



# Edge Energy, LLC

Well Name:

Deporter 33-34-11H

Project Name:

Sec. 32-T11N-R66W

Pad Name:

Deporter 32-B

## ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	Start Build 2.00
709.17	4.18	57.81	708.99	4.07	6.46	6.58	7.63	Hold 4.18 Inc, 57.81 Az
7645.27	4.18	57.81	7626.60	273.59	434.69	443.01	513.63	KOP 8/100
8725.95	90.00	89.85	8298.00	301.54	1149.45	1158.29	1229.80	EP 90 Inc, 89.85 Az
18045.02	90.00	89.85	8298.00	326.33	10468.49	10473.58	10548.87	TD at 18045.02

## Geodetic Datum:

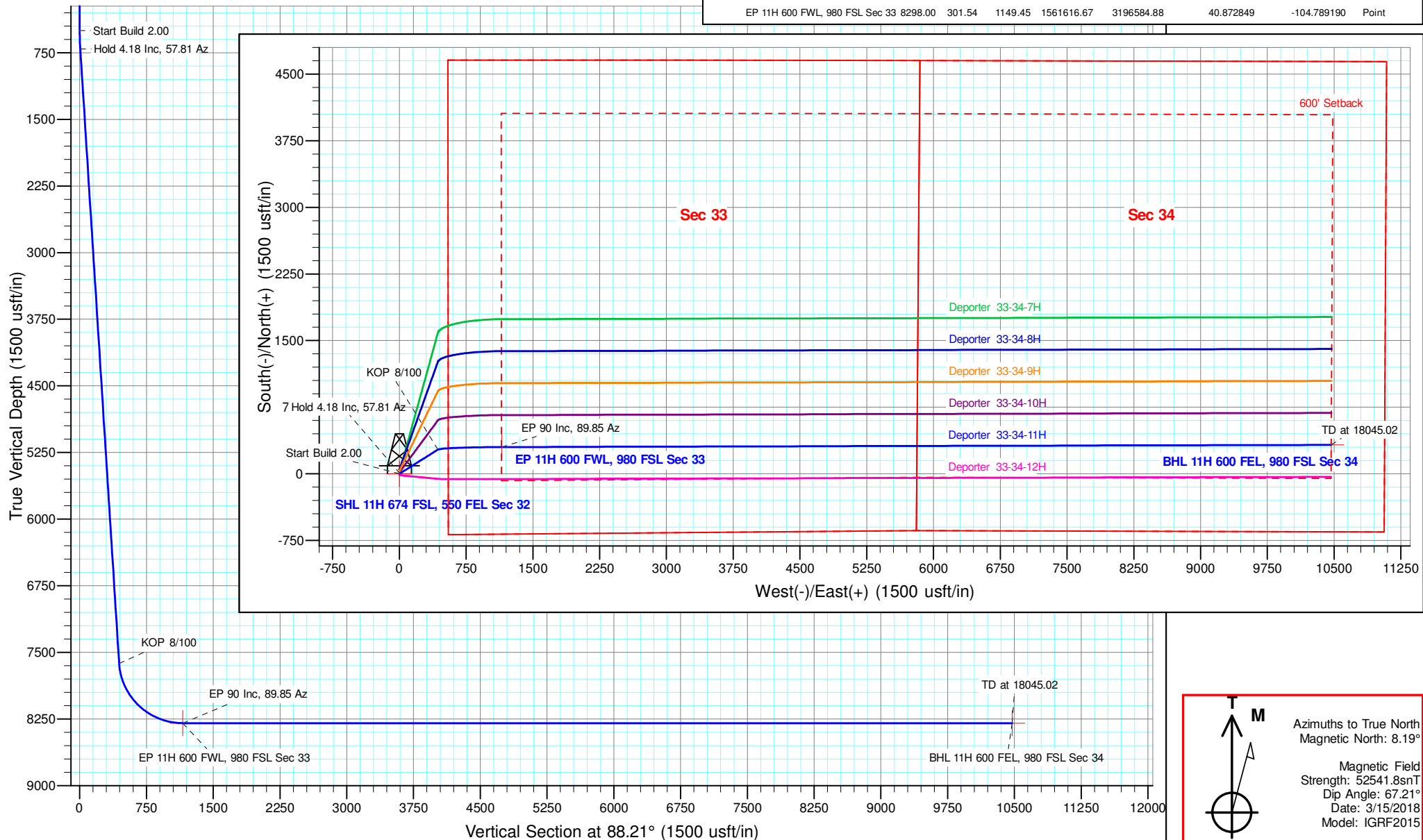
North American Datum 1983  
US State Plane 1983, Colorado Northern Zone

