



Edge Energy, LLC

Well Name:

Deporter 32-29-12H

Project Name:

Sec. 4-T10N-R65W

Pad Name:

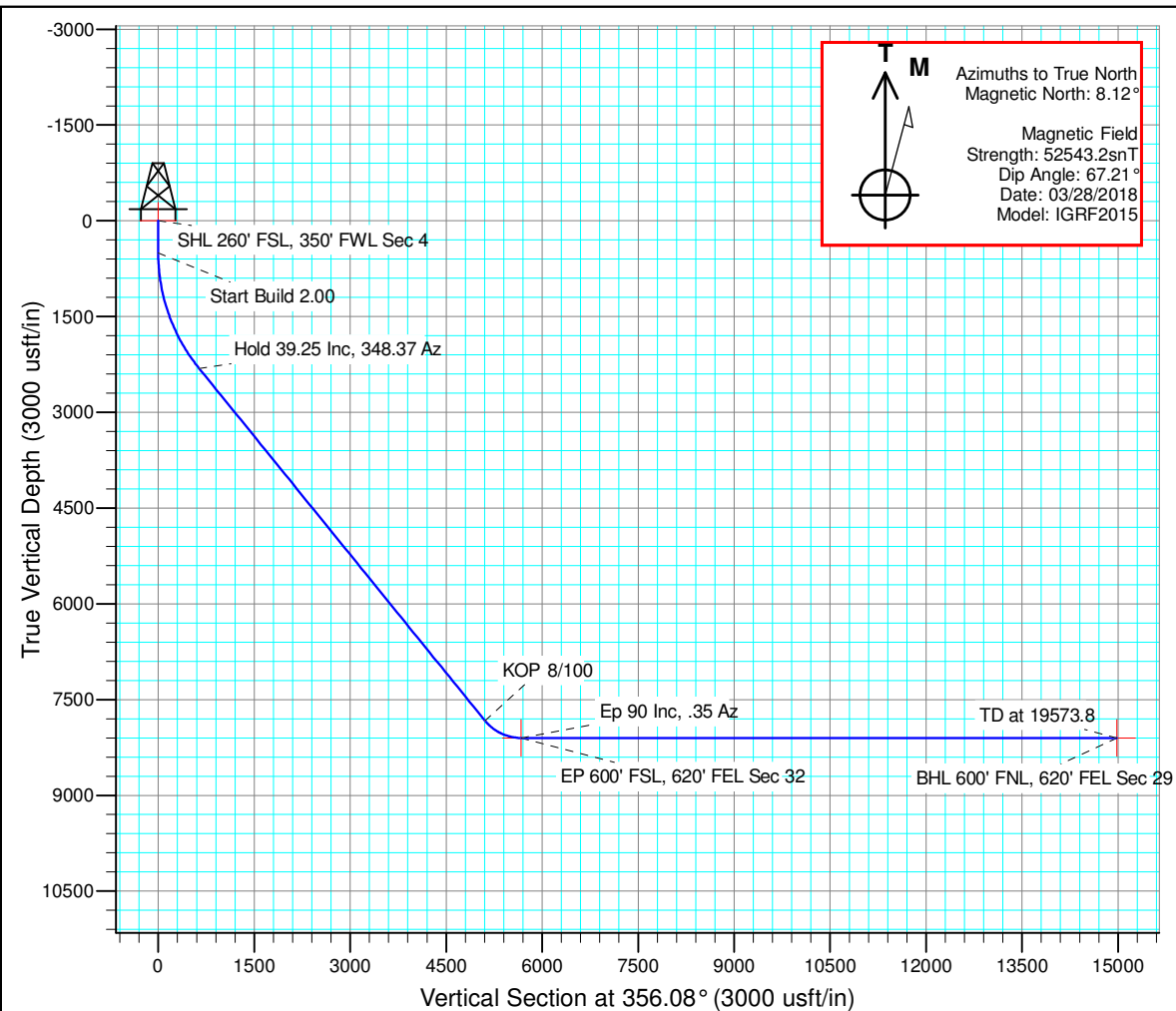
Deporter 4-A

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
500.0	500.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.00
2312.5	2462.4	39.25	348.37	633.0	-130.3	640.4	646.3	Hold 39.25 Inc, 348.37 Az
7830.9	9588.4	39.25	348.37	5048.9	-1039.4	5108.2	5154.8	KOP 8/100
8100.0	10235.5	90.00	0.35	5611.7	-1081.6	5672.6	5720.1	Ep 90 Inc, .35 Az
8100.0	19573.8	90.00	0.35	14949.9	-1024.3	14985.0	15058.4	TD at 19573.8

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL 260' FSL, 350' FWL Sec 4	0.0	0.0	0.0	1555843.89	3228024.73	40° 51' 22.531 N	104° 40' 32.558 W
BHL 600' FNL, 620' FEL Sec 29	8100.0	14949.9	-1024.3	1570783.63	3226861.46	40° 53' 50.246 N	104° 40' 45.896 W
EP 600' FSL, 620' FEL Sec 32	8100.0	5611.7	-1081.6	1561445.34	3226891.02	40° 52' 17.979 N	104° 40' 46.636 W

