



ProDIRECTIONAL

Survey Certification Letter

November 05, 2019



HOBBS OCD
JAN 22 2020
RECEIVED

Operator Name: Matador Resources
Well Name: Marlan Downey State 04 09 23S 35E No. 114H
County/Parish: Lea County,
State: NM
Rig Name: Patterson 274
Job Number: LNM5533919

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	180' MD – 17,227' MD	17,295' MD	09/23/19 – 10/10/19	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

The Standard of Excellence in Directional Supervision



Marlan Downey St. 04 09 23S 35E #114H

Lea County, NM

30-025-46255

November 05, 2019

Job No. LNM5533919

ORIGINAL

Survey Completion Report



PRODIRECTIONAL

Survey Certification Letter

November 05, 2019



Operator Name: Matador Resources
Well Name: Marlan Downey State 04 09 23S 35E No. 114H
County/Parish: Lea County,
State: NM
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ProDirectional	180' MD – 17,227' MD	17,295' MD	09/23/19 – 10/10/19	MWD-OWSG

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Matador Resources

Lea County, NM

Marlan Downey State 04 09 23S 35E

No. 114H

OH

Survey: ProDirectional

Survey Report

05 November, 2019





ProDirectional Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 114H
Project:	Lea County, NM (NAD83)	TVD Reference:	Well @ 3572.50usft
Site:	Marian Downey State 04 09 23S 35E	MD Reference:	Well @ 3572.50usft
Well:	No. 114H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	MWD-180'-17227', PTB: 17295'	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	Marian Downey State 04 09 23S 35E		
Site Position:		Northing:	486,233.00 usft
From:	Map	Easting:	839,765.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.333027
		Longitude:	-103.367138
		Grid Convergence:	0.52 °

Well		No. 114H				
Well Position	+N/-S	0.00 usft	Northing:	486,233.00 usft	Latitude:	32.333027
	+E/-W	0.00 usft	Easting:	839,765.00 usft	Longitude:	-103.367138
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,544.00 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/20/2019	6.63	60.10	47,977.40

Design		MWD-180'-17227', PTB: 17295'		
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	179.57

Survey Program		Date 11/5/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
180.00	17,295.00	Survey #1 (OH)	MWD+HDGM	OWSG MWD + HRGM



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Marlan Downey State 04 09 23S 35E
Well: No. 114H
Wellbore: OH
Design: MWD-180'-17227', PTB: 17295'

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well No. 114H
Well @ 3572.50usft
Well @ 3572.50usft
Grid
Minimum Curvature
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	486,233.00	839,765.00
180.00	0.40	296.10	180.00	-0.28	0.28	-0.56	0.63	296.10	486,233.28	839,764.44
Pro MWD First Survey: 180' MD										
209.00	0.40	308.70	209.00	-0.39	0.38	-0.73	0.83	297.63	486,233.38	839,764.27
274.00	0.20	223.80	274.00	-0.45	0.44	-0.99	1.08	294.17	486,233.44	839,764.01
335.00	0.30	141.70	335.00	-0.25	0.24	-0.96	0.99	284.09	486,233.24	839,764.04
425.00	0.60	105.60	424.99	0.07	-0.07	-0.36	0.37	259.20	486,232.93	839,764.64
517.00	0.70	99.10	516.99	0.29	-0.29	0.65	0.71	113.76	486,232.71	839,765.65
608.00	0.60	94.80	607.98	0.43	-0.42	1.68	1.73	103.92	486,232.58	839,766.68
699.00	0.70	79.40	698.98	0.37	-0.35	2.70	2.72	97.46	486,232.65	839,767.70
792.00	0.90	77.40	791.97	0.12	-0.09	3.97	3.97	91.29	486,232.91	839,768.97
886.00	0.70	89.40	885.96	-0.04	0.08	5.27	5.27	89.16	486,233.08	839,770.27
977.00	0.70	84.70	976.95	-0.09	0.13	6.37	6.38	88.79	486,233.13	839,771.37
1,069.00	0.70	104.00	1,068.94	0.01	0.05	7.48	7.48	89.61	486,233.05	839,772.48
1,161.00	0.50	113.30	1,160.94	0.31	-0.24	8.39	8.40	91.67	486,232.76	839,773.39
1,256.00	0.50	112.40	1,255.94	0.63	-0.57	9.16	9.17	93.54	486,232.43	839,774.16
1,351.00	0.70	98.00	1,350.93	0.88	-0.80	10.12	10.15	94.55	486,232.20	839,775.12
1,446.00	0.80	97.60	1,445.92	1.06	-0.97	11.35	11.39	94.90	486,232.03	839,776.35
1,541.00	0.60	104.50	1,540.92	1.28	-1.19	12.49	12.54	95.42	486,231.81	839,777.49
1,636.00	0.60	105.90	1,635.91	1.55	-1.45	13.45	13.52	96.14	486,231.55	839,778.45
1,731.00	0.70	93.00	1,730.90	1.72	-1.61	14.50	14.59	96.35	486,231.39	839,779.50
1,826.00	0.60	100.70	1,825.90	1.85	-1.74	15.57	15.67	96.36	486,231.26	839,780.57
1,896.00	0.40	107.40	1,895.90	2.00	-1.88	16.17	16.27	96.62	486,231.12	839,781.17
2,002.00	0.40	87.70	2,001.89	2.10	-1.97	16.89	17.00	96.66	486,231.03	839,781.89
2,098.00	0.50	65.20	2,097.89	1.92	-1.78	17.60	17.69	95.79	486,231.22	839,782.60
2,192.00	1.60	62.40	2,191.87	1.15	-1.00	19.14	19.16	93.00	486,232.00	839,784.14
2,287.00	2.30	62.10	2,286.82	-0.34	0.50	22.00	22.00	88.69	486,233.50	839,787.00



