



# Meteorite Energy Services Report

24 August, 2021

## PERMIAN North

Martin

University 1-32

University 1-32 24H

OH

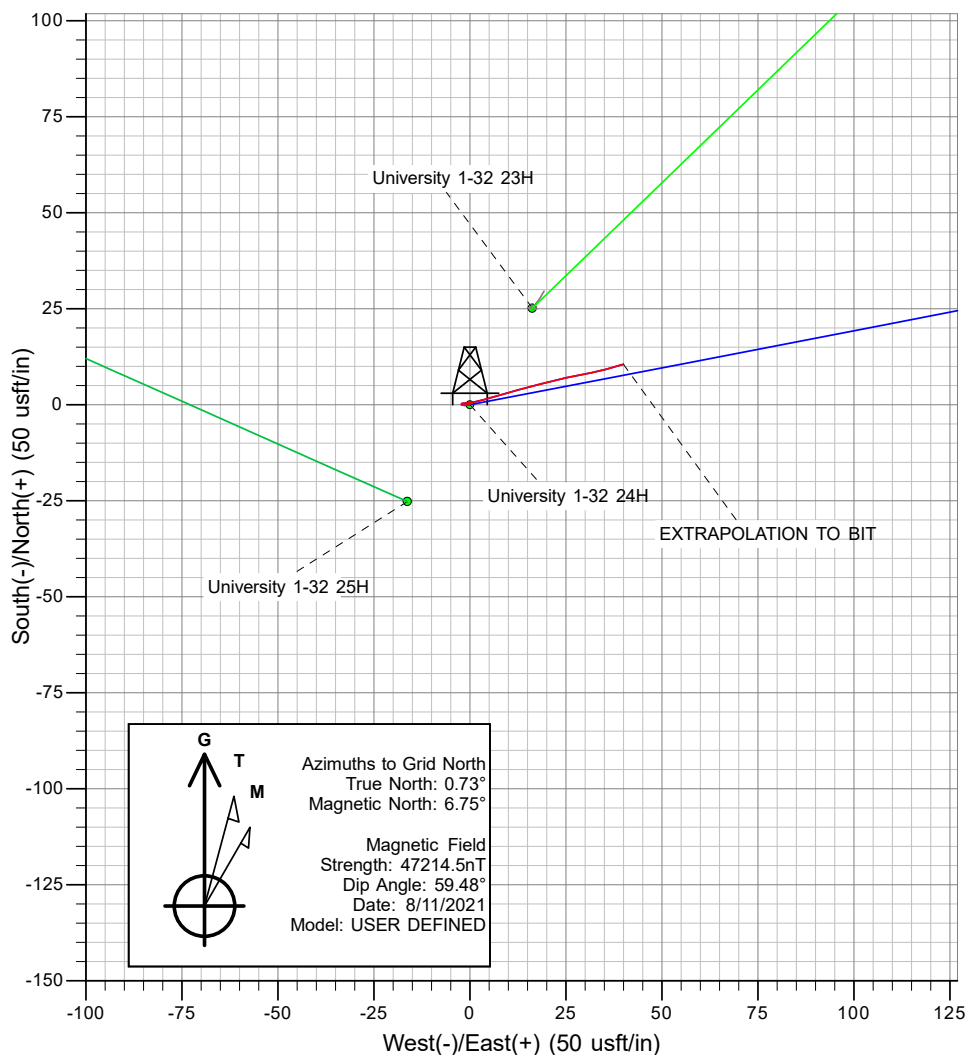
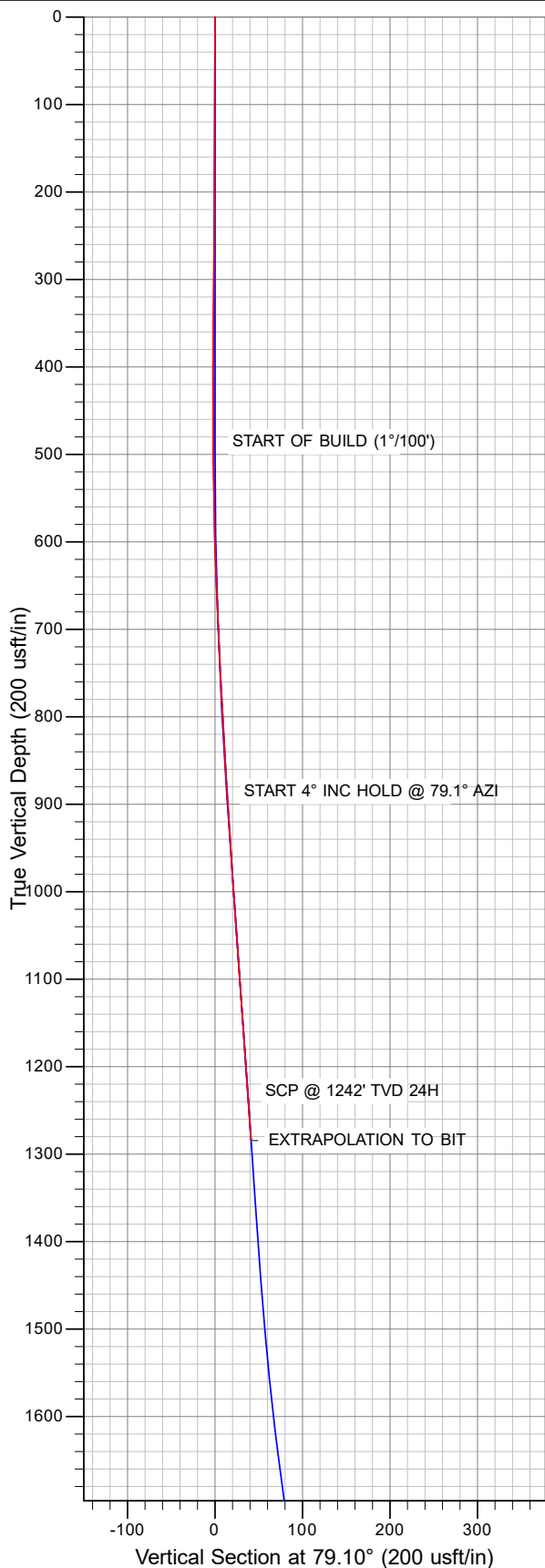
Survey: FINAL SURFACE SURVEYS (21MJ-295)

