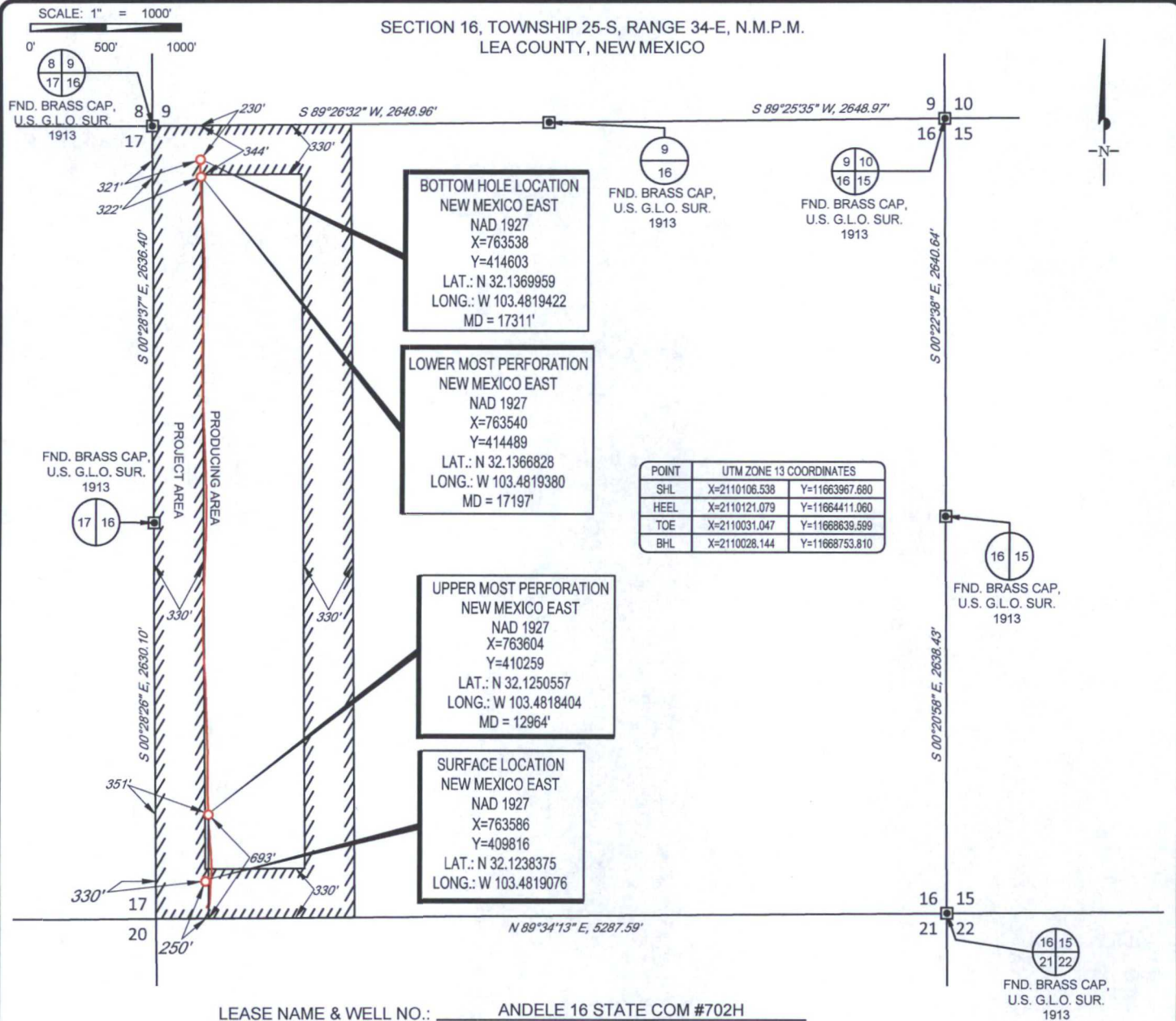
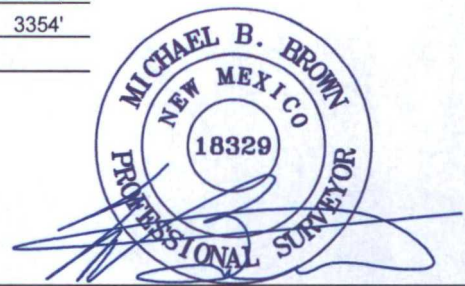




TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329
SEPTEMBER 28, 2015

ANDELE 16 STATE COM #702H AS-COMPLETED DATE: 05/02/2016 FILE: AD_ANDELE16STATECOM_702H DRAWN BY: R.M. SHEET: 1 OF 1	REVISION:		NOTES: 1. ORIGINAL DOCUMENT SIZE: 8.5" X 11" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 19 27. 3. THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

DRILTECH MWD SURVEY REPORT

HOBBS OCD

JUN 20 2016



Company: EOG Resources, Inc.
Well: Andele 16 State Com # 702H
Location: Lea County, NM
Rig: H&P 415

Job Number: M-2015-102-EODT-NM
Vertical Section Plane: 359.53
WELL API #: 30-025-42755
Tie Into: Surface

RECEIVED

Calculation Method Minimum Curvature

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')	Walk 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	0.00
1	MWD	198.00	0.40	28.60	198	198.00	0.60	0.61 N	0.33 E	0.69	28.60	0.20	0.20	14.44
2	MWD	355.00	0.40	104.70	157	355.00	0.94	0.95 N	1.12 E	1.47	49.81	0.31	0.00	48.47
3	MWD	508.00	1.10	121.80	153	507.98	0.02	0.04 N	2.89 E	2.89	89.22	0.48	0.46	11.18
4	MWD	599.00	1.60	134.10	91	598.96	-1.34	1.30 S	4.54 E	4.73	106.03	0.63	0.55	13.52
5	MWD	691.00	1.90	148.00	92	690.91	-3.54	3.49 S	6.27 E	7.18	119.10	0.56	0.33	15.11
6	MWD	786.00	2.30	136.20	95	785.85	-6.27	6.20 S	8.43 E	10.46	126.36	0.62	0.42	-12.42
7	MWD	880.00	1.90	120.40	94	879.79	-8.44	8.35 S	11.08 E	13.87	127.02	0.74	-0.43	-16.81
8	MWD	975.00	1.40	129.10	95	974.75	-9.99	9.88 S	13.34 E	16.60	126.54	0.59	-0.53	9.16
9	MWD	1023.00	1.20	121.90	48	1022.74	-10.63	10.52 S	14.22 E	17.69	126.49	0.54	-0.42	-15.00
10	MWD	1178.00	0.50	89.60	155	1177.72	-11.50	11.37 S	16.27 E	19.85	124.95	0.53	-0.45	-20.84
11	MWD	1272.00	0.70	90.80	94	1271.71	-11.52	11.38 S	17.26 E	20.67	123.39	0.21	0.21	1.28
12	MWD	1367.00	0.70	92.20	95	1366.71	-11.56	11.41 S	18.42 E	21.66	121.77	0.02	0.00	1.47
13	MWD	1461.00	0.70	86.80	94	1460.70	-11.56	11.40 S	19.56 E	22.64	120.22	0.07	0.00	-5.74
14	MWD	1650.00	0.70	96.10	189	1649.68	-11.63	11.45 S	21.86 E	24.68	117.65	0.06	0.00	4.92
15	MWD	1744.00	0.90	93.30	94	1743.68	-11.75	11.56 S	23.17 E	25.89	116.51	0.22	0.21	-2.98
16	MWD	1933.00	1.80	274.30	189	1932.65	-11.60	11.42 S	21.69 E	24.52	117.77	1.43	0.48	95.77
17	MWD	2027.00	1.40	255.90	94	2026.62	-11.75	11.59 S	19.11 E	22.35	121.24	0.69	-0.43	-19.57
18	MWD	2122.00	1.40	264.10	95	2121.59	-12.13	11.99 S	16.83 E	20.66	125.47	0.21	0.00	8.63
19	MWD	2216.00	1.40	261.20	94	2215.56	-12.40	12.29 S	14.55 E	19.04	130.18	0.08	0.00	-3.09
20	MWD	2311.00	1.20	255.00	95	2310.54	-12.82	12.72 S	12.44 E	17.79	135.63	0.26	-0.21	-6.53
21	MWD	2405.00	1.20	258.00	94	2404.51	-13.27	13.18 S	10.53 E	16.87	141.38	0.07	0.00	3.19
22	MWD	2499.00	1.40	257.80	94	2498.49	-13.70	13.63 S	8.44 E	16.03	148.22	0.21	0.21	-0.21
23	MWD	2594.00	1.20	247.30	95	2593.47	-14.31	14.26 S	6.39 E	15.62	155.85	0.33	-0.21	-11.05
24	MWD	2688.00	1.10	241.50	94	2687.45	-15.10	15.07 S	4.69 E	15.78	162.71	0.16	-0.11	-6.17
25	MWD	2783.00	1.10	236.70	95	2782.43	-16.03	16.00 S	3.13 E	16.31	168.94	0.10	0.00	-5.05
26	MWD	2877.00	0.90	233.90	94	2876.41	-16.95	16.93 S	1.78 E	17.03	174.01	0.22	-0.21	-2.98
27	MWD	2972.00	0.90	224.20	95	2971.40	-17.91	17.91 S	0.65 E	17.92	177.91	0.16	0.00	-10.21
28	MWD	3066.00	0.40	200.20	94	3065.40	-18.74	18.74 S	0.03 E	18.74	179.92	0.59	-0.53	-25.53
29	MWD	3161.00	0.40	149.50	95	3160.39	-19.34	19.34 S	0.08 E	19.34	179.76	0.36	0.00	-53.37
30	MWD	3255.00	0.50	117.50	94	3254.39	-19.82	19.81 S	0.61 E	19.82	178.24	0.28	0.11	-34.04
31	MWD	3350.00	1.20	91.40	95	3349.38	-20.04	20.03 S	1.97 E	20.13	174.38	0.82	0.74	-27.47
32	MWD	3444.00	1.90	85.60	94	3443.35	-19.97	19.93 S	4.51 E	20.44	167.25	0.76	0.74	-6.17
33	MWD	3539.00	0.70	67.50	95	3538.32	-19.64	19.59 S	6.62 E	20.68	161.34	1.32	-1.26	-19.05
34	MWD	3727.00	0.70	51.60	188	3726.31	-18.51	18.44 S	8.58 E	20.34	155.05	0.10	0.00	-8.46
35	MWD	3822.00	0.90	46.90	95	3821.30	-17.65	17.57 S	9.58 E	20.01	151.40	0.22	0.21	-4.95
36	MWD	3916.00	0.70	19.30	94	3915.29	-16.61	16.52 S	10.31 E	19.47	148.04	0.46	-0.21	-29.36
37	MWD	4011.00	0.90	39.10	95	4010.28	-15.48	15.39 S	10.97 E	18.90	144.53	0.36	0.21	20.84



