



PRODIRECTIONAL



HOBBS OCD
AUG 02 2019
RECEIVED

Northeast Kemnitz 22 No. 12

Lea County, NM

30-025-45449

February 12, 2019

Job No. LNM5196619

ORIGINAL

Certified Report



Survey Certification Letter

February 12, 2019



Operator Name: Matador Resources
Well Name: Northeast Kemnitz 22 No. 12
County/Parish: Lea County,
State: NM
Rig Name: Patterson 809
Job Number: LNM5196619

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	199' MD – 13,354' MD	13,440' MD	01/02/19 – 01/16/19	MWD-HDGM

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
Northeast Kemnitz 22
No. 12
OH**

Survey: ProDirectional

Survey Report

12 February, 2019





ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Northeast Kernitz
Well: No. 12
Wellbore: OH
Design: MWD-199'-13354', PTB: 13440'

Local Co-ordinate Reference: Well No. 12
TVD Reference: Well @ 4111.50usft
MD Reference: Well @ 4111.50usft
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	Northeast Kernitz		
Site Position:		Northing:	692,346.00 usft
From:	Map	Easting:	782,424.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.900808
		Longitude:	-103.547839
		Grid Convergence:	0.43 °

Well	No. 12					
Well Position	+N-S	0.00 usft	Northing:	692,347.00 usft	Latitude:	32.900810
	+E-W	0.00 usft	Easting:	782,484.00 usft	Longitude:	-103.547643
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	4,083.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/3/2019	6.53	60.77	48,143.60

Design	MWD-199'-13354', PTB: 13440'			
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	310.61

Survey Program		Date	2/12/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
199.00	13,440.00	Survey #1 (OH)	MWD+HDGM	OWSG MWD + HRGM	



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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	692,347.00	782,484.00
199.00	0.20	114.50	199.00	-0.33	-0.14	0.32	0.35	114.50	692,346.86	782,484.32
Pro MWD First Survey: 199' MD										
288.00	0.20	108.80	288.00	-0.63	-0.26	0.60	0.66	113.16	692,346.74	782,484.60
382.00	0.20	82.40	382.00	-0.89	-0.29	0.92	0.97	107.44	692,346.71	782,484.92
445.00	0.30	40.30	445.00	-0.96	-0.15	1.14	1.15	97.48	692,346.85	782,485.14
597.00	0.30	95.10	597.00	-1.28	0.12	1.79	1.80	86.21	692,347.12	782,485.79
689.00	0.20	123.00	689.00	-1.64	0.01	2.17	2.17	89.74	692,347.01	782,486.17
779.00	0.20	67.90	778.99	-1.87	-0.02	2.44	2.44	90.39	692,346.98	782,486.44
871.00	0.10	285.30	870.99	-1.87	0.07	2.51	2.52	88.52	692,347.07	782,486.51
963.00	0.20	317.10	962.99	-1.63	0.20	2.33	2.34	85.00	692,347.20	782,486.33
1,057.00	0.60	285.00	1,056.99	-1.03	0.45	1.74	1.80	75.46	692,347.45	782,485.74
1,151.00	0.90	278.20	1,150.98	0.04	0.68	0.54	0.87	38.03	692,347.68	782,484.54
1,244.00	0.80	259.40	1,243.97	1.06	0.67	-0.83	1.06	309.00	692,347.67	782,483.17
1,338.00	0.60	259.20	1,337.97	1.78	0.46	-1.95	2.01	283.13	692,347.46	782,482.05
1,431.00	0.50	270.50	1,430.96	2.39	0.37	-2.84	2.86	277.39	692,347.37	782,481.16
1,525.00	0.60	266.50	1,524.96	3.06	0.34	-3.74	3.76	275.22	692,347.34	782,480.26
1,597.00	0.50	279.60	1,596.95	3.60	0.37	-4.43	4.44	274.79	692,347.37	782,479.57
1,743.00	0.30	201.00	1,742.95	4.02	0.12	-5.19	5.19	271.33	692,347.12	782,478.81
1,836.00	2.90	318.40	1,835.91	6.27	1.65	-6.84	7.04	283.58	692,348.65	782,477.16
1,930.00	4.20	318.50	1,929.73	12.03	6.01	-10.70	12.27	299.32	692,353.01	782,473.30
2,023.00	7.20	324.60	2,022.26	21.07	13.31	-16.33	21.07	309.18	692,360.31	782,467.67
2,117.00	8.00	321.80	2,115.44	33.20	23.25	-23.79	33.27	314.35	692,370.25	782,460.21
2,210.00	7.90	322.00	2,207.54	45.81	33.38	-31.73	46.05	316.45	692,380.38	782,452.27
2,304.00	7.90	323.70	2,300.65	58.44	43.67	-39.53	58.91	317.85	692,390.67	782,444.47
2,397.00	8.00	321.80	2,392.76	71.01	53.91	-47.32	71.73	318.73	692,400.91	782,436.68
2,491.00	7.90	323.70	2,485.85	83.72	64.26	-55.19	84.70	319.34	692,411.26	782,428.81



