

DRILTECH MWD SURVEY REPORT



Company: EOG Resources, Inc
 Well: Frazier 34 State Com #504H
 Location: Lea Co., NM
 Rig: H&P 260

Job Number: 2015-055-EODT-NM
 Vertical Section Plane: 4.41
 WELL API #: 30-025-42389
 Tie Into: Surface

Calculation Method Minimum Curvature

AUC 032015

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)		
Tie In	Surf	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	MWD	176.00	0.90	115.80	176	175.99	-0.50	0.60 S	1.24 E	1.38	115.80	0.51	0.51
2	MWD	237.00	0.70	115.10	61	236.99	-0.81	0.97 S	2.01 E	2.23	115.68	0.33	-0.33
3	MWD	333.00	1.20	130.20	96	332.97	-1.61	1.87 S	3.31 E	3.80	119.39	0.58	0.52
4	MWD	426.00	1.20	134.80	93	425.95	-2.81	3.18 S	4.75 E	5.71	123.82	0.10	0.00
5	MWD	518.00	1.80	209.80	92	517.93	-4.74	5.11 S	4.71 E	6.95	137.34	2.05	0.65
6	MWD	609.00	2.10	204.40	91	608.88	-7.59	7.87 S	3.31 E	8.54	157.17	0.39	0.33
7	MWD	704.00	2.10	204.20	95	703.81	-10.87	11.04 S	1.88 E	11.20	170.34	0.01	0.00
8	MWD	799.00	1.80	209.80	95	798.76	-13.85	13.93 S	0.43 E	13.93	178.25	0.37	-0.32
9	MWD	894.00	1.90	197.00	95	893.71	-16.74	16.73 S	0.78 W	16.75	182.66	0.45	0.11
10	MWD	989.00	1.60	185.90	95	988.66	-19.60	19.55 S	1.37 W	19.60	184.02	0.48	-0.32
11	MWD	1084.00	1.90	175.00	95	1083.62	-22.48	22.44 S	1.37 W	22.48	183.50	0.47	0.32
12	MWD	1179.00	2.10	177.50	95	1178.56	-25.76	25.75 S	1.16 W	25.78	182.58	0.23	0.21
13	MWD	1274.00	1.90	176.60	95	1273.50	-29.05	29.06 S	0.99 W	29.08	181.95	0.21	-0.21
14	MWD	1369.00	2.60	179.20	95	1368.43	-32.76	32.79 S	0.87 W	32.80	181.51	0.74	0.74
15	MWD	1466.00	3.30	187.80	97	1465.30	-37.73	37.75 S	1.21 W	37.77	181.84	0.85	0.72
16	MWD	1549.00	3.50	189.40	83	1548.15	-42.64	42.62 S	1.95 W	42.66	182.62	0.27	0.24
17	MWD	1643.00	2.80	161.70	94	1642.02	-47.62	47.63 S	1.70 W	47.66	182.04	1.76	-0.74
18	MWD	1833.00	2.80	92.60	190	1831.84	-51.76	52.25 S	4.39 E	52.43	175.19	1.67	0.00
19	MWD	2022.00	2.50	87.30	189	2020.64	-51.10	52.26 S	13.12 E	53.89	165.90	0.20	-0.16
20	MWD	2117.00	2.30	83.10	95	2115.55	-50.47	51.94 S	17.09 E	54.67	161.79	0.28	-0.21
21	MWD	2212.00	2.10	77.50	95	2210.48	-49.59	51.33 S	20.68 E	55.34	158.06	0.31	-0.21
22	MWD	2307.00	1.90	66.90	95	2305.43	-48.35	50.34 S	23.83 E	55.69	154.67	0.44	-0.21
23	MWD	2402.00	1.90	64.10	95	2400.37	-46.83	49.03 S	26.69 E	55.82	151.44	0.10	0.00
24	MWD	2496.00	1.80	60.60	94	2494.33	-45.22	47.62 S	29.38 E	55.96	148.33	0.16	-0.11
25	MWD	2591.00	1.90	57.10	95	2589.28	-43.44	46.04 S	32.00 E	56.07	145.20	0.16	0.11
26	MWD	2686.00	2.10	55.50	95	2684.22	-41.39	44.20 S	34.76 E	56.23	141.82	0.22	0.21
27	MWD	2875.00	2.50	45.60	189	2873.07	-36.12	39.35 S	40.56 E	56.51	134.13	0.30	0.21
28	MWD	2970.00	3.50	58.30	95	2967.94	-32.85	36.38 S	44.50 E	57.48	129.26	1.26	1.05
29	MWD	3065.00	4.20	59.30	95	3062.72	-29.14	33.08 S	49.96 E	59.92	123.51	0.74	0.74
30	MWD	3160.00	4.90	50.60	95	3157.42	-24.33	28.73 S	56.09 E	63.02	117.12	1.03	0.74
31	MWD	3255.00	5.60	45.80	95	3252.02	-18.04	22.92 S	62.55 E	66.61	110.12	0.87	0.74
32	MWD	3349.00	6.20	59.00	94	3345.53	-11.66	17.11 S	70.19 E	72.24	103.70	1.57	0.64
33	MWD	3444.00	5.60	77.30	95	3440.03	-7.32	13.44 S	79.11 E	80.24	99.65	2.07	-0.63
34	MWD	3539.00	5.60	89.60	95	3534.58	-5.57	12.39 S	88.26 E	89.13	97.99	1.26	0.00

