



Directional Survey Report

Company: **Pioneer Natural Res. USA, Inc.**

Well: **University 10-11C 3H**

County: **Reagan**

State: **Texas**

Field: **Spraberry (Trend Area)**

API: **42-383-40858**

Rig: **Ensign 133**

Service Co: **Gordon Technologies, LLC**

Job #: **GT2011067**

Survey Calc: **Minimum Curvature**

Well Surface Location

Latitude: **31° 16' 54.928386" N**

Longitude: **101° 32' 46.819823" W**

Reference: **NAD 1927**

Y (Northing): **589513.00**

X (Easting): **1621087.3**

Field Engr: **Carrey Frith**

Drew Atkinson

Patrick Langlinais

Report Date: **Dec 22 2020**

Time: **16:12**

Mag Reference: **Grid North**

Mag Correction: **5.97**

Vert Sect. Azi: **1.16**

Perm Datum: **Mean Sea Level**

Depth Ref: **Rotary Table**

RKB Height: **25**

GL Elev: **2643**

Survey	SD	Inc	Azimuth	TVD	VS	Rectangular Offsets		Course		Temp	Closure		Source
						NS	EW	Length	DLS		Distance	Azimuth	
Tie In	0	0	0	0	0	0	0	0	0	0	0	0	
1	25.00	0.00	0.00	25.00	0.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	Imp Svy
2	147.21	0.30	238.50	147.21	-0.17	-0.17	-0.27	122.21	0.25	0.00	0.32	238.50	Imp Svy
3	235.67	0.40	244.10	235.67	-0.44	-0.42	-0.75	88.46	0.12	0.00	0.86	240.51	Imp Svy
4	323.94	0.60	320.70	323.94	-0.23	-0.20	-1.32	88.27	0.72	0.00	1.33	261.37	Imp Svy
5	415.82	0.60	59.40	415.81	0.39	0.42	-1.21	91.88	0.99	0.00	1.28	289.04	Imp Svy
6	510.89	0.60	125.60	510.88	0.37	0.38	-0.38	95.07	0.69	0.00	0.53	315.41	Imp Svy
7	605.70	1.80	131.60	605.67	-0.87	-0.90	1.14	94.81	1.27	0.00	1.45	128.15	Imp Svy
8	699.99	2.90	134.80	699.87	-3.48	-3.56	3.94	94.29	1.17	0.00	5.31	132.09	Imp Svy
9	794.04	3.00	135.30	793.80	-6.84	-6.99	7.36	94.05	0.11	0.00	10.15	133.50	Imp Svy
10	888.39	3.00	127.60	888.02	-10.02	-10.25	11.05	94.35	0.43	0.00	15.07	132.83	Imp Svy
11	989.00	3.20	128.10	988.48	-13.27	-13.59	15.35	100.61	0.20	0.00	20.50	131.51	Imp Svy
12	1062.00	2.55	124.80	1061.39	-15.40	-15.77	18.29	73.00	0.92	0.00	24.15	130.78	Imp Svy
13	1153.00	3.30	133.53	1152.27	-18.28	-18.73	21.85	91.00	0.96	0.00	28.78	130.61	Imp Svy
14	1243.00	4.60	136.16	1242.06	-22.58	-23.12	26.23	90.00	1.46	0.00	34.96	131.40	Imp Svy
15	1334.00	5.56	139.50	1332.70	-28.46	-29.10	31.62	91.00	1.10	0.00	42.97	132.63	Imp Svy
16	1426.00	7.14	133.64	1424.13	-35.65	-36.44	38.65	92.00	1.85	0.00	53.12	133.31	Imp Svy
17	1518.00	7.71	143.02	1515.36	-44.36	-45.31	46.50	92.00	1.45	0.00	64.93	134.26	Imp Svy
18	1608.00	9.60	143.01	1604.34	-55.01	-56.13	54.65	90.00	2.10	0.00	78.34	135.77	Imp Svy
19	1699.00	9.96	138.35	1694.01	-66.75	-68.07	64.44	91.00	0.96	0.00	93.74	136.57	Imp Svy
20	1791.00	11.67	132.52	1784.38	-78.74	-80.31	76.59	92.00	2.20	0.00	110.97	136.36	Imp Svy
21	1881.00	12.22	129.72	1872.43	-90.69	-92.55	90.62	90.00	0.89	0.00	129.53	135.60	Imp Svy
22	1972.00	12.98	128.42	1961.24	-102.88	-105.05	106.04	91.00	0.89	0.00	149.27	134.73	Imp Svy
23	2062.00	12.61	128.17	2049.00	-114.92	-117.40	121.68	90.00	0.42	0.00	169.09	133.97	Imp Svy
24	2153.00	12.65	129.48	2137.80	-127.07	-129.88	137.18	91.00	0.32	0.00	188.91	133.43	Imp Svy
25	2244.00	12.43	127.72	2226.63	-139.09	-142.21	152.62	91.00	0.48	0.00	208.60	132.98	Imp Svy
26	2334.00	12.29	128.81	2314.55	-150.71	-154.13	167.75	90.00	0.30	0.00	227.81	132.58	Imp Svy
27	2425.00	11.94	127.64	2403.52	-162.22	-165.95	182.75	91.00	0.47	0.00	246.85	132.24	Imp Svy
28	2515.00	11.81	127.81	2491.59	-173.25	-177.29	197.40	90.00	0.15	0.00	265.32	131.93	Imp Svy
29	2607.00	11.75	127.05	2581.66	-184.36	-188.70	212.31	92.00	0.18	0.00	284.05	131.63	Imp Svy
30	2698.00	11.42	126.68	2670.80	-195.03	-199.67	226.93	91.00	0.37	0.00	302.26	131.34	Imp Svy
31	2789.00	11.19	126.00	2760.04	-205.31	-210.24	241.30	91.00	0.29	0.00	320.04	131.06	Imp Svy
32	2879.00	11.40	126.89	2848.29	-215.49	-220.71	255.48	90.00	0.30	0.00	337.61	130.82	Imp Svy
33	2971.00	11.95	127.59	2938.39	-226.46	-231.98	270.30	92.00	0.62	0.00	356.19	130.64	Imp Svy
34	3064.00	11.90	127.90	3029.38	-237.91	-243.74	285.49	93.00	0.09	0.00	375.39	130.49	Imp Svy
35	3153.00	11.78	128.18	3116.49	-248.87	-254.99	299.87	89.00	0.15	0.00	393.63	130.38	Imp Svy
36	3245.00	11.60	128.28	3206.58	-260.11	-266.53	314.52	92.00	0.20	0.00	412.26	130.28	Imp Svy
37	3337.00	12.08	127.19	3296.62	-271.35	-278.08	329.45	92.00	0.58	0.00	431.12	130.17	Imp Svy
38	3429.00	12.58	128.79	3386.50	-283.13	-290.17	344.93	92.00	0.66	0.00	450.75	130.07	Imp Svy
39	3520.00	12.73	129.22	3475.29	-295.36	-302.72	360.42	91.00	0.19	0.00	470.68	130.03	Imp Svy
40	3611.00	12.84	128.68	3564.03	-307.70	-315.38	376.08	91.00	0.18	0.00	490.82	129.98	Imp Svy
41	3701.00	12.73	129.13	3651.80	-319.89	-327.89	391.58	90.00	0.16	0.00	510.73	129.94	Imp Svy
42	3792.00	12.62	128.93	3740.58	-332.15	-340.46	407.09	91.00	0.13	0.00	530.69	129.91	Imp Svy
43	3883.00	12.10	127.78	3829.48	-343.93	-352.55	422.36	91.00	0.63	0.00	550.16	129.85	Imp Svy
44	3972.00	10.95	127.09	3916.68	-354.45	-363.36	436.48	89.00	1.30	0.00	567.93	129.78	Imp Svy
45	4063.00	9.64	126.03	4006.21	-363.88	-373.06	449.53	91.00	1.45	0.00	584.17	129.69	Imp Svy
46	4154.00	9.32	128.19	4095.97	-372.68	-382.10	461.49	91.00	0.53	0.00	599.14	129.62	Imp Svy
47	4244.00	8.40	129.66	4184.90	-381.16	-390.80	472.28	90.00	1.05	0.00	613.00	129.61	Imp Svy