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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)
2,584.00	8.50	308.00	2,577.91	96.81	73.64	-64.39	97.82	318.84	692,420.64	782,419.61
2,678.00	8.50	305.60	2,670.88	110.67	81.96	-75.51	111.44	317.35	692,428.96	782,408.49
2,771.00	6.40	293.90	2,763.10	122.49	88.06	-85.84	122.98	315.73	692,435.06	782,398.16
2,869.00	6.10	292.40	2,860.51	132.66	92.26	-95.65	132.89	313.97	692,439.26	782,388.35
2,958.00	6.00	290.10	2,949.02	141.51	95.66	-104.39	141.59	312.50	692,442.66	782,379.61
3,051.00	5.70	288.20	3,041.53	150.33	98.77	-113.34	150.34	311.07	692,445.77	782,370.66
3,144.00	5.70	299.20	3,134.08	159.13	102.47	-121.76	159.14	310.08	692,449.47	782,362.24
3,237.00	5.60	300.50	3,226.62	168.13	107.03	-129.70	168.16	309.53	692,454.03	782,354.30
3,331.00	5.30	302.30	3,320.20	176.94	111.67	-137.32	177.00	309.12	692,458.67	782,346.68
3,424.00	5.00	300.10	3,412.82	185.17	116.00	-144.46	185.27	308.76	692,463.00	782,339.54
3,517.00	6.00	302.80	3,505.40	193.97	120.67	-152.05	194.11	308.44	692,467.67	782,331.95
3,611.00	6.40	302.20	3,598.85	204.02	126.12	-160.61	204.21	308.14	692,473.12	782,323.39
3,704.00	5.90	298.50	3,691.31	213.82	131.16	-169.20	214.08	307.78	692,478.16	782,314.80
3,797.00	5.40	294.50	3,783.86	222.70	135.26	-177.38	223.07	307.33	692,482.26	782,306.62
3,891.00	6.20	307.70	3,877.38	232.02	140.20	-185.42	232.46	307.09	692,487.20	782,298.58
3,984.00	6.50	310.70	3,969.81	242.30	146.70	-193.39	242.73	307.18	692,493.70	782,290.61
4,077.00	6.90	309.90	4,062.17	253.15	153.72	-201.66	253.57	307.32	692,500.72	782,282.34
4,171.00	7.00	307.20	4,155.48	264.51	160.80	-210.56	264.94	307.37	692,507.80	782,273.44
4,265.00	6.50	306.30	4,248.83	275.54	167.41	-219.41	275.98	307.34	692,514.41	782,264.59
4,358.00	6.00	307.30	4,341.28	285.64	173.48	-227.52	286.11	307.32	692,520.48	782,256.48
4,451.00	5.60	306.80	4,433.80	295.02	179.14	-235.02	295.51	307.32	692,526.14	782,248.98
4,545.00	8.10	307.10	4,527.12	306.21	185.88	-243.97	306.72	307.30	692,532.88	782,240.03
4,638.00	8.70	305.80	4,619.13	319.75	193.95	-254.90	320.30	307.27	692,540.95	782,229.10
4,732.00	8.60	305.90	4,712.06	333.84	202.23	-266.36	334.43	307.21	692,549.23	782,217.64
4,825.00	8.30	321.40	4,804.06	347.37	211.55	-276.18	347.90	307.45	692,558.55	782,207.82
4,918.00	8.10	324.50	4,896.11	360.32	222.13	-284.18	360.69	308.01	692,569.13	782,199.82
5,012.00	8.00	325.10	4,989.18	373.09	232.89	-291.77	373.32	308.60	692,579.89	782,192.23