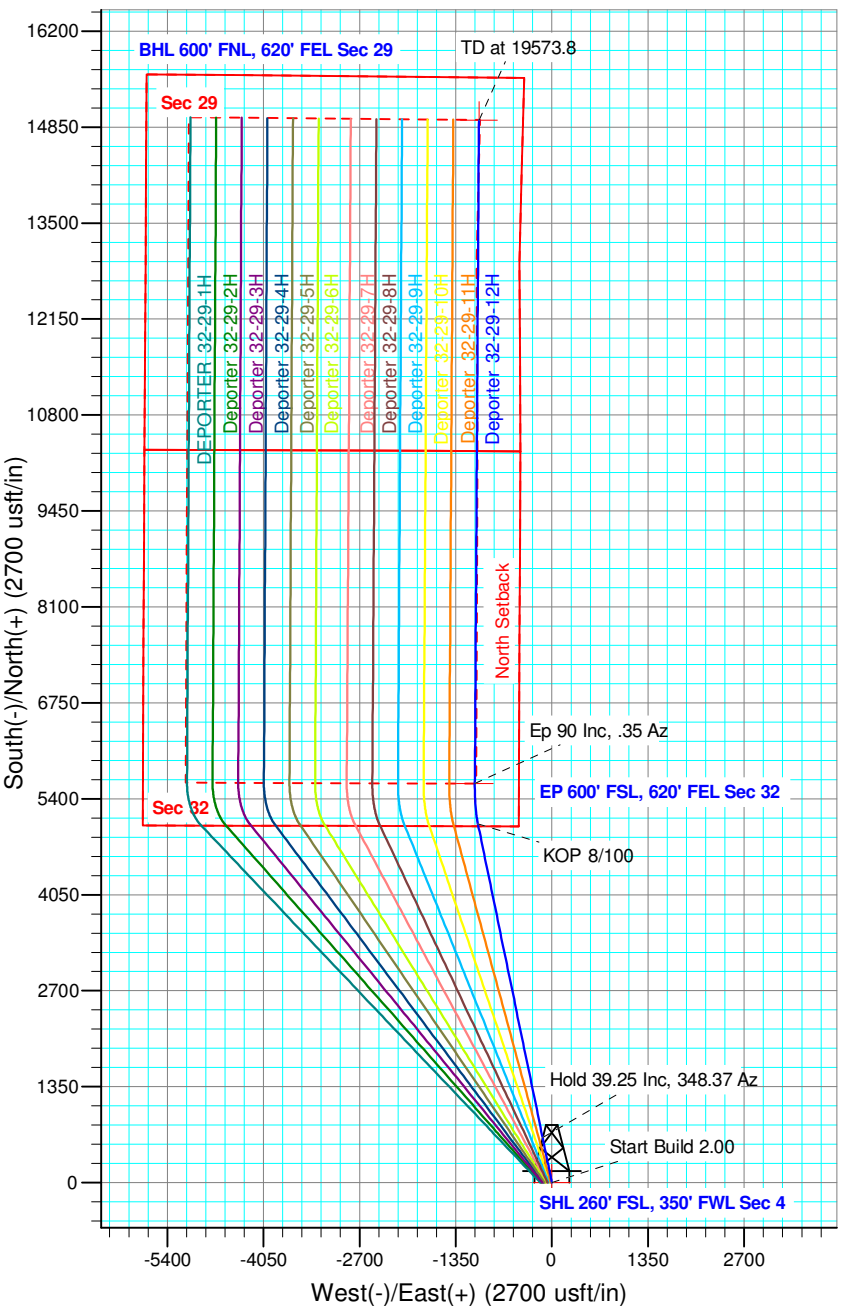


Geodetic Datum:

North American Datum 1983  
US State Plane 1983, Colorado Northern Zone

Elevation:

Ground Elevation: 5385.0  
WELL @ 5400.0usft (Original Well Elev)





## **Edge Energy, LLC**

**Sec. 4-T10N-R65W**

**Deporter 4-A**

**Deporter 32-29-12H**

**Wellbore #1**

**Plan: Design #1 28Mar18 mnH**

## **Standard Planning Report - Geographic**

**28 March, 2018**

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 32-29-12H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-A	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 32-29-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 28Mar18 mnh		

<b>Project</b>	Sec. 4-T10N-R65W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		Deporter 4-A				
Site Position:		Northing:	1,555,844.40 usft	Latitude:	40° 51' 22.551 N	
From:	Map	Easting:	3,227,859.77 usft	Longitude:	104° 40' 34.704 W	
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.53 °

Well		Deporter 32-29-12H				
Well Position	+N/-S	0.0 usft	Northing:	1,555,843.89 usft	Latitude:	40° 51' 22.531 N
	+E/-W	0.0 usft	Easting:	3,228,024.73 usft	Longitude:	104° 40' 32.558 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,385.0 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	03/28/18	8.12	67.21	52,543

<b>Design</b>	Design #1 28Mar18 mnh			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<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	356.08

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,462.4	39.25	348.37	2,312.5	633.0	-130.3	2.00	2.00	0.00	348.37	
9,588.4	39.25	348.37	7,830.9	5,048.9	-1,039.4	0.00	0.00	0.00	0.00	
10,235.5	90.00	0.35	8,100.0	5,611.7	-1,081.6	8.00	7.84	1.85	15.33	EP 600' FSL, 620' FE
19,573.8	90.00	0.35	8,100.0	14,949.9	-1,024.3	0.00	0.00	0.00	0.00	BHL 600' FNL, 620' FE