48	4336.00	7.95	127.98	4275.96	-389.15	-399.00	482.46	92.00	0.55	0.00	626.08	129.59	Imp Svy
49	4427.00	7.86	127.72	4366.10	-396.63	-406.68	492.35	91.00	0.11	0.00	638.59	129.56	Imp Svy
50	4518.00	7.82	127.58	4456.24	-404.01	-414.26	502.17	91.00	0.05	0.00	650.99	129.52	Imp Svy
51	4608.00	7.51	126.14	4545.44	-411.02	-421.47	511.78	90.00	0.41	0.00	662.98	129.47	Imp Svy
52	4699.00	6.76	126.37	4635.74	-417.52	-428.15	520.89	91.00	0.82	0.00	674.27	129.42	Imp Svy
53	4788.00	6.29	125.52	4724.16	-423.29	-434.09	529.08	89.00	0.54	0.00	684.36	129.37	Imp Svy
54	4879.00	5.70	119.95	4814.66	-428.28	-439.24	537.05	91.00	0.91	0.00	693.80	129.28	Imp Svy
55	4971.00	5.10	117.61	4906.25	-432.30	-443.42	544.63	92.00	0.69	0.00	702.31	129.15	Imp Svy
56	5061.00	4.45	117.11	4995.94	-435.61	-446.86	551.28	90.00	0.72	0.00	709.65	129.03	Imp Svy
57	5151.00	3.71	120.59	5085.71	-438.57	-449.93	556.90	90.00	0.87	0.00	715.95	128.94	Imp Svy
58	5240.00	3.11	122.09	5174.55	-441.22	-452.68	561.42	89.00	0.68	0.00	721.19	128.88	Imp Svy
59	5329.00	2.75	123.61	5263.44	-443.61	-455.15	565.25	89.00	0.41	0.00	725.72	128.84	Imp Svy
60	5420.00	2.39	124.95	5354.35	-445.84	-457.44	568.62	91.00	0.40	0.00	729.78	128.82	Imp Svy
61	5511.00	1.90	126.01	5445.28	-447.75	-459.42	571.40	91.00	0.54	0.00	733.18	128.80	Imp Svy
62	5602.00	1.65	128.71	5536.24	-449.42	-461.12	573.64	91.00	0.29	0.00	736.00	128.79	Imp Svy
63	5693.00	1.48	127.86	5627.20	-450.92	-462.66	575.59	91.00	0.19	0.00	738.48	128.79	Imp Svy
64	5784.00	1.41	111.66	5718.17	-452.01	-463.80	577.56	91.00	0.45	0.00	740.73	128.77	Imp Svy
65	5874.00	1.24	113.49	5808.15	-452.77	-464.59	579.48	90.00	0.19	0.00	742.73	128.72	Imp Svy
66	5964.00	1.07	117.81	5898.13	-453.52	-465.37	581.12	90.00	0.21	0.00	744.49	128.69	Imp Svy
67	6055.00	1.13	97.69	5989.12	-454.00	-465.89	582.76	91.00	0.43	0.00	746.10	128.64	Imp Svy
68	6145.00	0.85	90.76	6079.10	-454.09	-466.02	584.30	90.00	0.34	0.00	747.38	128.57	Imp Svy
69	6236.00	0.80	94.59	6170.09	-454.13	-466.08	585.61	91.00	0.08	0.00	748.45	128.52	Imp Svy
70	6326.00	0.67	117.06	6260.09	-454.40	-466.37	586.71	90.00	0.35	0.00	749.48	128.48	Imp Svy
71	6416.00	0.64	118.69	6350.08	-454.86	-466.85	587.62	90.00	0.04	0.00	750.49	128.47	Imp Svy
72	6506.00	0.80	110.65	6440.07	-455.30	-467.31	588.64	90.00	0.21	0.00	751.59	128.45	Imp Svy
73	6598.00	0.57	90.49	6532.07	-455.51	-467.54	589.70	92.00	0.36	0.00	752.56	128.41	Imp Svy
74	6689.00	0.64	90.42	6623.06	-455.50	-467.55	590.66	91.00	0.08	0.00	753.32	128.36	Imp Svy
75	6779.00	0.58	113.56	6713.06	-455.66	-467.74	591.58	90.00	0.28	0.00	754.15	128.33	Imp Svy
76	6870.00	0.31	96.33	6804.05	-455.86	-467.95	592.25	91.00	0.33	0.00	754.81	128.31	Imp Svy
77	6912.00	0.38	82.15	6846.05	-455.85	-467.94	592.50	42.00	0.26	0.00	755.00	128.30	Imp Svy
78	7005.00	0.43	127.10	6939.05	-456.01	-468.11	593.09	93.00	0.34	116.60	755.56	128.28	MWD Run 2
79	7050.00	0.62	55.94	6984.05	-455.96	-468.07	593.42	45.00	1.39	116.60	755.80	128.27	MWD Run 2
80	7097.00	2.07	20.10	7031.04	-455.02	-467.14	593.92	47.00	3.43	116.60	755.62	128.19	MWD Run 2