ProDirectional
Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Marlan Downey State 04 09 23S 35E
Well: No. 114H
Wellbore: OH
Design: MWD-180'-17227', PTB: 17295'

Local Co-ordinate Reference:
TVD Reference: Well @ 3572.50usft
MD Reference: Well @ 3572.50usft
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)
2,383.00	3.40	64.10	2,382.70	-2.45	2.65	26.26	26.40	84.24	486,235.65	839,791.26
2,478.00	4.40	64.90	2,477.48	-5.18	5.42	32.10	32.55	80.41	486,238.42	839,797.10
2,573.00	4.80	61.30	2,572.17	-8.59	8.88	38.88	39.88	77.14	486,241.88	839,803.88
2,668.00	5.40	59.50	2,666.79	-12.71	13.06	46.22	48.03	74.23	486,246.06	839,811.22
2,764.00	6.20	66.90	2,762.30	-16.97	17.38	54.88	57.57	72.42	486,250.38	839,819.88
2,859.00	6.90	73.30	2,856.68	-20.55	21.04	65.07	68.38	72.08	486,254.04	839,830.07
2,954.00	6.50	73.50	2,951.03	-23.63	24.20	75.69	79.46	72.27	486,257.20	839,840.69
3,049.00	6.30	72.60	3,045.44	-26.64	27.29	85.82	90.05	72.36	486,260.29	839,850.82
3,144.00	6.10	74.10	3,139.89	-29.51	30.23	95.65	100.31	72.46	486,263.23	839,860.65
3,239.00	6.90	73.30	3,234.27	-32.46	33.25	105.97	111.06	72.58	486,266.25	839,870.97
3,334.00	7.60	71.20	3,328.51	-36.04	36.92	117.38	123.05	72.54	486,269.92	839,882.38
3,430.00	7.30	71.60	3,423.70	-39.92	40.89	129.18	135.49	72.44	486,273.89	839,894.18
3,524.00	7.30	72.50	3,516.94	-43.51	44.57	140.54	147.44	72.40	486,277.57	839,905.54
3,620.00	7.40	72.10	3,612.15	-47.16	48.30	152.24	159.72	72.40	486,281.30	839,917.24
3,714.00	7.20	74.20	3,705.39	-50.54	51.77	163.67	171.66	72.45	486,284.77	839,928.67
3,810.00	7.20	74.20	3,800.63	-53.73	55.04	175.24	183.69	72.56	486,288.04	839,940.24
3,905.00	7.00	72.70	3,894.91	-56.99	58.39	186.50	195.43	72.62	486,291.39	839,951.50
4,000.00	6.90	74.90	3,989.21	-60.11	61.59	197.54	206.92	72.68	486,294.59	839,962.54
4,096.00	6.80	79.10	4,084.52	-62.60	64.17	208.68	218.33	72.91	486,297.17	839,973.68
4,190.00	6.20	80.00	4,177.92	-64.46	66.11	219.15	228.90	73.21	486,299.11	839,984.15
4,285.00	5.50	78.90	4,272.42	-66.15	67.87	228.67	238.53	73.47	486,300.87	839,993.67
4,380.00	5.30	74.40	4,367.00	-68.15	69.93	237.36	247.45	73.58	486,302.93	840,002.36
4,475.00	5.80	72.90	4,461.56	-70.67	72.52	246.18	256.63	73.59	486,305.52	840,011.18
4,570.00	5.80	74.70	4,556.07	-73.28	75.20	255.39	266.23	73.59	486,308.20	840,020.39
4,665.00	5.40	77.40	4,650.62	-75.45	77.44	264.39	275.49	73.67	486,310.44	840,029.39
4,760.00	6.20	73.10	4,745.13	-77.85	79.91	273.66	285.08	73.72	486,312.91	840,038.66
4,855.00	6.70	70.50	4,839.53	-81.12	83.25	283.79	295.75	73.65	486,316.25	840,048.79