DRILTECH MWD SURVEY REPORT

Company: EOG Resources, Inc.
Well: Andele 16 State Com # 702H
Location: Lea County, NM
Rig: H&P 415

Job Number: M-2015-102-EODT-NM
Vertical Section Plane: 359.53
WELL API #: 30-025-42755
Tie Into: Surface

Calculation Method Minimum Curvature

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')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
38	MWD	4199.00	1.40	31.60	188	4198.24	-12.40	12.29 S	13.10 E	17.97	133.17	0.28	0.27	-3.99
39	MWD	4293.00	0.90	328.80	94	4292.22	-10.79	10.68 S	13.32 E	17.08	128.73	1.35	-0.53	316.17
40	MWD	4387.00	1.10	316.00	94	4386.21	-9.50	9.40 S	12.31 E	15.49	127.37	0.32	0.21	-13.62
41	MWD	4482.00	1.20	334.30	95	4481.19	-7.94	7.85 S	11.25 E	13.72	124.91	0.40	0.11	19.26
42	MWD	4576.00	1.10	10.70	94	4575.17	-6.17	6.08 S	10.99 E	12.56	118.94	0.77	-0.11	-344.26
43	MWD	4765.00	1.80	37.70	189	4764.11	-2.05	1.95 S	13.14 E	13.28	98.42	0.51	0.37	14.29
44	MWD	4953.00	1.80	77.60	188	4952.03	0.88	1.02 N	17.83 E	17.86	86.71	0.65	0.00	21.22
45	MWD	5048.00	2.30	97.90	95	5046.97	0.91	1.08 N	21.18 E	21.20	87.07	0.92	0.53	21.37
46	MWD	5126.00	2.50	96.80	78	5124.90	0.47	0.67 N	24.42 E	24.42	88.44	0.26	0.26	-1.41
47	MWD	5219.00	2.30	94.50	93	5217.82	0.05	0.28 N	28.29 E	28.29	89.43	0.24	-0.22	-2.47
48	MWD	5313.00	1.90	154.10	94	5311.77	-1.52	1.27 S	30.85 E	30.88	92.36	2.25	-0.43	63.40
49	MWD	5408.00	2.50	173.60	95	5406.70	-5.01	4.75 S	31.77 E	32.12	98.50	1.00	0.63	20.53
50	MWD	5502.00	2.60	171.20	94	5500.60	-9.16	8.89 S	32.32 E	33.52	105.38	0.16	0.11	-2.55
51	MWD	5596.00	2.30	175.60	94	5594.52	-13.15	12.88 S	32.80 E	35.23	111.44	0.38	-0.32	4.68
52	MWD	5691.00	2.10	173.60	95	5689.45	-16.78	16.51 S	33.14 E	37.02	116.48	0.23	-0.21	-2.11
53	MWD	5785.00	2.10	175.60	94	5783.38	-20.21	19.94 S	33.46 E	38.95	120.79	0.08	0.00	2.13
54	MWD	5880.00	2.50	182.80	95	5878.31	-24.02	23.74 S	33.49 E	41.05	125.33	0.52	0.42	7.58
55	MWD	5974.00	2.50	183.60	94	5972.22	-28.11	27.84 S	33.26 E	43.37	129.92	0.04	0.00	0.85
56	MWD	6069.00	2.30	184.20	95	6067.13	-32.07	31.80 S	32.99 E	45.83	133.95	0.21	-0.21	0.63