81	7143.00	7.02	5.10	7076.88	-451.42	-463.55	594.46	46.00	10.98	118.40	753.83	127.95	MWD Run 2
82	7188.00	13.79	359.79	7121.11	-443.31	-455.44	594.68	45.00	15.17	122.00	749.05	127.45	MWD Run 2
83	7233.00	19.84	357.01	7164.17	-430.32	-442.44	594.26	45.00	13.56	125.60	740.88	126.67	MWD Run 2
84	7279.00	25.70	357.16	7206.57	-412.57	-424.67	593.36	46.00	12.74	129.20	729.67	125.59	MWD Run 2
85	7324.00	30.03	358.32	7246.34	-391.58	-403.66	592.55	45.00	9.70	131.00	716.97	124.26	MWD Run 2
86	7370.00	34.02	359.14	7285.33	-367.21	-379.27	592.02	46.00	8.72	132.80	703.09	122.65	MWD Run 2
87	7416.00	40.09	0.17	7322.03	-339.52	-351.57	591.87	46.00	13.26	136.40	688.41	120.71	MWD Run 2
88	7461.00	46.44	359.36	7354.78	-308.70	-320.75	591.73	45.00	14.16	138.20	673.07	118.46	MWD Run 2
89	7506.00	51.03	0.06	7384.45	-274.90	-286.93	591.56	45.00	10.27	138.20	657.48	115.88	MWD Run 2
90	7551.00	52.52	0.50	7412.30	-239.55	-251.58	591.74	45.00	3.40	140.00	643.00	113.03	MWD Run 2
91	7596.00	54.37	1.19	7439.10	-203.41	-215.44	592.27	45.00	4.29	141.80	630.24	109.99	MWD Run 2
92	7642.00	55.57	1.70	7465.50	-165.74	-177.79	593.22	46.00	2.76	141.80	619.29	106.68	MWD Run 2
93	7686.00	56.37	1.69	7490.13	-129.28	-141.34	594.30	44.00	1.82	141.80	610.88	103.38	MWD Run 2
94	7732.00	59.52	2.40	7514.54	-90.30	-102.38	595.70	46.00	6.96	143.60	604.43	99.75	MWD Run 2
95	7777.00	61.99	2.73	7536.52	-51.06	-63.16	597.45	45.00	5.53	143.60	600.78	96.03	MWD Run 2
96	7823.00	68.30	2.78	7555.85	-9.35	-21.49	599.46	46.00	13.72	145.40	599.84	92.05	MWD Run 2
97	7870.00	73.96	2.36	7571.04	35.09	22.92	601.45	47.00	12.07	145.40	601.89	87.82	MWD Run 2
98	7916.00	76.78	1.21	7582.66	79.59	67.40	602.83	46.00	6.58	145.40	606.59	83.62	MWD Run 2
99	7961.00	78.64	359.89	7592.24	123.55	111.36	603.26	45.00	5.03	145.40	613.45	79.54	MWD Run 2
100	8005.00	82.53	358.64	7599.44	166.93	154.76	602.70	44.00	9.28	145.40	622.25	75.60	MWD Run 2
101	8051.00	87.74	359.04	7603.34	212.71	200.57	601.77	46.00	11.35	147.20	634.31	71.57	MWD Run 2
102	8097.00	88.69	359.29	7604.77	258.66	246.54	601.10	46.00	2.15	149.00	649.69	67.70	MWD Run 2
103	8142.00	88.86	359.01	7605.73	303.62	291.52	600.43	45.00	0.73	147.20	667.46	64.10	MWD Run 2
104	8233.00	89.62	359.45	7606.95	394.56	382.51	599.21	91.00	0.96	150.80	710.89	57.45	MWD Run 2
105	8325.00	90.32	359.64	7607.00	486.52	474.50	598.49	92.00	0.79	152.60	763.77	51.59	MWD Run 2
106	8416.00	91.10	359.92	7605.87	577.49	565.49	598.13	91.00	0.92	154.40	823.13	46.61	MWD Run 2
107	8508.00	91.63	0.01	7603.68	669.44	657.47	598.08	92.00	0.59	154.40	888.80	42.29	MWD Run 2
108	8597.00	91.89	359.91	7600.95	758.38	746.43	598.02	89.00	0.30	158.00	956.44	38.70	MWD Run 2
109	8688.00	89.87	0.28	7599.55	849.35	837.41	598.17	91.00	2.25	156.20	1029.11	35.54	MWD Run 2
110	8778.00	89.76	0.18	7599.85	939.34	927.41	598.54	90.00	0.17	154.40	1103.78	32.84	MWD Run 2
111	8871.00	89.87	359.49	7600.15	1032.31	1020.41	598.27	93.00	0.75	0.00	1182.86	30.38	Run 3
112	8962.00	89.25	0.29	7600.85	1123.28	1111.40	598.10	91.00	1.11	0.00	1262.12	28.29	Run 3
113	9052.00	90.20	2.12	7601.28	1213.28	1201.38	599.99	90.00	2.29	0.00	1342.87	26.54	Run 3