## Elevation:

Ground Elevation: 5553.00  
KB Elevation: WELL @ 5568.00usft (Original Well Elev)

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SHL 11H 674 FSL, 550 FEL Sec 32	0.00	0.00	0.00	1561305.98	3195437.87	40.872022	-104.793346	Point
BHL 11H 600 FEL, 980 FSL Sec 34	8298.00	326.33	10468.49	1561715.72	3205903.43	40.872911	-104.755495	Point
EP 11H 600 FWL, 980 FSL Sec 33	8298.00	301.54	1149.45	1561616.67	3196584.88	40.872849	-104.789190	Point





## **Edge Energy, LLC**

**Sec. 32-T11N-R66W**

**Deporter 32-B**

**Deporter 33-34-11H**

**Wellbore #1**

**Plan: Design #1 15Mar18 kjs**

## **Standard Planning Report - Geographic**

**15 March, 2018**



Microsoft  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 33-34-11H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5568.00usft (Original Well Elev)
<b>Project:</b>	Sec. 32-T11N-R66W	<b>MD Reference:</b>	WELL @ 5568.00usft (Original Well Elev)
<b>Site:</b>	Deporter 32-B	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 33-34-11H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 15Mar18 kjs		

<b>Project</b>	Sec. 32-T11N-R66W, 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		

<b>Site</b>	Deporter 32-B			
<b>Site Position:</b>		<b>Northing:</b>	1,561,366.02 usft	<b>Latitude:</b> 40.872187
<b>From:</b>	Map	<b>Easting:</b>	3,195,437.38 usft	<b>Longitude:</b> -104.793347
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.46 °

Well		Deporter 33-34-11H				
Well Position	+N/-S	0.00 usft	Northing:	1,561,305.98 usft	Latitude:	40.872022
	+E/-W	0.00 usft	Easting:	3,195,437.87 usft	Longitude:	-104.793347
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,553.00 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	3/15/2018	8.19	67.21	52,541.82540902

<b>Design</b>	Design #1 15Mar18 kjs			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<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	88.21

<b>Plan Survey Tool Program</b>	<b>Date</b>	3/15/2018		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	18,045.02 Design #1 15Mar18 kjs (Wellbore)	MWD	
			OWSG MWD - Standard	

<b>Plan Sections</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>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
709.17	4.18	57.81	708.99	4.07	6.46	2.00	2.00	0.00	57.81	
7,645.27	4.18	57.81	7,626.60	273.59	434.69	0.00	0.00	0.00	0.00	
8,725.95	90.00	89.85	8,298.00	301.54	1,149.45	8.00	7.94	2.96	32.10	EP 11H 600 FWL, 98%
18,045.02	90.00	89.85	8,298.00	326.33	10,468.49	0.00	0.00	0.00	0.00	BHL 11H 600 FEL, 98%