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Marlan Downey State 04 09 23S 35E
Well: No. 114H
Wellbore: OH
Design: MWD-180'-17227', PTB: 17295'

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well No. 114H
Well @ 3572.50usft
Well @ 3572.50usft
Grid
Minimum Curvature
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)
4,950.00	6.20	72.70	4,933.93	-84.42	86.62	293.91	306.41	73.58	486,319.62	840,058.91
5,045.00	5.90	73.80	5,028.40	-87.23	89.51	303.50	316.42	73.57	486,322.51	840,068.50
5,140.00	6.80	72.30	5,122.82	-90.23	92.58	313.54	326.93	73.55	486,325.58	840,078.54
5,235.00	7.80	71.90	5,217.04	-93.85	96.30	325.03	339.00	73.50	486,329.30	840,090.03
5,330.00	7.50	71.10	5,311.20	-97.78	100.31	337.02	351.63	73.43	486,333.31	840,102.02
5,425.00	6.90	71.20	5,405.45	-101.54	104.15	348.29	363.53	73.35	486,337.15	840,113.29
5,520.00	6.60	70.70	5,499.79	-105.10	107.80	358.85	374.69	73.28	486,340.80	840,123.85
5,615.00	6.20	70.60	5,594.20	-108.54	111.31	368.84	385.27	73.21	486,344.31	840,133.84
5,711.00	5.90	70.70	5,689.66	-111.82	114.66	378.38	395.38	73.14	486,347.66	840,143.38
5,806.00	5.50	72.70	5,784.19	-114.72	117.63	387.34	404.81	73.11	486,350.63	840,152.34
5,901.00	5.10	72.00	5,878.79	-117.31	120.29	395.70	413.58	73.09	486,353.29	840,160.70
5,960.00	4.80	70.20	5,937.57	-118.92	121.93	400.52	418.67	73.07	486,354.93	840,165.52
6,063.00	4.70	67.70	6,040.21	-121.92	124.99	408.48	427.17	72.99	486,357.99	840,173.48
6,159.00	7.60	63.30	6,135.65	-126.20	129.34	417.79	437.35	72.80	486,362.34	840,182.79
6,254.00	8.40	63.00	6,229.73	-132.08	135.31	429.58	450.39	72.52	486,368.31	840,194.58
6,349.00	6.90	69.30	6,323.88	-137.17	140.48	441.11	462.94	72.33	486,373.48	840,206.11
6,445.00	6.70	69.70	6,419.20	-141.07	144.46	451.75	474.29	72.27	486,377.46	840,216.75
6,540.00	6.80	67.90	6,513.55	-145.03	148.50	462.16	485.43	72.19	486,381.50	840,227.16
6,635.00	6.90	68.00	6,607.87	-149.20	152.75	472.66	496.73	72.09	486,385.75	840,237.66
6,730.00	6.90	66.30	6,702.18	-153.55	157.18	483.18	508.10	71.98	486,390.18	840,248.18
6,825.00	7.00	66.80	6,796.48	-158.05	161.76	493.73	519.55	71.86	486,394.76	840,258.73
6,920.00	6.90	65.60	6,890.78	-162.61	166.40	504.24	530.99	71.74	486,399.40	840,269.24
7,015.00	6.70	65.60	6,985.11	-167.18	171.04	514.49	542.17	71.61	486,404.04	840,279.49
7,110.00	6.60	65.10	7,079.48	-171.69	175.63	524.49	553.11	71.49	486,408.63	840,289.49
7,205.00	6.60	63.70	7,173.85	-176.33	180.35	534.33	563.95	71.35	486,413.35	840,299.33
7,300.00	5.10	73.40	7,268.35	-179.89	183.97	543.27	573.58	71.29	486,416.97	840,308.27
7,395.00	4.90	75.60	7,362.99	-182.05	186.19	551.25	581.84	71.34	486,419.19	840,316.25