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5,106.00	7.90	322.50	5,082.28	385.74	243.38	-299.44	385.87	309.10	692,590.38	782,184.56
5,199.00	7.90	323.00	5,174.40	398.24	253.55	-307.18	398.31	309.54	692,600.55	782,176.82
5,292.00	7.80	321.80	5,266.53	410.67	263.62	-314.93	410.70	309.93	692,610.62	782,169.07
5,386.00	7.90	321.50	5,359.65	423.27	273.69	-322.89	423.28	310.28	692,620.69	782,161.11
5,479.00	7.80	321.50	5,451.77	435.74	283.63	-330.80	435.74	310.61	692,630.63	782,153.20
5,573.00	7.70	321.30	5,544.92	448.20	293.53	-338.71	448.20	310.91	692,640.53	782,145.29
5,666.00	7.60	321.50	5,637.09	460.36	303.21	-346.43	460.38	311.19	692,650.21	782,137.57
5,760.00	7.50	321.80	5,730.27	472.48	312.89	-354.09	472.53	311.47	692,659.89	782,129.91
5,853.00	7.40	320.00	5,822.49	484.34	322.25	-361.70	484.43	311.70	692,669.25	782,122.30
5,947.00	7.20	320.60	5,915.73	496.12	331.44	-369.33	496.24	311.91	692,678.44	782,114.67
6,040.00	8.80	316.30	6,007.82	508.93	341.09	-377.94	509.10	312.07	692,688.09	782,106.06
6,134.00	9.40	317.10	6,100.63	523.72	351.91	-388.14	523.92	312.20	692,698.91	782,095.86
6,228.00	9.10	316.10	6,193.41	538.74	362.89	-398.52	538.98	312.32	692,709.89	782,085.48
6,321.00	8.90	316.50	6,285.27	553.22	373.41	-408.57	553.50	312.43	692,720.41	782,075.43
6,415.00	8.40	315.00	6,378.20	567.30	383.54	-418.43	567.61	312.51	692,730.54	782,065.57
6,508.00	7.90	315.50	6,470.26	580.44	392.90	-427.71	580.78	312.57	692,739.90	782,056.29
6,601.00	7.10	313.90	6,562.46	592.55	401.44	-436.33	592.91	312.62	692,748.44	782,047.67
6,695.00	6.10	306.00	6,655.84	603.32	408.41	-444.56	603.68	312.57	692,755.41	782,039.44
6,788.00	6.10	306.60	6,748.31	613.18	414.26	-452.52	613.50	312.47	692,761.26	782,031.48
6,881.00	8.00	303.70	6,840.61	624.53	420.79	-461.87	624.82	312.34	692,767.79	782,022.13
6,975.00	8.20	304.10	6,933.67	637.69	428.18	-472.87	637.92	312.16	692,775.18	782,011.13
7,068.00	7.90	304.50	7,025.75	650.63	435.52	-483.63	650.82	312.00	692,782.52	782,000.37
7,162.00	7.60	304.90	7,118.89	663.24	442.74	-494.05	663.40	311.86	692,789.74	781,989.95
7,256.00	8.50	303.70	7,211.97	676.32	450.15	-504.93	676.45	311.72	692,797.15	781,979.07
7,349.00	8.60	302.60	7,303.93	690.03	457.71	-516.50	690.12	311.55	692,804.71	781,967.50
7,442.00	7.80	302.10	7,395.98	703.16	464.81	-527.71	703.22	311.37	692,811.81	781,956.29
7,536.00	7.20	299.60	7,489.18	715.25	471.11	-538.23	715.29	311.20	692,818.11	781,945.77