# PIONEER

NATURAL RESOURCES

## ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Annotation
1286.0	3.90	73.50	1284.7	10.6	40.0	41.3	EXTRAPOLATION TO BIT



## PROJECT DETAILS: Martin

Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: Texas Central 4203

System Datum: Mean Sea Level

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well University 1-32 24H, Grid North  
 Vertical (TVD) Reference: KB @ GL @ 2766.0usft  
 Section (VS) Reference: Slot - (0.0N, 0.0E)  
 Measured Depth Reference: KB @ GL @ 2766.0usft  
 Calculation Method: Minimum Curvature

Survey: FINAL SURFACE SURVEYS (21MJ-295) (University 1-32 24H/OH)

Created By: Meteorite Energy Services Date: 13:51, August 24 2021

Checked: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

Approved: \_\_\_\_\_ Date: \_\_\_\_\_

<b>Company:</b>	PERMIAN North	<b>Local Co-ordinate Reference:</b>	Well University 1-32 24H
<b>Project:</b>	Martin	<b>TVD Reference:</b>	KB @ GL @ 2766.0usft
<b>Site:</b>	University 1-32	<b>MD Reference:</b>	KB @ GL @ 2766.0usft
<b>Well:</b>	University 1-32 24H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURFACE SURVEYS (21MJ-295)	<b>Database:</b>	EDM 5000.16 Single User Db

<b>Project</b>	Martin		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Texas Central 4203		

<b>Site</b>	University 1-32		
<b>Site Position:</b>		<b>Northing:</b>	565,999.16 usft
<b>From:</b>	Map	<b>Easting:</b>	1,558,033.37 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"
		<b>Latitude:</b>	31° 12' 54.833 N
		<b>Longitude:</b>	101° 44' 49.975 W
		<b>Grid Convergence:</b>	-0.73 °

<b>Well</b>	University 1-32 24H		
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	usft
		<b>Latitude:</b>	31° 12' 54.582 N
		<b>Longitude:</b>	101° 44' 50.159 W
		<b>Ground Level:</b>	2,766.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	User Defined	8/11/2021	6.02	59.48	47,214.50000000

<b>Design</b>	FINAL SURFACE SURVEYS (21MJ-295)			
<b>Audit Notes:</b>				
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>
				0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	79.10

<b>Survey Program</b>	<b>Date</b>	8/24/2021		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
136.0	1,286.0	FINAL SURFACE SURVEYS (21MJ-295) (	MWD+IFR+MS	MWD + IFR + Multi Station

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>Subsea Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>
0.0	0.00	0.00	0.0	-2,766.0	0.0	0.0	0.0	0.00	0.00	0.00
136.0	0.30	271.60	136.0	-2,630.0	0.0	-0.4	-0.3	0.22	0.22	0.00
227.0	0.20	237.90	227.0	-2,539.0	-0.1	-0.7	-0.7	0.19	-0.11	-37.03
315.0	0.60	271.40	315.0	-2,451.0	-0.1	-1.3	-1.3	0.51	0.45	38.07
405.0	0.60	294.50	405.0	-2,361.0	0.1	-2.2	-2.2	0.27	0.00	25.67
500.0	0.70	81.60	500.0	-2,266.0	0.4	-2.1	-2.0	1.31	0.11	154.84
595.0	1.70	84.20	595.0	-2,171.0	0.6	-0.1	0.0	1.05	1.05	2.74
689.0	2.70	76.20	688.9	-2,077.1	1.3	3.4	3.6	1.11	1.06	-8.51
783.0	2.90	71.60	782.8	-1,983.2	2.5	7.8	8.2	0.32	0.21	-4.89
878.0	3.30	76.20	877.6	-1,888.4	3.9	12.8	13.3	0.50	0.42	4.84
973.0	4.10	75.30	972.4	-1,793.6	5.5	18.7	19.4	0.84	0.84	-0.95
1,066.0	4.10	76.90	1,065.2	-1,700.8	7.1	25.2	26.0	0.12	0.00	1.72
1,160.0	4.00	80.40	1,159.0	-1,607.0	8.4	31.7	32.7	0.28	-0.11	3.72

<b>Company:</b>	PERMIAN North	<b>Local Co-ordinate Reference:</b>	Well University 1-32 24H
<b>Project:</b>	Martin	<b>TVD Reference:</b>	KB @ GL @ 2766.0usft
<b>Site:</b>	University 1-32	<b>MD Reference:</b>	KB @ GL @ 2766.0usft
<b>Well:</b>	University 1-32 24H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURFACE SURVEYS (21MJ-295)	<b>Database:</b>	EDM 5000.16 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,216.0	3.90	73.50	1,214.8	-1,551.2	9.2	35.4	36.5	0.87	-0.18	-12.32
<b>EXTRAPOLATION TO BIT</b>										
<b>1,286.0</b>	<b>3.90</b>	<b>73.50</b>	<b>1,284.7</b>	<b>-1,481.3</b>	<b>10.6</b>	<b>40.0</b>	<b>41.3</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
24H POP/FTP	0.00	360.00	5,454.0	177.0	919.0	566,151.00	1,558,936.10	31° 12' 56.450 N	101° 44' 39.602 W
- survey misses target center by 4264.2usft at 1286.0usft MD (1284.7 TVD, 10.6 N, 40.0 E)									
- Point									
23H POP/FTP	0.00	0.00	4,454.0	192.5	189.2	566,166.50	1,558,206.30	31° 12' 56.511 N	101° 44' 48.008 W
- survey misses target center by 3178.0usft at 1286.0usft MD (1284.7 TVD, 10.6 N, 40.0 E)									
- Point									

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,286.0	1,284.7	10.6	40.0	EXTRAPOLATION TO BIT	

Checked By: _____	Approved By: _____	Date: _____
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## Survey Certification

I, Bryson Kriz, an authorized employee of Meteorite Energy Services Inc., have verified the MWD surveys performed on University 1-32 24H, between 8/22/2021 and 8/22/2021, from 80' to 1286'.

