



MWD SURVEY CERTIFICATION
Gordon Technologies, LLC

HOBBS OCD

FEB 20 2020

RECEIVED

State Of New Mexico
County Of Lea

I, Bill Johnson certify that; I am employed by Gordon Technologies, LLC.;
that I did on the day(s) of November 30, 2019 through December 19, 2019 conduct
or supervise the taking of a MWD survey from a depth of 120 feet to a depth of
16,080 feet; that the data is true, correct, complete and within the limitations of the
tool set forth by Gordon Technologies, LLC.; that I am authorized and qualified to make this report;
that this survey was conducted at the request of Matador Production Co. for the
Brad Lummis Com #122H Well, A.P.I. No. 30-025-46514 in
Bone Springs Field and that I have reviewed this report and find that
it conforms to the principles and procedures set forth by Gordon Technologies, LLC.

Signature

MWD Coordinator

Title



Company: MATADOR PRODUCTION COMPANY
Well: BRAD LUMMIS COM #122H
County: LEA
State: NEW MEXICO
Field: RED HILLS, BONE SPRING, NORTH
API: 30-025-46514
Rig: PATTERSON 256
Service Co: GTMWD
Job #: GT191158
Survey Calc: Minimum Curvature

Directional Survey Report

Well Surface Location
Latitude: 32.209276
Longitude: -103.441645
Reference: NAD 1927
Y (Northing): 441022
X (Easting): 775812
Field Engr: D.MADONNA
O.SILVA

Report Date: Dec 19 2019
Time: 13:12
Mag Reference: Grid North
Mag Correction: 6.09
Vert Sect. Azi: 179.55
Perm Datum: Mean Sea Level
Depth Ref: Rotary Table
RKB Height: 28.5
GL Elev: 3477