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7,629.00	7.30	298.60	7,581.43	726.75	476.81	-548.49	726.77	311.00	692,823.81	781,935.51
7,723.00	7.30	297.70	7,674.67	738.41	482.45	-559.02	738.42	310.80	692,829.45	781,924.98
7,816.00	7.30	298.50	7,766.92	749.95	488.01	-569.44	749.95	310.60	692,835.01	781,914.56
7,909.00	7.00	299.60	7,859.19	761.29	493.63	-579.56	761.29	310.42	692,840.63	781,904.44
8,003.00	6.80	298.00	7,952.51	772.34	499.07	-589.46	772.36	310.25	692,846.07	781,894.54
8,096.00	6.40	298.60	8,044.90	782.78	504.14	-598.87	782.82	310.09	692,851.14	781,885.13
8,190.00	5.80	297.20	8,138.36	792.53	508.82	-607.69	792.58	309.94	692,855.82	781,876.31
8,283.00	5.70	295.20	8,230.90	801.55	512.93	-616.05	801.64	309.78	692,859.93	781,867.95
8,377.00	5.30	296.00	8,324.46	810.25	516.82	-624.18	810.37	309.63	692,863.82	781,859.82
8,470.00	5.00	293.90	8,417.09	818.29	520.35	-631.74	818.45	309.48	692,867.35	781,852.26
8,564.00	4.90	296.10	8,510.74	826.10	523.77	-639.09	826.30	309.34	692,870.77	781,844.91
8,657.00	2.90	290.50	8,603.52	832.16	526.35	-644.86	832.40	309.22	692,873.35	781,839.14
8,751.00	2.90	292.10	8,697.40	836.64	528.07	-649.29	836.93	309.12	692,875.07	781,834.71
8,844.00	2.90	287.50	8,790.28	841.04	529.67	-653.72	841.36	309.02	692,876.67	781,830.28
8,937.00	2.90	290.00	8,883.16	845.40	531.18	-658.17	845.78	308.91	692,878.18	781,825.83
9,030.00	1.80	308.70	8,976.08	849.07	532.90	-661.52	849.46	308.85	692,879.90	781,822.48
9,123.00	1.70	330.90	9,069.04	851.82	535.01	-663.33	852.20	308.89	692,882.01	781,820.67
9,217.00	1.80	317.60	9,163.00	854.59	537.32	-665.01	854.96	308.94	692,884.32	781,818.99
9,310.00	1.90	317.60	9,255.95	857.57	539.54	-667.03	857.92	308.97	692,886.54	781,816.97
9,404.00	1.70	309.60	9,349.90	860.51	541.58	-669.16	860.86	308.98	692,888.58	781,814.84
9,497.00	1.80	311.40	9,442.86	863.35	543.42	-671.31	863.70	308.99	692,890.42	781,812.69
9,591.00	1.60	306.30	9,536.82	866.14	545.18	-673.48	866.48	308.99	692,892.18	781,810.52
9,684.00	1.70	294.50	9,629.78	868.76	546.52	-675.78	869.12	308.96	692,893.52	781,808.22
9,808.00	1.70	288.90	9,753.72	872.23	547.88	-679.20	872.63	308.89	692,894.88	781,804.80
9,902.00	1.50	288.50	9,847.69	874.67	548.72	-681.68	875.09	308.83	692,895.72	781,802.32
9,995.00	1.40	288.20	9,940.66	876.85	549.46	-683.92	877.29	308.78	692,896.46	781,800.08
10,088.00	1.00	124.20	10,033.65	877.09	549.36	-684.32	877.55	308.76	692,896.36	781,799.68