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 33-34-11H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5568.00usft (Original Well Elev)
<b>Project:</b>	Sec. 32-T11N-R66W	<b>MD Reference:</b>	WELL @ 5568.00usft (Original Well Elev)
<b>Site:</b>	Deporter 32-B	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 33-34-11H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 15Mar18 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,561,305.98	3,195,437.87	40.872022	-104.793347
200.00	0.00	0.00	200.00	0.00	0.00	1,561,305.98	3,195,437.87	40.872022	-104.793347
400.00	0.00	0.00	400.00	0.00	0.00	1,561,305.98	3,195,437.87	40.872022	-104.793347
500.00	0.00	0.00	500.00	0.00	0.00	1,561,305.98	3,195,437.87	40.872022	-104.793347
<b>Start Build 2.00</b>									
600.00	2.00	57.81	599.98	0.93	1.48	1,561,306.93	3,195,439.34	40.872024	-104.793341
709.17	4.18	57.81	708.99	4.07	6.46	1,561,310.10	3,195,444.30	40.872033	-104.793323
<b>Hold 4.18 Inc, 57.81 Az</b>									
800.00	4.18	57.81	799.57	7.60	12.07	1,561,313.68	3,195,449.88	40.872043	-104.793303
1,000.00	4.18	57.81	999.04	15.37	24.42	1,561,321.55	3,195,462.16	40.872064	-104.793258
1,200.00	4.18	57.81	1,198.51	23.14	36.76	1,561,329.42	3,195,474.45	40.872085	-104.793214
1,400.00	4.18	57.81	1,397.97	30.91	49.11	1,561,337.29	3,195,486.74	40.872107	-104.793169
1,600.00	4.18	57.81	1,597.44	38.68	61.46	1,561,345.16	3,195,499.02	40.872128	-104.793124
1,800.00	4.18	57.81	1,796.91	46.45	73.81	1,561,353.02	3,195,511.31	40.872149	-104.793080
2,000.00	4.18	57.81	1,996.37	54.23	86.16	1,561,360.89	3,195,523.59	40.872171	-104.793035
2,200.00	4.18	57.81	2,195.84	62.00	98.50	1,561,368.76	3,195,535.88	40.872192	-104.792990
2,400.00	4.18	57.81	2,395.31	69.77	110.85	1,561,376.63	3,195,548.16	40.872213	-104.792946
2,600.00	4.18	57.81	2,594.78	77.54	123.20	1,561,384.50	3,195,560.45	40.872235	-104.792901
2,800.00	4.18	57.81	2,794.24	85.31	135.55	1,561,392.37	3,195,572.74	40.872256	-104.792857
3,000.00	4.18	57.81	2,993.71	93.08	147.90	1,561,400.24	3,195,585.02	40.872277	-104.792812
3,200.00	4.18	57.81	3,193.18	100.85	160.24	1,561,408.11	3,195,597.31	40.872299	-104.792767
3,400.00	4.18	57.81	3,392.64	108.63	172.59	1,561,415.98	3,195,609.59	40.872320	-104.792723
3,600.00	4.18	57.81	3,592.11	116.40	184.94	1,561,423.85	3,195,621.88	40.872341	-104.792678
3,800.00	4.18	57.81	3,791.58	124.17	197.29	1,561,431.72	3,195,634.16	40.872363	-104.792633
4,000.00	4.18	57.81	3,991.05	131.94	209.64	1,561,439.59	3,195,646.45	40.872384	-104.792589
4,200.00	4.18	57.81	4,190.51	139.71	221.98	1,561,447.46	3,195,658.73	40.872405	-104.792544
4,400.00	4.18	57.81	4,389.98	147.48	234.33	1,561,455.33	3,195,671.02	40.872427	-104.792499
4,600.00	4.18	57.81	4,589.45	155.26	246.68	1,561,463.20	3,195,683.31	40.872448	-104.792455
4,800.00	4.18	57.81	4,788.91	163.03	259.03	1,561,471.07	3,195,695.59	40.872469	-104.792410
5,000.00	4.18	57.81	4,988.38	170.80	271.38	1,561,478.94	3,195,707.88	40.872491	-104.792365
5,200.00	4.18	57.81	5,187.85	178.57	283.72	1,561,486.81	3,195,720.16	40.872512	-104.792321
5,400.00	4.18	57.81	5,387.32	186.34	296.07	1,561,494.68	3,195,732.45	40.872533	-104.792276
5,600.00	4.18	57.81	5,586.78	194.11	308.42	1,561,502.55	3,195,744.73	40.872555	-104.792231
5,800.00	4.18	57.81	5,786.25	201.89	320.77	1,561,510.42	3,195,757.02	40.872576	-104.792187
6,000.00	4.18	57.81	5,985.72	209.66	333.12	1,561,518.29	3,195,769.31	40.872597	-104.792142
6,200.00	4.18	57.81	6,185.18	217.43	345.46	1,561,526.16	3,195,781.59	40.872619	-104.792098
6,400.00	4.18	57.81	6,384.65	225.20	357.81	1,561,534.03	3,195,793.88	40.872640	-104.792053
6,600.00	4.18	57.81	6,584.12	232.97	370.16	1,561,541.90	3,195,806.16	40.872661	-104.792008
6,800.00	4.18	57.81	6,783.59	240.74	382.51	1,561,549.77	3,195,818.45	40.872683	-104.791964
7,000.00	4.18	57.81	6,983.05	248.52	394.86	1,561,557.64	3,195,830.73	40.872704	-104.791919
7,200.00	4.18	57.81	7,182.52	256.29	407.20	1,561,565.51	3,195,843.02	40.872725	-104.791874
7,400.00	4.18	57.81	7,381.99	264.06	419.55	1,561,573.38	3,195,855.31	40.872746	-104.791830
7,600.00	4.18	57.81	7,581.45	271.83	431.90	1,561,581.25	3,195,867.59	40.872768	-104.791785
7,645.27	4.18	57.81	7,626.60	273.59	434.69	1,561,583.03	3,195,870.37	40.872773	-104.791775
<b>KOP 8/100</b>									
7,800.00	16.07	82.11	7,778.69	279.56	460.79	1,561,589.21	3,195,896.42	40.872789	-104.791681
8,000.00	31.99	86.29	7,960.78	286.84	541.62	1,561,597.13	3,195,977.18	40.872809	-104.791388
8,200.00	47.96	87.84	8,113.55	293.11	669.54	1,561,604.42	3,196,105.05	40.872826	-104.790926
8,400.00	63.95	88.76	8,225.16	297.88	834.65	1,561,610.50	3,196,270.12	40.872839	-104.790329
8,600.00	79.93	89.45	8,286.96	300.78	1,024.15	1,561,614.91	3,196,459.60	40.872847	-104.789644
8,725.95	90.00	89.85	8,298.00	301.54	1,149.45	1,561,616.67	3,196,584.88	40.872849	-104.789191
<b>EP 90 Inc, 89.85 Az</b>									
8,800.00	90.00	89.85	8,298.00	301.74	1,223.50	1,561,617.46	3,196,658.93	40.872850	-104.788923
9,000.00	90.00	89.85	8,298.00	302.27	1,423.50	1,561,619.59	3,196,858.92	40.872851	-104.788200