114	9143.00	89.73	1.65	7601.34	1304.27	1292.33	602.98	91.00	0.73	0.00	1426.08	25.01	Run 3
115	9233.00	90.04	0.84	7601.52	1394.27	1382.31	604.94	90.00	0.96	0.00	1508.88	23.64	Run 3
116	9324.00	88.97	1.49	7602.31	1485.26	1473.28	606.79	91.00	1.38	0.00	1593.35	22.38	Run 3
117	9415.00	90.48	4.76	7602.74	1576.19	1564.13	611.75	91.00	3.96	0.00	1679.51	21.36	Run 3
118	9505.00	89.56	4.46	7602.71	1666.03	1653.84	618.98	90.00	1.08	0.00	1765.88	20.52	Run 3
119	9596.00	89.81	4.61	7603.21	1756.87	1744.55	626.18	91.00	0.32	0.00	1853.53	19.74	Run 3
120	9687.00	89.36	3.42	7603.87	1847.75	1835.32	632.55	91.00	1.40	0.00	1941.27	19.02	Run 3
121	9779.00	90.37	3.32	7604.09	1939.68	1927.16	637.96	92.00	1.10	0.00	2030.01	18.32	Run 3
122	9870.00	89.56	1.94	7604.14	2030.65	2018.06	642.13	91.00	1.76	0.00	2117.76	17.65	Run 3
123	9961.00	90.09	1.09	7604.42	2121.65	2109.03	644.54	91.00	1.10	0.00	2205.32	16.99	Run 3
124	10053.00	89.67	359.98	7604.61	2213.64	2201.03	645.40	92.00	1.29	0.00	2293.70	16.34	Run 3
125	10143.00	90.51	0.79	7604.47	2303.63	2291.02	646.00	90.00	1.30	0.00	2380.36	15.75	Run 3
126	10235.00	89.53	359.62	7604.44	2395.61	2383.02	646.33	92.00	1.66	0.00	2469.11	15.17	Run 3
127	10325.00	90.01	359.40	7604.80	2485.58	2473.01	645.56	90.00	0.59	0.00	2555.88	14.63	Run 3
128	10416.00	90.12	358.02	7604.70	2576.49	2563.99	643.51	91.00	1.52	0.00	2643.51	14.09	Run 3
129	10506.00	89.81	358.13	7604.75	2666.36	2653.94	640.49	90.00	0.37	0.00	2730.13	13.57	Run 3
130	10597.00	90.34	1.30	7604.63	2757.32	2744.92	640.04	91.00	3.53	0.00	2818.56	13.13	Run 3
131	10689.00	89.28	0.35	7604.94	2849.31	2836.91	641.36	92.00	1.55	0.00	2908.51	12.74	Run 3
132	10779.00	90.54	1.52	7605.08	2939.31	2926.90	642.83	90.00	1.91	0.00	2996.66	12.39	Run 3
133	10870.00	89.90	0.21	7604.73	3030.31	3017.88	644.20	91.00	1.60	0.00	3085.87	12.05	Run 3
134	10962.00	90.54	1.28	7604.38	3122.30	3109.87	645.40	92.00	1.36	0.00	3176.14	11.72	Run 3
135	11054.00	88.92	0.63	7604.81	3214.30	3201.86	646.93	92.00	1.90	0.00	3266.56	11.42	Run 3
136	11146.00	90.71	3.31	7605.11	3306.27	3293.79	650.10	92.00	3.50	0.00	3357.33	11.16	Run 3
137	11234.00	89.14	2.54	7605.22	3394.23	3381.67	654.59	88.00	1.99	0.00	3444.44	10.96	Run 3
138	11325.00	89.59	3.11	7606.23	3485.18	3472.55	659.07	91.00	0.80	0.00	3534.54	10.75	Run 3
139	11417.00	89.59	3.42	7606.89	3577.12	3564.40	664.31	92.00	0.34	0.00	3625.78	10.56	Run 3
140	11509.00	89.76	3.50	7607.41	3669.04	3656.23	669.86	92.00	0.20	0.00	3717.09	10.38	Run 3
141	11598.00	89.48	2.94	7608.00	3757.98	3745.09	674.86	89.00	0.70	0.00	3805.41	10.22	Run 3
142	11689.00	89.95	2.58	7608.45	3848.95	3835.98	679.24	91.00	0.65	0.00	3895.66	10.04	Run 3
143	11779.00	89.53	2.01	7608.86	3938.93	3925.91	682.85	90.00	0.79	0.00	3984.85	9.87	Run 3
144	11870.00	89.56	1.64	7609.59	4029.92	4016.86	685.75	91.00	0.41	0.00	4074.97	9.69	Run 3
145	11961.00	89.42	0.42	7610.40	4120.91	4107.84	687.38	91.00	1.35	0.00	4164.95	9.50	Run 3
146	12054.00	89.84	0.11	7611.00	4213.90	4200.84	687.81	93.00	0.56	0.00	4256.77	9.30	Run 3