ProDirectional
Survey Report



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Site: Marlan Downey State 04 09 23S 35E
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Wellbore: OH
Design: MWD-180'-17227', PTB: 17295'

Local Co-ordinate Reference:
TVD Reference: Well @ 3572.50usft
MD Reference: Well @ 3572.50usft
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)
7,489.00	4.80	77.90	7,456.65	-183.81	188.01	558.98	589.76	71.41	486,421.01	840,323.98
7,585.00	4.70	79.30	7,552.32	-185.33	189.58	566.78	597.64	71.51	486,422.58	840,331.78
7,680.00	4.60	81.60	7,647.01	-186.55	190.86	574.37	605.25	71.62	486,423.86	840,339.37
7,775.00	4.60	80.50	7,741.70	-187.68	192.05	581.90	612.77	71.74	486,425.05	840,346.90
7,871.00	4.30	79.20	7,837.42	-188.93	193.36	589.23	620.14	71.83	486,426.36	840,354.23
7,965.00	2.90	101.80	7,931.23	-189.06	193.53	595.02	625.70	71.98	486,426.53	840,360.02
8,060.00	2.80	110.90	8,026.12	-187.71	192.21	599.54	629.60	72.22	486,425.21	840,364.54
8,154.00	1.00	134.10	8,120.06	-186.30	190.82	602.27	631.78	72.42	486,423.82	840,367.27
8,249.00	0.90	163.10	8,215.05	-185.00	189.53	603.08	632.16	72.55	486,422.53	840,368.08
8,344.00	0.90	145.60	8,310.04	-183.67	188.20	603.72	632.38	72.69	486,421.20	840,368.72
8,440.00	0.90	146.20	8,406.02	-182.41	186.95	604.57	632.81	72.82	486,419.95	840,369.57
8,534.00	0.80	132.20	8,500.01	-181.35	185.90	605.46	633.36	72.93	486,418.90	840,370.46
8,630.00	0.50	109.10	8,596.01	-180.76	185.31	606.36	634.04	73.01	486,418.31	840,371.36
8,725.00	0.60	90.20	8,691.00	-180.61	185.18	607.25	634.85	73.04	486,418.18	840,372.25
8,820.00	0.50	61.30	8,786.00	-180.80	185.37	608.11	635.73	73.05	486,418.37	840,373.11
8,915.00	0.70	43.30	8,880.99	-181.42	185.99	608.87	636.64	73.01	486,418.99	840,373.87
9,010.00	1.10	60.10	8,975.98	-182.29	186.87	610.06	638.04	72.97	486,419.87	840,375.06
9,105.00	0.80	75.20	9,070.97	-182.90	187.50	611.49	639.59	72.95	486,420.50	840,376.49
9,214.00	0.60	66.90	9,179.96	-183.31	187.91	612.75	640.92	72.95	486,420.91	840,377.75
9,309.00	10.40	186.20	9,274.45	-174.96	179.56	612.28	638.07	73.66	486,412.56	840,377.28
9,404.00	26.40	176.60	9,364.32	-145.15	149.75	612.61	630.65	76.26	486,382.75	840,377.61
9,422.10	28.40	176.24	9,380.39	-136.83	141.44	613.13	629.23	77.01	486,374.44	840,378.13
FTP: 9422.1' MD										
9,499.00	36.90	175.10	9,445.08	-95.49	100.11	616.31	624.39	80.77	486,333.11	840,381.31
9,595.00	42.70	179.00	9,518.82	-34.14	38.79	619.34	620.55	86.42	486,271.79	840,384.34
9,690.00	47.40	183.30	9,585.93	33.01	-28.38	617.89	618.54	92.63	486,204.62	840,382.89
9,785.00	54.50	183.40	9,645.74	106.58	-101.98	613.58	621.99	99.44	486,131.02	840,378.58



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Marlan Downey State 04 09 23S 35E
Well: No. 114H
Wellbore: OH
Design: MWD-180'-17227', PTB: 17295'