The data are true, correct, complete and within the limitations of the tool used. This survey was conducted at the request of Pioneer Natural Resources for # 871656 ( 42-383-41034 ) drilled in Martin county, Texas.

Sincerely  
Meteorite Energy Services Inc.

A handwritten signature in black ink, appearing to be "Bryson A. Kriz". The signature is stylized with a large, sweeping "B" and "K".

Bryson A. Kriz B.a.GIS | Technical Operations Coordinator  
METEORITE Energy Services  
6310 S County Road 1273 Midland, Texas 79706 USA  
Tel: (403)-667-1848  
[www.meteoriteenergyservices.com](http://www.meteoriteenergyservices.com)



## Directional Survey Report

Company: **Pioneer Natural Res. USA, Inc**  
 Well: **University 1-32 24H**  
 County: **Reagan**  
 State: **TX**  
 Field: **Spraberry (Trend Area)**  
 API: **42-383-41034**  
 Rig: **Ensign 133**  
 Service Co: **Gordon Technologies LLC**  
 Job #: **GT211132**  
 Survey Calc: **Minimum Curvature**

Well Surface Location  
 Latitude: **31.215159**  
 Longitude: **-101.747276**  
 Reference: **NAD 1927**  
 Y (Northing): **565972.90**  
 X (Easting): **1558013.90**  
 Field Engr: **Drew Atkinson**  
**Russell Thomason**  
**Chris Tucker**

Report Date: **Sep 27 2021**  
 Time: **23:09**  
 Mag Reference: **Grid North**  
 Mag Correction: **6.65**  
 Vert Sect. Azi: **181.17**  
 Perm Datum: **Mean Sea Level**  
 Depth Ref: **Rotary Table**  
 RKB Height: **25**  
 GL Elev: **2766**