## Planning Report - Geographic

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 32-29-12H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-A	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 32-29-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 28Mar18 mnH		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,555,843.89	3,228,024.73	40° 51' 22.531 N	104° 40' 32.558 W
100.0	0.00	0.00	100.0	0.0	0.0	1,555,843.89	3,228,024.73	40° 51' 22.531 N	104° 40' 32.558 W
200.0	0.00	0.00	200.0	0.0	0.0	1,555,843.89	3,228,024.73	40° 51' 22.531 N	104° 40' 32.558 W
300.0	0.00	0.00	300.0	0.0	0.0	1,555,843.89	3,228,024.73	40° 51' 22.531 N	104° 40' 32.558 W
400.0	0.00	0.00	400.0	0.0	0.0	1,555,843.89	3,228,024.73	40° 51' 22.531 N	104° 40' 32.558 W
500.0	0.00	0.00	500.0	0.0	0.0	1,555,843.89	3,228,024.73	40° 51' 22.531 N	104° 40' 32.558 W
Start Build 2.00									
600.0	2.00	348.37	600.0	1.7	-0.4	1,555,845.60	3,228,024.36	40° 51' 22.548 N	104° 40' 32.562 W
700.0	4.00	348.37	699.8	6.8	-1.4	1,555,850.72	3,228,023.26	40° 51' 22.599 N	104° 40' 32.576 W
800.0	6.00	348.37	799.5	15.4	-3.2	1,555,859.24	3,228,021.43	40° 51' 22.683 N	104° 40' 32.599 W
900.0	8.00	348.37	898.7	27.3	-5.6	1,555,871.15	3,228,018.86	40° 51' 22.801 N	104° 40' 32.631 W
1,000.0	10.00	348.37	997.5	42.6	-8.8	1,555,886.44	3,228,015.56	40° 51' 22.952 N	104° 40' 32.672 W
1,100.0	12.00	348.37	1,095.6	61.3	-12.6	1,555,905.09	3,228,011.54	40° 51' 23.137 N	104° 40' 32.722 W
1,200.0	14.00	348.37	1,193.1	83.3	-17.2	1,555,927.08	3,228,006.80	40° 51' 23.355 N	104° 40' 32.781 W
1,300.0	16.00	348.37	1,289.6	108.7	-22.4	1,555,952.38	3,228,001.35	40° 51' 23.605 N	104° 40' 32.849 W
1,400.0	18.00	348.37	1,385.3	137.3	-28.3	1,555,980.96	3,227,995.19	40° 51' 23.888 N	104° 40' 32.926 W
1,500.0	20.00	348.37	1,479.8	169.2	-34.8	1,556,012.78	3,227,988.32	40° 51' 24.203 N	104° 40' 33.011 W
1,600.0	22.00	348.37	1,573.2	204.3	-42.1	1,556,047.81	3,227,980.77	40° 51' 24.550 N	104° 40' 33.105 W
1,700.0	24.00	348.37	1,665.2	242.6	-49.9	1,556,086.01	3,227,972.54	40° 51' 24.928 N	104° 40' 33.208 W
1,800.0	26.00	348.37	1,755.8	284.0	-58.5	1,556,127.32	3,227,963.63	40° 51' 25.337 N	104° 40' 33.318 W
1,900.0	28.00	348.37	1,844.9	328.4	-67.6	1,556,171.69	3,227,954.07	40° 51' 25.776 N	104° 40' 33.438 W
2,000.0	30.00	348.37	1,932.4	375.9	-77.4	1,556,219.08	3,227,943.85	40° 51' 26.246 N	104° 40' 33.565 W
2,100.0	32.00	348.37	2,018.1	426.4	-87.8	1,556,269.43	3,227,933.00	40° 51' 26.744 N	104° 40' 33.700 W
2,200.0	34.00	348.37	2,102.0	479.7	-98.8	1,556,322.67	3,227,921.52	40° 51' 27.271 N	104° 40' 33.843 W
2,300.0	36.00	348.37	2,183.9	535.9	-110.3	1,556,378.73	3,227,909.44	40° 51' 27.826 N	104° 40' 33.993 W
2,400.0	38.00	348.37	2,263.7	594.8	-122.5	1,556,437.56	3,227,896.75	40° 51' 28.409 N	104° 40' 34.151 W
2,462.4	39.25	348.37	2,312.5	633.0	-130.3	1,556,475.66	3,227,888.54	40° 51' 28.786 N	104° 40' 34.254 W
Hold 39.25 Inc, 348.37 Az									
2,500.0	39.25	348.37	2,341.6	656.3	-135.1	1,556,498.89	3,227,883.53	40° 51' 29.016 N	104° 40' 34.316 W
2,600.0	39.25	348.37	2,419.0	718.2	-147.9	1,556,560.74	3,227,870.20	40° 51' 29.628 N	104° 40' 34.482 W
2,700.0	39.25	348.37	2,496.5	780.2	-160.6	1,556,622.58	3,227,856.87	40° 51' 30.240 N	104° 40' 34.648 W
2,800.0	39.25	348.37	2,573.9	842.2	-173.4	1,556,684.43	3,227,843.54	40° 51' 30.853 N	104° 40' 34.814 W
2,900.0	39.25	348.37	2,651.4	904.2	-186.1	1,556,746.28	3,227,830.20	40° 51' 31.465 N	104° 40' 34.980 W
3,000.0	39.25	348.37	2,728.8	966.1	-198.9	1,556,808.13	3,227,816.87	40° 51' 32.077 N	104° 40' 35.146 W
3,100.0	39.25	348.37	2,806.2	1,028.1	-211.6	1,556,869.98	3,227,803.54	40° 51' 32.689 N	104° 40' 35.312 W
3,200.0	39.25	348.37	2,883.7	1,090.1	-224.4	1,556,931.83	3,227,790.20	40° 51' 33.302 N	104° 40' 35.478 W
3,300.0	39.25	348.37	2,961.1	1,152.0	-237.2	1,556,993.67	3,227,776.87	40° 51' 33.914 N	104° 40' 35.644 W
3,400.0	39.25	348.37	3,038.6	1,214.0	-249.9	1,557,055.52	3,227,763.54	40° 51' 34.526 N	104° 40' 35.810 W
3,500.0	39.25	348.37	3,116.0	1,276.0	-262.7	1,557,117.37	3,227,750.21	40° 51' 35.139 N	104° 40' 35.976 W
3,600.0	39.25	348.37	3,193.4	1,337.9	-275.4	1,557,179.22	3,227,736.87	40° 51' 35.751 N	104° 40' 36.142 W
3,700.0	39.25	348.37	3,270.9	1,399.9	-288.2	1,557,241.07	3,227,723.54	40° 51' 36.363 N	104° 40' 36.308 W
3,800.0	39.25	348.37	3,348.3	1,461.9	-300.9	1,557,302.91	3,227,710.21	40° 51' 36.976 N	104° 40' 36.474 W
3,900.0	39.25	348.37	3,425.8	1,523.8	-313.7	1,557,364.76	3,227,696.87	40° 51' 37.588 N	104° 40' 36.640 W
4,000.0	39.25	348.37	3,503.2	1,585.8	-326.5	1,557,426.61	3,227,683.54	40° 51' 38.200 N	104° 40' 36.806 W
4,100.0	39.25	348.37	3,580.6	1,647.8	-339.2	1,557,488.46	3,227,670.21	40° 51' 38.813 N	104° 40' 36.972 W
4,200.0	39.25	348.37	3,658.1	1,709.8	-352.0	1,557,550.31	3,227,656.88	40° 51' 39.425 N	104° 40' 37.138 W
4,300.0	39.25	348.37	3,735.5	1,771.7	-364.7	1,557,612.15	3,227,643.54	40° 51' 40.037 N	104° 40' 37.305 W
4,400.0	39.25	348.37	3,813.0	1,833.7	-377.5	1,557,674.00	3,227,630.21	40° 51' 40.649 N	104° 40' 37.471 W
4,500.0	39.25	348.37	3,890.4	1,895.7	-390.2	1,557,735.85	3,227,616.88	40° 51' 41.262 N	104° 40' 37.637 W
4,600.0	39.25	348.37	3,967.9	1,957.6	-403.0	1,557,797.70	3,227,603.55	40° 51' 41.874 N	104° 40' 37.803 W
4,700.0	39.25	348.37	4,045.3	2,019.6	-415.8	1,557,859.55	3,227,590.21	40° 51' 42.486 N	104° 40' 37.969 W
4,800.0	39.25	348.37	4,122.7	2,081.6	-428.5	1,557,921.39	3,227,576.88	40° 51' 43.099 N	104° 40' 38.135 W
4,900.0	39.25	348.37	4,200.2	2,143.5	-441.3	1,557,983.24	3,227,563.55	40° 51' 43.711 N	104° 40' 38.301 W
5,000.0	39.25	348.37	4,277.6	2,205.5	-454.0	1,558,045.09	3,227,550.21	40° 51' 44.323 N	104° 40' 38.467 W