147	12143.00	89.59	358.93	7611.44	4302.86	4289.83	687.07	89.00	1.36	0.00	4344.50	9.10	Run 3
148	12235.00	89.45	358.35	7612.21	4394.77	4381.80	684.88	92.00	0.65	0.00	4435.00	8.88	Run 3
149	12325.00	89.22	358.54	7613.25	4484.66	4471.76	682.44	90.00	0.33	0.00	4523.54	8.68	Run 3
150	12416.00	88.10	359.79	7615.38	4575.58	4562.72	681.11	91.00	1.84	0.00	4613.28	8.49	Run 3
151	12506.00	88.94	0.99	7617.71	4665.54	4652.69	681.73	90.00	1.63	0.00	4702.37	8.34	Run 3
152	12598.00	88.69	0.68	7619.61	4757.52	4744.66	683.07	92.00	0.43	0.00	4793.58	8.19	Run 3
153	12688.00	91.94	2.94	7619.12	4847.49	4834.60	685.91	90.00	4.40	0.00	4883.01	8.07	Run 3
154	12779.00	89.90	2.03	7617.65	4938.45	4925.49	689.85	91.00	2.45	0.00	4973.57	7.97	Run 3
155	12869.00	90.18	2.63	7617.59	5028.43	5015.42	693.51	90.00	0.74	0.00	5063.14	7.87	Run 3
156	12960.00	89.95	3.02	7617.49	5119.39	5106.31	698.00	91.00	0.50	0.00	5153.79	7.78	Run 3
157	13051.00	90.15	3.31	7617.41	5210.33	5197.17	703.02	91.00	0.39	0.00	5244.50	7.70	Run 3
158	13141.00	91.52	3.78	7616.10	5300.25	5286.98	708.59	90.00	1.61	0.00	5334.26	7.63	Run 3
159	13232.00	90.18	1.50	7614.75	5391.20	5377.87	712.78	91.00	2.91	0.00	5424.90	7.55	Run 3
160	13323.00	90.68	2.70	7614.06	5482.18	5468.80	716.11	91.00	1.43	0.00	5515.49	7.46	Run 3
161	13414.00	89.25	2.24	7614.12	5573.15	5559.72	720.03	91.00	1.65	0.00	5606.15	7.38	Run 3
162	13508.00	90.76	4.88	7614.11	5667.06	5653.52	725.87	94.00	3.24	0.00	5699.93	7.32	Run 3
163	13598.00	89.62	1.52	7613.81	5756.99	5743.37	730.89	90.00	3.94	0.00	5789.69	7.25	Run 3
164	13691.00	90.23	1.22	7613.93	5849.99	5836.34	733.11	93.00	0.73	0.00	5882.21	7.16	Run 3
165	13783.00	89.78	359.65	7613.93	5941.98	5928.34	733.81	92.00	1.78	0.00	5973.58	7.06	Run 3
166	13876.00	89.95	358.22	7614.15	6034.90	6021.32	732.08	93.00	1.55	0.00	6065.66	6.93	Run 3
167	13967.00	89.64	356.70	7614.47	6125.71	6112.22	728.05	91.00	1.70	0.00	6155.43	6.79	Run 3
168	14058.00	89.98	358.69	7614.77	6216.54	6203.15	724.39	91.00	2.22	0.00	6245.30	6.66	Run 3
169	14148.00	89.67	358.10	7615.05	6306.43	6293.11	721.87	90.00	0.74	0.00	6334.38	6.54	Run 3
170	14239.00	90.65	2.16	7614.79	6397.40	6384.09	722.08	91.00	4.59	0.00	6424.79	6.45	Run 3
171	14331.00	89.87	1.78	7614.38	6489.39	6476.03	725.24	92.00	0.94	0.00	6516.51	6.39	Run 3
172	14420.00	90.76	1.60	7613.89	6578.38	6564.99	727.87	89.00	1.02	0.00	6605.22	6.33	Run 3
173	14509.00	89.48	0.92	7613.70	6667.38	6653.97	729.82	89.00	1.63	0.00	6693.87	6.26	Run 3
174	14598.00	90.04	0.35	7614.07	6756.37	6742.96	730.81	89.00	0.90	0.00	6782.45	6.19	Run 3
175	14686.00	89.98	359.22	7614.06	6844.35	6830.96	730.48	88.00	1.29	0.00	6869.90	6.10	Run 3
176	14775.00	89.42	0.11	7614.52	6933.31	6919.95	729.96	89.00	1.18	0.00	6958.35	6.02	Run 3
177	14864.00	89.64	0.71	7615.25	7022.30	7008.95	730.59	89.00	0.72	0.00	7046.92	5.95	Run 3
178	14954.00	90.23	1.67	7615.36	7112.30	7098.93	732.46	90.00	1.25	0.00	7136.61	5.89	Run 3
179	15043.00	89.14	0.78	7615.85	7201.30	7187.90	734.37	89.00	1.58	0.00	7225.32	5.83	Run 3

