

Company: SABLE PERMIAN RESOURCES

Lease/Well: UNIVERSITY 10/2503HK

API: 42-383-40464

Rig Name: INTEGRITY 3

State/County: TEXAS/REAGAN

Latitude: 31.23, Longitude: -101.56

GRID North is 0.63 Degrees West of True North

VS-Azi: 0.00 Degrees



Depth Reference : GROUND LEVEL

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: e-line gyro-de\_01.ut

Minimum Curvature Method

Report Date/Time: 12/18/2018 / 13:22

VES Survey International

Midland, TX

432-563-5444

Surveyor: Andrew Meadville

University 10 2503HK / API: 42-383-40464

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
50.00	0.18	317.78	50.00	0.06	-0.05	0.06	0.08	317.78	0.36
100.00	0.27	40.80	100.00	0.20	-0.03	0.20	0.21	352.14	0.61
150.00	0.25	96.15	150.00	0.28	0.16	0.28	0.32	29.41	0.48
200.00	0.21	261.31	200.00	0.25	0.18	0.25	0.31	34.57	0.93
250.00	0.20	299.68	250.00	0.28	0.01	0.28	0.28	1.34	0.27
300.00	0.20	183.80	300.00	0.24	-0.08	0.24	0.25	342.55	0.68
350.00	0.22	169.21	350.00	0.06	-0.06	0.06	0.09	313.37	0.11
400.00	0.18	183.50	400.00	-0.11	-0.05	-0.11	0.12	204.51	0.12
450.00	0.19	200.36	450.00	-0.27	-0.09	-0.27	0.28	197.50	0.11
500.00	0.17	187.80	500.00	-0.42	-0.13	-0.42	0.44	196.39	0.09
550.00	0.20	161.63	550.00	-0.58	-0.11	-0.58	0.59	190.38	0.18
600.00	0.17	135.81	600.00	-0.72	-0.03	-0.72	0.72	182.24	0.18
650.00	0.16	33.58	650.00	-0.71	0.06	-0.71	0.72	175.06	0.51

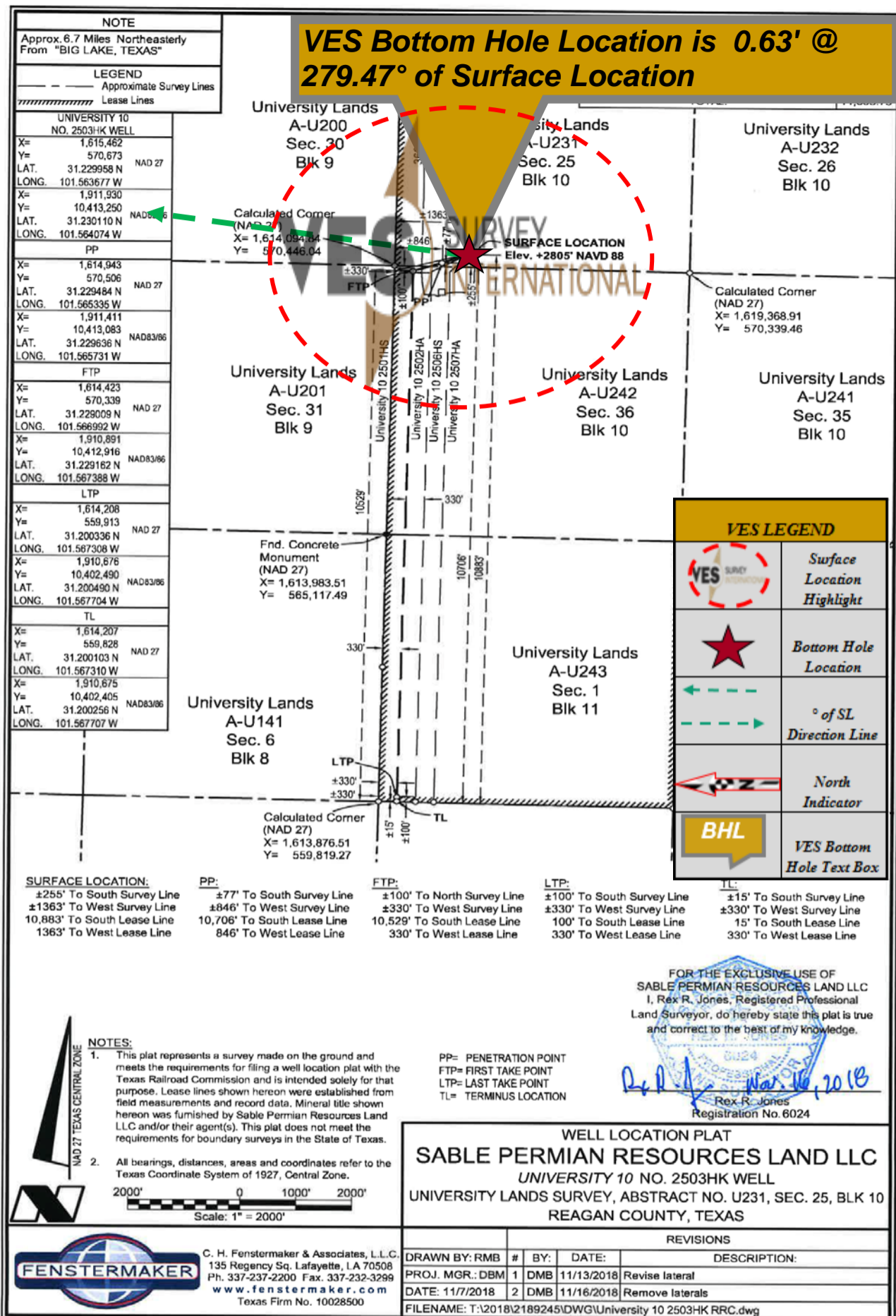
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
700.00	0.20	30.13	700.00	-0.58	0.14	-0.58	0.60	166.00	0.08
750.00	0.22	26.29	750.00	-0.42	0.23	-0.42	0.48	151.37	0.04
800.00	0.25	352.09	800.00	-0.23	0.26	-0.23	0.34	131.63	0.28
850.00	0.29	315.45	850.00	-0.03	0.15	-0.03	0.15	100.18	0.35
900.00	0.33	271.67	899.99	0.07	-0.08	0.07	0.11	309.81	0.47
950.00	0.25	263.89	949.99	0.06	-0.33	0.06	0.34	280.41	0.18
1000.00	0.08	279.34	999.99	0.06	-0.47	0.06	0.48	276.64	0.35
1050.00	0.19	290.14	1049.99	0.09	-0.59	0.09	0.59	278.69	0.23
1060.00	0.26	292.45	1059.99	0.10	-0.62	0.10	0.63	279.47	0.63
HORIZONTAL DISPLACEMENT IS 0.63 FEET AT 279.47 DEGREES									



I Andrew Meadville certify that I am employed by VES Survey International. That I did on the day(s) of 12/14/18 through 12/14/18 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 1,060.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Sable Permian Resources for the University 10 Well # 2503HK API # 4-383-40464 in Reagan County / Parish Texas; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.

A handwritten signature in blue ink, appearing to read "A. R. Meadville", is written over a horizontal line.

Andrew Meadville  
Service Technician  
VES Survey International



383-40464

VES Bottom Hole  
Location is

0.63' @ 279.47°

of Surface  
Location

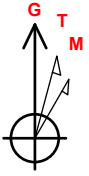
MD / FT 1,060.00  
North / FT South / FT  
0.10



1,059.99 TVD / FT  
East / FT West / FT  
0.62

VES SURVEY INTERNATIONAL

847084



Azimuths to Grid North  
 True North: 0.63°  
 Magnetic North: 6.38°

Magnetic Field  
 Strength: 47516.5nT  
 Dip Angle: 59.53°  
 Date: 12/29/2018  
 Model: HDGM\_FILE

+N/-S    +E/-W    Northing    Gravity = 0.9986g  
 0.00    0.00    570673.00    Easting  
 1615462.00