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 32-29-12H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-A	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 32-29-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 28Mar18 mnh		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,100.0	39.25	348.37	4,355.1	2,267.5	-466.8	1,558,106.94	3,227,536.88	40° 51' 44.936 N	104° 40' 38.633 W	
5,200.0	39.25	348.37	4,432.5	2,329.5	-479.6	1,558,168.79	3,227,523.55	40° 51' 45.548 N	104° 40' 38.799 W	
5,300.0	39.25	348.37	4,509.9	2,391.4	-492.3	1,558,230.64	3,227,510.22	40° 51' 46.160 N	104° 40' 38.965 W	
5,400.0	39.25	348.37	4,587.4	2,453.4	-505.1	1,558,292.48	3,227,496.88	40° 51' 46.772 N	104° 40' 39.131 W	
5,500.0	39.25	348.37	4,664.8	2,515.4	-517.8	1,558,354.33	3,227,483.55	40° 51' 47.385 N	104° 40' 39.297 W	
5,600.0	39.25	348.37	4,742.3	2,577.3	-530.6	1,558,416.18	3,227,470.22	40° 51' 47.997 N	104° 40' 39.463 W	
5,700.0	39.25	348.37	4,819.7	2,639.3	-543.3	1,558,478.03	3,227,456.89	40° 51' 48.609 N	104° 40' 39.629 W	
5,800.0	39.25	348.37	4,897.1	2,701.3	-556.1	1,558,539.88	3,227,443.55	40° 51' 49.222 N	104° 40' 39.795 W	
5,900.0	39.25	348.37	4,974.6	2,763.2	-568.9	1,558,601.72	3,227,430.22	40° 51' 49.834 N	104° 40' 39.961 W	
6,000.0	39.25	348.37	5,052.0	2,825.2	-581.6	1,558,663.57	3,227,416.89	40° 51' 50.446 N	104° 40' 40.127 W	
6,100.0	39.25	348.37	5,129.5	2,887.2	-594.4	1,558,725.42	3,227,403.55	40° 51' 51.058 N	104° 40' 40.293 W	
6,200.0	39.25	348.37	5,206.9	2,949.1	-607.1	1,558,787.27	3,227,390.22	40° 51' 51.671 N	104° 40' 40.459 W	
6,300.0	39.25	348.37	5,284.3	3,011.1	-619.9	1,558,849.12	3,227,376.89	40° 51' 52.283 N	104° 40' 40.626 W	
6,400.0	39.25	348.37	5,361.8	3,073.1	-632.6	1,558,910.96	3,227,363.56	40° 51' 52.895 N	104° 40' 40.792 W	
6,500.0	39.25	348.37	5,439.2	3,135.1	-645.4	1,558,972.81	3,227,350.22	40° 51' 53.508 N	104° 40' 40.958 W	
6,600.0	39.25	348.37	5,516.7	3,197.0	-658.2	1,559,034.66	3,227,336.89	40° 51' 54.120 N	104° 40' 41.124 W	
6,700.0	39.25	348.37	5,594.1	3,259.0	-670.9	1,559,096.51	3,227,323.56	40° 51' 54.732 N	104° 40' 41.290 W	
6,800.0	39.25	348.37	5,671.5	3,321.0	-683.7	1,559,158.36	3,227,310.23	40° 51' 55.345 N	104° 40' 41.456 W	
6,900.0	39.25	348.37	5,749.0	3,382.9	-696.4	1,559,220.20	3,227,296.89	40° 51' 55.957 N	104° 40' 41.622 W	
7,000.0	39.25	348.37	5,826.4	3,444.9	-709.2	1,559,282.05	3,227,283.56	40° 51' 56.569 N	104° 40' 41.788 W	
7,100.0	39.25	348.37	5,903.9	3,506.9	-721.9	1,559,343.90	3,227,270.23	40° 51' 57.181 N	104° 40' 41.954 W	
7,200.0	39.25	348.37	5,981.3	3,568.8	-734.7	1,559,405.75	3,227,256.89	40° 51' 57.794 N	104° 40' 42.120 W	
7,300.0	39.25	348.37	6,058.7	3,630.8	-747.5	1,559,467.60	3,227,243.56	40° 51' 58.406 N	104° 40' 42.286 W	
7,400.0	39.25	348.37	6,136.2	3,692.8	-760.2	1,559,529.45	3,227,230.23	40° 51' 59.018 N	104° 40' 42.452 W	
7,500.0	39.25	348.37	6,213.6	3,754.7	-773.0	1,559,591.29	3,227,216.90	40° 51' 59.631 N	104° 40' 42.618 W	
7,600.0	39.25	348.37	6,291.1	3,816.7	-785.7	1,559,653.14	3,227,203.56	40° 52' 0.243 N	104° 40' 42.784 W	
7,700.0	39.25	348.37	6,368.5	3,878.7	-798.5	1,559,714.99	3,227,190.23	40° 52' 0.855 N	104° 40' 42.950 W	
7,800.0	39.25	348.37	6,445.9	3,940.7	-811.2	1,559,776.84	3,227,176.90	40° 52' 1.468 N	104° 40' 43.116 W	
7,900.0	39.25	348.37	6,523.4	4,002.6	-824.0	1,559,838.69	3,227,163.56	40° 52' 2.080 N	104° 40' 43.283 W	
8,000.0	39.25	348.37	6,600.8	4,064.6	-836.8	1,559,900.53	3,227,150.23	40° 52' 2.692 N	104° 40' 43.449 W	
8,100.0	39.25	348.37	6,678.3	4,126.6	-849.5	1,559,962.38	3,227,136.90	40° 52' 3.304 N	104° 40' 43.615 W	
8,200.0	39.25	348.37	6,755.7	4,188.5	-862.3	1,560,024.23	3,227,123.57	40° 52' 3.917 N	104° 40' 43.781 W	
8,300.0	39.25	348.37	6,833.1	4,250.5	-875.0	1,560,086.08	3,227,110.23	40° 52' 4.529 N	104° 40' 43.947 W	
8,400.0	39.25	348.37	6,910.6	4,312.5	-887.8	1,560,147.93	3,227,096.90	40° 52' 5.141 N	104° 40' 44.113 W	
8,500.0	39.25	348.37	6,988.0	4,374.4	-900.5	1,560,209.77	3,227,083.57	40° 52' 5.754 N	104° 40' 44.279 W	
8,600.0	39.25	348.37	7,065.5	4,436.4	-913.3	1,560,271.62	3,227,070.24	40° 52' 6.366 N	104° 40' 44.445 W	