180	15132.00	90.26	1.43	7616.31	7290.29	7276.88	736.08	89.00	1.45	0.00	7314.02	5.78	Run 3
181	15221.00	89.67	0.18	7616.37	7379.29	7365.87	737.33	89.00	1.55	0.00	7402.68	5.72	Run 3
182	15310.00	90.29	0.32	7616.40	7468.28	7454.87	737.72	89.00	0.71	0.00	7491.28	5.65	Run 3
183	15399.00	89.70	1.05	7616.40	7557.27	7543.86	738.79	89.00	1.05	0.00	7579.95	5.59	Run 3
184	15487.00	90.40	1.64	7616.33	7645.27	7631.84	740.85	88.00	1.04	0.00	7667.71	5.54	Run 3
185	15578.00	89.95	0.45	7616.05	7736.27	7722.82	742.51	91.00	1.40	0.00	7758.43	5.49	Run 3
186	15669.00	89.50	359.48	7616.49	7827.25	7813.82	742.46	91.00	1.18	0.00	7849.01	5.43	Run 3
187	15757.00	89.50	1.59	7617.25	7915.23	7901.81	743.28	88.00	2.40	0.00	7936.69	5.37	Run 3
188	15846.00	90.37	3.12	7617.36	8004.21	7990.73	746.93	89.00	1.98	0.00	8025.56	5.34	Run 3
189	15935.00	89.87	2.97	7617.17	8093.16	8079.60	751.66	89.00	0.59	0.00	8114.49	5.32	Run 3
190	16026.00	89.64	1.41	7617.56	8184.14	8170.53	755.14	91.00	1.73	0.00	8205.35	5.28	Run 3
191	16116.00	89.64	0.13	7618.12	8274.14	8260.52	756.35	90.00	1.42	0.00	8295.07	5.23	Run 3
192	16207.00	89.62	1.63	7618.71	8365.13	8351.50	757.75	91.00	1.65	0.00	8385.81	5.18	Run 3
193	16298.00	89.98	1.38	7619.03	8456.13	8442.47	760.14	91.00	0.48	0.00	8476.62	5.14	Run 3
194	16389.00	90.12	0.12	7618.95	8547.13	8533.46	761.33	91.00	1.39	0.00	8567.36	5.10	Run 3
195	16479.00	90.06	358.63	7618.81	8637.08	8623.46	760.35	90.00	1.66	0.00	8656.91	5.04	Run 3
196	16570.00	89.34	1.00	7619.28	8728.05	8714.45	760.05	91.00	2.72	0.00	8747.53	4.98	Run 3
197	16661.00	89.76	0.33	7620.00	8819.04	8805.44	761.11	91.00	0.87	0.00	8838.27	4.94	Run 3
198	16752.00	90.04	2.41	7620.16	8910.03	8896.41	763.28	91.00	2.31	0.00	8929.09	4.90	Run 3
199	16843.00	90.32	1.42	7619.87	9001.02	8987.35	766.32	91.00	1.13	0.00	9019.96	4.87	Run 3
200	16934.00	89.95	2.15	7619.66	9092.02	9078.31	769.16	91.00	0.90	0.00	9110.83	4.84	Run 3
201	17024.00	90.15	1.42	7619.58	9182.01	9168.26	771.96	90.00	0.84	0.00	9200.71	4.81	Run 3
202	17115.00	90.18	3.56	7619.32	9272.98	9259.17	775.92	91.00	2.35	0.00	9291.63	4.79	Run 3
203	17206.00	90.01	3.24	7619.17	9363.91	9350.01	781.31	91.00	0.40	0.00	9382.60	4.78	Run 3
204	17296.00	89.78	1.32	7619.33	9453.89	9439.94	784.89	90.00	2.15	0.00	9472.51	4.75	Run 3
205	17387.00	89.81	2.63	7619.66	9544.88	9530.88	788.03	91.00	1.44	0.00	9563.40	4.73	Run 3
206	17479.00	90.37	3.41	7619.51	9636.83	9622.75	792.88	92.00	1.04	0.00	9655.36	4.71	Run 3
207	17570.00	89.62	3.49	7619.52	9727.76	9713.58	798.35	91.00	0.83	0.00	9746.34	4.70	Run 3
208	17661.00	89.22	3.55	7620.44	9818.67	9804.41	803.94	91.00	0.44	0.00	9837.31	4.69	Run 3
209	17752.00	90.37	4.43	7620.77	9909.56	9895.18	810.27	91.00	1.59	0.00	9928.30	4.68	Run 3
210	17844.00	89.53	3.22	7620.85	10001.46	9986.98	816.41	92.00	1.60	0.00	10020.29	4.67	Run 3
211	17936.00	90.09	2.28	7621.15	10093.42	10078.87	820.82	92.00	1.19	0.00	10112.24	4.66	Run 3
212	18029.00	89.98	0.59	7621.10	10186.42	10171.84	823.15	93.00	1.82	0.00	10205.09	4.63	Run 3
213	18119.00	89.84	358.90	7621.24	10276.39	10261.83	822.75	90.00	1.88	0.00	10294.76	4.58	Run 3
214	18212.00	89.36	357.27	7621.89	10369.25	10354.77	819.64	93.00	1.83	0.00	10387.16	4.53	Run 3
215	18303.00	88.89	359.60	7623.28	10460.13	10445.72	817.16	91.00	2.61	0.00	10477.64	4.47	Run 3
216	18396.00	90.48	4.11	7623.79	10553.09	10538.65	820.17	93.00	5.14	0.00	10570.51	4.45	Run 3
217	18487.00	89.70	3.73	7623.65	10643.98	10629.43	826.39	91.00	0.95	0.00	10661.51	4.45	Run 3
218	18579.00	89.87	3.03	7623.99	10735.91	10721.27	831.81	92.00	0.78	0.00	10753.49	4.44	Run 3
219	18670.00	89.78	1.82	7624.27	10826.89	10812.19	835.66	91.00	1.33	0.00	10844.43	4.42	Run 3
220	18762.00	89.62	0.79	7624.75	10918.89	10904.16	837.76	92.00	1.13	0.00	10936.30	4.39	Run 3
221	18854.00	89.50	359.67	7625.46	11010.87	10996.16	838.13	92.00	1.22	0.00	11028.05	4.36	Run 3
222	18946.00	89.73	358.66	7626.07	11102.81	11088.14	836.79	92.00	1.13	0.00	11119.67	4.32	Run 3
223	19038.00	89.03	359.20	7627.07	11194.74	11180.12	835.07	92.00	0.96	0.00	11211.26	4.27	Run 3
224	19127.00	89.36	359.57	7628.32	11283.68	11269.11	834.11	89.00	0.56	0.00	11299.93	4.23	Run 3
225	19218.00	89.31	358.37	7629.38	11374.61	11360.08	832.48	91.00	1.32	0.00	11390.55	4.19	Run 3
226	19309.00	90.29	0.41	7629.69	11465.56	11451.07	831.51	91.00	2.49	0.00	11481.22	4.15	Run 3
227	19401.00	89.78	3.08	7629.64	11557.55	11543.02	834.31	92.00	2.95	0.00	11573.13	4.13	Run 3
228	19491.00	89.06	2.62	7630.55	11647.50	11632.90	838.78	90.00	0.95	0.00	11663.11	4.12	Run 3
229	19582.00	91.49	6.85	7630.11	11738.30	11723.57	846.29	91.00	5.36	0.00	11754.07	4.13	Run 3
230	19673.00	91.32	6.33	7627.88	11828.86	11813.94	856.73	91.00	0.60	0.00	11844.96	4.15	Run 3
231	19765.00	90.20	3.81	7626.66	11920.63	11905.56	864.86	92.00	3.00	0.00	11936.93	4.15	Run 3
232	19857.00	92.02	4.79	7624.88	12012.47	11997.28	871.76	92.00	2.25	0.00	12028.91	4.16	Run 3
233	19948.00	88.83	0.23	7624.20	12103.40	12088.15	875.74	91.00	6.11	0.00	12119.83	4.14	Run 3
234	20040.00	87.23	359.42	7627.37	12195.32	12180.09	875.46	92.00	1.95	0.00	12211.52	4.11	Run 3
235	20131.00	87.32	359.66	7631.69	12286.18	12270.99	874.73	91.00	0.28	0.00	12302.13	4.08	Run 3
236	20222.00	86.79	359.31	7636.37	12377.02	12361.86	873.91	91.00	0.70	0.00	12392.72	4.04	Run 3
237	20314.00	85.92	358.66	7642.22	12468.77	12453.66	872.29	92.00	1.18	0.00	12484.17	4.01	Run 3
238	20396.00	85.66	358.68	7648.24	12550.47	12535.42	870.39	82.00	0.32	0.00	12565.60	3.97	Run 3
239	20457.00	85.66	358.68	7652.85	12611.24	12596.23	868.99	61.00	0.00	0.00	12626.17	3.95	Projection