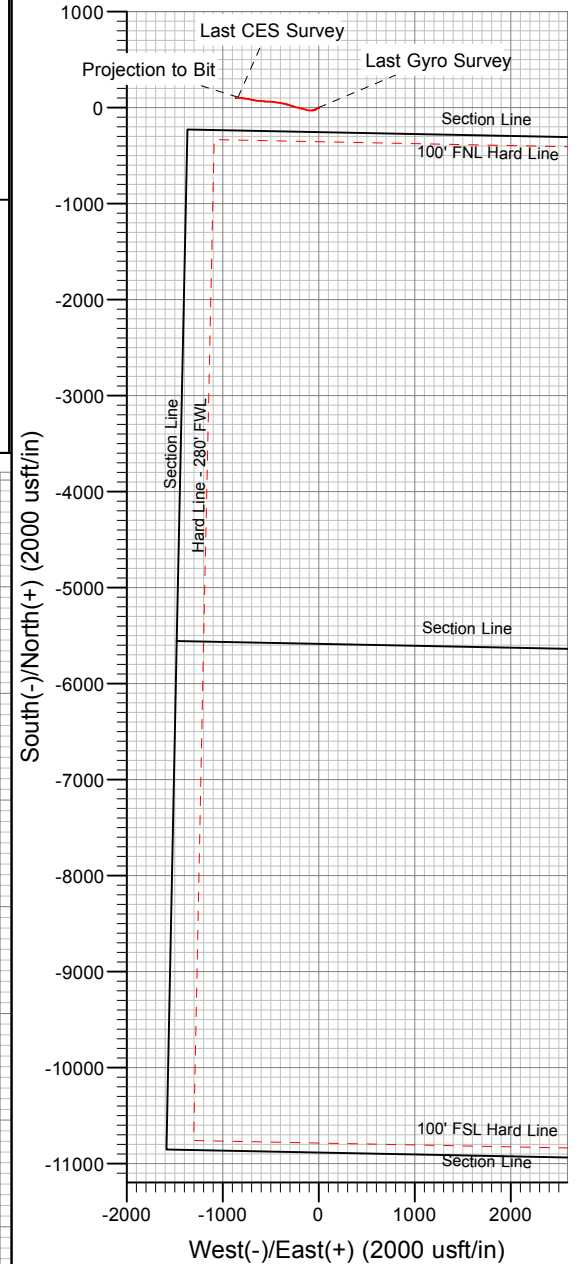
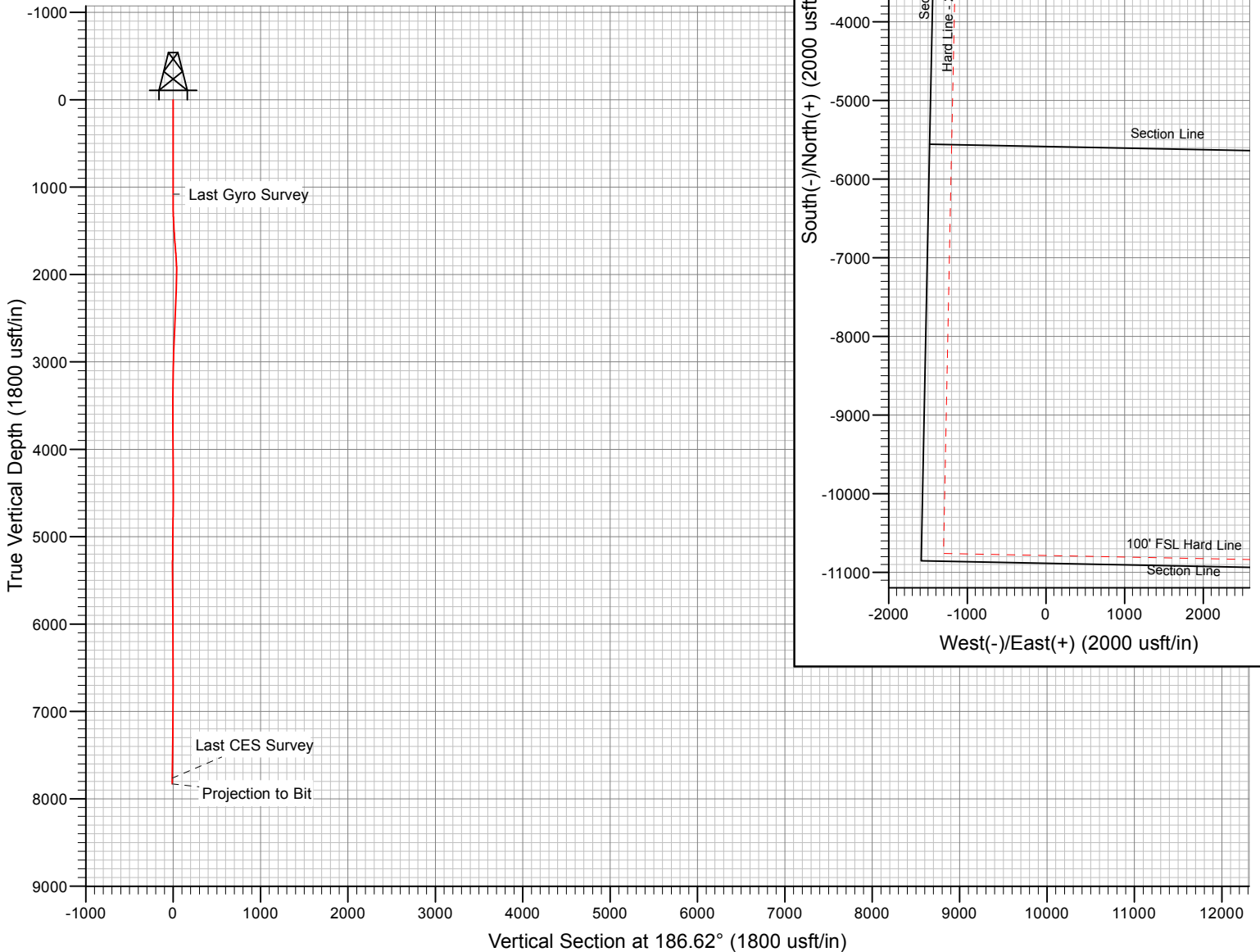
Latitude    Longitude  
 31.229958    -101.563679

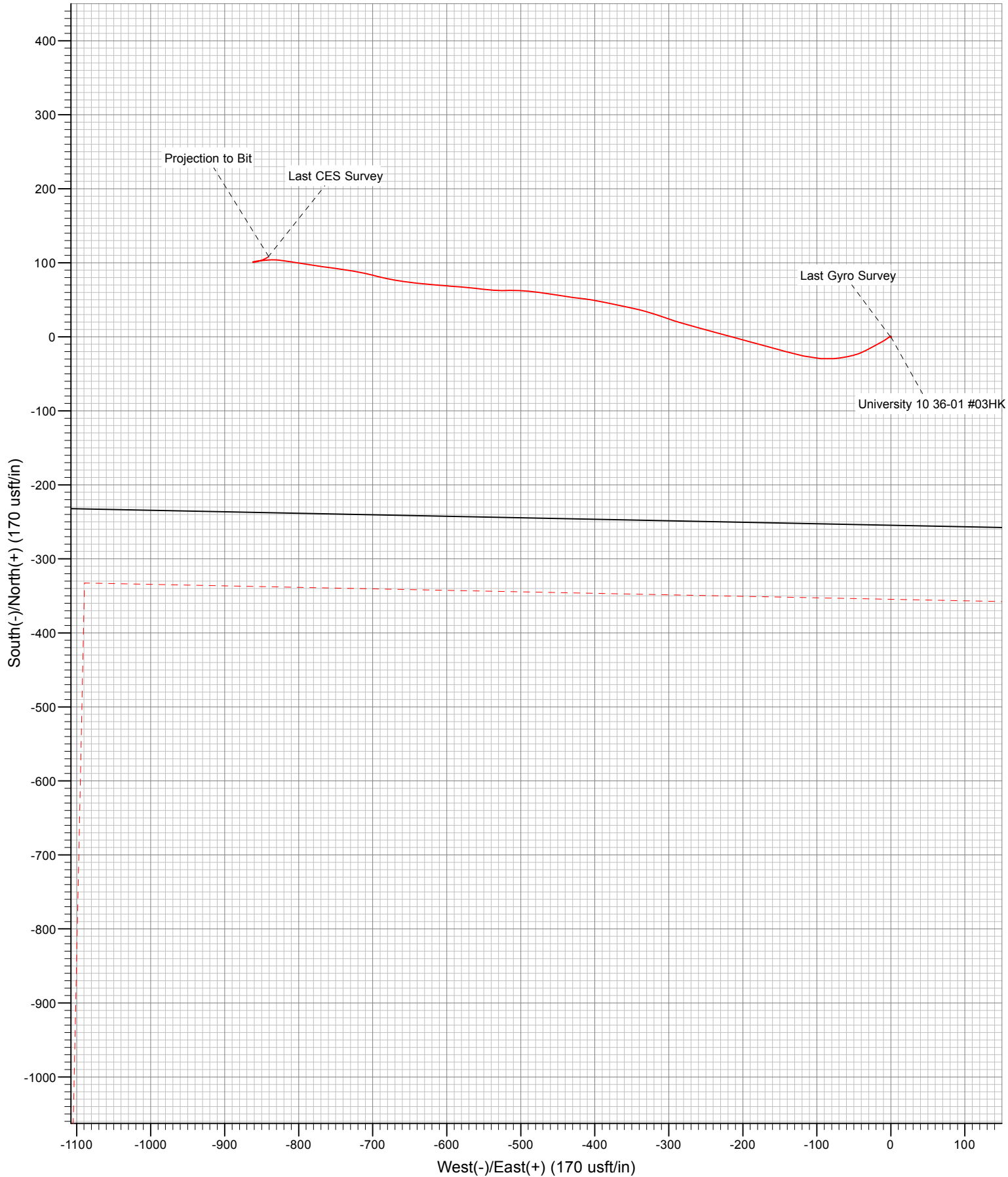
LP Target Line  
 90.0° INC @ 8639' TVD @ 0' VS  
 5' Up / Down & 30' Left / Right