8,700.0	39.25	348.37	7,142.9	4,498.4	-926.1	1,560,333.47	3,227,056.90	40° 52' 6.978 N	104° 40' 44.611 W	
8,800.0	39.25	348.37	7,220.3	4,560.3	-938.8	1,560,395.32	3,227,043.57	40° 52' 7.591 N	104° 40' 44.777 W	
8,900.0	39.25	348.37	7,297.8	4,622.3	-951.6	1,560,457.17	3,227,030.24	40° 52' 8.203 N	104° 40' 44.943 W	
9,000.0	39.25	348.37	7,375.2	4,684.3	-964.3	1,560,519.01	3,227,016.90	40° 52' 8.815 N	104° 40' 45.109 W	
9,100.0	39.25	348.37	7,452.7	4,746.3	-977.1	1,560,580.86	3,227,003.57	40° 52' 9.427 N	104° 40' 45.275 W	
9,200.0	39.25	348.37	7,530.1	4,808.2	-989.8	1,560,642.71	3,226,990.24	40° 52' 10.040 N	104° 40' 45.442 W	
9,300.0	39.25	348.37	7,607.5	4,870.2	-1,002.6	1,560,704.56	3,226,976.91	40° 52' 10.652 N	104° 40' 45.608 W	
9,400.0	39.25	348.37	7,685.0	4,932.2	-1,015.4	1,560,766.41	3,226,963.57	40° 52' 11.264 N	104° 40' 45.774 W	
9,500.0	39.25	348.37	7,762.4	4,994.1	-1,028.1	1,560,828.26	3,226,950.24	40° 52' 11.877 N	104° 40' 45.940 W	
9,588.4	39.25	348.37	7,830.9	5,048.9	-1,039.4	1,560,882.94	3,226,938.45	40° 52' 12.418 N	104° 40' 46.087 W	
KOP 8/100										
9,600.0	40.14	348.75	7,839.8	5,056.2	-1,040.9	1,560,890.18	3,226,936.92	40° 52' 12.490 N	104° 40' 46.106 W	
9,700.0	47.91	351.54	7,911.7	5,124.6	-1,052.6	1,560,958.49	3,226,924.51	40° 52' 13.166 N	104° 40' 46.259 W	
9,800.0	55.72	353.71	7,973.4	5,202.5	-1,062.6	1,561,036.28	3,226,913.79	40° 52' 13.935 N	104° 40' 46.389 W	
9,900.0	63.57	355.51	8,023.9	5,288.3	-1,070.7	1,561,122.05	3,226,904.95	40° 52' 14.784 N	104° 40' 46.494 W	
10,000.0	71.44	357.09	8,062.2	5,380.5	-1,076.6	1,561,214.11	3,226,898.17	40° 52' 15.694 N	104° 40' 46.571 W	
10,100.0	79.32	358.52	8,087.4	5,477.1	-1,080.3	1,561,310.69	3,226,893.58	40° 52' 16.648 N	104° 40' 46.619 W	
10,200.0	87.20	359.88	8,099.1	5,576.3	-1,081.7	1,561,409.89	3,226,891.28	40° 52' 17.629 N	104° 40' 46.637 W	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 32-29-12H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-A	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 32-29-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 28Mar18 mnh		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,235.5	90.00	0.35	8,100.0	5,611.7	-1,081.6	1,561,445.34	3,226,891.02	40° 52' 17.979 N	104° 40' 46.636 W	
Ep 90 Inc. .35 Az										
10,300.0	90.00	0.35	8,100.0	5,676.3	-1,081.2	1,561,509.87	3,226,890.82	40° 52' 18.617 N	104° 40' 46.631 W	
10,400.0	90.00	0.35	8,100.0	5,776.3	-1,080.6	1,561,609.87	3,226,890.50	40° 52' 19.605 N	104° 40' 46.623 W	
10,500.0	90.00	0.35	8,100.0	5,876.3	-1,080.0	1,561,709.87	3,226,890.18	40° 52' 20.593 N	104° 40' 46.615 W	
10,600.0	90.00	0.35	8,100.0	5,976.3	-1,079.4	1,561,809.87	3,226,889.87	40° 52' 21.581 N	104° 40' 46.607 W	
10,700.0	90.00	0.35	8,100.0	6,076.3	-1,078.7	1,561,909.87	3,226,889.55	40° 52' 22.569 N	104° 40' 46.599 W	
10,800.0	90.00	0.35	8,100.0	6,176.3	-1,078.1	1,562,009.87	3,226,889.24	40° 52' 23.557 N	104° 40' 46.592 W	
10,900.0	90.00	0.35	8,100.0	6,276.3	-1,077.5	1,562,109.87	3,226,888.92	40° 52' 24.545 N	104° 40' 46.584 W	
11,000.0	90.00	0.35	8,100.0	6,376.3	-1,076.9	1,562,209.87	3,226,888.60	40° 52' 25.533 N	104° 40' 46.576 W	
11,100.0	90.00	0.35	8,100.0	6,476.3	-1,076.3	1,562,309.87	3,226,888.29	40° 52' 26.521 N	104° 40' 46.568 W	
11,200.0	90.00	0.35	8,100.0	6,576.3	-1,075.7	1,562,409.87	3,226,887.97	40° 52' 27.509 N	104° 40' 46.560 W	
11,300.0	90.00	0.35	8,100.0	6,676.3	-1,075.1	1,562,509.86	3,226,887.65	40° 52' 28.497 N	104° 40' 46.552 W	
11,400.0	90.00	0.35	8,100.0	6,776.2	-1,074.5	1,562,609.86	3,226,887.34	40° 52' 29.485 N	104° 40' 46.544 W	
11,500.0	90.00	0.35	8,100.0	6,876.2	-1,073.8	1,562,709.86	3,226,887.02	40° 52' 30.473 N	104° 40' 46.536 W	
11,600.0	90.00	0.35	8,100.0	6,976.2	-1,073.2	1,562,809.86	3,226,886.70	40° 52' 31.461 N	104° 40' 46.528 W	
11,700.0	90.00	0.35	8,100.0	7,076.2	-1,072.6	1,562,909.86	3,226,886.39	40° 52' 32.449 N	104° 40' 46.520 W	
11,800.0	90.00	0.35	8,100.0	7,176.2	-1,072.0	1,563,009.86	3,226,886.07	40° 52' 33.437 N	104° 40' 46.512 W	