57	MWD	6163.00	2.30	182.60	94	6161.06	-35.84	35.57 S	32.77 E	48.36	137.35	0.07	0.00	-1.70
58	MWD	6257.00	2.10	183.10	94	6254.99	-39.44	39.17 S	32.59 E	50.96	140.24	0.21	-0.21	0.53
59	MWD	6351.00	2.50	182.10	94	6348.91	-43.21	42.94 S	32.42 E	53.81	142.95	0.43	0.43	-1.06
60	MWD	6445.00	2.60	185.40	94	6442.82	-47.38	47.11 S	32.15 E	57.04	145.69	0.19	0.11	3.51
61	MWD	6540.00	2.60	181.00	95	6537.72	-51.67	51.41 S	31.91 E	60.51	148.18	0.21	0.00	-4.63
62	MWD	6634.00	2.50	184.30	94	6631.63	-55.85	55.59 S	31.72 E	64.00	150.29	0.19	-0.11	3.51
63	MWD	6728.00	2.50	185.00	94	6725.54	-59.93	59.68 S	31.38 E	67.43	152.26	0.03	0.00	0.74
64	MWD	6823.00	2.50	182.20	95	6820.45	-64.06	63.81 S	31.12 E	71.00	154.00	0.13	0.00	-2.95
65	MWD	6917.00	2.50	185.80	94	6914.36	-68.15	67.90 S	30.84 E	74.57	155.57	0.17	0.00	3.83
66	MWD	7012.00	2.30	184.30	95	7009.28	-72.11	71.86 S	30.49 E	78.06	157.01	0.22	-0.21	-1.58
67	MWD	7106.00	2.30	186.30	94	7103.20	-75.86	75.62 S	30.14 E	81.40	158.27	0.09	0.00	2.13
68	MWD	7201.00	2.10	185.90	95	7198.13	-79.48	79.24 S	29.75 E	84.64	159.42	0.21	-0.21	-0.42
69	MWD	7295.00	1.90	180.50	94	7292.07	-82.75	82.51 S	29.56 E	87.65	160.29	0.29	-0.21	-5.74
70	MWD	7390.00	1.90	180.80	95	7387.02	-85.90	85.66 S	29.52 E	90.61	160.98	0.01	0.00	0.32
71	MWD	7484.00	2.30	190.30	94	7480.96	-89.31	89.08 S	29.16 E	93.73	161.87	0.56	0.43	10.11
72	MWD	7579.00	2.50	190.80	95	7575.87	-93.22	92.99 S	28.43 E	97.24	163.00	0.21	0.21	0.53
73	MWD	7674.00	2.30	188.70	95	7670.79	-97.13	96.91 S	27.76 E	100.80	164.02	0.23	-0.21	-2.21
74	MWD	7767.00	2.30	192.40	93	7763.72	-100.79	100.58 S	27.07 E	104.16	164.93	0.16	0.00	3.98
75	MWD	7861.00	2.30	190.30	94	7857.64	-104.49	104.27 S	26.33 E	107.55	165.83	0.09	0.00	-2.23
76	MWD	7956.00	2.30	189.30	95	7952.56	-108.24	108.03 S	25.68 E	111.04	166.63	0.04	0.00	-1.05
77	MWD	8050.00	2.30	186.80	94	8046.49	-111.97	111.76 S	25.16 E	114.56	167.32	0.11	0.00	-2.66



DRILTECH MWD SURVEY REPORT

Company: EOG Resources, Inc.
Well: Andele 16 State Com # 702H
Location: Lea County, NM
Rig: H&P 415

Job Number: M-2015-102-EODT-NM
Vertical Section Plane: 359.53
WELL API #: 30-025-42755
Tie Into: Surface