Planned Bottom Hole Location  
 346' FSL / 518' FWL (Sec 25)  
 X: 1614621.51 Y: 570781.35

## ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Annotation
1081.00	0.26	292.45	1080.99	0.14	-0.64	-0.06	Last Gyro Survey
7853.00	1.10	62.50	7763.35	107.78	-841.60	-10.06	Last CES Survey
7918.00	1.10	62.50	7828.33	108.35	-840.49	-10.76	Projection to Bit





## Survey Report

<b>Company:</b>	Sable Permian Resources	<b>Local Co-ordinate Reference:</b>	Well University 10 36-01 #03HK
<b>Project:</b>	Reagan County, TX (NAD 27)	<b>TVD Reference:</b>	21' KB @ 2827.00usft (Unit 407)
<b>Site:</b>	University 10-36 C PAD	<b>MD Reference:</b>	21' KB @ 2827.00usft (Unit 407)
<b>Well:</b>	University 10 36-01 #03HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	VN [447937]	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

<b>Project</b>	Reagan County, TX (NAD 27)		
<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 10-36 C PAD, 0.9986g			
Site Position:		Northing:	570,573.90 usft	Latitude:	31.229684
From:	Map	Easting:	1,615,429.54 usft	Longitude:	-101.563779
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	-0.63 °

Well	University 10 36-01 #03HK					
Well Position	+N/-S	0.00 usft	Northing:	570,673.00 usft	Latitude:	31.229958
	+E/-W	0.00 usft	Easting:	1,615,462.00 usft	Longitude:	-101.563679
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,806.00 usft

<b>Wellbore</b>	VN [447937]				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM_FILE	12/29/2018	5.75	59.53	47,516.50000000

<b>Design</b>	FINAL				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	186.62	

<b>Survey Program</b>	<b>Date</b>	3/11/2019			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
71.00	1,081.00	Surface Gyros (VN [447937])	VESSI_GYROFLEX	VESSI Gyroflex Gyro	
1,215.00	7,918.00	CES MWD (VN [447937])	MWD+HDGM	OWSG MWD + HDGM	

<b>Survey</b>									
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usf)</b>	<b>Build Rate (°/100u)</b>	<b>Formations / Comments</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
71.00	0.18	317.78	71.00	0.08	-0.07	-0.07	0.25	0.25	
121.00	0.27	40.80	121.00	0.23	-0.05	-0.22	0.61	0.18	
171.00	0.25	96.15	171.00	0.31	0.13	-0.32	0.48	-0.04	
221.00	0.21	261.31	221.00	0.28	0.15	-0.30	0.91	-0.08	
271.00	0.20	299.68	271.00	0.31	-0.01	-0.31	0.27	-0.02	
321.00	0.20	183.80	321.00	0.27	-0.10	-0.25	0.68	0.00	
371.00	0.22	169.21	371.00	0.09	-0.08	-0.08	0.11	0.04	
421.00	0.18	183.50	421.00	-0.09	-0.07	0.09	0.13	-0.08	
471.00	0.19	200.36	471.00	-0.24	-0.10	0.25	0.11	0.02	
521.00	0.17	187.80	521.00	-0.39	-0.14	0.41	0.09	-0.04	
571.00	0.20	161.63	571.00	-0.55	-0.13	0.56	0.18	0.06	

## Survey Report

<b>Company:</b>	Sable Permian Resources	<b>Local Co-ordinate Reference:</b>	Well University 10 36-01 #03HK
<b>Project:</b>	Reagan County, TX (NAD 27)	<b>TVD Reference:</b>	21' KB @ 2827.00usft (Unit 407)
<b>Site:</b>	University 10-36 C PAD	<b>MD Reference:</b>	21' KB @ 2827.00usft (Unit 407)
<b>Well:</b>	University 10 36-01 #03HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	VN [447937]	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
621.00	0.17	135.81	621.00	-0.69	-0.05	0.69	0.18	-0.06	
671.00	0.16	33.58	671.00	-0.68	0.04	0.67	0.51	-0.02	
721.00	0.20	30.13	721.00	-0.55	0.13	0.53	0.08	0.08	
771.00	0.22	26.29	771.00	-0.39	0.21	0.36	0.05	0.04	
821.00	0.25	352.09	821.00	-0.19	0.24	0.16	0.28	0.06	
871.00	0.29	315.45	871.00	0.01	0.14	-0.02	0.35	0.08	
921.00	0.33	271.67	920.99	0.10	-0.10	-0.09	0.47	0.08	
971.00	0.25	263.89	970.99	0.09	-0.35	-0.05	0.18	-0.16	
1,021.00	0.08	279.34	1,020.99	0.09	-0.49	-0.03	0.35	-0.34	
1,071.00	0.19	290.14	1,070.99	0.12	-0.60	-0.05	0.22	0.22	
1,081.00	0.26	292.45	1,080.99	0.14	-0.64	-0.06	0.71	0.70	Last Gyro Survey
1,215.00	0.40	257.10	1,214.99	0.15	-1.38	0.01	0.18	0.10	
1,310.00	2.50	233.20	1,309.96	-1.17	-3.36	1.55	2.25	2.21	
1,405.00	4.50	237.20	1,404.77	-4.43	-8.15	5.34	2.12	2.11	
1,498.00	6.00	242.10	1,497.38	-8.68	-15.51	10.41	1.68	1.61	
1,593.00	7.10	241.30	1,591.76	-13.82	-25.05	16.62	1.16	1.16	
1,688.00	8.90	243.90	1,685.83	-19.88	-36.80	23.98	1.93	1.89	
1,783.00	11.40	255.50	1,779.35	-25.46	-52.50	31.34	3.39	2.63	
1,878.00	13.20	263.80	1,872.17	-28.98	-72.37	37.13	2.65	1.89	
1,973.00	14.20	273.60	1,964.48	-29.42	-94.79	40.15	2.66	1.05	
2,067.00	14.90	283.10	2,055.48	-25.96	-118.07	39.39	2.64	0.74	
2,162.00	15.10	285.10	2,147.24	-19.97	-141.91	36.19	0.58	0.21	
2,257.00	14.90	285.50	2,239.00	-13.48	-165.63	32.48	0.24	-0.21	
2,352.00	14.90	284.90	2,330.81	-7.08	-189.20	28.83	0.16	0.00	
2,447.00	14.60	285.30	2,422.68	-0.78	-212.55	25.27	0.33	-0.32	
2,540.00	14.50	285.30	2,512.70	5.39	-235.09	21.74	0.11	-0.11	
2,635.00	14.20	285.30	2,604.73	11.60	-257.80	18.19	0.32	-0.32	
2,730.00	13.20	285.70	2,697.03	17.61	-279.48	14.72	1.06	-1.05	
2,824.00	13.80	289.40	2,788.43	24.24	-300.39	10.54	1.12	0.64	
2,920.00	12.70	287.50	2,881.88	31.22	-321.25	6.02	1.23	-1.15	
3,015.00	10.80	283.80	2,974.88	36.48	-339.86	2.93	2.15	-2.00	
3,111.00	10.40	281.20	3,069.24	40.31	-357.09	1.12	0.65	-0.42	
3,205.00	10.20	282.10	3,161.73	43.70	-373.55	-0.36	0.27	-0.21	
3,300.00	10.20	281.90	3,255.23	47.20	-390.01	-1.94	0.04	0.00	
3,395.00	10.40	278.60	3,348.70	50.22	-406.72	-3.01	0.66	0.21	
3,490.00	10.90	277.10	3,442.06	52.61	-424.11	-3.38	0.60	0.53	
3,585.00	10.60	277.60	3,535.39	54.88	-441.68	-3.60	0.33	-0.32	
3,680.00	10.60	278.40	3,628.77	57.31	-458.99	-4.02	0.15	0.00	
3,773.00	10.70	279.30	3,720.17	59.95	-475.97	-4.69	0.21	0.11	
3,868.00	11.40	273.90	3,813.41	62.02	-494.04	-4.66	1.31	0.74	
3,963.00	12.10	268.90	3,906.42	62.46	-513.36	-2.88	1.30	0.74	
4,057.00	12.40	272.90	3,998.28	62.78	-533.29	-0.90	0.96	0.32	
4,151.00	12.10	276.90	4,090.15	64.48	-553.16	-0.30	0.96	-0.32	
4,247.00	10.90	275.50	4,184.22	66.56	-572.18	-0.17	1.28	-1.25	
4,342.00	11.10	274.20	4,277.47	68.09	-590.24	0.39	0.34	0.21	
4,436.00	12.80	274.70	4,369.43	69.60	-609.64	1.12	1.81	1.81	
4,531.00	12.50	276.10	4,462.12	71.56	-630.36	1.57	0.45	-0.32	
4,627.00	10.80	276.20	4,556.14	73.63	-649.63	1.73	1.77	-1.77	
4,722.00	11.40	279.40	4,649.37	76.13	-667.74	1.34	0.91	0.63	
4,817.00	11.30	283.40	4,742.51	79.82	-686.06	-0.22	0.84	-0.11	
4,912.00	10.20	284.00	4,835.84	84.01	-703.27	-2.40	1.16	-1.16	
5,007.00	10.10	280.50	4,929.36	87.56	-719.63	-4.04	0.66	-0.11	
5,101.00	11.10	278.50	5,021.75	90.40	-736.68	-4.90	1.13	1.06	