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	Svy Imp
2	161.00	0.30	271.60	161.00	0.00	0.01	-0.36	136.00	0.22	0.00	0.36	271.60	Svy Imp
3	252.00	0.20	237.90	252.00	0.08	-0.07	-0.73	91.00	0.19	0.00	0.73	264.68	Svy Imp
4	340.00	0.60	271.40	340.00	0.17	-0.14	-1.32	88.00	0.51	0.00	1.33	264.02	Svy Imp
5	430.00	0.60	294.50	429.99	-0.02	0.07	-2.22	90.00	0.27	0.00	2.22	271.77	Svy Imp
6	525.00	0.70	81.60	524.99	-0.32	0.36	-2.10	95.00	1.31	0.00	2.13	279.73	Svy Imp
7	620.00	1.70	84.20	619.97	-0.58	0.59	-0.12	95.00	1.05	0.00	0.60	348.29	Svy Imp
8	714.00	2.70	76.20	713.90	-1.33	1.26	3.42	94.00	1.11	0.00	3.64	69.81	Svy Imp
9	808.00	2.90	71.60	807.78	-2.69	2.53	7.82	94.00	0.32	0.00	8.22	72.05	Svy Imp
10	903.00	3.30	76.20	902.65	-4.21	3.95	12.76	95.00	0.50	0.00	13.35	72.82	Svy Imp
11	998.00	4.10	75.30	997.45	-5.84	5.46	18.70	95.00	0.84	0.00	19.48	73.72	Svy Imp
12	1091.00	4.10	76.90	1090.21	-7.57	7.06	25.15	93.00	0.12	0.00	26.12	74.33	Svy Imp
13	1185.00	4.00	80.40	1183.97	-9.01	8.37	31.66	94.00	0.28	0.00	32.74	75.20	Svy Imp
14	1241.00	3.90	73.50	1239.84	-9.95	9.23	35.41	56.00	0.87	0.00	36.59	75.39	Svy Imp
15	1420.00	4.04	77.09	1418.41	-13.33	12.37	47.39	179.00	0.16	91.40	48.98	75.37	MWD Run 1
16	1511.00	4.16	70.73	1509.18	-15.27	14.17	53.63	91.00	0.51	95.00	55.47	75.20	MWD Run 1
17	1602.00	4.30	70.32	1599.93	-17.63	16.41	59.96	91.00	0.17	98.60	62.16	74.69	MWD Run 1
18	1691.00	4.09	73.98	1688.69	-19.76	18.41	66.15	89.00	0.39	100.40	68.67	74.45	MWD Run 1
19	1782.00	3.95	69.62	1779.47	-21.87	20.40	72.21	91.00	0.37	100.40	75.03	74.22	MWD Run 1
20	1873.00	4.06	72.50	1870.25	-24.05	22.46	78.21	91.00	0.25	102.20	81.37	73.98	MWD Run 1
21	1965.00	4.84	74.30	1961.97	-26.22	24.49	85.05	92.00	0.87	109.40	88.51	73.94	MWD Run 1
22	2056.00	6.66	79.20	2052.51	-28.43	26.51	93.94	91.00	2.07	111.20	97.61	74.24	MWD Run 1
23	2147.00	7.69	79.06	2142.80	-30.80	28.66	105.10	91.00	1.13	109.40	108.94	74.75	MWD Run 1
24	2237.00	9.94	79.93	2231.73	-33.58	31.16	118.66	90.00	2.51	114.80	122.69	75.29	MWD Run 1
25	2326.00	11.05	82.46	2319.24	-36.37	33.62	134.69	89.00	1.34	120.20	138.82	75.98	MWD Run 1
26	2416.00	12.79	82.71	2407.29	-39.14	36.02	153.12	90.00	1.93	122.00	157.30	76.76	MWD Run 1
27	2507.00	12.39	84.14	2496.10	-41.81	38.29	172.82	91.00	0.56	120.20	177.01	77.51	MWD Run 1
28	2597.00	12.26	84.16	2584.03	-44.16	40.25	191.92	90.00	0.15	116.60	196.10	78.16	MWD Run 1
29	2690.00	12.49	83.64	2674.87	-46.68	42.37	211.73	93.00	0.27	120.20	215.93	78.68	MWD Run 1
30	2779.00	12.17	82.92	2761.82	-49.29	44.59	230.60	89.00	0.40	122.00	234.88	79.06	MWD Run 1
31	2869.00	11.97	83.80	2849.83	-51.85	46.77	249.30	90.00	0.30	125.60	253.65	79.37	MWD Run 1
32	2958.00	11.90	83.17	2936.91	-54.31	48.85	267.59	89.00	0.16	129.20	272.01	79.65	MWD Run 1
33	3050.00	11.95	79.51	3026.92	-57.55	51.72	286.37	92.00	0.82	132.80	291.00	79.76	MWD Run 1
34	3142.00	11.98	78.75	3116.92	-61.53	55.31	305.10	92.00	0.18	136.40	310.07	79.72	MWD Run 1
35	3233.00	11.84	78.41	3205.97	-65.62	59.03	323.50	91.00	0.17	129.20	328.85	79.66	MWD Run 1
36	3323.00	12.14	78.82	3294.00	-69.69	62.72	341.83	90.00	0.34	125.60	347.54	79.60	MWD Run 1
37	3414.00	11.82	78.08	3383.02	-73.84	66.50	360.33	91.00	0.39	129.20	366.42	79.54	MWD Run 1
38	3503.00	11.91	77.57	3470.12	-78.06	70.36	378.22	89.00	0.16	129.20	384.71	79.46	MWD Run 1
39	3594.00	12.02	78.31	3559.14	-82.38	74.30	396.67	91.00	0.21	131.00	403.57	79.39	MWD Run 1
40	3686.00	12.02	79.16	3649.12	-86.51	78.04	415.46	92.00	0.19	134.60	422.73	79.36	MWD Run 1
41	3777.00	11.91	79.74	3738.15	-90.34	81.49	434.01	91.00	0.18	136.40	441.60	79.37	MWD Run 1
42	3867.00	11.76	78.80	3826.23	-94.14	84.93	452.15	90.00	0.27	138.20	460.05	79.36	MWD Run 1
43	3958.00	11.85	79.99	3915.31	-97.94	88.35	470.44	91.00	0.28	140.00	478.67	79.36	MWD Run 1
44	4048.00	11.56	79.51	4003.44	-101.55	91.60	488.40	90.00	0.34	141.80	496.92	79.38	MWD Run 1
45	4139.00	11.32	78.30	4092.63	-105.38	95.07	506.12	91.00	0.37	143.60	514.97	79.36	MWD Run 1
46	4229.00	11.45	79.08	4180.86	-109.22	98.55	523.54	90.00	0.22	143.60	532.74	79.34	MWD Run 1
47	4319.00	11.86	78.77	4269.00	-113.08	102.05	541.38	90.00	0.46	111.20	550.92	79.33	MWD Run 1