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Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')		
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)				
35	MWD	3634.00	5.10	87.30	95	3629.17	-4.66	12.16	S	97.12	E	97.88	97.14	0.57	-0.53
36	MWD	3729.00	4.80	82.20	95	3723.82	-3.30	11.42	S	105.27	E	105.89	96.19	0.56	-0.32
37	MWD	3823.00	4.20	75.70	94	3817.53	-1.36	10.04	S	112.51	E	112.95	95.10	0.84	-0.64
38	MWD	3918.00	3.90	73.90	95	3912.29	0.89	8.28	S	118.98	E	119.27	93.98	0.34	-0.32
39	MWD	4013.00	3.50	78.20	95	4007.09	2.83	6.80	S	124.92	E	125.11	93.11	0.51	-0.42
40	MWD	4108.00	3.20	80.60	95	4101.93	4.27	5.77	S	130.38	E	130.50	92.53	0.35	-0.32
41	MWD	4203.00	3.30	80.10	95	4196.78	5.58	4.87	S	135.69	E	135.77	92.05	0.11	0.11
42	MWD	4298.00	3.00	79.40	95	4291.63	6.90	3.94	S	140.82	E	140.88	91.60	0.32	-0.32
43	MWD	4392.00	3.20	83.40	94	4385.49	8.04	3.18	S	145.85	E	145.88	91.25	0.31	0.21
44	MWD	4487.00	5.30	89.60	95	4480.23	8.91	2.85	S	152.87	E	152.90	91.07	2.26	2.21
45	MWD	4582.00	6.00	99.10	95	4574.77	8.88	3.60	S	162.16	E	162.20	91.27	1.23	0.74
46	MWD	4677.00	5.30	103.30	95	4669.31	7.79	5.40	S	171.33	E	171.42	91.80	0.86	-0.74
47	MWD	4771.00	6.30	112.40	94	4762.83	5.53	8.36	S	180.33	E	180.52	92.66	1.44	1.06
48	MWD	4866.00	7.40	119.50	95	4857.15	1.32	13.36	S	190.47	E	190.94	94.01	1.46	1.16
49	MWD	4961.00	7.90	120.50	95	4951.30	-4.14	19.69	S	201.42	E	202.38	95.58	0.54	0.53
50	MWD	5055.00	7.20	122.50	94	5044.49	-9.76	26.13	S	211.96	E	213.56	97.03	0.80	-0.74
51	MWD	5150.00	6.50	118.60	95	5138.81	-14.76	31.90	S	221.70	E	223.98	98.19	0.88	-0.74
52	MWD	5245.00	5.60	112.40	95	5233.28	-18.40	36.25	S	230.70	E	233.53	98.93	1.17	-0.95
53	MWD	5339.00	5.60	109.10	94	5326.83	-20.98	39.49	S	239.28	E	242.52	99.37	0.34	0.00
54	MWD	5434.00	5.50	108.20	95	5421.39	-23.24	42.43	S	247.98	E	251.59	99.71	0.14	-0.11
55	MWD	5529.00	5.30	94.90	95	5515.97	-24.36	44.23	S	256.68	E	260.46	99.78	1.33	-0.21
56	MWD	5624.00	5.30	92.60	95	5610.56	-24.26	44.80	S	265.44	E	269.19	99.58	0.22	0.00
57	MWD	5719.00	4.90	91.20	95	5705.19	-23.89	45.09	S	273.87	E	277.56	99.35	0.44	-0.42
58	MWD	5813.00	4.80	94.90	94	5798.85	-23.70	45.51	S	281.81	E	285.46	99.17	0.35	-0.11
59	MWD	5908.00	4.60	79.60	95	5893.53	-22.76	45.16	S	289.51	E	293.02	98.87	1.33	-0.21
60	MWD	6098.00	4.20	77.60	190	6082.97	-18.80	42.29	S	303.80	E	306.73	97.92	0.23	-0.21
61	MWD	6192.00	3.90	76.90	94	6176.74	-16.85	40.83	S	310.28	E	312.95	97.50	0.32	-0.32
62	MWD	6287.00	3.50	70.10	95	6271.54	-14.68	39.11	S	316.15	E	318.56	97.05	0.62	-0.42
63	MWD	6382.00	3.50	70.40	95	6366.36	-12.31	37.15	S	321.61	E	323.75	96.59	0.02	0.00
64	MWD	6476.00	3.20	68.50	94	6460.20	-9.99	35.22	S	326.75	E	328.65	96.15	0.34	-0.32
65	MWD	6571.00	3.20	67.60	95	6555.05	-7.64	33.24	S	331.67	E	333.33	95.72	0.05	0.00
66	MWD	6666.00	3.00	65.90	95	6649.92	-5.26	31.21	S	336.39	E	337.84	95.30	0.23	-0.21
67	MWD	6760.00	3.00	67.80	94	6743.79	-2.98	29.28	S	340.92	E	342.17	94.91	0.11	0.00
68	MWD	6855.00	2.80	65.00	95	6838.67	-0.73	27.36	S	345.32	E	346.40	94.53	0.26	-0.21
69	MWD	6950.00	2.60	65.30	95	6933.56	1.46	25.48	S	349.38	E	350.31	94.17	0.21	-0.21
70	MWD	7045.00	2.30	66.60	95	7028.47	3.40	23.82	S	353.09	E	353.89	93.86	0.32	-0.32
71	MWD	7139.00	1.80	70.80	94	7122.41	4.87	22.59	S	356.21	E	356.93	93.63	0.56	-0.53
72	MWD	7234.00	1.80	72.40	95	7217.37	6.03	21.65	S	359.05	E	359.70	93.45	0.05	0.00