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:
Well No. 114H
Well @ 3572.50usft
Well @ 3572.50usft
Grid
Minimum Curvature
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)
9,880.00	59.90	182.30	9,697.19	186.27	-181.70	609.63	636.13	106.60	486,051.30	840,374.63
9,975.00	62.90	181.20	9,742.66	269.61	-265.06	607.10	662.44	113.59	485,967.94	840,372.10
10,071.00	75.40	179.60	9,776.76	359.14	-354.59	606.52	702.57	120.31	485,878.41	840,371.52
10,166.00	89.60	178.40	9,789.13	453.08	-448.52	608.18	755.68	126.41	485,784.48	840,373.18
10,260.00	90.50	177.20	9,789.05	547.03	-542.45	611.79	817.64	131.56	485,690.55	840,376.79
10,355.00	88.70	179.60	9,789.71	641.99	-637.40	614.44	885.33	136.05	485,595.60	840,379.44
10,450.00	89.10	179.90	9,791.53	736.98	-732.38	614.85	956.26	139.99	485,500.62	840,379.85
10,545.00	86.60	182.20	9,795.10	831.86	-827.29	613.12	1,029.71	143.46	485,405.71	840,378.12
10,641.00	87.50	182.50	9,800.04	927.62	-923.08	609.18	1,105.97	146.58	485,309.92	840,374.18
10,736.00	88.50	182.50	9,803.35	1,022.44	-1,017.93	605.04	1,184.17	149.27	485,215.07	840,370.04
10,831.00	89.50	182.70	9,805.01	1,117.29	-1,112.81	600.73	1,264.61	151.64	485,120.19	840,365.73
10,926.00	89.60	182.10	9,805.76	1,212.17	-1,207.73	596.76	1,347.12	153.71	485,025.27	840,361.76
11,021.00	87.30	182.70	9,808.33	1,307.01	-1,302.60	592.78	1,431.14	155.53	484,930.40	840,357.78
11,116.00	87.50	183.00	9,812.64	1,401.76	-1,397.39	588.06	1,516.08	157.18	484,835.61	840,353.06
11,211.00	88.10	183.40	9,816.28	1,496.50	-1,492.17	582.76	1,601.93	158.67	484,740.83	840,347.76
11,306.00	89.10	182.00	9,818.60	1,591.33	-1,587.03	578.29	1,689.11	159.98	484,645.97	840,343.29
11,402.00	89.90	181.70	9,819.44	1,687.25	-1,682.98	575.19	1,778.55	161.13	484,550.02	840,340.19
11,496.00	89.30	181.90	9,820.10	1,781.17	-1,776.93	572.24	1,866.80	162.15	484,456.07	840,337.24
11,591.00	86.50	180.90	9,823.58	1,876.05	-1,871.82	569.92	1,956.66	163.07	484,361.18	840,334.92
11,686.00	86.70	180.50	9,829.21	1,970.86	-1,966.65	568.76	2,047.24	163.87	484,266.35	840,333.76
11,781.00	88.00	180.90	9,833.61	2,065.74	-2,061.54	567.60	2,138.25	164.61	484,171.46	840,332.60
11,877.00	89.10	178.70	9,836.04	2,161.70	-2,157.50	567.93	2,231.00	165.25	484,075.50	840,332.93
11,972.00	92.40	177.60	9,834.79	2,256.65	-2,252.43	571.00	2,323.68	165.77	483,980.57	840,336.00
12,068.00	94.90	177.20	9,828.68	2,352.38	-2,348.13	575.35	2,417.59	166.23	483,884.87	840,340.35
12,162.00	93.70	178.00	9,821.63	2,446.06	-2,441.78	579.27	2,509.55	166.65	483,791.22	840,344.27
12,258.00	95.20	178.00	9,814.18	2,541.73	-2,537.43	582.61	2,603.45	167.07	483,695.57	840,347.61
12,354.00	92.70	179.10	9,807.57	2,637.48	-2,633.16	585.03	2,697.37	167.47	483,599.84	840,350.03



ProDirectional
Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Marlan Downey State 04 09 23S 35E
Well: No. 114H
Wellbore: OH
Design: MWD-180'-17227', PTB: 17295'