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Survey									
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5,196.00	12.20	277.80	5,114.79	93.12	-755.67	-5.40	1.17	1.16	
5,291.00	13.00	278.30	5,207.50	96.02	-776.19	-5.92	0.85	0.84	
5,387.00	11.00	279.30	5,301.40	99.06	-795.91	-6.67	2.09	-2.08	
5,482.00	8.90	278.10	5,394.97	101.56	-812.13	-7.28	2.22	-2.21	
5,578.00	7.00	277.50	5,490.04	103.37	-825.29	-7.57	1.98	-1.98	
5,673.00	5.80	268.30	5,584.45	103.99	-835.83	-6.96	1.66	-1.26	
5,768.00	5.00	264.80	5,679.03	103.47	-844.75	-5.42	0.91	-0.84	
5,863.00	3.90	263.50	5,773.74	102.73	-852.08	-3.84	1.16	-1.16	
5,958.00	2.60	263.80	5,868.58	102.13	-857.43	-2.63	1.37	-1.37	
6,052.00	1.10	255.20	5,962.53	101.67	-860.42	-1.82	1.62	-1.60	
6,146.00	0.60	246.90	6,056.52	101.24	-861.75	-1.25	0.55	-0.53	
6,241.00	0.20	160.70	6,151.52	100.89	-862.15	-0.85	0.65	-0.42	
6,336.00	0.20	133.10	6,246.52	100.62	-861.98	-0.61	0.10	0.00	
6,431.00	0.30	88.10	6,341.52	100.52	-861.61	-0.54	0.22	0.11	
6,526.00	0.40	89.10	6,436.52	100.53	-861.03	-0.62	0.11	0.11	
6,621.00	0.60	79.80	6,531.51	100.63	-860.21	-0.81	0.23	0.21	
6,716.00	0.60	72.90	6,626.51	100.86	-859.24	-1.16	0.08	0.00	
6,811.00	0.90	76.60	6,721.50	101.18	-858.04	-1.61	0.32	0.32	
6,906.00	0.90	76.70	6,816.49	101.52	-856.59	-2.12	0.00	0.00	
7,002.00	0.90	76.20	6,912.48	101.88	-855.12	-2.64	0.01	0.00	
7,097.00	0.90	77.40	7,007.46	102.22	-853.67	-3.15	0.02	0.00	
7,192.00	1.00	70.40	7,102.45	102.66	-852.16	-3.76	0.16	0.11	
7,287.00	1.00	71.70	7,197.44	103.20	-850.59	-4.47	0.02	0.00	
7,381.00	0.90	69.60	7,291.42	103.71	-849.12	-5.15	0.11	-0.11	
7,475.00	1.00	64.20	7,385.41	104.33	-847.69	-5.93	0.14	0.11	
7,570.00	1.00	58.30	7,480.40	105.12	-846.24	-6.89	0.11	0.00	
7,664.00	1.10	60.80	7,574.38	105.99	-844.75	-7.93	0.12	0.11	
7,759.00	1.10	59.40	7,669.36	106.90	-843.17	-9.01	0.03	0.00	
7,853.00	1.10	62.50	7,763.35	107.78	-841.60	-10.06	0.06	0.00	Last CES Survey
7,918.00	1.10	62.50	7,828.33	108.35	-840.49	-10.76	0.00	0.00	Projection to Bit

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
T8 - UL #2503HK	0.00	360.00	8,639.00	-10,810.24	-1,254.29	559,862.76	1,614,207.71	31.200199	-101.567308
- hit/miss target									
- Shape									
- actual wellpath misses target center by 10956.46usft at 7918.00usft MD (7828.33 TVD, 108.35 N, -840.49 E)									
- Point									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,081.00	1,080.99	0.14	-0.64	Last Gyro Survey	
7,853.00	7,763.35	107.78	-841.60	Last CES Survey	
7,918.00	7,828.33	108.35	-840.49	Projection to Bit	

Checked By: _____	Approved By: _____	Date: _____
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State of Texas  
County of **Reagan**

I, Hillary Grimm, certify that; I am employed by Cathedral Energy Services; that I did on the day(s) of **12/28/2018** through **01/02/2019** conduct or supervise the taking of a directional MWD survey from a depth of **71** feet to a depth of **7918** feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Cathedral Energy Services; that I am authorized and qualified to make this report; that this survey was conducted at the request of **Sable Permian Resources Land, LLC** for the **University 10 36-01 #03HK**. Well API No. **42-383-40464** in **Reagan** County, Texas; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Cathedral Energy Services.

**CATHEDRAL ENERGY SERVICES**

6622 Willow Brook Park  
Houston, Texas 77066

281.440.1010 Office  
877.825.1002 Toll-Free  
281.440.1025 Fax

CathedralEnergyServices.com

*Drilling + Completions*

Hillary Grimm  
Administrative Assistant



## Survey Certification Letter

April 22, 2019

Railroad Commission of Texas  
Oil and Gas Division  
P.O. Box 12967  
Capitol Station  
Austin, Texas 78711

Attention: Engineering Unit

Re:  
Sable Permian Resources Land, LLC  
University 10 No. 2503HK  
Permit No. 847084  
Survey: UL Abstract: U231  
Reagan County, Texas  
API No. 42-383-40464

Enclosed, please find the digital copy of the survey performed on the referenced well by Professional Directional Ent, Inc. (P-5 No. 681067). Other information required by your office is as follows:

<u>Name &amp; Title Of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
James Cloud	Original	7,966' – 19,425'	03/19/19 – 03/30/19	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Sincerely,

Mike Coats  
Regulatory Specialist  
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266  
prodirectional.com



# **Sable Permian Resources, LLC**

Reagan County, TX  
University 10-36-01  
#03 HK  
OH

Survey: ProDirectional

## **Survey Report**

22 April, 2019



<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
<b>Project:</b>	Reagan County, TX (NAD27)	<b>TVD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Site:</b>	University 10-36-01	<b>MD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

<b>Project</b>	Reagan County, TX (NAD27)		
<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 10-36-01		
<b>Site Position:</b>		<b>Northing:</b>	570,675.00 usft
<b>From:</b>	Map	<b>Easting:</b>	1,615,382.00 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	31.229961
		<b>Longitude:</b>	-101.563935
		<b>Grid Convergence:</b>	-0.63 °

Well		#03 HK				
Well Position	+N/-S	0.00 usft	Northing:	570,673.00 usft	Latitude:	31.229958
	+E/-W	0.00 usft	Easting:	1,615,462.00 usft	Longitude:	-101.563679
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,805.00 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>
	HDGM	3/12/2019	5.72	59.52	47,502.60

<b>Design</b>	OH 71-19387' PTB 19425'			
<b>Audit Notes:</b>				
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b> 0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	181.18

<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
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<b>Site:</b>	University 10-36-01	<b>MD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

Survey Program		Date 4/22/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
71.00	1,081.00	VES Gyro (OH)	VESSI_GYRO_DROP	VESSI Gyroflex GS2 Drop	
1,215.00	7,853.00	Cathedral MWD (OH)	MWD+HDGM	OWSG MWD + HDGM	
7,966.00	19,425.00	Pro MWD (OH)	MWD+HDGM	OWSG MWD + HDGM	

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	570,673.00	1,615,462.00	
71.00	0.18	317.78	71.00	-0.08	0.08	-0.07	0.11	317.78	570,673.08	1,615,461.93	
121.00	0.27	40.80	121.00	-0.23	0.23	-0.05	0.24	347.56	570,673.23	1,615,461.95	
171.00	0.25	96.15	171.00	-0.31	0.31	0.13	0.34	23.66	570,673.31	1,615,462.13	
221.00	0.21	261.31	221.00	-0.28	0.28	0.15	0.32	28.42	570,673.28	1,615,462.15	
271.00	0.20	299.68	271.00	-0.31	0.31	-0.01	0.31	357.46	570,673.31	1,615,461.99	
321.00	0.20	183.80	321.00	-0.27	0.27	-0.10	0.28	340.36	570,673.27	1,615,461.90	
371.00	0.22	169.21	371.00	-0.08	0.09	-0.08	0.12	315.95	570,673.09	1,615,461.92	
421.00	0.18	183.50	421.00	0.09	-0.09	-0.07	0.11	218.96	570,672.91	1,615,461.93	
471.00	0.19	200.36	471.00	0.24	-0.24	-0.10	0.26	203.13	570,672.76	1,615,461.90	
521.00	0.17	187.80	521.00	0.40	-0.39	-0.14	0.42	199.90	570,672.61	1,615,461.86	
571.00	0.20	161.63	571.00	0.55	-0.55	-0.13	0.56	192.82	570,672.45	1,615,461.87	
621.00	0.17	135.81	621.00	0.69	-0.69	-0.05	0.69	183.83	570,672.31	1,615,461.95	
671.00	0.16	33.58	671.00	0.68	-0.68	0.04	0.68	176.28	570,672.32	1,615,462.04	
721.00	0.20	30.13	721.00	0.54	-0.55	0.13	0.56	166.97	570,672.45	1,615,462.13	
771.00	0.22	26.29	771.00	0.38	-0.39	0.21	0.44	151.11	570,672.61	1,615,462.21	
821.00	0.25	352.09	821.00	0.19	-0.19	0.24	0.31	128.60	570,672.81	1,615,462.24	
871.00	0.29	315.45	871.00	-0.01	0.01	0.14	0.14	87.41	570,673.01	1,615,462.14	
921.00	0.33	271.67	920.99	-0.10	0.10	-0.10	0.14	316.36	570,673.10	1,615,461.90	
971.00	0.25	263.89	970.99	-0.09	0.09	-0.35	0.36	284.97	570,673.09	1,615,461.65	

