



HOBBS OCD
MAY 15 2019
RECEIVED

Verna Rae Fed No. 204H

Lea County, NM

30-025-44494

December 14, 2018

Job No. LNM5186318

ORIGINAL

Certified Report



PRODIRECTIONAL

Survey Certification Letter

December 14, 2018



Operator Name: Matador Resources
Well Name: Verna Rae Fed No. 204H
County/Parish: Lea County,
State: NM
Rig Name: Patterson 809
Job Number: LNM5186318

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 – 15,865' MD	15,925' MD	09/26/18 – 11/26/18	MWD-OWSG

Sincerely,

Mike Coats

Mike Coats
Regulatory Specialist
Professional Directional

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

prodirectional.com



Matador Resources

Lea County, NM

Verna Rae Fed

No. 204H

OH

Survey: ProDirectional

Survey Report

14 December, 2018





ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 204H
Wellbore: OH
Design: MWD-171'-15865', Proj. 15925'

Local Co-ordinate Reference: Well No. 204H
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
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

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. 204H

Well Position	+N/-S	0.00 usft	Northing:	585,985.00 usft	Latitude:	32.608763
	+E/-W	0.00 usft	Easting:	768,226.00 usft	Longitude:	-103.596505
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'-15865', Proj. 15925'

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 12/14/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
171.00	15,925.00	MWD (OH)	MWD+HDGM	OWSG MWD + HRGM



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 204H
Wellbore: OH
Design: MWD-171'-15865', Proj. 15925'

Local Co-ordinate Reference: Well No. 204H
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	768,226.00
171.00	0.50	12.70	171.00	-0.73	0.73	0.16	0.75	12.70	585,985.73	768,226.16
Pro MWD First Survey: 171' MD										
326.00	1.60	77.20	325.97	-1.86	1.87	2.42	3.06	52.38	585,986.87	768,228.42
419.00	3.40	79.40	418.88	-2.66	2.66	6.40	6.93	67.42	585,987.66	768,232.40
512.00	4.10	80.00	511.68	-3.74	3.75	12.38	12.94	73.17	585,988.75	768,238.38
601.00	4.30	80.10	600.44	-4.86	4.87	18.81	19.43	75.47	585,989.87	768,244.81
692.00	4.70	78.50	691.16	-6.18	6.20	25.82	26.55	76.49	585,991.20	768,251.82
782.00	5.10	77.70	780.83	-7.76	7.79	33.34	34.24	76.85	585,992.79	768,259.34
871.00	4.80	80.80	869.50	-9.19	9.23	40.88	41.91	77.28	585,994.23	768,266.88
962.00	4.30	80.50	960.21	-10.36	10.40	48.00	49.12	77.78	585,995.40	768,274.00
1,056.00	3.50	81.10	1,053.99	-11.38	11.43	54.32	55.50	78.12	585,996.43	768,280.32
1,149.00	3.10	78.50	1,146.84	-12.31	12.37	59.58	60.85	78.28	585,997.37	768,285.58
1,243.00	2.90	81.10	1,240.71	-13.18	13.24	64.42	65.77	78.39	585,998.24	768,290.42
1,337.00	2.40	80.30	1,334.61	-13.88	13.94	68.71	70.11	78.53	585,998.94	768,294.71
1,430.00	2.20	75.10	1,427.54	-14.66	14.73	72.36	73.84	78.50	585,999.73	768,298.36
1,534.00	1.80	69.50	1,531.47	-15.75	15.81	75.82	77.45	78.22	586,000.81	768,301.82
1,619.00	1.50	72.40	1,616.44	-16.55	16.62	78.13	79.88	77.99	586,001.62	768,304.13
1,712.00	4.20	80.80	1,709.31	-17.46	17.53	82.65	84.49	78.03	586,002.53	768,308.65
1,899.00	11.00	81.10	1,894.56	-21.30	21.39	107.06	109.18	78.70	586,006.39	768,333.06
1,993.00	10.90	82.50	1,986.85	-23.83	23.94	124.74	127.01	79.14	586,008.94	768,350.74
2,086.00	10.90	84.10	2,078.17	-25.86	25.99	142.20	144.56	79.64	586,010.99	768,368.20
2,179.00	10.70	85.50	2,169.53	-27.43	27.57	159.55	161.92	80.20	586,012.57	768,385.55
2,272.00	10.70	86.20	2,260.91	-28.66	28.82	176.78	179.11	80.74	586,013.82	768,402.78
2,366.00	10.80	86.60	2,353.26	-29.75	29.92	194.27	196.56	81.24	586,014.92	768,420.27
2,459.00	10.90	86.40	2,444.60	-30.80	30.99	211.75	214.00	81.67	586,015.99	768,437.75
2,553.00	11.00	87.10	2,536.89	-31.80	32.00	229.57	231.79	82.06	586,017.00	768,455.57