HOBBS OCD
FEB 20 2020
RECEIVED

Survey Tie In						Rectangular Offsets		Course		Closure		Source	
	MD	Inc	Azimuth	TVD	VS	NS	EW	Length	DLS	Temp	Distance		Azimuth
0	0		0	0	0	0	0	0	0	0	0	0	
1	164.00	0.54	355.91	164.00	-0.77	0.77	-0.06	164.00	0.33	62.60	0.77	355.91	MWD Run 1
2	229.00	0.56	351.20	228.99	-1.39	1.39	-0.13	65.00	0.08	62.60	1.40	354.84	MWD Run 1
3	320.00	0.84	359.97	319.99	-2.50	2.50	-0.19	91.00	0.33	64.40	2.50	355.56	MWD Run 1
4	412.00	0.61	348.41	411.98	-3.65	3.65	-0.31	92.00	0.31	66.20	3.66	355.15	MWD Run 1
5	503.00	0.41	346.50	502.98	-4.44	4.43	-0.50	91.00	0.22	68.00	4.46	353.58	MWD Run 1
6	595.00	0.45	347.12	594.97	-5.11	5.11	-0.66	92.00	0.04	66.20	5.15	352.67	MWD Run 1
7	687.00	0.31	0.24	686.97	-5.71	5.71	-0.74	92.00	0.18	73.40	5.76	352.65	MWD Run 1
8	780.00	0.25	96.24	779.97	-5.94	5.94	-0.53	93.00	0.45	75.20	5.96	354.87	MWD Run 1
9	871.00	0.25	103.61	870.97	-5.87	5.87	-0.14	91.00	0.04	78.80	5.87	358.60	MWD Run 1
10	962.00	0.22	139.21	961.97	-5.69	5.69	0.16	91.00	0.16	82.40	5.69	1.65	MWD Run 1
11	1033.00	0.13	89.01	1032.97	-5.59	5.59	0.33	71.00	0.24	84.20	5.60	3.42	MWD Run 1
12	1145.00	0.39	23.93	1144.97	-5.93	5.94	0.62	112.00	0.32	73.40	5.97	5.92	MWD Run 2
13	1237.00	0.59	12.48	1236.97	-6.68	6.69	0.84	92.00	0.24	78.80	6.74	7.20	MWD Run 2
14	1328.00	0.41	3.34	1327.96	-7.46	7.47	0.96	91.00	0.22	84.20	7.53	7.36	MWD Run 2
15	1420.00	0.29	348.93	1419.96	-8.02	8.03	0.94	92.00	0.16	89.60	8.08	6.67	MWD Run 2
16	1515.00	0.40	333.41	1514.96	-8.55	8.56	0.74	95.00	0.15	95.00	8.59	4.97	MWD Run 2
17	1609.00	0.45	333.68	1608.96	-9.18	9.18	0.43	94.00	0.05	98.60	9.19	2.71	MWD Run 2
18	1704.00	0.31	340.26	1703.95	-9.76	9.76	0.18	95.00	0.15	102.20	9.76	1.07	MWD Run 2
19	1799.00	0.17	285.16	1798.95	-10.04	10.04	-0.04	95.00	0.27	105.80	10.04	359.77	MWD Run 2
20	1895.00	0.10	300.69	1894.95	-10.12	10.12	-0.25	96.00	0.08	109.40	10.12	358.58	MWD Run 2
21	1990.00	0.26	286.88	1989.95	-10.23	10.22	-0.53	95.00	0.17	113.00	10.24	357.04	MWD Run 2
22	2085.00	0.14	328.55	2084.95	-10.39	10.39	-0.79	95.00	0.19	114.80	10.42	355.62	MWD Run 2
23	2180.00	0.26	271.61	2179.95	-10.50	10.49	-1.07	95.00	0.23	118.40	10.55	354.17	MWD Run 2
24	2276.00	0.40	283.04	2275.95	-10.58	10.57	-1.81	96.00	0.16	120.20	10.69	351.32	MWD Run 2
25	2371.00	0.25	253.00	2370.95	-10.60	10.59	-2.14	95.00	0.23	113.00	10.80	348.59	MWD Run 2
26	2466.00	1.30	302.29	2465.94	-11.13	11.10	-3.25	95.00	1.21	122.00	11.57	343.70	MWD Run 2
27	2560.00	2.08	306.99	2559.90	-12.74	12.70	-5.51	94.00	0.84	125.60	13.84	336.54	MWD Run 2
28	2655.00	3.53	309.80	2654.78	-15.68	15.61	-9.13	95.00	1.53	131.00	18.08	329.66	MWD Run 2
29	2750.00	4.85	311.10	2749.52	-20.23	20.12	-14.41	95.00	1.39	131.00	24.75	324.39	MWD Run 2
30	2844.00	6.12	311.63	2843.09	-26.23	26.06	-21.15	94.00	1.35	134.60	33.56	320.94	MWD Run 2