<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
<b>Project:</b>	Reagan County, TX (NAD27)	<b>TVD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Site:</b>	University 10-36-01	<b>MD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
1,021.00	0.08	279.34	1,020.99	-0.08	0.09	-0.49	0.50	280.07	570,673.09	1,615,461.51
1,071.00	0.19	290.14	1,070.99	-0.11	0.12	-0.60	0.62	281.37	570,673.12	1,615,461.40
1,081.00	0.26	292.45	1,080.99	-0.12	0.14	-0.64	0.65	281.98	570,673.14	1,615,461.36
1,215.00	0.40	257.10	1,214.99	-0.12	0.15	-1.38	1.38	276.11	570,673.15	1,615,460.62
1,310.00	2.50	233.20	1,309.96	1.24	-1.17	-3.36	3.56	250.83	570,671.83	1,615,458.64
1,405.00	4.50	237.20	1,404.77	4.60	-4.43	-8.15	9.28	241.49	570,668.57	1,615,453.85
1,498.00	6.00	242.10	1,497.38	9.00	-8.68	-15.51	17.78	240.78	570,664.32	1,615,446.49
1,593.00	7.10	241.30	1,591.76	14.34	-13.82	-25.05	28.61	241.11	570,659.18	1,615,436.95
1,688.00	8.90	243.90	1,685.83	20.63	-19.88	-36.80	41.83	241.63	570,653.12	1,615,425.20
1,783.00	11.40	255.50	1,779.35	26.54	-25.46	-52.50	58.34	244.13	570,647.54	1,615,409.50
1,878.00	13.20	263.80	1,872.17	30.47	-28.98	-72.37	77.96	248.18	570,644.02	1,615,389.63
1,973.00	14.20	273.60	1,964.48	31.37	-29.42	-94.79	99.25	252.76	570,643.58	1,615,367.21
2,067.00	14.90	283.10	2,055.48	28.39	-25.96	-118.07	120.89	257.60	570,647.04	1,615,343.93
2,162.00	15.10	285.10	2,147.24	22.89	-19.97	-141.91	143.31	261.99	570,653.03	1,615,320.09
2,257.00	14.90	285.50	2,239.00	16.89	-13.48	-165.63	166.18	265.35	570,659.52	1,615,296.37
2,352.00	14.90	284.90	2,330.81	10.97	-7.08	-189.20	189.33	267.86	570,665.92	1,615,272.80
2,447.00	14.60	285.30	2,422.68	5.15	-0.78	-212.55	212.55	269.79	570,672.22	1,615,249.45
2,540.00	14.50	285.30	2,512.70	-0.55	5.39	-235.09	235.15	271.31	570,678.39	1,615,226.91
2,635.00	14.20	285.30	2,604.73	-6.29	11.60	-257.80	258.06	272.58	570,684.60	1,615,204.20
2,730.00	13.20	285.70	2,697.03	-11.85	17.61	-279.48	280.04	273.61	570,690.61	1,615,182.52
2,824.00	13.80	289.40	2,788.43	-18.05	24.24	-300.39	301.36	274.61	570,697.24	1,615,161.61
2,920.00	12.70	287.50	2,881.88	-24.60	31.22	-321.25	322.77	275.55	570,704.22	1,615,140.75
3,015.00	10.80	283.80	2,974.88	-29.47	36.48	-339.86	341.81	276.13	570,709.48	1,615,122.14
3,111.00	10.40	281.20	3,069.24	-32.95	40.31	-357.09	359.36	276.44	570,713.31	1,615,104.91
3,205.00	10.20	282.10	3,161.73	-36.00	43.70	-373.55	376.10	276.67	570,716.70	1,615,088.45
3,300.00	10.20	281.90	3,255.23	-39.16	47.20	-390.01	392.85	276.90	570,720.20	1,615,071.99
3,395.00	10.40	278.60	3,348.70	-41.83	50.22	-406.72	409.81	277.04	570,723.22	1,615,055.28

<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
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<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
3,490.00	10.90	277.10	3,442.06	-43.86	52.61	-424.11	427.36	277.07	570,725.61	1,615,037.89
3,585.00	10.60	277.60	3,535.39	-45.77	54.88	-441.68	445.08	277.08	570,727.88	1,615,020.32
3,680.00	10.60	278.40	3,628.77	-47.84	57.31	-458.99	462.55	277.12	570,730.31	1,615,003.01
3,773.00	10.70	279.30	3,720.17	-50.14	59.95	-475.97	479.73	277.18	570,732.95	1,614,986.03
3,868.00	11.40	273.90	3,813.41	-51.83	62.02	-494.04	497.92	277.15	570,735.02	1,614,967.96
3,963.00	12.10	268.90	3,906.42	-51.88	62.46	-513.36	517.15	276.94	570,735.46	1,614,948.64
4,057.00	12.40	272.90	3,998.28	-51.79	62.78	-533.29	536.98	276.71	570,735.78	1,614,928.71
4,151.00	12.10	276.90	4,090.15	-53.07	64.48	-553.16	556.90	276.65	570,737.48	1,614,908.84
4,247.00	10.90	275.50	4,184.22	-54.76	66.56	-572.18	576.04	276.64	570,739.56	1,614,889.82
4,342.00	11.10	274.20	4,277.47	-55.92	68.09	-590.24	594.16	276.58	570,741.09	1,614,871.76
4,436.00	12.80	274.70	4,369.43	-57.04	69.60	-609.64	613.60	276.51	570,742.60	1,614,852.36
4,531.00	12.50	276.10	4,462.12	-58.56	71.56	-630.36	634.40	276.48	570,744.56	1,614,831.64
4,627.00	10.80	276.20	4,556.14	-60.24	73.63	-649.63	653.79	276.47	570,746.63	1,614,812.37
4,722.00	11.40	279.40	4,649.37	-62.36	76.13	-667.74	672.07	276.50	570,749.13	1,614,794.26
4,817.00	11.30	283.40	4,742.51	-65.67	79.82	-686.06	690.68	276.64	570,752.82	1,614,775.94
4,912.00	10.20	284.00	4,835.84	-69.51	84.01	-703.27	708.27	276.81	570,757.01	1,614,758.73
5,007.00	10.10	280.50	4,929.36	-72.73	87.56	-719.63	724.93	276.94	570,760.56	1,614,742.37
5,101.00	11.10	278.50	5,021.75	-75.21	90.40	-736.68	742.21	277.00	570,763.40	1,614,725.32
5,196.00	12.20	277.80	5,114.79	-77.54	93.12	-755.67	761.39	277.02	570,766.12	1,614,706.33
5,291.00	13.00	278.30	5,207.50	-80.02	96.02	-776.19	782.11	277.05	570,769.02	1,614,685.81
5,387.00	11.00	279.30	5,301.40	-82.65	99.06	-795.91	802.05	277.09	570,772.06	1,614,666.09
5,482.00	8.90	278.10	5,394.97	-84.82	101.56	-812.13	818.46	277.13	570,774.56	1,614,649.87
5,578.00	7.00	277.50	5,490.04	-86.36	103.37	-825.29	831.74	277.14	570,776.37	1,614,636.71
5,673.00	5.80	268.30	5,584.45	-86.75	103.99	-835.83	842.27	277.09	570,776.99	1,614,626.17
5,768.00	5.00	264.80	5,679.03	-86.05	103.47	-844.75	851.06	276.98	570,776.47	1,614,617.25
5,863.00	3.90	263.50	5,773.74	-85.16	102.73	-852.08	858.25	276.87	570,775.73	1,614,609.92
5,958.00	2.60	263.80	5,868.58	-84.45	102.13	-857.43	863.49	276.79	570,775.13	1,614,604.57