48	4411.00	11.62	79.20	4359.08	-117.03	105.62	559.76	92.00	0.27	100.40	569.64	79.31	MWD Run 1
49	4501.00	11.00	77.18	4447.33	-120.99	109.23	577.04	90.00	0.82	109.40	587.29	79.28	MWD Run 1
50	4592.00	11.40	77.16	4536.60	-125.27	113.15	594.27	91.00	0.43	118.40	604.95	79.22	MWD Run 1
51	4683.00	11.22	75.42	4625.83	-129.85	117.38	611.61	91.00	0.42	120.20	622.77	79.14	MWD Run 1
52	4774.00	11.17	75.47	4715.10	-134.64	121.82	628.71	91.00	0.05	125.60	640.41	79.03	MWD Run 1
53	4864.00	12.48	76.25	4803.19	-139.50	126.32	646.60	90.00	1.46	127.40	658.83	78.95	MWD Run 1
54	4955.00	11.48	75.76	4892.20	-144.44	130.89	664.93	91.00	1.11	129.20	677.69	78.86	MWD Run 1
55	5045.00	10.95	73.66	4980.48	-149.39	135.50	681.81	90.00	0.74	129.20	695.15	78.76	MWD Run 1
56	5136.00	11.57	75.33	5069.73	-154.48	140.24	698.93	91.00	0.77	129.20	712.86	78.65	MWD Run 1
57	5226.00	13.00	75.99	5157.67	-159.59	144.97	717.48	90.00	1.59	129.20	731.98	78.58	MWD Run 1
58	5317.00	12.05	75.63	5246.51	-164.82	149.81	736.61	91.00	1.05	132.80	751.69	78.50	MWD Run 1
59	5408.00	11.45	73.03	5335.60	-170.17	154.80	754.45	91.00	0.87	125.60	770.17	78.40	MWD Run 1
60	5498.00	10.19	71.30	5424.00	-175.66	159.96	770.53	90.00	1.45	127.40	786.96	78.27	MWD Run 1
61	5588.00	8.85	69.27	5512.76	-180.95	164.96	784.55	90.00	1.53	131.00	801.70	78.13	MWD Run 1
62	5678.00	7.66	68.09	5601.82	-185.88	169.65	796.59	90.00	1.33	132.80	814.45	77.98	MWD Run 1
63	5769.00	7.26	65.54	5692.05	-190.74	174.29	807.45	91.00	0.57	127.40	826.04	77.82	MWD Run 1
64	5860.00	7.46	66.94	5782.30	-195.65	178.99	818.11	91.00	0.30	125.60	837.46	77.66	MWD Run 1
65	5951.00	7.43	66.05	5872.54	-200.57	183.69	828.92	91.00	0.13	132.80	849.03	77.51	MWD Run 1
66	6042.00	7.29	60.33	5962.79	-206.03	188.93	839.32	91.00	0.82	143.60	860.32	77.31	MWD Run 1
67	6132.00	6.59	57.54	6052.13	-211.82	194.54	848.64	90.00	0.87	143.60	870.65	77.09	MWD Run 1
68	6222.00	5.78	54.90	6141.60	-217.36	199.91	856.71	90.00	0.96	143.60	879.72	76.87	MWD Run 1
69	6313.00	5.55	55.62	6232.16	-222.63	205.03	864.08	91.00	0.27	129.20	888.07	76.65	MWD Run 1
70	6404.00	5.11	54.99	6322.77	-227.58	209.84	871.03	91.00	0.49	134.60	895.95	76.46	MWD Run 1
71	6495.00	4.28	57.36	6413.46	-231.86	213.99	877.21	91.00	0.94	132.80	902.93	76.29	MWD Run 1
72	6584.00	3.70	55.98	6502.24	-235.36	217.39	882.38	89.00	0.66	136.40	908.77	76.16	MWD Run 1
73	6674.00	3.59	56.62	6592.06	-238.63	220.57	887.15	90.00	0.13	138.20	914.15	76.04	MWD Run 1
74	6764.00	3.40	60.59	6681.89	-241.59	223.43	891.83	90.00	0.34	136.40	919.39	75.94	MWD Run 1
75	6853.00	3.21	66.14	6770.75	-243.99	225.73	896.40	89.00	0.42	136.40	924.39	75.87	MWD Run 1
76	6943.00	2.13	77.32	6860.65	-245.45	227.12	900.34	90.00	1.32	134.60	928.54	75.84	MWD Run 1
77	6973.00	2.08	71.85	6890.63	-245.77	227.41	901.40	30.00	0.69	134.60	929.64	75.84	MWD Run 1
78	7034.00	1.88	90.35	6951.59	-246.15	227.75	903.45	61.00	1.09	134.60	931.71	75.85	MWD Run 1
79	7079.00	1.77	112.81	6996.57	-245.90	227.47	904.83	45.00	1.60	136.40	932.98	75.89	MWD Run 1
80	7124.00	1.52	120.08	7041.55	-245.36	226.90	905.98	45.00	0.71	138.20	933.97	75.94	MWD Run 1
81	7216.00	1.73	113.05	7133.52	-244.25	225.75	908.32	92.00	0.31	140.00	935.95	76.04	MWD Run 1
82	7306.00	1.99	87.69	7223.47	-243.84	225.28	911.13	90.00	0.95	140.00	938.57	76.11	MWD Run 1
83	7397.00	0.89	103.13	7314.44	-243.79	225.18	913.41	91.00	1.27	141.80	940.75	76.15	MWD Run 1
84	7488.00	1.23	95.69	7405.42	-243.56	224.92	915.07	91.00	0.40	143.60	942.31	76.19	MWD Run 1
85	7578.00	1.12	79.46	7495.40	-243.66	224.99	916.90	90.00	0.39	143.60	944.10	76.21	MWD Run 1
86	7668.00	1.20	77.67	7585.39	-244.06	225.35	918.68	90.00	0.09	145.40	945.92	76.22	MWD Run 1
87	7749.00	1.17	68.28	7666.37	-244.58	225.84	920.28	81.00	0.24	145.40	947.58	76.21	MWD Run 1
88	7826.00	1.12	81.73	7743.35	-245.01	226.23	921.75	77.00	0.35	129.20	949.10	76.21	MWD Run 2
89	7836.00	1.12	65.44	7753.35	-245.07	226.29	921.93	10.00	3.17	129.20	949.30	76.21	MWD Run 2
90	7927.00	6.80	180.81	7844.15	-240.06	221.27	922.66	91.00	8.07	134.60	948.83	76.51	MWD Run 2
91	8017.00	18.05	196.41	7931.92	-221.22	202.50	918.64	90.00	12.94	141.80	940.69	77.57	MWD Run 2
92	8108.00	26.71	198.47	8015.99	-188.03	169.52	908.15	91.00	9.55	145.40	923.84	79.43	MWD Run 2
93	8200.00	35.79	188.56	8094.61	-141.48	123.18	897.57	92.00	11.32	150.80	905.98	82.19	MWD Run 2
94	8292.00	44.22	181.91	8165.05	-82.59	64.38	892.48	92.00	10.27	154.40	894.80	85.87	MWD Run 2
95	8384.00	52.73	180.10	8225.98	-13.78	-4.42	891.35	92.00	9.36	156.20	891.36	90.28	MWD Run 2
96	8474.00	61.93	178.94	8274.51	61.86	-80.09	892.02	90.00	10.28	161.60	895.61	95.13	MWD Run 2
97	8565.00	64.38	177.47	8315.61	142.94	-161.24	894.57	91.00	3.05	163.40	908.99	100.22	MWD Run 2
98	8655.00	69.50	177.68	8350.86	225.55	-243.94	898.07	90.00	5.70	165.20	930.61	105.20	MWD Run 2
99	8745.00	84.02	176.56	8371.42	312.70	-331.20	902.48	90.00	16.18	170.60	961.34	110.15	MWD Run 2
100	8835.00	90.64	174.71	8375.60	402.13	-420.79	909.33	90.00	7.64	174.20	1001.97	114.83	MWD Run 2
101	8925.00	86.97	177.80	8377.48	491.76	-510.55	915.21	90.00	5.33	176.00	1047.98	119.16	MWD Run 2
102	9016.00	90.03	183.31	8379.86	582.67	-601.47	914.33	91.00	6.92	179.60	1094.42	123.34	MWD Run 2
103	9072.00	89.81	182.67	8379.94	638.64	-657.39	911.41	56.00	1.21	154.40	1123.76	125.80	MWD Run 3
104	9164.00	90.15	185.12	8379.97	730.53	-749.17	905.17	92.00	2.69	159.80	1174.98	129.61	MWD Run 3
105	9254.00	90.57	186.33	8379.40	820.25	-838.72	896.20	90.00	1.42	165.20	1227.45	133.10	MWD Run 3
106	9344.00	89.93	183.65	8379.01	910.04	-928.37	888.38	90.00	3.06	168.80	1284.95	136.26	MWD Run 3
107	9435.00	89.51	181.20	8379.46	1001.01	-1019.28	884.53	91.00	2.73	172.40	1349.57	139.05	MWD Run 3
108	9526.00	88.81	179.91	8380.80	1091.99	-1110.26	883.65	91.00	1.61	176.00	1418.99	141.48	MWD Run 3
109	9617.00	89.14	180.15	8382.43	1182.96	-1201.25	883.60	91.00	0.45	179.60	1491.23	143.66	MWD Run 3
110	9708.00	89.17	180.14	8383.78	1273.93	-1292.24	883.38	91.00	0.03	181.40	1565.32	145.64	MWD Run 3
111	9798.00	89.17	179.58	8385.08	1363.90	-1382.23	883.60	90.00	0.61	183.20	1640.52	147.41	MWD Run 3
112	9890.00	89.00	179.19	8386.55	1455.84	-1474.21	884.58	92.00	0.46	183.20	1719.24	149.03	MWD Run 3
113	9980.00	89.39	180.33	8387.81	1545.81	-1564.20	884.96	90.00	1.34	185.00	1797.19	150.50	MWD Run 3