31	2939.00	6.93	312.87	2937.48	-33.55	33.32	-29.13	95.00	0.87	136.40	44.26	318.84	MWD Run 2
32	3034.00	6.48	313.22	3031.83	-41.19	40.89	-37.24	95.00	0.48	136.40	55.31	317.68	MWD Run 2
33	3129.00	6.36	313.08	3126.23	-48.51	48.16	-44.99	95.00	0.13	132.80	65.90	316.95	MWD Run 2
34	3224.00	5.92	316.06	3220.69	-55.69	55.28	-52.23	95.00	0.57	131.00	76.05	316.62	MWD Run 2
35	3319.00	5.59	316.53	3315.21	-62.63	62.17	-58.81	95.00	0.35	122.00	85.58	316.59	MWD Run 2
36	3413.00	5.27	317.25	3408.78	-69.17	68.66	-64.89	94.00	0.35	127.40	94.47	316.61	MWD Run 2
37	3509.00	5.10	316.40	3504.39	-75.54	74.99	-70.83	96.00	0.19	127.40	103.15	316.63	MWD Run 2
38	3604.00	4.86	317.18	3599.03	-81.59	81.00	-76.48	95.00	0.26	129.20	111.40	316.64	MWD Run 2
39	3700.00	4.37	319.75	3694.72	-87.41	86.77	-81.60	96.00	0.55	132.80	119.12	316.76	MWD Run 2
40	3794.00	5.43	311.96	3788.38	-93.16	92.48	-87.23	94.00	1.33	136.40	127.12	316.67	MWD Run 2
41	3889.00	6.38	310.97	3882.87	-99.68	98.94	-94.55	95.00	1.01	132.80	136.86	316.30	MWD Run 2
42	3985.00	5.74	313.27	3978.34	-106.53	105.73	-102.08	96.00	0.71	138.20	146.97	316.01	MWD Run 2
43	4080.00	5.38	314.61	4072.89	-112.97	112.12	-108.71	95.00	0.40	140.00	156.16	315.88	MWD Run 2
44	4175.00	4.92	315.58	4167.50	-119.05	118.15	-114.73	95.00	0.49	140.00	164.69	315.84	MWD Run 2
45	4270.00	4.29	312.95	4262.20	-124.42	123.48	-120.18	95.00	0.70	141.80	172.31	315.78	MWD Run 2
46	4365.00	3.85	312.87	4356.96	-129.05	128.07	-125.12	95.00	0.46	143.60	179.05	315.67	MWD Run 2
47	4461.00	4.57	311.34	4452.70	-133.81	132.79	-130.35	96.00	0.76	145.40	186.08	315.53	MWD Run 2
48	4556.00	5.23	307.19	4547.35	-138.98	137.91	-136.64	95.00	0.79	147.20	194.14	315.26	MWD Run 2
49	4651.00	4.35	305.95	4642.02	-143.76	142.64	-143.01	95.00	0.93	145.40	201.99	314.93	MWD Run 2
50	4747.00	5.29	316.09	4737.68	-149.14	147.97	-149.03	96.00	1.32	140.00	210.01	314.80	MWD Run 2
51	4841.00	5.78	320.62	4831.24	-155.96	154.75	-155.03	94.00	0.70	143.60	219.05	314.95	MWD Run 2
52	4936.00	5.09	320.80	4925.81	-162.97	161.71	-160.73	95.00	0.73	145.40	228.01	315.17	MWD Run 2
53	5032.00	4.40	329.64	5021.49	-169.48	168.19	-165.29	96.00	1.05	145.40	235.81	315.50	MWD Run 2
54	5127.00	5.21	328.67	5116.15	-176.34	175.02	-169.37	95.00	0.86	147.20	243.55	315.94	MWD Run 2
55	5222.00	5.46	332.03	5210.74	-184.06	182.70	-173.73	95.00	0.42	147.20	252.11	316.44	MWD Run 2
56	5317.00	4.78	334.51	5305.36	-191.65	190.26	-177.56	95.00	0.75	149.00	260.24	316.98	MWD Run 2
57	5420.00	3.93	331.50	5408.06	-198.65	197.24	-181.09	103.00	0.85	141.80	267.76	317.44	MWD Run 2
58	5610.00	4.69	320.57	5597.53	-210.44	208.96	-189.13	190.00	0.59	107.60	281.84	317.85	MWD Run 3
59	5704.00	6.61	319.76	5691.07	-217.58	216.06	-195.06	94.00	2.04	111.20	291.09	317.92	MWD Run 3