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								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)		
73	MWD	7328.00	1.60	71.80	94	7311.32	7.08	20.79 S	361.70 E	362.30	93.29	0.21	-0.21
74	MWD	7423.00	1.40	75.90	95	7406.29	7.96	20.09 S	364.08 E	364.64	93.16	0.24	-0.21
75	MWD	7612.00	1.20	79.40	189	7595.24	9.21	19.17 S	368.27 E	368.77	92.98	0.11	-0.11
76	MWD	7707.00	1.10	98.00	95	7690.22	9.41	19.11 S	370.15 E	370.64	92.96	0.40	-0.11
77	MWD	7896.00	0.50	109.30	189	7879.20	9.08	19.64 S	372.73 E	373.24	93.02	0.33	-0.32
78	MWD	7991.00	0.50	137.60	95	7974.20	8.69	20.08 S	373.40 E	373.94	93.08	0.26	0.00
79	MWD	8086.00	0.40	147.60	95	8069.20	8.14	20.66 S	373.85 E	374.42	93.16	0.13	-0.11
80	MWD	8276.00	0.50	154.80	190	8259.19	6.89	21.97 S	374.56 E	375.21	93.36	0.06	0.05
81	MWD	8370.00	0.70	165.90	94	8353.19	5.99	22.90 S	374.88 E	375.57	93.50	0.25	0.21
82	MWD	8465.00	0.70	162.50	95	8448.18	4.90	24.02 S	375.19 E	375.96	93.66	0.04	0.00
83	MWD	8560.00	0.70	178.00	95	8543.17	3.79	25.15 S	375.39 E	376.23	93.83	0.20	0.00
84	MWD	8655.00	0.90	178.70	95	8638.16	2.47	26.48 S	375.42 E	376.36	94.03	0.21	0.21
85	MWD	8750.00	0.90	174.30	95	8733.15	0.99	27.97 S	375.51 E	376.55	94.26	0.07	0.00
86	MWD	8844.00	0.90	177.50	94	8827.14	-0.47	29.44 S	375.62 E	376.77	94.48	0.05	0.00
87	MWD	8939.00	1.10	186.30	95	8922.12	-2.12	31.09 S	375.55 E	376.84	94.73	0.26	0.21
88	MWD	9034.00	0.90	185.90	95	9017.11	-3.78	32.74 S	375.38 E	376.80	94.98	0.21	-0.21
89	MWD	9129.00	0.90	186.80	95	9112.10	-5.27	34.22 S	375.21 E	376.77	95.21	0.01	0.00
90	MWD	9223.00	0.70	178.00	94	9206.09	-6.58	35.53 S	375.14 E	376.82	95.41	0.25	-0.21
91	MWD	9318.00	0.70	177.30	95	9301.08	-7.73	36.69 S	375.19 E	376.98	95.58	0.01	0.00
92	MWD	9413.00	0.50	103.30	95	9396.08	-8.37	37.36 S	375.62 E	377.48	95.68	0.78	-0.21
93	MWD	9507.00	0.50	91.00	94	9490.07	-8.41	37.47 S	376.43 E	378.29	95.68	0.11	0.00
94	MWD	9602.00	0.70	82.90	95	9585.07	-8.27	37.40 S	377.42 E	379.27	95.66	0.23	0.21
95	MWD	9697.00	0.40	80.60	95	9680.06	-8.07	37.27 S	378.32 E	380.16	95.63	0.32	-0.32
96	MWD	9792.00	0.70	106.30	95	9775.06	-8.11	37.38 S	379.21 E	381.05	95.63	0.40	0.32
97	MWD	9886.00	1.40	121.60	94	9869.04	-8.76	38.15 S	380.74 E	382.64	95.72	0.80	0.74
98	MWD	9918.00	1.40	134.20	32	9901.03	-9.19	38.62 S	381.35 E	383.30	95.78	0.96	0.00
99	MWD	9977.00	1.20	129.10	59	9960.02	-10.00	39.52 S	382.35 E	384.38	95.90	0.39	-0.34
100	MWD	10025.00	4.20	45.80	48	10007.97	-8.97	38.61 S	384.00 E	385.93	95.74	8.81	6.25
101	MWD	10072.00	9.70	33.50	47	10054.61	-4.21	34.10 S	387.42 E	388.92	95.03	12.06	11.70
102	MWD	10119.00	15.80	18.90	47	10100.44	5.46	24.74 S	391.68 E	392.46	93.61	14.58	12.98
103	MWD	10166.00	21.60	14.20	47	10144.94	20.19	10.28 S	395.88 E	396.02	91.49	12.74	12.34
104	MWD	10214.00	25.90	10.00	48	10188.87	39.34	8.62 N	399.87 E	399.96	88.77	9.62	8.96
105	MWD	10261.00	29.70	5.90	47	10230.44	61.20	30.32 N	402.85 E	403.99	85.70	9.05	8.09
106	MWD	10309.00	35.70	6.30	48	10270.82	87.11	56.09 N	405.61 E	409.47	82.13	12.51	12.50
107	MWD	10356.00	41.70	4.90	47	10307.48	116.48	85.32 N	408.46 E	417.27	78.20	12.90	12.77
108	MWD	10403.00	46.30	6.60	47	10341.28	149.11	117.79 N	411.75 E	428.27	74.03	10.10	9.79
109	MWD	10450.00	50.10	6.10	47	10372.60	184.12	152.61 N	415.62 E	442.75	69.84	8.12	8.09
110	MWD	10498.00	52.40	3.80	48	10402.65	221.54	189.90 N	418.83 E	459.87	65.61	6.08	4.79