114	10073.00	89.14	180.01	8389.00	1638.78	-1657.19	884.68	93.00	0.44	181.40	1878.55	151.90	MWD Run 3
115	10163.00	89.53	180.87	8390.04	1728.77	-1747.18	883.98	90.00	1.05	186.80	1958.08	153.16	MWD Run 3
116	10252.00	89.11	180.30	8391.09	1817.76	-1836.17	883.08	89.00	0.80	188.60	2037.49	154.32	MWD Run 3
117	10342.00	89.17	180.20	8392.44	1907.74	-1926.16	882.68	90.00	0.12	188.60	2118.78	155.38	MWD Run 3
118	10433.00	89.79	180.50	8393.27	1998.72	-2017.15	882.13	91.00	0.75	190.40	2201.61	156.38	MWD Run 3
119	10525.00	88.81	179.81	8394.40	2090.70	-2109.15	881.88	92.00	1.30	186.80	2286.09	157.31	MWD Run 3
120	10616.00	88.24	180.40	8396.74	2181.65	-2200.11	881.71	91.00	0.90	190.40	2370.22	158.16	MWD Run 3
121	10707.00	88.97	182.56	8398.95	2272.62	-2291.05	879.36	91.00	2.50	192.20	2454.02	159.00	MWD Run 3
122	10797.00	89.11	182.97	8400.45	2362.57	-2380.93	875.03	90.00	0.48	194.00	2536.64	159.82	MWD Run 3
123	10889.00	88.69	182.62	8402.21	2454.52	-2472.81	870.54	92.00	0.59	194.00	2621.57	160.61	MWD Run 3
124	10980.00	89.00	182.77	8404.05	2545.47	-2563.69	866.26	91.00	0.38	194.00	2706.09	161.33	MWD Run 3
125	11071.00	88.41	182.60	8406.10	2636.41	-2654.57	862.00	91.00	0.67	190.40	2791.01	162.01	MWD Run 3
126	11162.00	89.31	182.76	8407.91	2727.36	-2745.45	857.74	91.00	1.00	194.00	2876.32	162.65	MWD Run 3
127	11252.00	89.37	182.74	8408.95	2817.32	-2835.34	853.42	90.00	0.07	195.80	2960.99	163.25	MWD Run 3
128	11342.00	88.69	181.98	8410.47	2907.29	-2925.25	849.71	90.00	1.13	195.80	3046.16	163.80	MWD Run 3
129	11435.00	88.66	181.44	8412.62	3000.26	-3018.18	846.94	93.00	0.58	197.60	3134.76	164.33	MWD Run 3
130	11527.00	88.92	182.21	8414.56	3092.23	-3110.11	844.01	92.00	0.88	192.20	3222.60	164.82	MWD Run 3
131	11617.00	89.79	181.04	8415.58	3182.22	-3200.07	841.45	90.00	1.62	195.80	3308.85	165.27	MWD Run 3
132	11709.00	90.68	181.23	8415.20	3274.22	-3292.05	839.63	92.00	1.00	197.60	3397.43	165.69	MWD Run 3
133	11799.00	89.65	180.84	8414.95	3364.21	-3382.03	838.01	90.00	1.23	197.60	3484.31	166.08	MWD Run 3
134	11889.00	91.13	181.84	8414.34	3454.21	-3472.00	835.90	90.00	1.99	199.40	3571.21	166.46	MWD Run 3
135	11980.00	90.12	180.93	8413.34	3545.20	-3562.97	833.70	91.00	1.50	199.40	3659.21	166.83	MWD Run 3
136	12070.00	89.98	181.27	8413.26	3635.20	-3652.95	831.97	90.00	0.41	199.40	3746.49	167.17	MWD Run 3
137	12162.00	88.64	181.11	8414.37	3727.19	-3744.92	830.06	92.00	1.47	201.20	3835.81	167.50	MWD Run 3
138	12250.00	87.60	180.26	8417.26	3815.14	-3832.87	829.01	88.00	1.53	203.00	3921.49	167.80	MWD Run 3
139	12341.00	87.85	179.60	8420.87	3906.04	-3923.79	829.12	91.00	0.78	203.00	4010.44	168.07	MWD Run 3
140	12433.00	90.71	181.95	8422.02	3998.02	-4015.76	827.88	92.00	4.02	203.00	4100.21	168.35	MWD Run 3
141	12525.00	91.58	182.13	8420.18	4089.99	-4107.68	824.61	92.00	0.96	203.00	4189.64	168.65	MWD Run 3
142	12617.00	90.82	181.04	8418.25	4181.97	-4199.63	822.07	92.00	1.44	204.80	4279.33	168.92	MWD Run 3
143	12707.00	89.11	179.78	8418.30	4271.95	-4289.62	821.43	90.00	2.36	206.60	4367.56	169.16	MWD Run 3
144	12798.00	90.21	180.90	8418.84	4362.94	-4380.61	820.89	91.00	1.72	206.60	4456.86	169.39	MWD Run 3
145	12887.00	89.56	179.75	8419.02	4451.93	-4469.61	820.38	89.00	1.48	208.40	4544.28	169.60	MWD Run 3
146	12976.00	88.75	180.04	8420.34	4540.89	-4558.60	820.55	89.00	0.97	208.40	4631.86	169.80	MWD Run 3