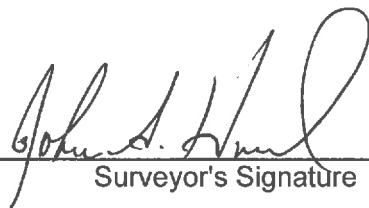


MWD SURVEY CERTIFICATION
Gordon Technologies, LLC

State Of Texas

County Of Reagan

I, John A. Huval certify that; I am employed by Gordon Technologies, LLC.;
that I did on the day(s) of December 8, 2020 through December 17, 2020 conduct
or supervise the taking of a MWD survey from a depth of 1,062 feet to a depth of
20,457 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 Pioneer Natural Res. USA, Inc. for the
University 10-11C 3H Well, A.P.I. No. 42-383-40858 in
Spraberry (Trend Area) Field and that I have reviewed this report and find that
it conforms to the principles and procedures set forth by Gordon Technologies, LLC.

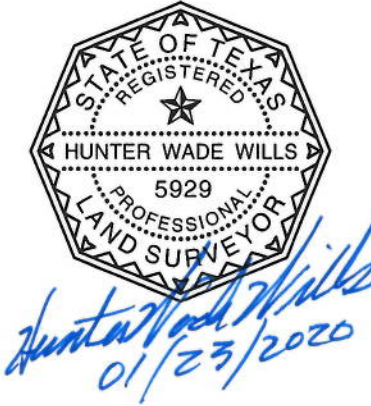
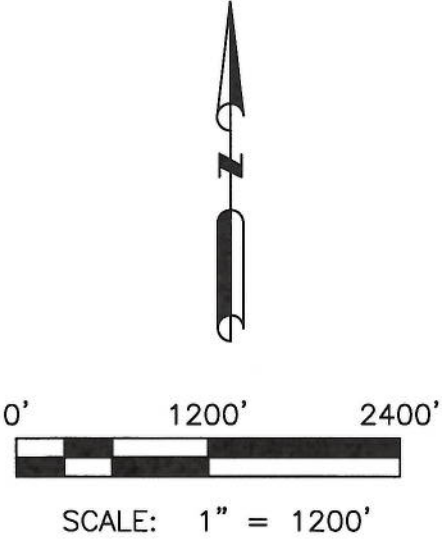
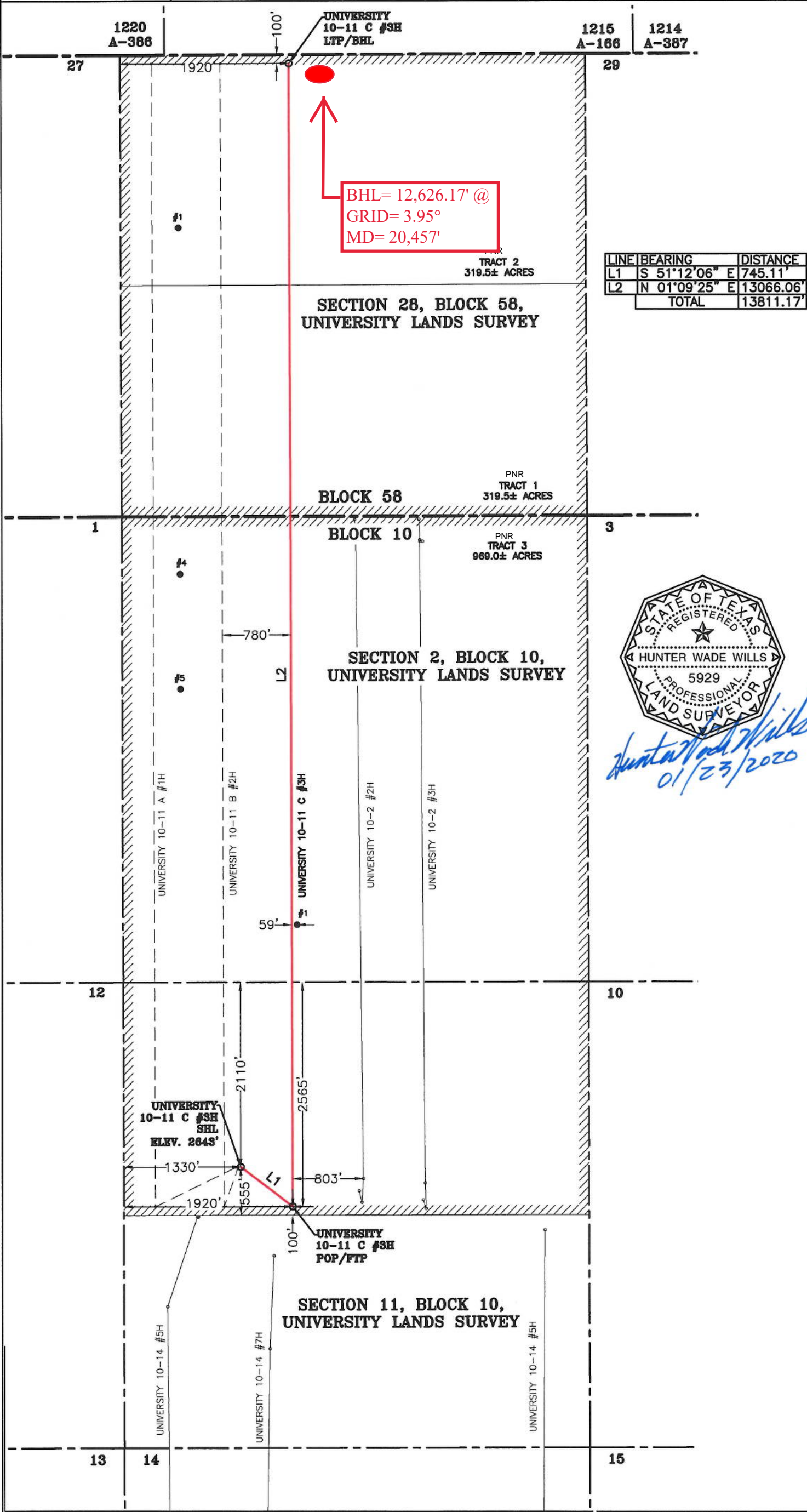