<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
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<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
6,052.00	1.10	255.20	5,962.53	-83.93	101.67	-860.42	866.41	276.74	570,774.67	1,614,601.58	
6,146.00	0.60	246.90	6,056.52	-83.48	101.24	-861.75	867.68	276.70	570,774.24	1,614,600.25	
6,241.00	0.20	160.70	6,151.52	-83.12	100.89	-862.15	868.04	276.67	570,773.89	1,614,599.85	
6,336.00	0.20	133.10	6,246.52	-82.85	100.62	-861.98	867.83	276.66	570,773.62	1,614,600.02	
6,431.00	0.30	88.10	6,341.52	-82.75	100.52	-861.61	867.45	276.65	570,773.52	1,614,600.39	
6,526.00	0.40	89.10	6,436.52	-82.78	100.53	-861.03	866.88	276.66	570,773.53	1,614,600.97	
6,621.00	0.60	79.80	6,531.51	-82.89	100.63	-860.21	866.07	276.67	570,773.63	1,614,601.79	
6,716.00	0.60	72.90	6,626.51	-83.14	100.86	-859.24	865.14	276.69	570,773.86	1,614,602.76	
6,811.00	0.90	76.60	6,721.50	-83.49	101.18	-858.04	863.98	276.73	570,774.18	1,614,603.96	
6,906.00	0.90	76.70	6,816.49	-83.86	101.52	-856.59	862.58	276.76	570,774.52	1,614,605.41	
7,002.00	0.90	76.20	6,912.48	-84.24	101.88	-855.12	861.17	276.79	570,774.88	1,614,606.88	
7,097.00	0.90	77.40	7,007.46	-84.62	102.22	-853.67	859.77	276.83	570,775.22	1,614,608.33	
7,192.00	1.00	70.40	7,102.45	-85.09	102.66	-852.16	858.32	276.87	570,775.66	1,614,609.84	
7,287.00	1.00	71.70	7,197.44	-85.66	103.20	-850.59	856.83	276.92	570,776.20	1,614,611.41	
7,381.00	0.90	69.60	7,291.42	-86.20	103.71	-849.12	855.43	276.96	570,776.71	1,614,612.88	
7,475.00	1.00	64.20	7,385.41	-86.85	104.33	-847.69	854.09	277.02	570,777.33	1,614,614.31	
7,570.00	1.00	58.30	7,480.40	-87.67	105.12	-846.24	852.74	277.08	570,778.12	1,614,615.76	
7,664.00	1.10	60.80	7,574.38	-88.57	105.99	-844.75	851.38	277.15	570,778.99	1,614,617.25	
7,759.00	1.10	59.40	7,669.36	-89.52	106.90	-843.17	849.92	277.23	570,779.90	1,614,618.83	
7,853.00	1.10	62.50	7,763.35	-90.42	107.78	-841.60	848.47	277.30	570,780.78	1,614,620.40	
7,966.00	0.50	238.70	7,876.34	-90.68	108.02	-841.05	847.96	277.32	570,781.02	1,614,620.95	
<b>Pro MWD First Survey: 7966' MD</b>											
8,008.00	4.40	232.20	7,918.29	-89.57	106.94	-842.48	849.24	277.23	570,779.94	1,614,619.52	
8,055.00	8.70	234.80	7,964.98	-86.32	103.78	-846.82	853.15	276.99	570,776.78	1,614,615.18	
8,103.00	12.70	234.80	8,012.13	-81.04	98.65	-854.10	859.77	276.59	570,771.65	1,614,607.90	
8,150.00	16.10	239.70	8,057.65	-74.57	92.38	-863.95	868.87	276.10	570,765.38	1,614,598.05	
8,198.00	20.90	242.80	8,103.16	-67.02	85.10	-877.32	881.44	275.54	570,758.10	1,614,584.68	

<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
<b>Project:</b>	Reagan County, TX (NAD27)	<b>TVD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Site:</b>	University 10-36-01	<b>MD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
8,245.00	25.10	243.70	8,146.41	-58.43	76.85	-893.72	897.02	274.91	570,749.85	1,614,568.28	
8,293.00	29.00	238.50	8,189.16	-47.44	66.26	-912.78	915.18	274.15	570,739.26	1,614,549.22	
8,340.00	32.00	232.80	8,229.66	-33.56	52.77	-932.42	933.91	273.24	570,725.77	1,614,529.58	
8,388.00	34.60	224.90	8,269.79	-15.80	35.41	-952.18	952.84	272.13	570,708.41	1,614,509.82	
8,435.00	36.30	214.90	8,308.11	5.44	14.53	-969.58	969.69	270.86	570,687.53	1,614,492.42	
8,483.00	37.80	209.50	8,346.43	30.21	-9.93	-984.95	985.00	269.42	570,663.07	1,614,477.05	
8,530.00	39.80	200.70	8,383.09	57.09	-36.56	-997.37	998.04	267.90	570,636.44	1,614,464.63	
8,577.00	42.90	193.00	8,418.39	86.96	-66.25	-1,006.30	1,008.48	266.23	570,606.75	1,614,455.70	
8,624.00	46.70	187.40	8,451.75	119.64	-98.82	-1,012.10	1,016.92	264.42	570,574.18	1,614,449.90	
8,672.00	52.00	182.90	8,483.01	155.95	-135.07	-1,015.31	1,024.26	262.42	570,537.93	1,614,446.69	
8,719.00	57.20	180.20	8,510.23	194.24	-173.34	-1,016.32	1,031.00	260.32	570,499.66	1,614,445.68	
8,767.00	62.40	180.80	8,534.37	235.70	-214.81	-1,016.69	1,039.13	258.07	570,458.19	1,614,445.31	
8,814.00	66.70	181.90	8,554.56	278.13	-257.23	-1,017.69	1,049.70	255.82	570,415.77	1,614,444.31	
8,862.00	70.00	182.10	8,572.27	322.74	-301.81	-1,019.25	1,063.00	253.51	570,371.19	1,614,442.75	
8,897.21	72.32	183.00	8,583.64	356.05	-335.10	-1,020.74	1,074.34	251.83	570,337.90	1,614,441.26	
HL Entry/FTP, 8897.21' MD, 8583.64' TVD											
8,909.00	73.10	183.30	8,587.14	367.30	-346.34	-1,021.36	1,078.48	251.27	570,326.66	1,614,440.64	
8,955.00	77.50	183.90	8,598.81	411.74	-390.73	-1,024.15	1,096.16	249.12	570,282.27	1,614,437.85	
9,002.00	79.30	182.80	8,608.26	457.75	-436.69	-1,026.84	1,115.84	246.96	570,236.31	1,614,435.16	
9,051.00	80.90	182.20	8,616.69	506.00	-484.91	-1,028.95	1,137.48	244.77	570,188.09	1,614,433.05	
9,098.00	82.20	182.10	8,623.59	552.48	-531.37	-1,030.69	1,159.60	242.73	570,141.63	1,614,431.31	
9,145.00	82.80	182.10	8,629.73	599.07	-577.94	-1,032.40	1,183.15	240.76	570,095.06	1,614,429.60	
9,192.00	85.40	182.80	8,634.56	645.81	-624.64	-1,034.40	1,208.37	238.87	570,048.36	1,614,427.60	
9,240.00	87.50	182.90	8,637.53	693.70	-672.49	-1,036.78	1,235.78	237.03	570,000.51	1,614,425.22	
9,335.00	88.60	182.80	8,640.76	788.60	-767.31	-1,041.50	1,293.63	233.62	569,905.69	1,614,420.50	
9,430.00	89.80	183.40	8,642.09	883.53	-862.16	-1,046.64	1,356.01	230.52	569,810.84	1,614,415.36	
9,525.00	89.10	180.80	8,643.00	978.51	-957.09	-1,050.12	1,420.83	227.65	569,715.91	1,614,411.88	