60	5799.00	6.91	316.73	5785.40	-225.98	224.39	-202.51	95.00	0.49	113.00	302.26	317.93	MWD Run 3
61	5894.00	8.03	309.15	5879.60	-234.40	232.74	-211.58	95.00	1.57	114.80	314.54	317.73	MWD Run 3
62	5989.00	8.58	303.45	5973.60	-242.58	240.84	-222.64	95.00	1.04	116.60	327.98	317.25	MWD Run 3
63	6084.00	8.81	302.89	6067.51	-250.53	248.70	-234.66	95.00	0.26	116.60	341.93	316.66	MWD Run 3
64	6179.00	9.15	300.49	6161.35	-258.41	256.48	-247.28	95.00	0.53	118.40	356.27	316.05	MWD Run 3
65	6274.00	6.85	300.62	6255.42	-265.22	263.20	-258.66	95.00	2.42	120.20	369.02	315.50	MWD Run 3
66	6369.00	3.52	310.77	6350.02	-270.07	267.99	-265.75	95.00	3.62	120.20	377.41	315.24	MWD Run 3
67	6464.00	1.17	326.64	6444.93	-272.80	270.70	-268.49	95.00	2.54	120.20	381.27	315.24	MWD Run 3
68	6559.00	0.65	303.61	6539.92	-273.92	271.81	-269.47	95.00	0.66	122.00	382.75	315.25	MWD Run 3
69	6653.00	0.46	305.64	6633.92	-274.44	272.33	-270.22	94.00	0.20	122.00	383.64	315.22	MWD Run 3
70	6748.00	0.81	315.07	6728.91	-275.15	273.03	-271.01	95.00	0.38	123.80	384.69	315.21	MWD Run 3
71	6843.00	0.81	304.62	6823.90	-276.01	273.88	-272.03	95.00	0.16	123.80	386.02	315.19	MWD Run 3
72	6938.00	0.67	336.95	6918.89	-276.91	274.77	-272.80	95.00	0.46	123.80	387.20	315.21	MWD Run 3
73	7033.00	1.28	214.70	7013.88	-276.55	274.41	-273.63	95.00	1.82	122.00	387.52	315.08	MWD Run 3
74	7129.00	1.96	215.27	7109.85	-274.34	272.19	-275.18	96.00	0.71	123.80	387.06	314.69	MWD Run 3
75	7223.00	1.92	214.83	7203.79	-271.75	269.59	-277.01	94.00	0.05	125.60	386.54	314.22	MWD Run 3
76	7319.00	2.02	220.53	7299.73	-269.16	266.98	-279.03	96.00	0.23	123.80	386.18	313.74	MWD Run 3
77	7414.00	1.97	228.30	7394.68	-266.82	264.62	-281.34	95.00	0.29	123.80	386.23	313.25	MWD Run 3
78	7510.00	2.19	234.05	7490.61	-264.67	262.45	-284.05	96.00	0.32	125.60	386.74	312.74	MWD Run 3
79	7604.00	2.66	238.79	7584.53	-262.51	260.26	-287.37	94.00	0.54	125.60	387.71	312.17	MWD Run 3
80	7699.00	2.67	236.36	7679.43	-260.17	257.89	-291.10	95.00	0.12	127.40	388.91	311.54	MWD Run 3
81	7794.00	2.89	240.66	7774.32	-257.80	255.50	-295.03	95.00	0.32	127.40	390.28	310.89	MWD Run 3
82	7889.00	2.88	242.69	7869.20	-255.57	253.23	-299.24	95.00	0.11	127.40	392.00	310.24	MWD Run 3
83	7984.00	2.75	241.32	7964.08	-253.41	251.04	-303.36	95.00	0.15	125.60	393.76	309.61	MWD Run 3
84	8078.00	2.48	242.28	8057.98	-251.41	249.01	-307.14	94.00	0.29	125.60	395.40	309.03	MWD Run 3
85	8173.00	2.43	240.21	8152.90	-249.49	247.05	-310.70	95.00	0.11	125.60	396.95	308.49	MWD Run 3