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 204H
Wellbore: OH
Design: MWD-171'-15865', Proj. 15925'

Local Co-ordinate Reference: Well No. 204H
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)
2,647.00	11.00	87.10	2,629.16	-32.69	32.91	247.49	249.66	82.43	586,017.91	768,473.49
2,740.00	11.20	86.90	2,720.42	-33.61	33.84	265.37	267.52	82.73	586,018.84	768,491.37
2,834.00	11.20	88.70	2,812.63	-34.30	34.55	283.61	285.71	83.06	586,019.55	768,509.61
2,927.00	10.50	82.70	2,903.97	-35.56	35.83	301.04	303.17	83.21	586,020.83	768,527.04
3,021.00	10.60	78.80	2,996.38	-38.32	38.59	318.02	320.35	83.08	586,023.59	768,544.02
3,114.00	10.60	81.40	3,087.79	-41.24	41.54	334.87	337.44	82.93	586,026.54	768,560.87
3,208.00	9.70	79.60	3,180.32	-43.95	44.26	351.21	353.99	82.82	586,029.26	768,577.21
3,301.00	8.60	80.50	3,272.14	-46.50	46.82	365.77	368.76	82.71	586,031.82	768,591.77
3,394.00	8.50	80.70	3,364.10	-48.75	49.08	379.41	382.57	82.63	586,034.08	768,605.41
3,488.00	9.50	82.50	3,456.95	-50.87	51.21	393.96	397.27	82.59	586,036.21	768,619.96
3,581.00	11.10	82.10	3,548.44	-53.09	53.45	410.44	413.90	82.58	586,038.45	768,636.44
3,675.00	11.70	81.80	3,640.59	-55.67	56.05	428.83	432.48	82.55	586,041.05	768,654.83
3,768.00	11.20	81.80	3,731.74	-58.29	58.68	447.11	450.94	82.52	586,043.68	768,673.11
3,862.00	10.90	80.00	3,824.00	-61.12	61.53	464.90	468.95	82.46	586,046.53	768,690.90
3,955.00	10.50	82.00	3,915.38	-63.81	64.23	481.95	486.21	82.41	586,049.23	768,707.95
4,048.00	10.40	82.60	4,006.84	-66.06	66.49	498.66	503.08	82.40	586,051.49	768,724.66
4,142.00	9.90	84.10	4,099.37	-67.97	68.42	515.11	519.64	82.43	586,053.42	768,741.11
4,235.00	10.90	80.70	4,190.84	-70.20	70.66	531.74	536.42	82.43	586,055.66	768,757.74
4,329.00	12.40	79.20	4,282.90	-73.51	73.99	550.43	555.38	82.34	586,058.99	768,776.43
4,423.00	12.50	79.90	4,374.69	-77.17	77.66	570.36	575.62	82.25	586,062.66	768,796.36
4,516.00	12.80	80.60	4,465.43	-80.60	81.11	590.43	595.98	82.18	586,066.11	768,816.43
4,610.00	12.80	80.40	4,557.09	-84.01	84.55	610.97	616.79	82.12	586,069.55	768,836.97
4,703.00	12.90	81.90	4,647.77	-87.18	87.73	631.41	637.47	82.09	586,072.73	768,857.41
4,797.00	12.80	81.50	4,739.41	-90.18	90.75	652.09	658.38	82.08	586,075.75	768,878.09
4,891.00	13.00	81.30	4,831.04	-93.30	93.88	672.84	679.36	82.06	586,078.88	768,898.84
4,984.00	13.00	83.30	4,921.66	-96.08	96.69	693.57	700.28	82.06	586,081.69	768,919.57
5,078.00	13.10	83.60	5,013.23	-98.48	99.11	714.66	721.50	82.10	586,084.11	768,940.66



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 204H
Wellbore: OH
Design: MWD-171'-15865', Proj. 15925'