147	13066.00	89.17	180.50	8421.97	4630.87	-4648.58	820.12	90.00	0.69	208.40	4720.37	169.99	MWD Run 3
148	13156.00	89.79	180.84	8422.79	4720.86	-4738.57	819.07	90.00	0.78	210.20	4808.84	170.19	MWD Run 3
149	13246.00	90.15	180.97	8422.84	4810.86	-4828.56	817.64	90.00	0.43	210.20	4897.30	170.39	MWD Run 3
150	13336.00	88.47	179.50	8423.93	4900.83	-4918.55	817.27	90.00	2.48	206.60	4985.98	170.57	MWD Run 3
151	13426.00	88.75	179.65	8426.11	4990.77	-5008.52	817.94	90.00	0.35	210.20	5074.87	170.72	MWD Run 3
152	13517.00	90.15	180.49	8426.99	5081.75	-5099.51	817.83	91.00	1.80	206.60	5164.67	170.89	MWD Run 3
153	13610.00	89.93	180.41	8426.92	5174.74	-5192.51	817.10	93.00	0.26	208.40	5256.40	171.06	MWD Run 3
154	13698.00	90.46	180.56	8426.63	5262.73	-5280.50	816.35	88.00	0.63	208.40	5343.23	171.21	MWD Run 3
155	13789.00	90.60	180.22	8425.79	5353.72	-5371.50	815.73	91.00	0.40	208.40	5433.08	171.36	MWD Run 3
156	13879.00	91.33	179.34	8424.28	5443.68	-5461.48	816.08	90.00	1.27	208.40	5522.12	171.50	MWD Run 3
157	13970.00	92.64	180.63	8421.12	5534.60	-5552.42	816.10	91.00	2.02	210.20	5612.08	171.64	MWD Run 3
158	14059.00	92.20	181.06	8417.37	5623.52	-5641.33	814.79	89.00	0.70	204.80	5699.87	171.78	MWD Run 3
159	14151.00	91.91	182.44	8414.07	5715.46	-5733.23	811.99	92.00	1.53	208.40	5790.45	171.94	MWD Run 3
160	14243.00	91.16	181.32	8411.60	5807.41	-5825.15	808.97	92.00	1.46	208.40	5881.05	172.09	MWD Run 3
161	14334.00	93.34	181.31	8408.02	5898.34	-5916.05	806.89	91.00	2.40	210.20	5970.82	172.23	MWD Run 3
162	14423.00	91.33	181.73	8404.40	5987.26	-6004.94	804.53	89.00	2.32	212.00	6058.59	172.37	MWD Run 3
163	14514.00	91.07	181.41	8402.49	6078.23	-6095.88	802.04	91.00	0.45	212.00	6148.42	172.50	MWD Run 3
164	14605.00	92.03	182.01	8400.03	6169.20	-6186.81	799.33	91.00	1.24	212.00	6238.23	172.64	MWD Run 3
165	14696.00	91.05	182.09	8397.59	6260.15	-6277.71	796.07	91.00	1.08	204.80	6327.99	172.77	MWD Run 3
166	14787.00	92.45	181.94	8394.81	6351.10	-6368.61	792.87	91.00	1.55	210.20	6417.78	172.90	MWD Run 3
167	14877.00	90.21	181.45	8392.73	6441.06	-6458.54	790.21	90.00	2.55	212.00	6506.71	173.02	MWD Run 3
168	14969.00	90.09	181.35	8392.49	6533.06	-6550.52	787.96	92.00	0.17	213.80	6597.74	173.14	MWD Run 3
169	15060.00	91.19	181.89	8391.47	6624.05	-6641.47	785.38	91.00	1.34	213.80	6687.75	173.26	MWD Run 3
170	15153.00	90.46	182.12	8390.14	6717.03	-6734.41	782.13	93.00	0.82	215.60	6779.67	173.38	MWD Run 3
171	15244.00	90.63	181.91	8389.27	6808.02	-6825.34	778.93	91.00	0.29	213.80	6869.65	173.49	MWD Run 3
172	15335.00	91.89	181.95	8387.28	6898.99	-6916.27	775.86	91.00	1.39	213.80	6959.65	173.60	MWD Run 3
173	15426.00	94.27	182.66	8382.39	6989.83	-7007.06	772.21	91.00	2.73	215.60	7049.48	173.71	MWD Run 3
174	15517.00	90.85	179.23	8378.33	7080.71	-7097.93	770.72	91.00	5.32	210.20	7139.65	173.80	MWD Run 3
175	15608.00	90.26	180.66	8377.44	7171.68	-7188.92	770.80	91.00	1.71	215.60	7230.13	173.88	MWD Run 3
176	15698.00	90.23	181.27	8377.05	7261.68	-7278.91	769.28	90.00	0.68	215.60	7319.44	173.97	MWD Run 3
177	15789.00	90.63	181.53	8376.37	7352.68	-7369.88	767.06	91.00	0.51	213.80	7409.69	174.06	MWD Run 3
178	15879.00	94.39	181.18	8372.44	7442.57	-7459.75	764.93	90.00	4.19	213.80	7498.86	174.15	MWD Run 3
179	15971.00	92.28	179.92	8367.09	7534.41	-7551.58	764.05	92.00	2.66	213.80	7590.14	174.22	MWD Run 3