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10,182.00	1.10	133.10	10,127.63	875.37	548.28	-682.99	875.83	308.76	692,895.28	781,801.01
10,275.00	0.90	146.60	10,220.62	873.78	547.06	-681.93	874.25	308.74	692,894.06	781,802.07
10,369.00	0.80	171.40	10,314.61	872.57	545.80	-681.43	873.06	308.69	692,892.80	781,802.57
10,462.00	0.30	54.50	10,407.61	872.02	545.30	-681.13	872.52	308.68	692,892.30	781,802.87
10,555.00	0.30	39.80	10,500.61	871.97	545.62	-680.78	872.45	308.71	692,892.62	781,803.22
10,648.00	0.20	88.10	10,593.60	871.85	545.82	-680.46	872.32	308.73	692,892.82	781,803.54
10,741.00	0.20	217.10	10,686.60	871.72	545.69	-680.40	872.19	308.73	692,892.69	781,803.60
10,835.00	0.30	277.30	10,780.60	871.92	545.59	-680.74	872.40	308.71	692,892.59	781,803.26
10,928.00	0.30	278.00	10,873.60	872.33	545.66	-681.22	872.81	308.69	692,892.66	781,802.78
11,022.00	0.30	236.30	10,967.60	872.60	545.56	-681.67	873.10	308.67	692,892.56	781,802.33
11,115.00	0.40	267.60	11,060.60	872.90	545.41	-682.20	873.42	308.64	692,892.41	781,801.80
11,207.00	0.40	273.00	11,152.60	873.39	545.41	-682.84	873.92	308.62	692,892.41	781,801.16
11,301.00	0.60	254.10	11,246.59	873.92	545.29	-683.64	874.48	308.58	692,892.29	781,800.36
11,394.00	0.70	235.30	11,339.59	874.34	544.84	-684.57	874.92	308.52	692,891.84	781,799.43
11,487.00	1.00	216.60	11,432.58	874.42	543.86	-685.53	875.06	308.43	692,890.86	781,798.47
11,581.00	1.20	222.80	11,526.56	874.41	542.48	-686.68	875.11	308.31	692,889.48	781,797.32
11,674.00	1.10	215.60	11,619.54	874.36	541.04	-687.86	875.15	308.19	692,888.04	781,796.14
11,767.00	1.10	221.20	11,712.52	874.30	539.64	-688.97	875.16	308.07	692,886.64	781,795.03
11,861.00	1.40	209.50	11,806.50	874.08	537.96	-690.13	875.04	307.94	692,884.96	781,793.87
11,954.00	0.90	193.90	11,899.48	873.54	536.27	-690.87	874.57	307.82	692,883.27	781,793.13
12,048.00	1.00	187.60	11,993.47	872.76	534.74	-691.15	873.86	307.73	692,881.74	781,792.85
12,141.00	1.00	201.10	12,086.46	872.04	533.18	-691.55	873.22	307.63	692,880.18	781,792.45
12,233.00	1.20	197.90	12,178.44	871.40	531.51	-692.14	872.67	307.52	692,878.51	781,791.86
12,326.00	1.20	196.80	12,271.42	870.64	529.65	-692.72	872.00	307.40	692,876.65	781,791.28
12,420.00	1.00	198.60	12,365.40	869.93	527.93	-693.26	871.39	307.29	692,874.93	781,790.74
12,513.00	1.20	208.40	12,458.38	869.42	526.31	-693.99	870.98	307.18	692,873.31	781,790.01
12,607.00	1.20	206.70	12,552.36	868.98	524.56	-694.90	870.66	307.05	692,871.56	781,789.10



ProDirectional Survey Report



Company: Matador Resources
Project: Lea County, NM (NAD83)
Site: Northeast Kernitz
Well: No. 12
Wellbore: OH
Design: MWD-199'-13354', PTB: 13440'

Local Co-ordinate Reference: Well No. 12
TVD Reference: Well @ 4111.50usft
MD Reference: Well @ 4111.50usft
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)
12,701.00	1.30	212.80	12,646.34	868.59	522.78	-695.92	870.40	306.91	692,869.78	781,788.08
12,794.00	1.80	192.40	12,739.31	867.76	520.47	-696.80	869.73	306.76	692,867.47	781,787.20
12,888.00	1.90	189.40	12,833.26	866.26	517.49	-697.37	868.40	306.58	692,864.49	781,786.63
12,982.00	2.00	191.90	12,927.20	864.66	514.35	-697.97	867.01	306.39	692,861.35	781,786.03
13,074.00	1.70	202.00	13,019.16	863.45	511.51	-698.81	866.01	306.20	692,858.51	781,785.19
13,167.00	2.10	213.30	13,112.11	862.80	508.81	-700.26	865.59	306.00	692,855.81	781,783.74
13,261.00	2.50	216.60	13,206.03	862.43	505.72	-702.43	865.54	305.75	692,852.72	781,781.57
13,354.00	2.30	221.50	13,298.95	862.32	502.70	-704.87	865.77	305.50	692,849.70	781,779.13
Last Survey: 13354' MD 13,440.00	2.30	221.50	13,384.88	862.37	500.11	-707.16	866.14	305.27	692,847.11	781,776.84
PTB: 13440' MD										

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
199.00	199.00	-0.14	0.32	Pro MWD First Survey: 199' MD
13,354.00	13,298.95	502.70	-704.87	Last Survey: 13354' MD
13,440.00	13,384.88	500.11	-707.16	PTB: 13440' MD