Calculation Method Minimum Curvature

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')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
78	MWD	8145.00	2.10	188.70	95	8141.42	-115.58	115.38 S	24.67 E	117.98	167.93	0.22	-0.21	2.00
79	MWD	8239.00	2.10	192.30	94	8235.36	-118.96	118.76 S	24.04 E	121.17	168.56	0.14	0.00	3.83
80	MWD	8334.00	1.90	190.80	95	8330.30	-122.20	122.01 S	23.37 E	124.23	169.16	0.22	-0.21	-1.58
81	MWD	8429.00	2.10	181.40	95	8425.24	-125.48	125.30 S	23.04 E	127.40	169.58	0.40	0.21	-9.89
82	MWD	8523.00	1.80	184.30	94	8519.18	-128.67	128.49 S	22.88 E	130.51	169.90	0.34	-0.32	3.09
83	MWD	8617.00	1.80	183.30	94	8613.14	-131.62	131.44 S	22.69 E	133.38	170.21	0.03	0.00	-1.06
84	MWD	8712.00	1.60	184.90	95	8708.10	-134.43	134.25 S	22.49 E	136.12	170.49	0.22	-0.21	1.68
85	MWD	8806.00	1.60	178.50	94	8802.06	-137.05	136.87 S	22.41 E	138.69	170.70	0.19	0.00	-6.81
86	MWD	8900.00	1.60	180.80	94	8896.02	-139.67	139.49 S	22.43 E	141.28	170.87	0.07	0.00	2.45
87	MWD	8995.00	1.40	186.80	95	8990.99	-142.15	141.97 S	22.27 E	143.71	171.08	0.27	-0.21	6.32
88	MWD	9089.00	1.20	190.10	94	9084.97	-144.25	144.08 S	21.96 E	145.74	171.33	0.23	-0.21	3.51
89	MWD	9183.00	1.10	186.80	94	9178.95	-146.12	145.94 S	21.68 E	147.55	171.55	0.13	-0.11	-3.51
90	MWD	9278.00	1.10	193.00	95	9273.93	-147.91	147.74 S	21.37 E	149.28	171.77	0.13	0.00	6.53
91	MWD	9372.00	0.90	200.00	94	9367.92	-149.48	149.31 S	20.91 E	150.77	172.03	0.25	-0.21	7.45
92	MWD	9466.00	0.70	203.20	94	9461.91	-150.70	150.53 S	20.43 E	151.91	172.27	0.22	-0.21	3.40
93	MWD	9560.00	0.50	210.90	94	9555.90	-151.57	151.41 S	20.00 E	152.73	172.48	0.23	-0.21	8.19
94	MWD	9655.00	0.20	217.20	95	9650.90	-152.06	151.90 S	19.69 E	153.17	172.62	0.32	-0.32	6.63
95	MWD	9749.00	1.40	194.50	94	9744.89	-153.30	153.14 S	19.30 E	154.35	172.82	1.30	1.28	-24.15
96	MWD	9843.00	1.40	194.70	94	9838.86	-155.51	155.37 S	18.72 E	156.49	173.13	0.01	0.00	0.21
97	MWD	9938.00	1.40	196.60	95	9933.83	-157.74	157.60 S	18.09 E	158.64	173.45	0.05	0.00	2.00
98	MWD	10032.00	1.40	198.90	94	10027.80	-159.92	159.79 S	17.39 E	160.73	173.79	0.06	0.00	2.45
99	MWD	10127.00	1.40	210.40	95	10122.78	-162.01	161.89 S	16.43 E	162.72	174.20	0.30	0.00	12.11
100	MWD	10221.00	1.20	217.20	94	10216.75	-163.78	163.66 S	15.25 E	164.37	174.68	0.27	-0.21	7.23
101	MWD	10316.00	0.90	227.80	95	10311.74	-165.06	164.95 S	14.10 E	165.56	175.11	0.37	-0.32	11.16
102	MWD	10411.00	1.10	250.60	95	10406.72	-165.86	165.76 S	12.69 E	166.24	175.62	0.46	0.21	24.00
103	MWD	10505.00	0.70	244.10	94	10500.71	-166.40	166.31 S	11.32 E	166.69	176.11	0.44	-0.43	-6.91
104	MWD	10599.00	0.70	237.80	94	10594.70	-166.94	166.86 S	10.32 E	167.18	176.46	0.08	0.00	-6.70
105	MWD	10693.00	0.70	227.10	94	10688.70	-167.63	167.56 S	9.41 E	167.83	176.79	0.14	0.00	-11.38
106	MWD	10787.00	0.50	154.80	94	10782.69	-168.39	168.32 S	9.16 E	168.57	176.88	0.77	-0.21	-76.91
107	MWD	10881.00	0.50	161.10	94	10876.69	-169.15	169.08 S	9.47 E	169.35	176.79	0.06	0.00	6.70
108	MWD	10975.00	0.50	166.60	94	10970.68	-169.94	169.87 S	9.70 E	170.15	176.73	0.05	0.00	5.85
109	MWD	11070.00	0.70	172.90	95	11065.68	-170.92	170.85 S	9.87 E	171.13	176.69	0.22	0.21	6.63
110	MWD	11164.00	0.70	142.00	94	11159.67	-171.95	171.87 S	10.29 E	172.18	176.57	0.40	0.00	-32.87
111	MWD	11258.00	0.20	35.80	94	11253.67	-172.27	172.19 S	10.74 E	172.53	176.43	0.83	-0.53	-112.98
112	MWD	11352.00	0.70	43.50	94	11347.67	-171.73	171.64 S	11.23 E	172.01	176.26	0.53	0.53	8.19
113	MWD	11446.00	1.20	38.10	94	11441.65	-170.54	170.45 S	12.24 E	170.89	175.89	0.54	0.53	-5.74
114	MWD	11541.00	1.20	26.70	95	11536.63	-168.88	168.78 S	13.30 E	169.30	175.50	0.25	0.00	-12.00
115	MWD	11635.00	1.40	34.80	94	11630.61	-167.07	166.96 S	14.39 E	167.58	175.07	0.29	0.21	8.62
116	MWD	11730.00	1.20	59.00	95	11725.58	-165.62	165.49 S	15.91 E	166.25	174.51	0.61	-0.21	25.47
117	MWD	11824.00	1.20	84.00	94	11819.56	-165.02	164.88 S	17.73 E	165.83	173.86	0.55	0.00	26.60