86	8268.00	1.26	226.30	8247.84	-247.78	245.33	-313.21	95.00	1.31	123.80	397.85	308.07	MWD Run 3
87	8363.00	0.34	174.90	8342.84	-246.79	244.33	-313.94	95.00	1.14	125.60	397.81	307.89	MWD Run 3
88	8458.00	0.70	180.71	8437.83	-245.93	243.47	-313.92	95.00	0.38	127.40	397.27	307.80	MWD Run 3
89	8552.00	1.34	93.20	8531.82	-245.28	242.83	-312.83	94.00	1.58	129.20	396.02	307.82	MWD Run 3
90	8646.00	1.63	85.35	8625.79	-245.31	242.88	-310.40	94.00	0.38	131.00	394.13	308.04	MWD Run 3
91	8742.00	1.52	72.12	8721.75	-245.79	243.38	-307.83	96.00	0.39	132.80	392.42	308.33	MWD Run 3
92	8837.00	1.30	62.61	8816.72	-246.66	244.26	-305.67	95.00	0.34	132.80	391.28	308.63	MWD Run 3
93	8932.00	0.66	69.37	8911.71	-247.33	244.95	-304.20	95.00	0.68	134.60	390.56	308.84	MWD Run 3
94	9027.00	0.30	50.32	9006.71	-247.68	245.30	-303.50	95.00	0.41	134.60	390.24	308.95	MWD Run 3
95	9122.00	0.54	0.66	9101.70	-248.28	245.91	-303.30	95.00	0.44	132.80	390.47	309.03	MWD Run 3
96	9217.00	0.51	325.35	9196.70	-249.08	246.71	-303.54	95.00	0.34	134.60	391.15	309.10	MWD Run 3
97	9312.00	1.25	248.91	9291.69	-249.07	246.68	-304.74	95.00	1.30	134.60	392.07	308.99	MWD Run 3
98	9407.00	1.48	249.36	9386.66	-248.28	245.87	-306.86	95.00	0.24	134.60	393.21	308.70	MWD Run 3
99	9502.00	2.13	251.79	9481.62	-247.32	244.89	-309.68	95.00	0.69	132.80	394.81	308.34	MWD Run 3
100	9597.00	0.72	264.57	9576.58	-246.73	244.28	-311.96	95.00	1.51	132.80	396.22	308.06	MWD Run 3
101	9692.00	1.09	263.48	9671.57	-246.58	244.12	-313.45	95.00	0.39	134.60	397.30	307.91	MWD Run 3
102	9787.00	0.77	315.63	9766.56	-246.94	244.48	-314.79	95.00	0.91	136.40	398.58	307.83	MWD Run 3
103	9881.00	1.03	278.49	9860.55	-247.53	245.05	-316.07	94.00	0.66	136.40	399.94	307.79	MWD Run 3
104	9977.00	3.04	248.82	9956.49	-246.76	244.26	-319.30	96.00	2.30	138.20	402.01	307.42	MWD Run 3
105	10072.00	3.14	237.58	10051.35	-244.49	241.96	-323.84	95.00	0.65	136.40	404.25	306.76	MWD Run 3
106	10167.00	1.89	228.91	10146.26	-242.09	239.53	-327.22	95.00	1.37	140.00	405.52	306.20	MWD Run 3
107	10262.00	2.06	249.37	10241.20	-240.48	237.90	-330.00	95.00	0.76	141.80	406.81	305.79	MWD Run 3
108	10357.00	2.01	246.74	10336.14	-239.25	236.64	-333.13	95.00	0.11	141.80	408.62	305.39	MWD Run 3
109	10452.00	2.60	256.37	10431.06	-238.11	235.47	-336.75	95.00	0.74	143.60	410.91	304.96	MWD Run 3
110	10553.00	2.74	258.50	10531.95	-237.13	234.45	-341.34	101.00	0.17	127.40	414.11	304.48	MWD Run 4
111	10617.00	2.26	183.22	10595.91	-235.57	232.89	-342.91	64.00	4.81	129.20	414.52	304.18	MWD Run 4