Local Co-ordinate Reference: Well No. 204H
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)
5,171.00	13.50	83.80	5,103.73	-100.81	101.46	735.92	742.88	82.15	586,086.46	768,961.92
5,265.00	13.90	84.20	5,195.06	-103.12	103.78	758.06	765.13	82.20	586,088.78	768,984.06
5,319.00	14.10	84.70	5,247.45	-104.37	105.04	771.07	778.19	82.24	586,090.04	768,997.07
5,451.00	14.10	86.00	5,375.48	-106.95	107.65	803.12	810.30	82.37	586,092.65	769,029.12
5,545.00	14.00	86.30	5,466.67	-108.46	109.18	825.88	833.07	82.47	586,094.18	769,051.88
5,638.00	13.80	87.30	5,556.94	-109.69	110.43	848.19	855.35	82.58	586,095.43	769,074.19
5,732.00	13.70	87.40	5,648.25	-110.71	111.46	870.51	877.62	82.70	586,096.46	769,096.51
5,825.00	13.40	87.10	5,738.66	-111.73	112.51	892.27	899.34	82.81	586,097.51	769,118.27
5,919.00	13.50	86.80	5,830.08	-112.88	113.67	914.11	921.15	82.91	586,098.67	769,140.11
6,012.00	13.40	87.20	5,920.53	-113.99	114.81	935.71	942.72	83.01	586,099.81	769,161.71
6,105.00	13.40	87.40	6,011.00	-114.99	115.82	957.24	964.22	83.10	586,100.82	769,183.24
6,199.00	13.00	88.40	6,102.52	-115.76	116.61	978.68	985.61	83.21	586,101.61	769,204.68
6,292.00	12.80	88.10	6,193.17	-116.37	117.24	999.44	1,006.29	83.31	586,102.24	769,225.44
6,386.00	12.20	87.70	6,284.94	-117.10	117.99	1,019.77	1,026.57	83.40	586,102.99	769,245.77
6,479.00	12.00	88.20	6,375.87	-117.78	118.69	1,039.25	1,046.01	83.48	586,103.69	769,265.25
6,572.00	12.00	87.40	6,466.84	-118.50	119.43	1,058.57	1,065.29	83.56	586,104.43	769,284.57
6,666.00	11.50	88.80	6,558.87	-119.13	120.07	1,077.70	1,084.37	83.64	586,105.07	769,303.70
6,759.00	11.60	87.80	6,649.99	-119.66	120.62	1,096.31	1,102.93	83.72	586,105.62	769,322.31
6,853.00	11.60	89.00	6,742.07	-120.17	121.15	1,115.21	1,121.77	83.80	586,106.15	769,341.21
6,946.00	11.50	90.20	6,833.19	-120.29	121.28	1,133.83	1,140.29	83.89	586,106.28	769,359.83
7,040.00	11.10	81.60	6,925.37	-121.56	122.57	1,152.15	1,158.65	83.93	586,107.57	769,378.15
7,133.00	10.90	75.80	7,016.66	-125.01	126.03	1,169.53	1,176.30	83.85	586,111.03	769,395.53
7,227.00	10.80	76.60	7,108.98	-129.22	130.25	1,186.71	1,193.84	83.74	586,115.25	769,412.71
7,320.00	10.70	76.80	7,200.35	-133.19	134.24	1,203.59	1,211.06	83.64	586,119.24	769,429.59
7,414.00	10.30	77.50	7,292.78	-136.99	138.06	1,220.30	1,228.08	83.55	586,123.06	769,446.30
7,508.00	9.90	76.90	7,385.32	-140.63	141.71	1,236.37	1,244.46	83.46	586,126.71	769,462.37
7,602.00	9.90	78.20	7,477.92	-144.10	145.19	1,252.15	1,260.54	83.39	586,130.19	769,478.15



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 204H
Wellbore: OH
Design: MWD-171'-15865', Proj. 15925'