<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
<b>Project:</b>	Reagan County, TX (NAD27)	<b>TVD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Site:</b>	University 10-36-01	<b>MD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
9,620.00	88.80	179.90	8,644.74	1,073.48	-1,052.07	-1,050.70	1,486.88	224.96	569,620.93	1,614,411.30
9,713.00	91.50	182.00	8,644.50	1,166.47	-1,145.04	-1,052.24	1,555.10	222.58	569,527.96	1,614,409.76
9,808.00	93.10	181.70	8,640.69	1,261.38	-1,239.91	-1,055.30	1,628.20	220.40	569,433.09	1,614,406.70
9,903.00	92.90	181.10	8,635.71	1,356.25	-1,334.75	-1,057.62	1,702.97	218.39	569,338.25	1,614,404.38
9,997.00	91.60	181.00	8,632.02	1,450.17	-1,428.66	-1,059.34	1,778.56	216.56	569,244.34	1,614,402.66
10,092.00	90.30	180.60	8,630.45	1,545.16	-1,523.64	-1,060.67	1,856.47	214.84	569,149.36	1,614,401.33
10,186.00	88.60	179.90	8,631.35	1,639.14	-1,617.63	-1,061.08	1,934.58	213.26	569,055.37	1,614,400.92
10,282.00	89.60	179.50	8,632.86	1,735.09	-1,713.61	-1,060.58	2,015.26	211.75	568,959.39	1,614,401.42
10,376.00	87.30	179.10	8,635.40	1,829.00	-1,807.57	-1,059.43	2,095.16	210.37	568,865.43	1,614,402.57
10,394.00	87.10	179.10	8,636.28	1,846.97	-1,825.54	-1,059.15	2,110.54	210.12	568,847.46	1,614,402.85
10,489.00	87.10	181.80	8,641.09	1,941.83	-1,920.41	-1,059.89	2,193.48	208.89	568,752.59	1,614,402.11
10,583.00	86.80	185.40	8,646.09	2,035.59	-2,014.07	-1,065.78	2,278.68	207.89	568,658.93	1,614,396.22
10,678.00	87.10	189.30	8,651.15	2,129.89	-2,108.14	-1,077.92	2,367.73	207.08	568,564.86	1,614,384.08
10,774.00	89.20	191.40	8,654.25	2,224.61	-2,202.52	-1,095.15	2,459.77	206.44	568,470.48	1,614,366.85
10,869.00	89.30	191.40	8,655.49	2,318.09	-2,295.64	-1,113.93	2,551.63	205.88	568,377.36	1,614,348.07
10,965.00	92.00	191.00	8,654.40	2,412.61	-2,389.79	-1,132.57	2,644.59	205.36	568,283.21	1,614,329.43
11,060.00	93.60	187.30	8,649.76	2,506.56	-2,483.45	-1,147.66	2,735.81	204.80	568,189.55	1,614,314.34
11,155.00	93.80	183.30	8,643.63	2,601.10	-2,577.83	-1,156.42	2,825.33	204.16	568,095.17	1,614,305.58
11,251.00	94.30	179.80	8,636.84	2,696.84	-2,673.54	-1,159.01	2,913.95	203.44	567,999.46	1,614,302.99
11,344.00	92.00	177.30	8,631.73	2,789.59	-2,766.36	-1,156.66	2,998.43	202.69	567,906.64	1,614,305.34
11,438.00	91.00	177.50	8,629.27	2,883.35	-2,860.23	-1,152.39	3,083.65	201.94	567,812.77	1,614,309.61
11,533.00	90.30	178.30	8,628.20	2,978.19	-2,955.16	-1,148.91	3,170.64	201.25	567,717.84	1,614,313.09
11,628.00	89.50	178.40	8,628.36	3,073.07	-3,050.11	-1,146.18	3,258.36	200.60	567,622.89	1,614,315.82
11,723.00	90.60	179.60	8,628.28	3,168.00	-3,145.10	-1,144.52	3,346.87	200.00	567,527.90	1,614,317.48
11,818.00	90.30	180.40	8,627.53	3,262.98	-3,240.09	-1,144.52	3,436.30	199.46	567,432.91	1,614,317.48
11,913.00	90.30	180.80	8,627.03	3,357.97	-3,335.09	-1,145.51	3,526.33	198.96	567,337.91	1,614,316.49
12,008.00	90.90	181.00	8,626.04	3,452.96	-3,430.07	-1,147.01	3,616.77	198.49	567,242.93	1,614,314.99

<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
<b>Project:</b>	Reagan County, TX (NAD27)	<b>TVD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Site:</b>	University 10-36-01	<b>MD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
12,102.00	92.60	183.90	8,623.17	3,546.88	-3,523.93	-1,151.02	3,707.14	198.09	567,149.07	1,614,310.98
12,197.00	91.70	184.60	8,619.60	3,641.68	-3,618.60	-1,158.06	3,799.39	197.75	567,054.40	1,614,303.94
12,291.00	91.20	182.90	8,617.23	3,735.55	-3,712.36	-1,164.20	3,890.63	197.41	566,960.64	1,614,297.80
12,387.00	94.30	179.80	8,612.62	3,831.41	-3,808.20	-1,166.46	3,982.84	197.03	566,864.80	1,614,295.54
12,482.00	92.90	177.60	8,606.65	3,926.13	-3,902.98	-1,164.31	4,072.95	196.61	566,770.02	1,614,297.69
12,577.00	89.60	175.90	8,604.58	4,020.81	-3,997.79	-1,158.93	4,162.38	196.17	566,675.21	1,614,303.07
12,671.00	89.30	175.20	8,605.48	4,114.35	-4,091.50	-1,151.63	4,250.49	195.72	566,581.50	1,614,310.37
12,765.00	90.20	176.10	8,605.89	4,207.91	-4,185.23	-1,144.51	4,338.90	195.29	566,487.77	1,614,317.49
12,861.00	93.00	179.00	8,603.21	4,303.66	-4,281.08	-1,140.40	4,430.37	194.92	566,391.92	1,614,321.60
12,956.00	90.60	179.10	8,600.23	4,398.54	-4,376.01	-1,138.83	4,521.77	194.59	566,296.99	1,614,323.17
13,051.00	90.60	179.30	8,599.23	4,493.48	-4,471.00	-1,137.50	4,613.43	194.27	566,202.00	1,614,324.50
13,147.00	91.70	180.10	8,597.31	4,589.42	-4,566.98	-1,137.00	4,706.38	193.98	566,106.02	1,614,325.00
13,242.00	91.20	178.50	8,594.90	4,684.34	-4,661.94	-1,135.84	4,798.31	193.69	566,011.06	1,614,326.16
13,337.00	91.10	180.00	8,593.00	4,779.26	-4,756.91	-1,134.60	4,890.34	193.42	565,916.09	1,614,327.40
13,432.00	90.90	179.90	8,591.34	4,874.23	-4,851.89	-1,134.51	4,982.77	193.16	565,821.11	1,614,327.49
13,528.00	91.20	178.40	8,589.58	4,970.15	-4,947.86	-1,133.09	5,075.95	192.90	565,725.14	1,614,328.91
13,620.00	90.30	180.20	8,588.38	5,062.09	-5,039.84	-1,131.97	5,165.40	192.66	565,633.16	1,614,330.03
13,715.00	89.90	179.10	8,588.21	5,157.05	-5,134.84	-1,131.38	5,258.00	192.43	565,538.16	1,614,330.62
13,810.00	90.40	179.60	8,587.96	5,252.00	-5,229.83	-1,130.31	5,350.58	192.20	565,443.17	1,614,331.69
13,905.00	90.20	179.70	8,587.46	5,346.96	-5,324.83	-1,129.73	5,443.35	191.98	565,348.17	1,614,332.27
14,000.00	89.80	180.50	8,587.46	5,441.95	-5,419.83	-1,129.89	5,536.35	191.78	565,253.17	1,614,332.11
14,095.00	89.10	181.70	8,588.38	5,536.94	-5,514.80	-1,131.72	5,629.73	191.60	565,158.20	1,614,330.28
14,143.99	90.13	182.42	8,588.70	5,585.92	-5,563.76	-1,133.48	5,678.05	191.52	565,109.24	1,614,328.52
<b>Sec Line Crossing, 14143.99' MD, 8588.70' TVD</b>										
14,190.00	91.10	183.10	8,588.21	5,631.91	-5,609.71	-1,135.69	5,723.52	191.44	565,063.29	1,614,326.31
14,285.00	90.20	184.20	8,587.13	5,726.81	-5,704.51	-1,141.74	5,817.65	191.32	564,968.49	1,614,320.26
14,381.00	90.50	184.20	8,586.55	5,822.68	-5,800.25	-1,148.77	5,912.92	191.20	564,872.75	1,614,313.23

<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
<b>Project:</b>	Reagan County, TX (NAD27)	<b>TVD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Site:</b>	University 10-36-01	<b>MD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
14,475.00	89.70	184.20	8,586.38	5,916.55	-5,894.00	-1,155.66	6,006.23	191.09	564,779.00	1,614,306.34	
14,571.00	89.80	184.90	8,586.80	6,012.38	-5,989.69	-1,163.27	6,101.61	190.99	564,683.31	1,614,298.73	
14,666.00	90.40	184.10	8,586.63	6,107.22	-6,084.40	-1,170.73	6,196.01	190.89	564,588.60	1,614,291.27	
14,761.00	90.10	181.50	8,586.22	6,202.17	-6,179.28	-1,175.37	6,290.07	190.77	564,493.72	1,614,286.63	
14,855.00	89.40	178.30	8,586.63	6,296.14	-6,273.26	-1,175.20	6,382.39	190.61	564,399.74	1,614,286.80	
14,950.00	90.20	175.70	8,586.96	6,390.87	-6,368.12	-1,170.23	6,474.75	190.41	564,304.88	1,614,291.77	
15,046.00	89.30	176.20	8,587.38	6,486.47	-6,463.88	-1,163.45	6,567.75	190.20	564,209.12	1,614,298.55	
15,141.00	88.70	180.70	8,589.04	6,581.32	-6,558.81	-1,160.88	6,660.75	190.04	564,114.19	1,614,301.12	
15,237.00	90.00	184.30	8,590.13	6,677.27	-6,654.69	-1,165.07	6,755.91	189.93	564,018.31	1,614,296.93	
15,332.00	89.40	185.40	8,590.63	6,772.08	-6,749.35	-1,173.10	6,850.54	189.86	563,923.65	1,614,288.90	
15,427.00	88.50	185.40	8,592.37	6,866.80	-6,843.91	-1,182.04	6,945.24	189.80	563,829.09	1,614,279.96	
15,522.00	88.20	185.60	8,595.10	6,961.49	-6,938.43	-1,191.14	7,039.94	189.74	563,734.57	1,614,270.86	
15,617.00	87.70	184.90	8,598.50	7,056.19	-7,032.97	-1,199.83	7,134.59	189.68	563,640.03	1,614,262.17	
15,711.00	89.10	184.90	8,601.13	7,149.95	-7,126.59	-1,207.85	7,228.22	189.62	563,546.41	1,614,254.15	
15,807.00	88.50	182.90	8,603.14	7,245.82	-7,222.34	-1,214.38	7,323.73	189.54	563,450.66	1,614,247.62	
15,901.00	89.80	181.50	8,604.53	7,339.79	-7,316.26	-1,217.99	7,416.95	189.45	563,356.74	1,614,244.01	
15,996.00	89.30	180.90	8,605.28	7,434.79	-7,411.24	-1,219.98	7,510.98	189.35	563,261.76	1,614,242.02	
16,091.00	89.30	180.80	8,606.44	7,529.78	-7,506.22	-1,221.39	7,604.94	189.24	563,166.78	1,614,240.61	
16,187.00	88.20	180.80	8,608.53	7,625.75	-7,602.18	-1,222.73	7,699.89	189.14	563,070.82	1,614,239.27	
16,282.00	88.10	182.20	8,611.60	7,720.70	-7,697.10	-1,225.21	7,794.00	189.04	562,975.90	1,614,236.79	
16,376.00	87.90	183.60	8,614.88	7,814.60	-7,790.92	-1,229.97	7,887.41	188.97	562,882.08	1,614,232.03	
16,471.00	90.70	184.10	8,616.04	7,909.48	-7,885.69	-1,236.34	7,982.02	188.91	562,787.31	1,614,225.66	
16,566.00	88.80	183.90	8,616.45	8,004.36	-7,980.45	-1,242.97	8,076.67	188.85	562,692.55	1,614,219.03	
16,656.00	88.20	183.20	8,618.81	8,094.25	-8,070.25	-1,248.54	8,166.26	188.79	562,602.75	1,614,213.46	
16,751.00	88.80	182.30	8,621.30	8,189.18	-8,165.10	-1,253.10	8,260.70	188.73	562,507.90	1,614,208.90	
16,846.00	88.60	182.30	8,623.45	8,284.14	-8,260.00	-1,256.91	8,355.09	188.65	562,413.00	1,614,205.09	
16,942.00	88.40	182.00	8,625.97	8,380.09	-8,355.90	-1,260.51	8,450.44	188.58	562,317.10	1,614,201.49	