112	10648.00	4.03	187.09	10626.86	-233.88	231.20	-343.08	31.00	5.75	131.00	413.71	303.98	MWD Run 4
113	10712.00	6.60	191.51	10690.58	-228.06	225.36	-344.09	64.00	4.06	131.00	411.32	303.22	MWD Run 4
114	10744.00	8.62	187.03	10722.30	-223.88	221.18	-344.75	32.00	6.57	122.00	409.60	302.68	MWD Run 5
115	10839.00	17.27	162.81	10814.86	-203.26	200.59	-341.45	95.00	10.56	125.60	396.01	300.43	MWD Run 5
116	10934.00	28.55	161.44	10902.22	-168.07	165.48	-330.02	95.00	11.89	129.20	369.18	296.63	MWD Run 5
117	11029.00	39.18	173.82	10981.09	-116.42	113.92	-319.52	95.00	13.29	131.00	339.22	289.62	MWD Run 5
118	11125.00	50.34	178.44	11049.16	-49.07	46.60	-315.24	96.00	12.10	134.60	318.66	278.41	MWD Run 5
119	11219.00	66.21	173.91	11098.45	30.44	-32.87	-309.65	94.00	17.37	136.40	311.39	263.94	MWD Run 5
120	11314.00	75.64	172.33	11129.46	119.55	-121.90	-298.87	95.00	10.05	138.20	322.78	247.81	MWD Run 5
121	11409.00	85.26	174.92	11145.21	212.62	-214.89	-288.51	95.00	10.48	140.00	359.75	233.32	MWD Run 5
122	11440.00	88.18	175.29	11146.98	243.47	-245.72	-285.87	31.00	9.49	131.00	376.97	229.32	MWD Run 6
123	11504.00	90.20	176.33	11147.89	307.32	-309.54	-281.20	64.00	3.55	132.80	418.20	222.25	MWD Run 6
124	11599.00	90.76	177.26	11147.09	402.21	-404.39	-275.89	95.00	1.14	136.40	489.53	214.30	MWD Run 6
125	11692.00	91.09	177.90	11145.59	495.14	-497.29	-271.96	93.00	0.77	138.20	566.80	208.67	MWD Run 6
126	11787.00	88.32	179.95	11146.08	590.12	-592.26	-270.18	95.00	3.63	140.00	650.97	204.52	MWD Run 6
127	11882.00	88.79	180.33	11148.48	685.08	-687.23	-270.41	95.00	0.64	141.80	738.52	201.48	MWD Run 6
128	11977.00	89.24	180.53	11150.11	780.06	-782.21	-271.12	95.00	0.52	141.80	827.87	199.12	MWD Run 6
129	12070.00	89.78	180.76	11150.90	873.04	-875.20	-272.17	93.00	0.63	143.60	916.55	197.27	MWD Run 6
130	12164.00	90.98	180.62	11150.28	967.02	-969.19	-273.30	94.00	1.29	145.40	1006.99	195.75	MWD Run 6
131	12259.00	88.74	180.20	11150.51	1062.00	-1064.18	-273.98	95.00	2.40	145.40	1098.89	194.44	MWD Run 6
132	12354.00	89.86	180.37	11151.67	1156.98	-1159.17	-274.45	95.00	1.19	147.20	1191.22	193.32	MWD Run 6
133	12449.00	86.13	179.46	11155.00	1251.90	-1254.10	-274.31	95.00	4.04	147.20	1283.75	192.34	MWD Run 6
134	12544.00	85.37	179.37	11162.04	1346.64	-1348.83	-273.35	95.00	0.81	150.80	1376.25	191.46	MWD Run 6
135	12638.00	86.16	179.98	11168.98	1440.38	-1442.57	-272.82	94.00	1.06	152.60	1468.14	190.71	MWD Run 6
136	12733.00	87.05	180.50	11174.60	1535.21	-1537.40	-273.21	95.00	1.08	152.60	1561.49	190.08	MWD Run 6