Local Co-ordinate Reference: Well No. 204H
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)
7,696.00	9.50	76.20	7,570.58	-147.59	148.69	1,267.59	1,276.29	83.31	586,133.69	769,493.59
7,789.00	9.40	76.80	7,662.32	-151.14	152.26	1,282.44	1,291.45	83.23	586,137.26	769,508.44
7,883.00	7.90	77.90	7,755.24	-154.23	155.37	1,296.23	1,305.51	83.17	586,140.37	769,522.23
7,977.00	5.70	72.20	7,848.58	-157.01	158.15	1,306.99	1,316.53	83.10	586,143.15	769,532.99
8,070.00	5.10	71.10	7,941.16	-159.75	160.90	1,315.30	1,325.11	83.03	586,145.90	769,541.30
8,163.00	2.80	59.50	8,033.94	-162.24	163.39	1,321.17	1,331.24	82.95	586,148.39	769,547.17
8,256.00	1.90	38.80	8,126.86	-164.59	165.74	1,324.09	1,334.43	82.87	586,150.74	769,550.09
8,350.00	1.80	35.50	8,220.81	-167.00	168.16	1,325.93	1,336.55	82.77	586,153.16	769,551.93
8,443.00	1.50	30.30	8,313.77	-169.24	170.40	1,327.39	1,338.28	82.68	586,155.40	769,553.39
8,537.00	1.30	16.60	8,407.75	-171.33	172.49	1,328.32	1,339.47	82.60	586,157.49	769,554.32
8,630.00	3.10	81.60	8,500.68	-172.70	173.86	1,331.11	1,342.41	82.56	586,158.86	769,557.11
8,724.00	3.20	80.50	8,594.54	-173.50	174.67	1,336.21	1,347.58	82.55	586,159.67	769,562.21
8,817.00	2.60	73.90	8,687.42	-174.51	175.68	1,340.79	1,352.25	82.54	586,160.68	769,566.79
8,910.00	2.30	70.00	8,780.34	-175.73	176.90	1,344.57	1,356.16	82.50	586,161.90	769,570.57
9,003.00	2.40	68.80	8,873.26	-177.07	178.25	1,348.14	1,359.88	82.47	586,163.25	769,574.14
9,097.00	2.20	71.70	8,967.18	-178.35	179.53	1,351.69	1,363.56	82.43	586,164.53	769,577.69
9,191.00	2.10	61.50	9,061.12	-179.73	180.91	1,354.92	1,366.94	82.39	586,165.91	769,580.92
9,284.00	1.80	60.80	9,154.06	-181.25	182.44	1,357.69	1,369.89	82.35	586,167.44	769,583.69
9,377.00	1.60	56.50	9,247.02	-182.68	183.87	1,360.05	1,372.42	82.30	586,168.87	769,586.05
9,471.00	1.70	58.50	9,340.98	-184.13	185.32	1,362.33	1,374.88	82.25	586,170.32	769,588.33
9,565.00	2.30	88.90	9,434.93	-184.89	186.09	1,365.41	1,378.03	82.24	586,171.09	769,591.41
9,658.00	2.80	94.20	9,527.84	-184.76	185.96	1,369.54	1,382.10	82.27	586,170.96	769,595.54
9,752.00	2.30	92.30	9,621.74	-184.51	185.71	1,373.71	1,386.21	82.30	586,170.71	769,599.71
9,845.00	2.30	100.80	9,714.67	-184.09	185.29	1,377.41	1,389.82	82.34	586,170.29	769,603.41
9,939.00	2.10	98.40	9,808.60	-183.48	184.68	1,380.97	1,393.26	82.38	586,169.68	769,606.97
10,032.00	2.20	102.90	9,901.53	-182.83	184.03	1,384.39	1,396.57	82.43	586,169.03	769,610.39
10,126.00	2.30	104.60	9,995.46	-181.95	183.16	1,387.98	1,400.01	82.48	586,168.16	769,613.98



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 204H
Wellbore: OH
Design: MWD-171'-15865', Proj. 15925'