11,900.0	90.00	0.35	8,100.0	7,276.2	-1,071.4	1,563,109.86	3,226,885.75	40° 52' 34.425 N	104° 40' 46.504 W	
12,000.0	90.00	0.35	8,100.0	7,376.2	-1,070.8	1,563,209.86	3,226,885.44	40° 52' 35.413 N	104° 40' 46.496 W	
12,100.0	90.00	0.35	8,100.0	7,476.2	-1,070.2	1,563,309.86	3,226,885.12	40° 52' 36.401 N	104° 40' 46.488 W	
12,200.0	90.00	0.35	8,100.0	7,576.2	-1,069.5	1,563,409.86	3,226,884.80	40° 52' 37.390 N	104° 40' 46.481 W	
12,300.0	90.00	0.35	8,100.0	7,676.2	-1,068.9	1,563,509.86	3,226,884.49	40° 52' 38.378 N	104° 40' 46.473 W	
12,400.0	90.00	0.35	8,100.0	7,776.2	-1,068.3	1,563,609.86	3,226,884.17	40° 52' 39.366 N	104° 40' 46.465 W	
12,500.0	90.00	0.35	8,100.0	7,876.2	-1,067.7	1,563,709.86	3,226,883.85	40° 52' 40.354 N	104° 40' 46.457 W	
12,600.0	90.00	0.35	8,100.0	7,976.2	-1,067.1	1,563,809.86	3,226,883.54	40° 52' 41.342 N	104° 40' 46.449 W	
12,700.0	90.00	0.35	8,100.0	8,076.2	-1,066.5	1,563,909.86	3,226,883.22	40° 52' 42.330 N	104° 40' 46.441 W	
12,800.0	90.00	0.35	8,100.0	8,176.2	-1,065.9	1,564,009.85	3,226,882.90	40° 52' 43.318 N	104° 40' 46.433 W	
12,900.0	90.00	0.35	8,100.0	8,276.2	-1,065.3	1,564,109.85	3,226,882.59	40° 52' 44.306 N	104° 40' 46.425 W	
13,000.0	90.00	0.35	8,100.0	8,376.2	-1,064.6	1,564,209.85	3,226,882.27	40° 52' 45.294 N	104° 40' 46.417 W	
13,100.0	90.00	0.35	8,100.0	8,476.2	-1,064.0	1,564,309.85	3,226,881.95	40° 52' 46.282 N	104° 40' 46.409 W	
13,200.0	90.00	0.35	8,100.0	8,576.2	-1,063.4	1,564,409.85	3,226,881.64	40° 52' 47.270 N	104° 40' 46.401 W	
13,300.0	90.00	0.35	8,100.0	8,676.2	-1,062.8	1,564,509.85	3,226,881.32	40° 52' 48.258 N	104° 40' 46.393 W	
13,400.0	90.00	0.35	8,100.0	8,776.2	-1,062.2	1,564,609.85	3,226,881.01	40° 52' 49.246 N	104° 40' 46.386 W	
13,500.0	90.00	0.35	8,100.0	8,876.2	-1,061.6	1,564,709.85	3,226,880.69	40° 52' 50.234 N	104° 40' 46.378 W	
13,600.0	90.00	0.35	8,100.0	8,976.2	-1,061.0	1,564,809.85	3,226,880.37	40° 52' 51.222 N	104° 40' 46.370 W	
13,700.0	90.00	0.35	8,100.0	9,076.2	-1,060.4	1,564,909.85	3,226,880.06	40° 52' 52.210 N	104° 40' 46.362 W	
13,800.0	90.00	0.35	8,100.0	9,176.2	-1,059.7	1,565,009.85	3,226,879.74	40° 52' 53.198 N	104° 40' 46.354 W	
13,900.0	90.00	0.35	8,100.0	9,276.2	-1,059.1	1,565,109.85	3,226,879.42	40° 52' 54.186 N	104° 40' 46.346 W	
14,000.0	90.00	0.35	8,100.0	9,376.2	-1,058.5	1,565,209.85	3,226,879.11	40° 52' 55.174 N	104° 40' 46.338 W	
14,100.0	90.00	0.35	8,100.0	9,476.2	-1,057.9	1,565,309.85	3,226,878.79	40° 52' 56.162 N	104° 40' 46.330 W	
14,200.0	90.00	0.35	8,100.0	9,576.2	-1,057.3	1,565,409.84	3,226,878.47	40° 52' 57.150 N	104° 40' 46.322 W	
14,300.0	90.00	0.35	8,100.0	9,676.2	-1,056.7	1,565,509.84	3,226,878.16	40° 52' 58.138 N	104° 40' 46.314 W	
14,400.0	90.00	0.35	8,100.0	9,776.2	-1,056.1	1,565,609.84	3,226,877.84	40° 52' 59.127 N	104° 40' 46.306 W	
14,500.0	90.00	0.35	8,100.0	9,876.2	-1,055.5	1,565,709.84	3,226,877.52	40° 53' 0.115 N	104° 40' 46.298 W	
14,600.0	90.00	0.35	8,100.0	9,976.2	-1,054.8	1,565,809.84	3,226,877.21	40° 53' 1.103 N	104° 40' 46.290 W	
14,700.0	90.00	0.35	8,100.0	10,076.2	-1,054.2	1,565,909.83	3,226,876.89	40° 53' 2.091 N	104° 40' 46.282 W	
14,800.0	90.00	0.35	8,100.0	10,176.2	-1,053.6	1,566,009.83	3,226,876.57	40° 53' 3.079 N	104° 40' 46.275 W	
14,900.0	90.00	0.35	8,100.0	10,276.2	-1,053.0	1,566,109.83	3,226,876.26	40° 53' 4.067 N	104° 40' 46.267 W	
15,000.0	90.00	0.35	8,100.0	10,376.2	-1,052.4	1,566,209.83	3,226,875.94	40° 53' 5.055 N	104° 40' 46.259 W	
15,100.0	90.00	0.35	8,100.0	10,476.2	-1,051.8	1,566,309.83	3,226,875.62	40° 53' 6.043 N	104° 40' 46.251 W	
15,200.0	90.00	0.35	8,100.0	10,576.2	-1,051.2	1,566,409.83	3,226,875.31	40° 53' 7.031 N	104° 40' 46.243 W	
15,300.0	90.00	0.35	8,100.0	10,676.2	-1,050.5	1,566,509.83	3,226,874.99	40° 53' 8.019 N	104° 40' 46.235 W	
15,400.0	90.00	0.35	8,100.0	10,776.2	-1,049.9	1,566,609.83	3,226,874.67	40° 53' 9.007 N	104° 40' 46.227 W	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 32-29-12H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-A	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 32-29-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 28Mar18 mnh		