180	16062.00	89.59	180.14	8365.60	7625.37	-7642.56	763.99	91.00	2.97	215.60	7680.65	174.29	MWD Run 3
181	16153.00	88.72	180.59	8366.94	7716.35	-7733.55	763.41	91.00	1.07	212.00	7771.14	174.36	MWD Run 3
182	16242.00	89.84	181.45	8368.06	7805.34	-7822.52	761.83	89.00	1.59	213.80	7859.53	174.44	MWD Run 3
183	16335.00	89.34	181.32	8368.73	7898.33	-7915.50	759.58	93.00	0.56	215.60	7951.86	174.52	MWD Run 3
184	16425.00	89.90	181.63	8369.33	7988.33	-8005.46	757.27	90.00	0.71	215.60	8041.20	174.60	MWD Run 3
185	16516.00	89.93	181.14	8369.47	8079.33	-8096.44	755.07	91.00	0.54	215.60	8131.57	174.67	MWD Run 3
186	16606.00	90.40	180.97	8369.21	8169.33	-8186.42	753.42	90.00	0.56	212.00	8221.02	174.74	MWD Run 3
187	16696.00	90.71	181.21	8368.33	8259.32	-8276.40	751.70	90.00	0.43	213.80	8310.47	174.81	MWD Run 3
188	16786.00	90.65	181.29	8367.26	8349.32	-8366.37	749.74	90.00	0.11	213.80	8399.90	174.88	MWD Run 3
189	16878.00	89.90	180.39	8366.82	8441.31	-8458.36	748.40	92.00	1.28	215.60	8491.40	174.94	MWD Run 3
190	16967.00	90.18	180.81	8366.76	8530.31	-8547.35	747.47	89.00	0.57	215.60	8579.97	175.00	MWD Run 3
191	17057.00	91.13	181.54	8365.73	8620.30	-8637.33	745.62	90.00	1.33	213.80	8669.45	175.07	MWD Run 3
192	17149.00	90.07	180.23	8364.77	8712.29	-8729.31	744.21	92.00	1.83	215.60	8760.97	175.13	MWD Run 3
193	17240.00	89.84	179.75	8364.84	8803.27	-8820.31	744.23	91.00	0.57	217.40	8851.65	175.18	MWD Run 3
194	17332.00	89.56	179.60	8365.32	8895.24	-8912.31	744.75	92.00	0.35	217.40	8943.37	175.22	MWD Run 3
195	17423.00	89.73	180.15	8365.89	8986.21	-9003.30	744.94	91.00	0.64	217.40	9034.07	175.27	MWD Run 3
196	17514.00	92.50	182.92	8364.11	9077.18	-9094.23	742.50	91.00	4.31	217.40	9124.50	175.33	MWD Run 3
197	17605.00	90.37	179.31	8361.83	9168.13	-9185.17	740.74	91.00	4.61	215.60	9214.99	175.39	MWD Run 3
198	17695.00	91.07	179.91	8360.69	9258.09	-9275.16	741.35	90.00	1.03	217.40	9304.74	175.43	MWD Run 3
199	17787.00	91.33	180.07	8358.76	9350.05	-9367.14	741.36	92.00	0.32	213.80	9396.43	175.47	MWD Run 3
200	17877.00	90.51	180.08	8357.31	9440.02	-9457.13	741.25	90.00	0.90	213.80	9486.13	175.52	MWD Run 3
201	17968.00	90.35	179.94	8356.63	9531.00	-9548.12	741.23	91.00	0.24	212.00	9576.85	175.56	MWD Run 3
202	18060.00	90.46	180.76	8355.99	9622.98	-9640.12	740.67	92.00	0.90	212.00	9668.53	175.61	MWD Run 3
203	18151.00	90.35	181.39	8355.35	9713.98	-9731.10	738.96	91.00	0.70	213.80	9759.12	175.66	MWD Run 3
204	18242.00	90.21	181.16	8354.91	9804.98	-9822.08	736.94	91.00	0.29	208.40	9849.68	175.71	MWD Run 3
205	18332.00	89.45	180.54	8355.18	9894.98	-9912.06	735.60	90.00	1.09	212.00	9939.32	175.76	MWD Run 3
206	18422.00	89.28	180.56	8356.17	9984.97	-10002.05	734.73	90.00	0.19	213.80	10029.00	175.80	MWD Run 3
207	18514.00	90.71	181.19	8356.18	10076.96	-10094.04	733.32	92.00	1.70	212.00	10120.64	175.84	MWD Run 3
208	18605.00	91.21	180.85	8354.65	10167.95	-10185.01	731.70	91.00	0.67	210.20	10211.26	175.89	MWD Run 3
PTB	18641.00	91.21	180.85	8353.89	10203.94	-10221.00	731.16	36.00	0.01	210.20	10247.12	175.91	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 September 12, 2021 through September 24, 2021 conduct  
or supervise the taking of a MWD survey from a depth of 1,420 feet to a depth of  
18,641 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 1-32 24H Well, A.P.I. No. 42-383-41034 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