



# Meteorite Energy Services Report

24 August, 2021

## PERMIAN North

Martin

University 1-32

University 1-32 24H

OH

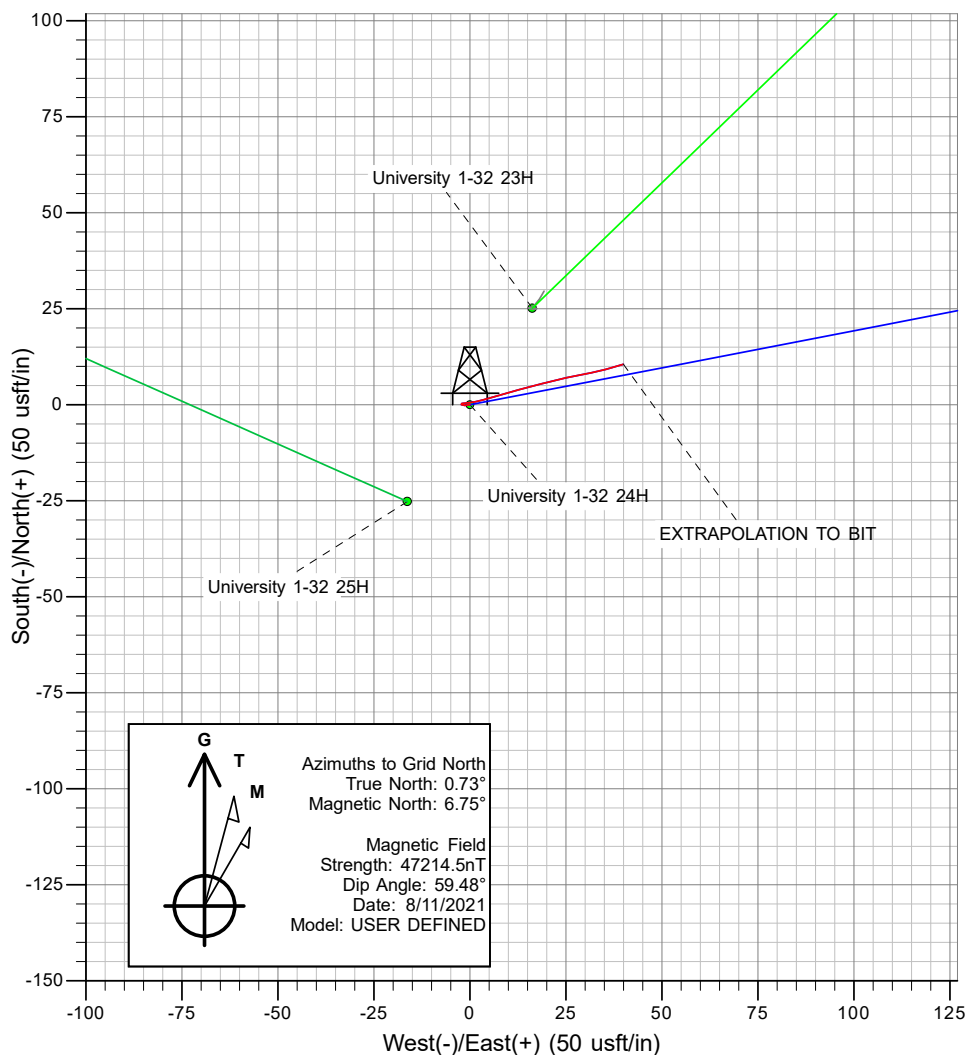
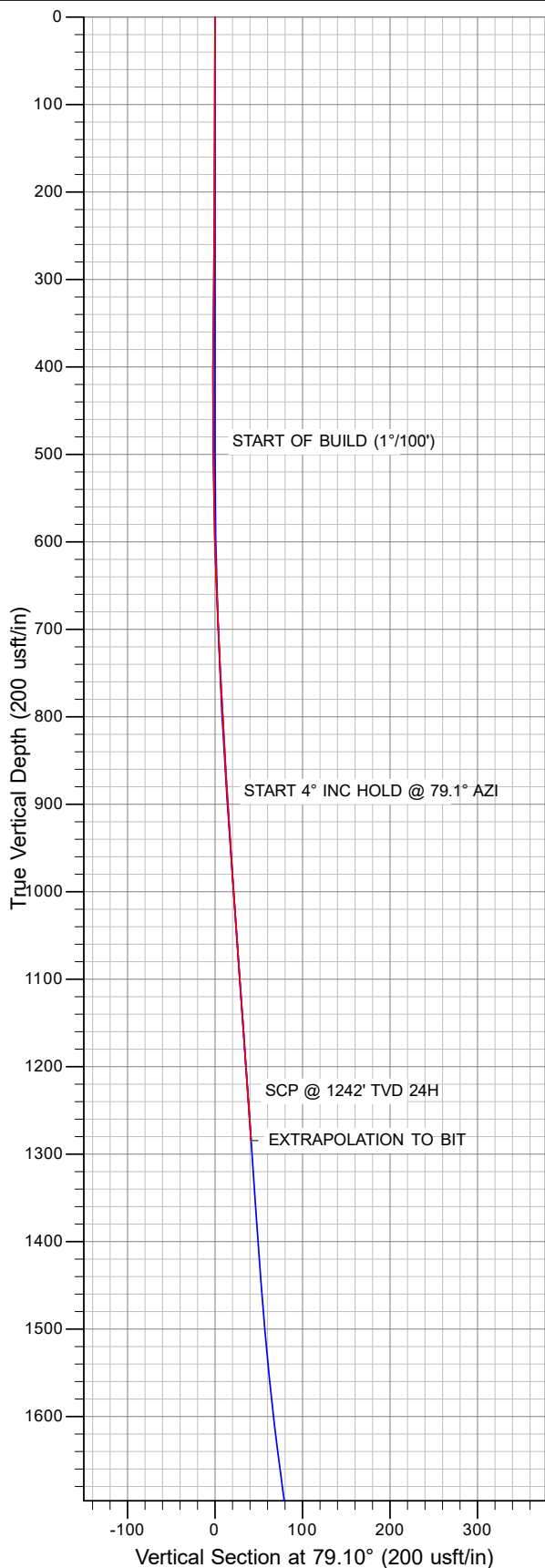
Survey: FINAL SURFACE SURVEYS (21MJ-295)

# 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		

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

Well	University 1-32 24H					
Well Position	+N/-S	0.0 usft	Northing:	565,973.97 usft	Latitude:	31° 12' 54.582 N
	+E/-W	0.0 usft	Easting:	1,558,017.07 usft	Longitude:	101° 44' 50.159 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	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

Design	FINAL SURFACE SURVEYS (21MJ-295)			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	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 read "Bryson A. Kriz".

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