137	12828.00	88.18	180.60	11178.56	1630.11	-1632.31	-274.12	95.00	1.19	154.40	1655.17	189.53	MWD Run 6
138	12922.00	88.93	178.84	11180.93	1724.08	-1726.28	-273.66	94.00	2.03	154.40	1747.84	189.01	MWD Run 6
139	13018.00	90.17	178.90	11181.68	1820.06	-1822.26	-271.77	96.00	1.29	156.20	1842.41	188.48	MWD Run 6
140	13112.00	91.29	178.87	11180.48	1914.05	-1916.23	-269.94	94.00	1.19	152.60	1935.15	188.02	MWD Run 6
141	13206.00	91.18	178.99	11178.46	2007.99	-2010.14	-266.55	94.00	2.00	154.40	2027.74	187.55	MWD Run 6
142	13301.00	92.36	177.63	11175.52	2102.87	-2104.99	-262.09	95.00	1.41	156.20	2121.24	187.10	MWD Run 6
143	13395.00	89.61	177.34	11173.91	2196.78	-2198.88	-257.97	94.00	2.94	156.20	2213.96	186.69	MWD Run 6
144	13490.00	89.66	177.63	11174.51	2291.72	-2293.78	-253.80	95.00	0.31	158.00	2307.78	186.31	MWD Run 6
145	13585.00	86.92	178.42	11177.35	2386.63	-2388.67	-250.53	95.00	3.00	156.20	2401.77	185.99	MWD Run 6
146	13680.00	86.53	177.65	11182.78	2481.44	-2483.46	-247.27	95.00	0.91	158.00	2495.74	185.69	MWD Run 6
147	13775.00	86.01	177.18	11188.96	2576.17	-2578.16	-243.00	95.00	0.74	159.80	2589.59	185.38	MWD Run 6
148	13869.00	86.08	177.52	11195.44	2669.88	-2671.84	-238.66	94.00	0.37	161.60	2682.48	185.10	MWD Run 6
149	13964.00	87.17	177.31	11201.03	2764.65	-2766.58	-234.39	95.00	1.17	161.60	2776.49	184.84	MWD Run 6
150	14059.00	88.40	176.50	11204.70	2859.47	-2861.36	-229.26	95.00	1.55	161.60	2870.53	184.58	MWD Run 6
151	14153.00	89.10	178.19	11206.75	2953.38	-2955.24	-224.91	94.00	1.95	159.80	2963.78	184.35	MWD Run 6
152	14248.00	89.24	178.75	11208.13	3048.35	-3050.19	-222.37	95.00	0.61	161.60	3058.29	184.17	MWD Run 6
153	14342.00	86.19	180.25	11211.88	3142.28	-3144.10	-221.55	94.00	3.62	147.20	3151.90	184.03	MWD RUN 7
154	14437.00	86.07	180.84	11218.29	3237.03	-3238.88	-222.45	95.00	0.63	149.00	3246.51	183.93	MWD RUN 7
155	14532.00	88.60	181.88	11222.71	3331.87	-3333.74	-224.70	95.00	2.88	152.60	3341.30	183.86	MWD RUN 7
156	14626.00	90.11	182.55	11223.77	3425.76	-3427.66	-228.34	94.00	1.76	156.20	3435.26	183.81	MWD RUN 7
157	14721.00	90.56	182.06	11223.21	3520.65	-3522.58	-232.16	95.00	0.70	158.00	3530.22	183.77	MWD RUN 7
158	14815.00	91.23	180.67	11221.74	3614.59	-3616.54	-234.40	94.00	1.64	159.80	3624.13	183.71	MWD RUN 7
159	14909.00	91.88	180.07	11219.19	3708.54	-3710.50	-235.00	94.00	0.94	161.60	3717.94	183.62	MWD RUN 7
160	15004.00	89.52	179.01	11218.03	3803.53	-3805.49	-234.24	95.00	2.72	161.60	3812.69	183.52	MWD RUN 7
161	15098.00	89.69	178.59	11218.68	3897.52	-3899.46	-232.27	94.00	0.48	163.40	3906.37	183.41	MWD RUN 7
162	15194.00	90.06	178.27	11218.89	3993.50	-3995.43	-229.64	96.00	0.51	163.40	4002.02	183.29	MWD RUN 7
163	15288.00	90.84	177.76	11218.15	4087.46	-4089.37	-226.39	94.00	0.99	165.20	4095.63	183.17	MWD RUN 7
164	15383.00	88.43	179.00	11218.75	4182.43	-4184.32	-223.70	95.00	2.85	163.40	4190.29	183.06	MWD RUN 7
165	15477.00	89.55	178.62	11220.41	4276.41	-4278.28	-221.75	94.00	1.26	165.20	4284.02	182.97	MWD RUN 7
166	15571.00	86.30	178.95	11223.81	4370.32	-4372.18	-219.76	94.00	3.48	165.20	4377.70	182.88	MWD RUN 7
167	15666.00	86.91	178.68	11229.44	4465.15	-4467.00	-217.80	95.00	0.70	167.00	4472.30	182.79	MWD RUN 7
168	15761.00	87.81	177.90	11233.82	4560.02	-4561.85	-214.96	95.00	1.25	168.80	4566.91	182.70	MWD RUN 7
169	15856.00	88.77	177.43	11236.65	4654.93	-4656.73	-211.10	95.00	1.13	168.80	4661.51	182.60	MWD RUN 7
170	15950.00	89.35	177.38	11238.19	4748.85	-4750.62	-206.84	94.00	0.62	170.60	4755.12	182.49	MWD RUN 7
171	16018.00	89.24	177.30	11239.03	4816.79	-4818.54	-203.68	68.00	0.20	170.60	4822.84	182.42	MWD RUN 7
PTB	16080.00	89.24	177.30	11239.85	4878.74	-4880.47	-200.76	62.00	0.00	0.00	4884.59	182.36	MWD RUN 7

Checked and Approved by:

D. Johnson

Date: 12/19/2019