Planned Survey										
Measured			Vertical			Map	Map			
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		Latitude	Longitude
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
15,500.0	90.00	0.35	8,100.0	10,876.2	-1,049.3	1,566,709.83	3,226,874.36		40° 53' 9.995 N	104° 40' 46.219 W
15,600.0	90.00	0.35	8,100.0	10,976.2	-1,048.7	1,566,809.82	3,226,874.04		40° 53' 10.983 N	104° 40' 46.211 W
15,700.0	90.00	0.35	8,100.0	11,076.2	-1,048.1	1,566,909.82	3,226,873.72		40° 53' 11.971 N	104° 40' 46.203 W
15,800.0	90.00	0.35	8,100.0	11,176.2	-1,047.5	1,567,009.82	3,226,873.41		40° 53' 12.959 N	104° 40' 46.195 W
15,900.0	90.00	0.35	8,100.0	11,276.2	-1,046.9	1,567,109.82	3,226,873.09		40° 53' 13.947 N	104° 40' 46.187 W
16,000.0	90.00	0.35	8,100.0	11,376.2	-1,046.3	1,567,209.82	3,226,872.77		40° 53' 14.935 N	104° 40' 46.179 W
16,100.0	90.00	0.35	8,100.0	11,476.2	-1,045.6	1,567,309.82	3,226,872.46		40° 53' 15.923 N	104° 40' 46.172 W
16,200.0	90.00	0.35	8,100.0	11,576.1	-1,045.0	1,567,409.82	3,226,872.14		40° 53' 16.911 N	104° 40' 46.164 W
16,300.0	90.00	0.35	8,100.0	11,676.1	-1,044.4	1,567,509.82	3,226,871.83		40° 53' 17.899 N	104° 40' 46.156 W
16,400.0	90.00	0.35	8,100.0	11,776.1	-1,043.8	1,567,609.82	3,226,871.51		40° 53' 18.887 N	104° 40' 46.148 W
16,500.0	90.00	0.35	8,100.0	11,876.1	-1,043.2	1,567,709.82	3,226,871.19		40° 53' 19.875 N	104° 40' 46.140 W
16,600.0	90.00	0.35	8,100.0	11,976.1	-1,042.6	1,567,809.82	3,226,870.88		40° 53' 20.863 N	104° 40' 46.132 W
16,700.0	90.00	0.35	8,100.0	12,076.1	-1,042.0	1,567,909.82	3,226,870.56		40° 53' 21.852 N	104° 40' 46.124 W
16,800.0	90.00	0.35	8,100.0	12,176.1	-1,041.4	1,568,009.82	3,226,870.24		40° 53' 22.840 N	104° 40' 46.116 W
16,900.0	90.00	0.35	8,100.0	12,276.1	-1,040.7	1,568,109.82	3,226,869.93		40° 53' 23.828 N	104° 40' 46.108 W
17,000.0	90.00	0.35	8,100.0	12,376.1	-1,040.1	1,568,209.82	3,226,869.61		40° 53' 24.816 N	104° 40' 46.100 W
17,100.0	90.00	0.35	8,100.0	12,476.1	-1,039.5	1,568,309.81	3,226,869.29		40° 53' 25.804 N	104° 40' 46.092 W
17,200.0	90.00	0.35	8,100.0	12,576.1	-1,038.9	1,568,409.81	3,226,868.98		40° 53' 26.792 N	104° 40' 46.084 W
17,300.0	90.00	0.35	8,100.0	12,676.1	-1,038.3	1,568,509.81	3,226,868.66		40° 53' 27.780 N	104° 40' 46.076 W
17,400.0	90.00	0.35	8,100.0	12,776.1	-1,037.7	1,568,609.81	3,226,868.34		40° 53' 28.768 N	104° 40' 46.069 W
17,500.0	90.00	0.35	8,100.0	12,876.1	-1,037.1	1,568,709.81	3,226,868.03		40° 53' 29.756 N	104° 40' 46.061 W
17,600.0	90.00	0.35	8,100.0	12,976.1	-1,036.4	1,568,809.81	3,226,867.71		40° 53' 30.744 N	104° 40' 46.053 W
17,700.0	90.00	0.35	8,100.0	13,076.1	-1,035.8	1,568,909.81	3,226,867.39		40° 53' 31.732 N	104° 40' 46.045 W
17,800.0	90.00	0.35	8,100.0	13,176.1	-1,035.2	1,569,009.81	3,226,867.08		40° 53' 32.720 N	104° 40' 46.037 W
17,900.0	90.00	0.35	8,100.0	13,276.1	-1,034.6	1,569,109.81	3,226,866.76		40° 53' 33.708 N	104° 40' 46.029 W
18,000.0	90.00	0.35	8,100.0	13,376.1	-1,034.0	1,569,209.81	3,226,866.44		40° 53' 34.696 N	104° 40' 46.021 W
18,100.0	90.00	0.35	8,100.0	13,476.1	-1,033.4	1,569,309.81	3,226,866.13		40° 53' 35.684 N	104° 40' 46.013 W
18,200.0	90.00	0.35	8,100.0	13,576.1	-1,032.8	1,569,409.81	3,226,865.81		40° 53' 36.672 N	104° 40' 46.005 W
18,300.0	90.00	0.35	8,100.0	13,676.1	-1,032.2	1,569,509.81	3,226,865.49		40° 53' 37.660 N	104° 40' 45.997 W
18,400.0	90.00	0.35	8,100.0	13,776.1	-1,031.5	1,569,609.81	3,226,865.18		40° 53' 38.648 N	104° 40' 45.989 W
18,500.0	90.00	0.35	8,100.0	13,876.1	-1,030.9	1,569,709.80	3,226,864.86		40° 53' 39.636 N	104° 40' 45.981 W
18,600.0	90.00	0.35	8,100.0	13,976.1	-1,030.3	1,569,809.80	3,226,864.54		40° 53' 40.624 N	104° 40' 45.973 W
18,700.0	90.00	0.35	8,100.0	14,076.1	-1,029.7	1,569,909.80	3,226,864.23		40° 53' 41.612 N	104° 40' 45.965 W
18,800.0	90.00	0.35	8,100.0	14,176.1	-1,029.1	1,570,009.80	3,226,863.91		40° 53' 42.600 N	104° 40' 45.958 W
18,900.0	90.00	0.35	8,100.0	14,276.1	-1,028.5	1,570,109.80	3,226,863.60		40° 53' 43.588 N	104° 40' 45.950 W
19,000.0	90.00	0.35	8,100.0	14,376.1	-1,027.9	1,570,209.80	3,226,863.28		40° 53' 44.576 N	104° 40' 45.942 W
19,100.0	90.00	0.35	8,100.0	14,476.1	-1,027.3	1,570,309.80	3,226,862.96		40° 53' 45.565 N	104° 40' 45.934 W
19,200.0	90.00	0.35	8,100.0	14,576.1	-1,026.6	1,570,409.80	3,226,862.65		40° 53' 46.553 N	104° 40' 45.926 W
19,300.0	90.00	0.35	8,100.0	14,676.1	-1,026.0	1,570,509.80	3,226,862.33		40° 53' 47.541 N	104° 40' 45.918 W
19,400.0	90.00	0.35	8,100.0	14,776.1	-1,025.4	1,570,609.80	3,226,862.01		40° 53' 48.529 N	104° 40' 45.910 W
19,500.0	90.00	0.35	8,100.0	14,876.1	-1,024.8	1,570,709.80	3,226,861.70		40° 53' 49.517 N	104° 40' 45.902 W
19,573.8	90.00	0.35	8,100.0	14,949.9	-1,024.3	1,570,783.63	3,226,861.46		40° 53' 50.246 N	104° 40' 45.896 W
TD at 19573.8										