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:
Well No. 114H
Well @ 3572.50usft
Well @ 3572.50usft
Grid
Minimum Curvature
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)
12,449.00	90.20	180.10	9,805.17	2,732.44	-2,728.12	585.69	2,790.28	167.88	483,504.88	840,350.69
12,544.00	91.50	179.80	9,803.76	2,827.42	-2,823.11	585.78	2,883.24	168.28	483,409.89	840,350.78
12,640.00	89.10	179.80	9,803.26	2,923.41	-2,919.10	586.11	2,977.36	168.65	483,313.90	840,351.11
12,735.00	91.20	180.50	9,803.01	3,018.40	-3,014.09	585.86	3,070.50	169.00	483,218.91	840,350.86
12,830.00	89.40	180.10	9,802.51	3,113.39	-3,109.08	585.37	3,163.71	169.34	483,123.92	840,350.37
12,924.00	90.10	180.30	9,802.92	3,207.38	-3,203.08	585.04	3,256.07	169.65	483,029.92	840,350.04
13,019.00	88.50	178.70	9,804.08	3,302.37	-3,298.06	585.87	3,349.70	169.93	482,934.94	840,350.87
13,115.00	88.90	178.70	9,806.26	3,398.33	-3,394.01	588.04	3,444.58	170.17	482,838.99	840,353.04
13,210.00	89.70	178.70	9,807.42	3,493.31	-3,488.98	590.20	3,538.55	170.40	482,744.02	840,355.20
13,305.00	88.60	178.60	9,808.83	3,588.29	-3,583.94	592.44	3,632.58	170.61	482,649.06	840,357.44
13,401.00	89.70	178.50	9,810.25	3,684.26	-3,679.90	594.87	3,727.67	170.82	482,553.10	840,359.87
13,496.00	92.00	178.60	9,808.84	3,779.23	-3,774.85	597.27	3,821.81	171.01	482,458.15	840,362.27
13,591.00	93.50	178.80	9,804.29	3,874.11	-3,869.72	599.42	3,915.87	171.19	482,363.28	840,364.42
13,686.00	91.60	179.00	9,800.06	3,969.00	-3,964.60	601.24	4,009.93	171.38	482,268.40	840,366.24
13,781.00	90.90	179.70	9,797.99	4,063.98	-4,059.57	602.32	4,104.01	171.56	482,173.43	840,367.32
13,876.00	89.30	179.70	9,797.82	4,158.97	-4,154.57	602.82	4,198.07	171.74	482,078.43	840,367.82
13,971.00	91.00	180.30	9,797.57	4,253.97	-4,249.56	602.82	4,292.11	171.93	481,983.44	840,367.82
14,066.00	88.80	180.40	9,797.74	4,348.95	-4,344.56	602.24	4,386.10	172.11	481,888.44	840,367.24
14,161.00	87.30	180.40	9,800.97	4,443.88	-4,439.50	601.58	4,480.07	172.28	481,793.50	840,366.58
14,256.00	88.20	180.90	9,804.70	4,538.79	-4,534.41	600.50	4,574.00	172.46	481,698.59	840,365.50
14,352.00	89.80	181.50	9,806.38	4,634.74	-4,630.38	598.49	4,668.89	172.64	481,602.62	840,363.49
14,447.00	88.60	181.40	9,807.70	4,729.67	-4,725.33	596.09	4,762.78	172.81	481,507.67	840,361.09
14,542.00	89.40	182.40	9,809.36	4,824.58	-4,820.27	592.94	4,856.60	172.99	481,412.73	840,357.94
14,637.00	88.20	181.20	9,811.35	4,919.48	-4,915.19	589.95	4,950.47	173.16	481,317.81	840,354.95
14,732.00	87.20	178.30	9,815.16	5,014.39	-5,010.11	590.37	5,044.77	173.28	481,222.89	840,355.37
14,827.00	88.00	178.30	9,819.14	5,109.29	-5,104.98	593.18	5,139.33	173.37	481,128.02	840,358.18
14,922.00	88.90	178.90	9,821.71	5,204.24	-5,199.91	595.50	5,233.90	173.47	481,033.09	840,360.50



ProDirectional
Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Marlan Downey State 04 09 23S 35E
Well: No. 114H
Wellbore: OH
Design: MWD-180'-17227', PTB: 17295'