Surveyor's Signature

MWD Coordinator

Title

UNIVERSITY 10-11 C #3H	NORTHING (NAD 27)	EASTING (NAD 27)	LATITUDE (NAD 27)	LONGITUDE (NAD 27)	SECTION LINE		SECTION LINE		LEASE LINE		LEASE LINE		SECTION
					FOOTAGE	N/S	FOOTAGE	E/W	FOOTAGE	N/S	FOOTAGE	E/W	
SURFACE HOLE LOCATION (SHL)	589513.0	1621087.3	31.281924	101.546339	2110'	N	1330'	W	555'	S	1330'	W	11
POINT OF PENETRATION FIRST TAKE POINT (POP/FTP)	589046.1	1621668.0	31.280658	101.544464	2565'	N	1920'	W	100'	S	1920'	W	11
LAST TAKE POINT BOTTOM HOLE LOCATION (LTP/BHL)	602109.5	1621931.8	31.316581	101.544074	100'	N	1920'	W	100'	N	1920'	W	28



DATE: 1/14/2020
BY: KENDRA NYRKKANEN
TSPS FIRM NO. 10193998
HALFF ASSOCIATES INC. ENGINEERS - SURVEYORS
3300 N. A STREET, BLDG. 2, STE. 120,
MIDLAND, TX 79705
(432) 253-3255
SCALE: 1" = 1200' AVO 39678-W0141

LEGEND	
	EXISTING WELL
	SECTION LINE
	BLOCK LINE
	LEASE LINE
	WELL LATERAL
	PROPOSED WELL BORE

NOTES:

- THE BASIS OF BEARING OF THE SURVEY IS THE TEXAS COORDINATE SYSTEM, NORTH AMERICAN DATUM 1927 (NAD 27), CENTRAL ZONE (4203).
- ALL TEXAS STATE PLANE COORDINATES AND GEOGRAPHIC COORDINATES SHOWN HEREON ARE NAD 27 GRID COORDINATES AS COMPUTED BY CORPSCON VERSION 6.0.1. ALL GEOGRAPHIC COORDINATES SHOWN HEREON WERE CONVERTED USING CORPSCON VERSION 6.0.1. UNLESS OTHERWISE NOTED, ALL DISTANCES SHOWN HEREON ARE GRID DISTANCES AND THEY CAN BE CONVERTED TO SURFACE WHEN MULTIPLIED WITH A "SURFACE ADJUSTMENT FACTOR" OF 1.000217337, AS CALCULATED BY CORPSCON.
- ELEVATIONS SHOWN HEREON ARE NAVD88 AS DERIVED BY GPS.
- THIS EXHIBIT IS FOR TEXAS RAILROAD COMMISSION WELL PERMITTING PURPOSES ONLY. BOUNDARY LINES AND ACREAGE SHOWN HEREON REFLECT THE SURVEYORS PROFESSIONAL OPINION OF MINERAL RIGHTS AS DETERMINED FROM CLIENT-PROVIDED OIL AND GAS MINERAL LEASE DOCUMENTATION. THE INFORMATION DEPICTED HEREON SHALL NOT BE USED IN THE CONVEYANCE OF FEE TITLE TO REAL PROPERTY.
- ALL MEASUREMENTS TO LEASE, UNIT, AND SURVEY LINES ARE PERPENDICULAR TO SAID LINES.
- THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.

NOTE: WELL IS LOCATED APPROXIMATELY 8.1 MILES NORTHWEST OF BIG LAKE, REAGAN COUNTY, TEXAS

PIONEER NATURAL RESOURCES USA, INC.

UNIVERSITY 10-11 C #3H

TRACT 1-319.5± ACRES
TRACT 2-319.5± ACRES
TRACT 3-969.0± ACRES

1,608.0± TOTAL ACRES

PERMIT PLAT

LOCATED IN
SECTION 28, BLOCK 58,
SECTIONS 2 & 11, BLOCK 10,
UNIVERSITY LANDS SURVEY,
REAGAN COUNTY, TEXAS