DRILTECH MWD SURVEY REPORT

Company: EOG Resources, Inc.
Well: Andele 16 State Com # 702H
Location: Lea County, NM
Rig: H&P 415

Job Number: M-2015-102-EODT-NM
Vertical Section Plane: 359.53
WELL API #: 30-025-42755
Tie Into: Surface

Calculation Method Minimum Curvature

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')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
118	MWD	11918.00	1.10	97.20	94	11913.55	-165.05	164.89 S	19.61 E	166.05	173.22	0.30	-0.11	14.04
119	MWD	12012.00	0.90	107.00	94	12007.53	-165.39	165.22 S	21.21 E	166.58	172.69	0.28	-0.21	10.43
120	MWD	12114.00	6.20	28.30	102	12109.32	-160.80	160.60 S	24.59 E	162.47	171.30	5.97	5.20	-77.16
121	MWD	12161.00	13.90	11.60	47	12155.58	-153.04	152.82 S	26.93 E	155.18	170.01	17.35	16.38	-35.53
122	MWD	12208.00	21.30	7.50	47	12200.35	-139.04	138.81 S	29.18 E	141.84	168.13	15.95	15.74	-8.72
123	MWD	12255.00	28.20	5.90	47	12243.00	-119.53	119.28 S	31.44 E	123.35	165.23	14.75	14.68	-3.40
124	MWD	12302.00	32.60	2.90	47	12283.53	-95.84	95.57 S	33.22 E	101.18	160.83	9.90	9.36	-6.38
125	MWD	12349.00	36.80	359.80	47	12322.17	-69.11	68.84 S	33.82 E	76.69	153.84	9.69	8.94	759.36
126	MWD	12396.00	38.90	3.80	47	12359.28	-40.31	40.03 S	34.74 E	53.00	139.04	6.87	4.47	-757.45
127	MWD	12443.00	43.30	4.90	47	12394.69	-9.53	9.23 S	37.10 E	38.23	103.97	9.49	9.36	2.34
128	MWD	12491.00	46.50	3.10	48	12428.69	24.24	24.56 N	39.45 E	46.47	58.09	7.17	6.67	-3.75
129	MWD	12538.00	48.90	0.80	47	12460.32	58.97	59.30 N	40.62 E	71.88	34.41	6.26	5.11	-4.89
130	MWD	12586.00	52.30	360.00	48	12490.79	96.05	96.38 N	40.87 E	104.69	22.98	7.20	7.08	748.33
131	MWD	12633.00	54.50	358.90	47	12518.81	133.78	134.11 N	40.50 E	140.10	16.80	5.04	4.68	-2.34
132	MWD	12681.00	57.50	356.10	48	12545.65	173.53	173.86 N	38.75 E	178.12	12.57	7.90	6.25	-5.83
133	MWD	12728.00	64.60	353.40	47	12568.39	214.48	214.78 N	34.96 E	217.60	9.24	15.92	15.11	-5.74
134	MWD	12775.00	72.00	354.00	47	12585.75	257.90	258.15 N	30.17 E	259.91	6.67	15.79	15.74	1.28
135	MWD	12822.00	74.10	355.00	47	12599.46	302.68	302.90 N	25.87 E	304.00	4.88	4.91	4.47	2.13
136	MWD	12870.00	80.10	355.00	48	12610.17	349.30	349.49 N	21.79 E	350.17	3.57	12.50	12.50	0.00