Local Co-ordinate Reference: Well No. 204H
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)
10,220.00	2.20	141.70	10,089.39	-180.05	181.27	1,390.92	1,402.68	82.58	586,166.27	769,616.92
10,313.00	2.60	166.00	10,182.31	-176.60	177.82	1,392.54	1,403.84	82.72	586,162.82	769,618.54
10,407.00	2.40	165.00	10,276.23	-172.63	173.85	1,393.56	1,404.36	82.89	586,158.85	769,619.56
10,511.00	5.90	192.20	10,379.94	-165.30	166.52	1,392.99	1,402.91	83.18	586,151.52	769,618.99
10,604.00	19.60	188.10	10,470.44	-145.09	146.31	1,389.77	1,397.45	83.99	586,131.31	769,615.77
10,698.00	27.50	187.60	10,556.54	-107.92	109.13	1,384.67	1,388.97	85.49	586,094.13	769,610.67
10,792.00	33.50	182.10	10,637.51	-60.43	61.64	1,380.85	1,382.22	87.44	586,046.64	769,606.85
10,886.00	39.30	174.90	10,713.17	-4.78	5.99	1,382.54	1,382.56	89.75	585,990.99	769,608.54
10,979.00	46.80	176.30	10,781.09	58.47	-57.26	1,387.36	1,388.54	92.36	585,927.74	769,613.36
11,073.00	53.80	180.60	10,841.11	130.70	-129.49	1,389.17	1,395.20	95.33	585,855.51	769,615.17
11,166.00	62.90	183.10	10,889.87	209.73	-208.52	1,386.54	1,402.13	98.55	585,776.48	769,612.54
11,259.00	71.30	185.00	10,926.02	295.10	-293.89	1,380.45	1,411.39	102.02	585,691.11	769,606.45
11,351.00	80.30	182.30	10,948.57	384.00	-382.80	1,374.82	1,427.12	105.56	585,602.20	769,600.82
11,398.00	85.80	180.00	10,954.26	430.62	-429.43	1,373.89	1,439.43	107.36	585,555.57	769,599.89
11,446.00	92.80	179.10	10,954.85	478.59	-477.39	1,374.26	1,454.82	109.16	585,507.61	769,600.26
11,540.00	94.60	178.10	10,948.78	572.36	-571.16	1,376.56	1,490.35	112.53	585,413.84	769,602.56
11,634.00	88.70	178.90	10,946.07	666.25	-665.05	1,379.01	1,531.00	115.75	585,319.95	769,605.01
11,728.00	86.40	178.00	10,950.09	760.13	-758.92	1,381.55	1,576.28	118.78	585,226.08	769,607.55
11,822.00	90.00	178.10	10,953.04	854.01	-852.80	1,384.75	1,626.29	121.63	585,132.20	769,610.75
11,916.00	90.60	177.20	10,952.55	947.93	-946.72	1,388.60	1,680.63	124.29	585,038.28	769,614.60
12,010.00	90.90	178.90	10,951.32	1,041.87	-1,040.66	1,391.80	1,737.84	126.79	584,944.34	769,617.80
12,104.00	89.80	180.90	10,950.75	1,135.86	-1,134.65	1,391.97	1,795.83	129.18	584,850.35	769,617.97
12,198.00	89.80	180.50	10,951.08	1,229.85	-1,228.64	1,390.82	1,855.78	131.46	584,756.36	769,616.82
12,292.00	89.90	180.10	10,951.32	1,323.85	-1,322.64	1,390.32	1,918.95	133.57	584,662.36	769,616.32
12,386.00	89.50	181.60	10,951.81	1,417.84	-1,416.62	1,388.93	1,983.92	135.57	584,568.38	769,614.93
12,480.00	89.70	181.80	10,952.47	1,511.79	-1,510.58	1,386.14	2,050.18	137.46	584,474.42	769,612.14
12,574.00	89.70	181.70	10,952.96	1,605.74	-1,604.54	1,383.27	2,118.48	139.24	584,380.46	769,609.27



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 204H
Wellbore: OH
Design: MWD-171'-15865', Proj. 15925'