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 32-29-12H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5400.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-A	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 32-29-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 28Mar18 mnh		

Design Targets										
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
- Shape										
SHL 260' FSL, 350' FWL	0.00	0.00	0.0	0.0	0.0	1,555,843.89	3,228,024.73	40° 51' 22.531 N	104° 40' 32.558 W	
- plan hits target center										
- Point										
BHL 600' FNL, 620' FEL	0.00	0.00	8,100.0	14,949.9	-1,024.3	1,570,783.63	3,226,861.46	40° 53' 50.246 N	104° 40' 45.896 W	
- plan hits target center										
- Point										
EP 600' FSL, 620' FEL	0.00	0.00	8,100.0	5,611.7	-1,081.6	1,561,445.34	3,226,891.02	40° 52' 17.979 N	104° 40' 46.636 W	
- plan hits target center										
- Point										

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
500.0	500.0	0.0	0.0	Start Build 2.00	
2,462.4	2,312.5	633.0	-130.3	Hold 39.25 Inc, 348.37 Az	
9,588.4	7,830.9	5,048.9	-1,039.4	KOP 8/100	
10,235.5	8,100.0	5,611.7	-1,081.6	Ep 90 Inc, .35 Az	
19,573.8	8,100.0	14,949.9	-1,024.3	TD at 19573.8	