137	MWD	12895.00	83.40	356.80	25	12613.75	373.99	374.16 N	20.02 E	374.70	3.06	15.00	13.20	7.20
138	MWD	13032.00	89.40	358.70	137	12622.35	510.58	510.72 N	14.67 E	510.93	1.64	4.59	4.38	1.39
139	MWD	13084.00	89.90	358.20	52	12622.67	562.57	562.70 N	13.26 E	562.85	1.35	1.36	0.96	-0.96
140	MWD	13178.00	91.30	359.60	94	12621.69	656.56	656.67 N	11.46 E	656.77	1.00	2.11	1.49	1.49
141	MWD	13273.00	91.50	0.80	95	12619.37	751.52	751.64 N	11.79 E	751.73	0.90	1.28	0.21	-377.68
142	MWD	13367.00	90.80	0.30	94	12617.48	845.48	845.62 N	12.69 E	845.71	0.86	0.92	-0.74	-0.53
143	MWD	13399.00	89.20	358.50	32	12617.48	877.48	877.61 N	12.35 E	877.70	0.81	7.53	-5.00	1119.38
144	MWD	13461.00	89.70	357.30	62	12618.07	939.45	939.57 N	10.08 E	939.62	0.61	2.10	0.81	-1.94
145	MWD	13555.00	87.10	357.70	94	12620.70	1033.35	1033.43 N	5.98 E	1033.45	0.33	2.80	-2.77	0.43
146	MWD	13650.00	92.20	359.10	95	12621.28	1128.29	1128.36 N	3.33 E	1128.36	0.17	5.57	5.37	1.47
147	MWD	13744.00	90.10	358.40	94	12619.39	1222.26	1222.31 N	1.28 E	1222.31	0.06	2.35	-2.23	-0.74
148	MWD	13838.00	89.60	357.30	94	12619.64	1316.22	1316.24 N	2.24 W	1316.25	359.90	1.29	-0.53	-1.17
149	MWD	13933.00	88.50	355.20	95	12621.21	1411.04	1411.02 N	8.46 W	1411.05	359.66	2.50	-1.16	-2.21
150	MWD	14028.00	90.40	357.00	95	12622.13	1505.86	1505.79 N	14.92 W	1505.86	359.43	2.75	2.00	1.89
151	MWD	14122.00	90.30	357.30	94	12621.55	1599.78	1599.67 N	19.59 W	1599.79	359.30	0.34	-0.11	0.32
152	MWD	14217.00	90.40	359.40	95	12620.97	1694.75	1694.62 N	22.32 W	1694.77	359.25	2.21	0.11	2.21
153	MWD	14311.00	89.40	3.10	94	12621.13	1788.69	1788.58 N	20.27 W	1788.70	359.35	4.08	-1.06	-379.04
154	MWD	14405.00	90.10	1.90	94	12621.54	1882.56	1882.49 N	16.17 W	1882.56	359.51	1.48	0.74	-1.28
155	MWD	14499.00	91.50	1.40	94	12620.23	1976.48	1976.44 N	13.47 W	1976.49	359.61	1.58	1.49	-0.53
156	MWD	14594.00	92.70	2.20	95	12616.75	2071.34	2071.33 N	10.49 W	2071.35	359.71	1.52	1.26	0.84
157	MWD	14688.00	94.00	2.80	94	12611.26	2165.05	2165.08 N	6.39 W	2165.08	359.83	1.52	1.38	0.64

DRILTECH MWD SURVEY REPORT

Company:	EOG Resources, Inc.
Well:	Adele 16 State Com # 702H
Location:	Lea County, NM
Rig:	H&P 415

Job Number:	M-2015-102-EODT-NM
Vertical Section Plane:	359.53
WELL API #:	30-025-42755
Tie Into:	Surface