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111	MWD	10545.00	55.80	4.20	47	10430.20	259.61	227.87	N	421.49	E	479.15	61.60	7.27	7.23
112	MWD	10593.00	60.00	2.90	48	10455.71	300.26	268.45	N	424.00	E	501.84	57.66	9.05	8.75
113	MWD	10640.00	65.30	359.60	47	10477.30	341.91	310.16	N	424.88	E	526.04	53.87	12.88	11.28
114	MWD	10688.00	68.10	357.80	48	10496.28	385.77	354.23	N	423.87	E	552.40	50.11	6.77	5.83
115	MWD	10735.00	71.60	358.40	47	10512.47	429.62	398.32	N	422.41	E	580.60	46.68	7.54	7.45
116	MWD	10782.00	76.40	1.90	47	10525.42	474.66	443.48	N	422.55	E	612.55	43.62	12.47	10.21
117	MWD	10829.00	79.00	2.40	47	10535.44	520.54	489.36	N	424.27	E	647.67	40.92	5.63	5.53
118	MWD	10877.00	81.60	2.00	48	10543.52	567.81	536.64	N	426.09	E	685.22	38.45	5.48	5.42
119	MWD	10924.00	83.60	359.20	47	10549.58	614.31	583.24	N	426.57	E	722.58	36.18	7.28	4.26
120	MWD	10972.00	89.00	358.50	48	10552.67	661.97	631.11	N	425.61	E	761.21	34.00	11.34	11.25
121	MWD	11026.00	88.70	358.40	54	10553.76	715.66	685.08	N	424.15	E	805.75	31.76	0.59	-0.56
122	MWD	11121.00	89.40	358.90	95	10555.33	810.17	780.04	N	421.91	E	886.83	28.41	0.91	0.74
123	MWD	11216.00	90.80	359.10	95	10555.17	904.74	875.02	N	420.25	E	970.71	25.65	1.49	1.47
124	MWD	11310.00	91.30	359.80	94	10553.44	998.38	969.00	N	419.35	E	1055.85	23.40	0.92	0.53
125	MWD	11405.00	90.10	359.60	95	10552.28	1093.05	1063.99	N	418.85	E	1143.47	21.49	1.28	-1.26
126	MWD	11500.00	91.70	359.10	95	10550.79	1187.66	1158.97	N	417.78	E	1231.97	19.82	1.76	1.68
127	MWD	11595.00	92.40	359.20	95	10547.39	1282.20	1253.90	N	416.37	E	1321.22	18.37	0.74	0.74
128	MWD	11690.00	91.70	358.50	95	10544.00	1376.69	1348.82	N	414.46	E	1411.06	17.08	1.04	-0.74
129	MWD	11785.00	92.20	359.40	95	10540.76	1471.20	1443.74	N	412.72	E	1501.58	15.95	1.08	0.53
