.90	10,887.99	4,849.81	-4,850.27	-531.51	4,879.31	186.25	581,134.73	767,664.49
15,690.00	91.10	181.00	10,887.34	4,896.80	-4,897.26	-532.29	4,926.10	186.20	581,087.74	767,663.71
Last Survey: 15690' MD										
15,752.00	91.10	181.00	10,886.15	4,958.77	-4,959.24	-533.37	4,987.84	186.14	581,025.76	767,662.63
PTB: 15752' MD										

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
171.00	171.00	-0.37	-0.25	Pro MWD First Survey: 171' MD
15,690.00	10,887.34	-4,897.26	-532.29	Last Survey: 15690' MD
15,752.00	10,886.15	-4,959.24	-533.37	PTB: 15752' MD