<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
<b>Project:</b>	Reagan County, TX (NAD27)	<b>TVD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Site:</b>	University 10-36-01	<b>MD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
17,037.00	87.60	180.70	8,629.28	8,475.03	-8,450.82	-1,262.75	8,544.64	188.50	562,222.18	1,614,199.25
17,132.00	88.20	178.00	8,632.76	8,569.91	-8,545.74	-1,261.67	8,638.37	188.40	562,127.26	1,614,200.33
17,227.00	88.70	177.20	8,635.33	8,664.68	-8,640.62	-1,257.69	8,731.67	188.28	562,032.38	1,614,204.31
17,323.00	89.00	177.60	8,637.26	8,760.46	-8,736.50	-1,253.34	8,825.94	188.16	561,936.50	1,614,208.66
17,418.00	88.30	178.10	8,639.50	8,855.27	-8,831.40	-1,249.77	8,919.40	188.05	561,841.60	1,614,212.23
17,513.00	87.50	178.40	8,642.98	8,950.08	-8,926.30	-1,246.88	9,012.96	187.95	561,746.70	1,614,215.12
17,608.00	89.00	179.70	8,645.88	9,044.97	-9,021.23	-1,245.30	9,106.78	187.86	561,651.77	1,614,216.70
17,701.00	88.20	179.80	8,648.15	9,137.91	-9,114.20	-1,244.90	9,198.83	187.78	561,558.80	1,614,217.10
17,796.00	87.90	179.00	8,651.38	9,232.81	-9,209.14	-1,243.90	9,292.77	187.69	561,463.86	1,614,218.10
17,892.00	88.60	180.80	8,654.32	9,328.73	-9,305.09	-1,243.73	9,387.85	187.61	561,367.91	1,614,218.27
17,987.00	90.10	182.10	8,655.39	9,423.72	-9,400.05	-1,246.14	9,482.29	187.55	561,272.95	1,614,215.86
18,082.00	90.60	182.80	8,654.81	9,518.69	-9,494.96	-1,250.20	9,576.92	187.50	561,178.04	1,614,211.80
18,178.00	92.30	183.10	8,652.38	9,614.61	-9,590.80	-1,255.14	9,672.58	187.46	561,082.20	1,614,206.86
18,273.00	93.40	183.80	8,647.66	9,709.42	-9,685.51	-1,260.85	9,767.23	187.42	560,987.49	1,614,201.15
18,368.00	94.70	183.20	8,640.95	9,804.10	-9,780.09	-1,266.63	9,861.77	187.38	560,892.91	1,614,195.37
18,463.00	95.10	182.90	8,632.84	9,898.71	-9,874.61	-1,271.67	9,956.16	187.34	560,798.39	1,614,190.33
18,558.00	96.30	181.70	8,623.40	9,993.21	-9,969.06	-1,275.46	10,050.32	187.29	560,703.94	1,614,186.54
18,654.00	97.50	180.60	8,611.87	10,088.52	-10,064.34	-1,277.38	10,145.08	187.23	560,608.66	1,614,184.62
18,749.00	98.80	180.20	8,598.40	10,182.55	-10,158.38	-1,278.03	10,238.46	187.17	560,514.62	1,614,183.97
18,842.00	98.60	180.30	8,584.33	10,274.46	-10,250.31	-1,278.44	10,329.73	187.11	560,422.69	1,614,183.56
18,937.00	99.50	180.70	8,569.39	10,368.27	-10,344.12	-1,279.25	10,422.92	187.05	560,328.88	1,614,182.75
19,033.00	98.90	181.00	8,554.04	10,463.04	-10,438.88	-1,280.66	10,517.14	186.99	560,234.12	1,614,181.34
19,127.00	98.20	180.10	8,540.07	10,555.98	-10,531.83	-1,281.55	10,609.51	186.94	560,141.17	1,614,180.45
19,222.00	98.20	178.50	8,526.52	10,649.96	-10,625.84	-1,280.40	10,702.71	186.87	560,047.16	1,614,181.60
19,317.00	97.80	177.90	8,513.29	10,743.91	-10,719.87	-1,277.45	10,795.72	186.80	559,953.13	1,614,184.55
19,359.87	98.23	178.21	8,507.32	10,786.29	-10,762.30	-1,276.01	10,837.68	186.76	559,910.70	1,614,185.99
HL Exit/LTP, 19359.87' MD, 8507.32' TVD										

<b>Company:</b>	Sable Permian Resources, LLC	<b>Local Co-ordinate Reference:</b>	Well #03 HK
<b>Project:</b>	Reagan County, TX (NAD27)	<b>TVD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Site:</b>	University 10-36-01	<b>MD Reference:</b>	Well @ 2826.00usft (GL:2805 KB:21' Unit407)
<b>Well:</b>	#03 HK	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH 71-19387' PTB 19425'	<b>Database:</b>	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
19,387.00	98.50	178.40	8,503.37	10,813.10	-10,789.13	-1,275.21	10,864.23	186.74	559,883.87	1,614,186.79	
<b>Final Survey, 19387.00' MD, 8503.37' TVD</b>											
19,425.00	98.50	178.40	8,497.75	10,850.64	-10,826.70	-1,274.16	10,901.41	186.71	559,846.30	1,614,187.84	
<b>PTB, 19425.00' MD, 8497.75' TVD</b>											

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
7,966.00	7,876.34	108.02	-841.05	Pro MWD First Survey: 7966' MD	
8,897.21	8,583.64	-335.10	-1,020.74	HL Entry/FTP, 8897.21' MD, 8583.64' TVD	
14,143.99	8,588.70	-5,563.76	-1,133.48	Sec Line Crossing, 14143.99' MD, 8588.70' TVD	
19,359.87	8,507.32	-10,762.30	-1,276.01	HL Exit/LTP, 19359.87' MD, 8507.32' TVD	
19,387.00	8,503.37	-10,789.13	-1,275.21	Final Survey, 19387.00' MD, 8503.37' TVD	
19,425.00	8,497.75	-10,826.70	-1,274.16	PTB, 19425.00' MD, 8497.75' TVD	

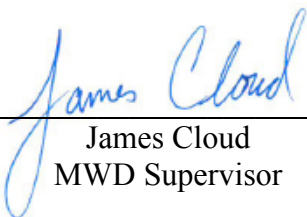




## MWD Survey Certification Form

State of Texas  
County of Reagan

I, James Cloud, certify that; I am employed by Professional Directional LTD; that I did on the day(s) of 03/19/19 through 03/30/19 conduct or supervise the taking of a MWD Survey from a depth of 7,966 feet to a depth of 19,425 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Professional Directional LTD; that I am authorized and qualified to make this report; that this survey was conducted at the request of Sable Permian Resources Land, LLC for the University 10 No. 2503HK Well, API No. 42-383-40464 in the County of Reagan; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Professional Directional LTD.

  
\_\_\_\_\_  
James Cloud  
MWD Supervisor

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266  
prodirectional.com