130	MWD	11879.00	91.80	1.30	94	10537.48	1564.91	1537.68	N	413.30	E	1592.25	15.04	2.06	-0.43
131	MWD	11974.00	92.40	2.40	95	10534.00	1659.75	1632.56	N	416.36	E	1684.82	14.31	1.32	0.63
132	MWD	12069.00	89.60	1.00	95	10532.34	1754.61	1727.50	N	419.18	E	1777.63	13.64	3.30	-2.95
133	MWD	12164.00	89.00	359.90	95	10533.50	1849.38	1822.48	N	419.92	E	1870.24	12.98	1.32	-0.63
134	MWD	12258.00	89.70	1.30	94	10534.57	1943.16	1916.47	N	420.91	E	1962.15	12.39	1.67	0.74
135	MWD	12353.00	91.70	1.20	95	10533.41	2038.01	2011.44	N	422.98	E	2055.43	11.88	2.11	2.11
136	MWD	12448.00	92.70	1.00	95	10529.76	2132.78	2106.35	N	424.80	E	2148.76	11.40	1.07	1.05
137	MWD	12542.00	92.00	1.00	94	10525.91	2226.53	2200.25	N	426.44	E	2241.20	10.97	0.74	-0.74
138	MWD	12637.00	91.00	1.00	95	10523.42	2321.33	2295.20	N	428.10	E	2334.79	10.57	1.05	-1.05
139	MWD	12732.00	91.00	0.80	95	10521.76	2416.13	2390.18	N	429.59	E	2428.48	10.19	0.21	0.00
140	MWD	12826.00	91.00	0.50	94	10520.12	2509.92	2484.16	N	430.66	E	2521.21	9.84	0.32	0.00
141	MWD	12921.00	89.90	0.80	95	10519.38	2604.71	2579.15	N	431.74	E	2615.03	9.50	1.20	-1.16
142	MWD	13016.00	89.60	2.20	95	10519.79	2699.58	2674.11	N	434.22	E	2709.14	9.22	1.51	-0.32
143	MWD	13111.00	90.60	1.50	95	10519.63	2794.49	2769.06	N	437.29	E	2803.38	8.97	1.28	1.05
144	MWD	13205.00	89.60	358.00	94	10519.46	2888.16	2863.04	N	436.88	E	2896.18	8.68	3.87	-1.06
145	MWD	13300.00	90.10	358.50	95	10519.71	2982.61	2958.00	N	433.98	E	2989.66	8.35	0.74	0.53
146	MWD	13395.00	89.60	358.40	95	10519.96	3077.10	3052.96	N	431.41	E	3083.29	8.04	0.54	-0.53
147	MWD	13490.00	89.60	359.20	95	10520.62	3171.64	3147.94	N	429.42	E	3177.09	7.77	0.84	0.00
148	MWD	13585.00	89.70	358.70	95	10521.20	3266.21	3242.92	N	427.68	E	3271.00	7.51	0.54	0.11