Calculation Method Minimum Curvature

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')	Walk Rate (d/100')	
								N/S (ft)	E/W (ft)		Distance (ft)	Angle (deg)				
158	MWD	14782.00	91.80	1.00	94	12606.50	2258.84	2258.89	N	3.28	W	2258.90	359.92	3.02	-2.34	-1.91
159	MWD	14877.00	90.80	0.10	95	12604.35	2353.80	2353.86	N	2.37	W	2353.86	359.94	1.42	-1.05	-0.95
160	MWD	14971.00	91.10	0.50	94	12602.79	2447.78	2447.85	N	1.88	W	2447.85	359.96	0.53	0.32	0.43
161	MWD	15065.00	90.60	359.80	94	12601.39	2541.76	2541.84	N	1.63	W	2541.84	359.96	0.92	-0.53	382.23
162	MWD	15160.00	90.10	358.20	95	12600.81	2636.76	2636.82	N	3.29	W	2636.82	359.93	1.76	-0.53	-1.68
163	MWD	15254.00	90.10	358.00	94	12600.65	2730.73	2730.76	N	6.41	W	2730.77	359.87	0.21	0.00	-0.21
164	MWD	15348.00	88.50	356.60	94	12601.80	2824.64	2824.65	N	10.83	W	2824.67	359.78	2.26	-1.70	-1.49
165	MWD	15443.00	90.40	357.30	95	12602.71	2919.54	2919.50	N	15.89	W	2919.55	359.69	2.13	2.00	0.74
166	MWD	15537.00	90.60	358.00	94	12601.89	3013.48	3013.42	N	19.74	W	3013.49	359.62	0.77	0.21	0.74
167	MWD	15631.00	89.70	357.00	94	12601.64	3107.42	3107.33	N	23.84	W	3107.42	359.56	1.43	-0.96	-1.06
168	MWD	15726.00	90.60	358.00	95	12601.40	3202.36	3202.24	N	27.99	W	3202.36	359.50	1.42	0.95	1.05
169	MWD	15820.00	91.80	358.40	94	12599.43	3296.31	3296.17	N	30.94	W	3296.31	359.46	1.35	1.28	0.43
170	MWD	15914.00	91.00	359.20	94	12597.13	3390.27	3390.12	N	32.91	W	3390.28	359.44	1.20	-0.85	0.85
171	MWD	16008.00	91.50	359.60	94	12595.08	3484.25	3484.09	N	33.89	W	3484.25	359.44	0.68	0.53	0.43
172	MWD	16103.00	90.80	1.50	95	12593.17	3579.21	3579.06	N	32.98	W	3579.21	359.47	2.13	-0.74	-376.95
173	MWD	16197.00	91.80	2.40	94	12591.04	3673.10	3672.98	N	29.78	W	3673.10	359.54	1.43	1.06	0.96
174	MWD	16291.00	90.10	1.20	94	12589.48	3767.01	3766.92	N	26.83	W	3767.01	359.59	2.21	-1.81	-1.28
175	MWD	16386.00	89.90	0.50	95	12589.48	3861.98	3861.90	N	25.42	W	3861.99	359.62	0.77	-0.21	-0.74
176	MWD	16480.00	90.40	1.20	94	12589.24	3955.96	3955.89	N	24.03	W	3955.97	359.65	0.92	0.53	0.74
177	MWD	16575.00	90.10	0.50	95	12588.82	4050.93	4050.88	N	22.62	W	4050.94	359.68	0.80	-0.32	-0.74
178	MWD	16669.00	88.70	357.50	94	12589.81	4144.91	4144.85	N	24.26	W	4144.92	359.66	3.52	-1.49	379.79
179	MWD	16764.00	91.80	357.70	95	12589.39	4239.84	4239.75	N	28.23	W	4239.85	359.62	3.27	3.26	0.21
180	MWD	16858.00	90.60	356.30	94	12587.42	4333.72	4333.60	N	33.15	W	4333.73	359.56	1.96	-1.28	-1.49
181	MWD	16952.00	88.90	357.10	94	12587.83	4427.61	4427.44	N	38.56	W	4427.61	359.50	2.00	-1.81	0.85
182	MWD	16984.00	89.00	357.30	32	12588.42	4459.57	4459.39	N	40.13	W	4459.57	359.48	0.70	0.31	0.62
183	MWD	17047.00	91.00	358.00	63	12588.42	4522.54	4522.34	N	42.71	W	4522.54	359.46	3.36	3.17	1.11
184	MWD	17141.00	92.60	358.90	94	12585.47	4616.47	4616.25	N	45.25	W	4616.47	359.44	1.95	1.70	0.96
185	PROJ	17312.00	92.60	358.90	171	12577.71	4787.28	4787.05	N	48.53	W	4787.29	359.42	0.00	0.00	0.00