**Microsoft**  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Reporter 33-34-11H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5568.00usft (Original Well Elev)
<b>Project:</b>	Sec. 32-T11N-R66W	<b>MD Reference:</b>	WELL @ 5568.00usft (Original Well Elev)
<b>Site:</b>	Deporter 32-B	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 33-34-11H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 15Mar18 kjs		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,200.00	90.00	89.85	8,298.00	302.80	1,623.50	1,561,621.71	3,197,058.91	40.872853	-104.787476	
9,400.00	90.00	89.85	8,298.00	303.33	1,823.50	1,561,623.84	3,197,258.90	40.872854	-104.786753	
9,600.00	90.00	89.85	8,298.00	303.86	2,023.50	1,561,625.96	3,197,458.89	40.872856	-104.786030	
9,800.00	90.00	89.85	8,298.00	304.40	2,223.50	1,561,628.09	3,197,658.87	40.872857	-104.785307	
10,000.00	90.00	89.85	8,298.00	304.93	2,423.50	1,561,630.22	3,197,858.86	40.872858	-104.784584	
10,200.00	90.00	89.85	8,298.00	305.46	2,623.50	1,561,632.34	3,198,058.85	40.872860	-104.783861	
10,400.00	90.00	89.85	8,298.00	305.99	2,823.50	1,561,634.47	3,198,258.84	40.872861	-104.783138	
10,600.00	90.00	89.85	8,298.00	306.52	3,023.50	1,561,636.59	3,198,458.83	40.872863	-104.782414	
10,800.00	90.00	89.85	8,298.00	307.06	3,223.50	1,561,638.72	3,198,658.82	40.872864	-104.781691	
11,000.00	90.00	89.85	8,298.00	307.59	3,423.50	1,561,640.85	3,198,858.81	40.872865	-104.780968	
11,200.00	90.00	89.85	8,298.00	308.12	3,623.49	1,561,642.97	3,199,058.80	40.872867	-104.780245	
11,400.00	90.00	89.85	8,298.00	308.65	3,823.49	1,561,645.10	3,199,258.78	40.872868	-104.779522	
11,600.00	90.00	89.85	8,298.00	309.18	4,023.49	1,561,647.22	3,199,458.77	40.872869	-104.778799	
11,800.00	90.00	89.85	8,298.00	309.72	4,223.49	1,561,649.35	3,199,658.76	40.872871	-104.778076	
12,000.00	90.00	89.85	8,298.00	310.25	4,423.49	1,561,651.47	3,199,858.75	40.872872	-104.777352	
12,200.00	90.00	89.85	8,298.00	310.78	4,623.49	1,561,653.60	3,200,058.74	40.872874	-104.776629	
12,400.00	90.00	89.85	8,298.00	311.31	4,823.49	1,561,655.73	3,200,258.73	40.872875	-104.775906	
12,600.00	90.00	89.85	8,298.00	311.84	5,023.49	1,561,657.85	3,200,458.72	40.872876	-104.775183	
12,800.00	90.00	89.85	8,298.00	312.38	5,223.49	1,561,659.98	3,200,658.71	40.872878	-104.774460	
13,000.00	90.00	89.85	8,298.00	312.91	5,423.49	1,561,662.10	3,200,858.69	40.872879	-104.773737	
13,200.00	90.00	89.85	8,298.00	313.44	5,623.49	1,561,664.23	3,201,058.68	40.872880	-104.773014	
13,400.00	90.00	89.85	8,298.00	313.97	5,823.49	1,561,666.35	3,201,258.67	40.872882	-104.772290	
13,600.00	90.00	89.85	8,298.00	314.50	6,023.49	1,561,668.48	3,201,458.66	40.872883	-104.771567	
13,800.00	90.00	89.85	8,298.00	315.04	6,223.49	1,561,670.61	3,201,658.65	40.872884	-104.770844	
14,000.00	90.00	89.85	8,298.00	315.57	6,423.48	1,561,672.73	3,201,858.64	40.872886	-104.770121	
14,200.00	90.00	89.85	8,298.00	316.10	6,623.48	1,561,674.86	3,202,058.63	40.872887	-104.769398	
14,400.00	90.00	89.85	8,298.00	316.63	6,823.48	1,561,676.98	3,202,258.61	40.872888	-104.768675	
14,600.00	90.00	89.85	8,298.00	317.16	7,023.48	1,561,679.11	3,202,458.60	40.872890	-104.767951	
14,800.00	90.00	89.85	8,298.00	317.70	7,223.48	1,561,681.23	3,202,658.59	40.872891	-104.767228	
15,000.00	90.00	89.85	8,298.00	318.23	7,423.48	1,561,683.36	3,202,858.58	40.872892	-104.766505	
15,200.00	90.00	89.85	8,298.00	318.76	7,623.48	1,561,685.49	3,203,058.57	40.872893	-104.765782	
15,400.00	90.00	89.85	8,298.00	319.29	7,823.48	1,561,687.61	3,203,258.56	40.872895	-104.765059	
15,600.00	90.00	89.85	8,298.00	319.82	8,023.48	1,561,689.74	3,203,458.55	40.872896	-104.764336	
15,800.00	90.00	89.85	8,298.00	320.36	8,223.48	1,561,691.86	3,203,658.54	40.872897	-104.763613	
16,000.00	90.00	89.85	8,298.00	320.89	8,423.48	1,561,693.99	3,203,858.52	40.872899	-104.762889	
16,200.00	90.00	89.85	8,298.00	321.42	8,623.48	1,561,696.11	3,204,058.51	40.872900	-104.762166	
16,400.00	90.00	89.85	8,298.00	321.95	8,823.48	1,561,698.24	3,204,258.50	40.872901	-104.761443	
16,600.00	90.00	89.85	8,298.00	322.48	9,023.48	1,561,700.37	3,204,458.49	40.872902	-104.760720	
16,800.00	90.00	89.85	8,298.00	323.02	9,223.47	1,561,702.49	3,204,658.48	40.872904	-104.759997	
17,000.00	90.00	89.85	8,298.00	323.55	9,423.47	1,561,704.62	3,204,858.47	40.872905	-104.759274	
17,200.00	90.00	89.85	8,298.00	324.08	9,623.47	1,561,706.74	3,205,058.46	40.872906	-104.758551	
17,400.00	90.00	89.85	8,298.00	324.61	9,823.47	1,561,708.87	3,205,258.45	40.872907	-104.757827	
17,600.00	90.00	89.85	8,298.00	325.14	10,023.47	1,561,710.99	3,205,458.43	40.872909	-104.757104	
17,800.00	90.00	89.85	8,298.00	325.68	10,223.47	1,561,713.12	3,205,658.42	40.872910	-104.756381	
18,000.00	90.00	89.85	8,298.00	326.21	10,423.47	1,561,715.25	3,205,858.41	40.872911	-104.755658	
18,045.02	90.00	89.85	8,298.00	326.33	10,468.49	1,561,715.72	3,205,903.43	40.872911	-104.755495	
TD at 18045.02										