Local Co-ordinate Reference: Well No. 204H
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)
12,668.00	89.10	181.30	10,953.95	1,699.70	-1,698.50	1,380.81	2,188.96	140.89	584,286.50	769,606.81
12,762.00	88.80	180.60	10,955.67	1,793.67	-1,792.47	1,379.25	2,261.70	142.42	584,192.53	769,605.25
12,855.00	88.40	180.50	10,957.94	1,886.64	-1,885.44	1,378.36	2,335.54	143.83	584,099.56	769,604.36
12,950.00	87.70	179.80	10,961.17	1,981.58	-1,980.38	1,378.11	2,412.69	145.17	584,004.62	769,604.11
13,044.00	89.40	179.10	10,963.55	2,075.54	-2,074.34	1,379.01	2,490.90	146.38	583,910.66	769,605.01
13,138.00	89.10	178.40	10,964.78	2,169.51	-2,168.31	1,381.06	2,570.78	147.51	583,816.69	769,607.06
13,232.00	89.80	179.70	10,965.68	2,263.50	-2,262.29	1,382.62	2,651.34	148.57	583,722.71	769,608.62
13,326.00	89.70	179.30	10,966.09	2,357.49	-2,356.28	1,383.44	2,732.40	149.58	583,628.72	769,609.44
13,421.00	89.50	178.90	10,966.76	2,452.48	-2,451.27	1,384.93	2,815.45	150.53	583,533.73	769,610.93
13,515.00	89.40	178.70	10,967.66	2,546.45	-2,545.25	1,386.90	2,898.58	151.41	583,439.75	769,612.90
13,609.00	89.30	178.20	10,968.73	2,640.42	-2,639.20	1,389.45	2,982.61	152.23	583,345.80	769,615.45
13,703.00	90.30	180.10	10,969.06	2,734.40	-2,733.19	1,390.84	3,066.72	153.03	583,251.81	769,616.84
13,797.00	90.00	179.60	10,968.81	2,828.40	-2,827.19	1,391.09	3,150.89	153.80	583,157.81	769,617.09
13,892.00	89.10	181.30	10,969.56	2,923.39	-2,922.18	1,390.34	3,236.07	154.56	583,062.82	769,616.34
13,986.00	88.90	180.60	10,971.20	3,017.36	-3,016.15	1,388.78	3,320.52	155.28	582,968.85	769,614.78
14,081.00	90.50	181.40	10,971.69	3,112.34	-3,111.13	1,387.12	3,406.35	155.97	582,873.87	769,613.12
14,175.00	90.40	180.60	10,970.95	3,206.32	-3,205.11	1,385.48	3,491.75	156.62	582,779.89	769,611.48
14,269.00	89.00	179.30	10,971.45	3,300.31	-3,299.11	1,385.57	3,578.25	157.22	582,685.89	769,611.57
14,363.00	90.60	180.40	10,971.78	3,394.31	-3,393.10	1,385.81	3,665.19	157.78	582,591.90	769,611.81
14,457.00	91.90	182.00	10,969.72	3,488.26	-3,487.05	1,383.84	3,751.61	158.35	582,497.95	769,609.84
14,552.00	91.20	182.00	10,967.15	3,583.16	-3,581.96	1,380.53	3,838.79	158.92	582,403.04	769,606.53
14,645.00	90.30	181.40	10,965.94	3,676.11	-3,674.91	1,377.77	3,924.69	159.45	582,310.09	769,603.77
14,739.00	88.60	180.60	10,966.84	3,770.09	-3,768.89	1,376.13	4,012.26	159.94	582,216.11	769,602.13
14,833.00	90.60	179.70	10,967.50	3,864.08	-3,862.88	1,375.88	4,100.60	160.40	582,122.12	769,601.88
14,928.00	87.60	179.70	10,968.99	3,959.05	-3,957.85	1,376.38	4,190.35	160.82	582,027.15	769,602.38
15,022.00	89.10	180.20	10,971.69	4,053.01	-4,051.81	1,376.46	4,279.23	161.24	581,933.19	769,602.46
15,116.00	89.50	179.90	10,972.84	4,147.00	-4,145.80	1,376.38	4,368.31	161.63	581,839.20	769,602.38



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Verna Rae Fed
Well: No. 204H
Wellbore: OH
Design: MWD-171'-15865', Proj. 15925'

Local Co-ordinate Reference: Well No. 204H
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)
15,210.00	92.20	179.90	10,971.45	4,240.98	-4,239.79	1,376.55	4,457.65	162.01	581,745.21	769,602.55
15,304.00	93.30	180.10	10,966.94	4,334.88	-4,333.68	1,376.55	4,547.05	162.38	581,651.32	769,602.55
15,398.00	90.60	181.10	10,963.74	4,428.80	-4,427.61	1,375.56	4,636.36	162.74	581,557.39	769,601.56
15,492.00	87.50	182.00	10,965.30	4,522.74	-4,521.55	1,373.02	4,725.42	163.11	581,463.45	769,599.02
15,586.00	87.20	182.40	10,969.64	4,616.57	-4,615.38	1,369.41	4,814.25	163.47	581,369.62	769,595.41
15,680.00	87.50	182.20	10,973.99	4,710.39	-4,709.20	1,365.65	4,903.22	163.83	581,275.80	769,591.65
15,775.00	87.90	182.50	10,977.80	4,805.23	-4,804.04	1,361.75	4,993.32	164.17	581,180.96	769,587.75
15,865.00	87.30	182.10	10,981.57	4,895.07	-4,893.89	1,358.15	5,078.85	164.49	581,091.11	769,584.15
Last Survey: 15865' MD										
15,925.00	87.30	182.10	10,984.40	4,954.97	-4,953.78	1,355.95	5,136.01	164.69	581,031.22	769,581.95
PTB: 15925' MD										

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
171.00	171.00	0.73	0.16	Pro MWD First Survey: 171' MD
15,865.00	10,981.57	-4,893.89	1,358.15	Last Survey: 15865' MD
15,925.00	10,984.40	-4,953.78	1,355.95	PTB: 15925' MD