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well No. 114H
Well @ 3572.50usft
Well @ 3572.50usft
Grid
Minimum Curvature
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)
15,017.00	89.10	179.60	9,823.37	5,299.22	-5,294.89	596.75	5,328.41	173.57	480,938.11	840,361.75
15,041.00	89.50	180.00	9,823.66	5,323.22	-5,318.89	596.83	5,352.27	173.60	480,914.11	840,361.83
15,136.00	88.20	180.70	9,825.57	5,418.19	-5,413.87	596.25	5,446.60	173.72	480,819.13	840,361.25
15,231.00	88.80	180.90	9,828.06	5,513.13	-5,508.82	594.92	5,540.85	173.84	480,724.18	840,359.92
15,326.00	90.20	181.40	9,828.88	5,608.09	-5,603.80	593.02	5,635.09	173.96	480,629.20	840,358.02
15,421.00	87.70	179.90	9,830.63	5,703.05	-5,698.77	591.94	5,729.43	174.07	480,534.23	840,356.94
15,517.00	87.80	177.80	9,834.39	5,798.96	-5,794.67	593.86	5,825.02	174.15	480,438.33	840,358.86
15,612.00	85.40	177.40	9,840.03	5,893.73	-5,889.41	597.83	5,919.68	174.20	480,343.59	840,362.83
15,707.00	85.70	177.50	9,847.40	5,988.38	-5,984.03	602.05	6,014.24	174.25	480,248.97	840,367.05
15,802.00	86.20	177.80	9,854.11	6,083.09	-6,078.71	605.93	6,108.84	174.31	480,154.29	840,370.93
15,897.00	87.50	178.00	9,859.33	6,177.90	-6,173.50	609.41	6,203.51	174.36	480,059.50	840,374.41
15,992.00	88.50	178.20	9,862.64	6,272.81	-6,268.39	612.56	6,298.25	174.42	479,964.61	840,377.56
16,087.00	89.40	177.80	9,864.39	6,367.76	-6,363.32	615.87	6,393.05	174.47	479,869.68	840,380.87
16,181.00	90.80	177.60	9,864.22	6,461.71	-6,457.24	619.64	6,486.90	174.52	479,775.76	840,384.64
16,276.00	89.80	178.20	9,863.72	6,556.66	-6,552.17	623.13	6,581.74	174.57	479,680.83	840,388.13
16,372.00	87.30	178.10	9,866.15	6,652.60	-6,648.08	626.22	6,677.51	174.62	479,584.92	840,391.22
16,467.00	88.00	178.40	9,870.05	6,747.49	-6,742.96	629.12	6,772.24	174.67	479,490.04	840,394.12
16,562.00	85.40	179.00	9,875.52	6,842.31	-6,837.77	631.27	6,866.85	174.73	479,395.23	840,396.27
16,657.00	86.30	178.90	9,882.39	6,937.06	-6,932.50	633.01	6,961.34	174.78	479,300.50	840,398.01
16,752.00	88.50	179.10	9,886.70	7,031.95	-7,027.38	634.67	7,055.98	174.84	479,205.62	840,399.67
16,847.00	88.90	179.30	9,888.86	7,126.92	-7,122.35	635.99	7,150.69	174.90	479,110.65	840,400.99
16,942.00	90.00	179.70	9,889.77	7,221.92	-7,217.34	636.82	7,245.38	174.96	479,015.66	840,401.82
17,037.00	90.80	180.30	9,889.10	7,316.91	-7,312.34	636.82	7,340.01	175.02	478,920.66	840,401.82
17,132.00	92.30	179.90	9,886.53	7,411.87	-7,407.30	636.66	7,434.61	175.09	478,825.70	840,401.66
17,227.00	93.70	179.70	9,881.56	7,506.73	-7,502.17	636.99	7,529.16	175.15	478,730.83	840,401.99

Last Survey: 17227' MD



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Marlan Downey State 04 09 23S 35E
Well: No. 114H
Wellbore: OH
Design: MWD-180'-17227', PTB: 17295'

Local Co-ordinate Reference:
TVD Reference: Well @ 3572.50usft
MD Reference: Well @ 3572.50usft
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)
17,295.00	93.70	179.70	9,877.17	7,574.59	-7,570.02	637.34	7,596.81	175.19	478,662.98	840,402.34
PTB: 17295' MD										

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
180.00	180.00	0.28	-0.56	Pro MWD First Survey: 180' MD
9,422.10	9,380.39	141.44	613.13	FTP: 9422.1' MD
17,227.00	9,881.56	-7,502.17	636.99	Last Survey: 17227' MD
17,295.00	9,877.17	-7,570.02	637.34	PTB: 17295' MD