<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 33-34-11H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5568.00usft (Original Well Elev)
<b>Project:</b>	Sec. 32-T11N-R66W	<b>MD Reference:</b>	WELL @ 5568.00usft (Original Well Elev)
<b>Site:</b>	Deporter 32-B	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 33-34-11H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 15Mar18 kjs		

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 11H 674 FSL, 550 f	0.00	0.00	0.00	0.00	0.00	1,561,305.98	3,195,437.87	40.872022	-104.793347
- plan hits target center									
- Point									
BHL 11H 600 FEL, 980 f	0.00	0.00	8,298.00	326.33	10,468.49	1,561,715.72	3,205,903.43	40.872911	-104.755495
- plan hits target center									
- Point									
EP 11H 600 FWL, 980 F	0.00	0.00	8,298.00	301.54	1,149.45	1,561,616.67	3,196,584.88	40.872849	-104.789191
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
500.00	500.00	0.00	0.00	Start Build 2.00
709.17	708.99	4.07	6.46	Hold 4.18 Inc, 57.81 Az
7,645.27	7,626.60	273.59	434.69	KOP 8/100
8,725.95	8,298.00	301.54	1,149.45	EP 90 Inc, 89.85 Az
18,045.02	8,298.00	326.33	10,468.49	TD at 18045.02