

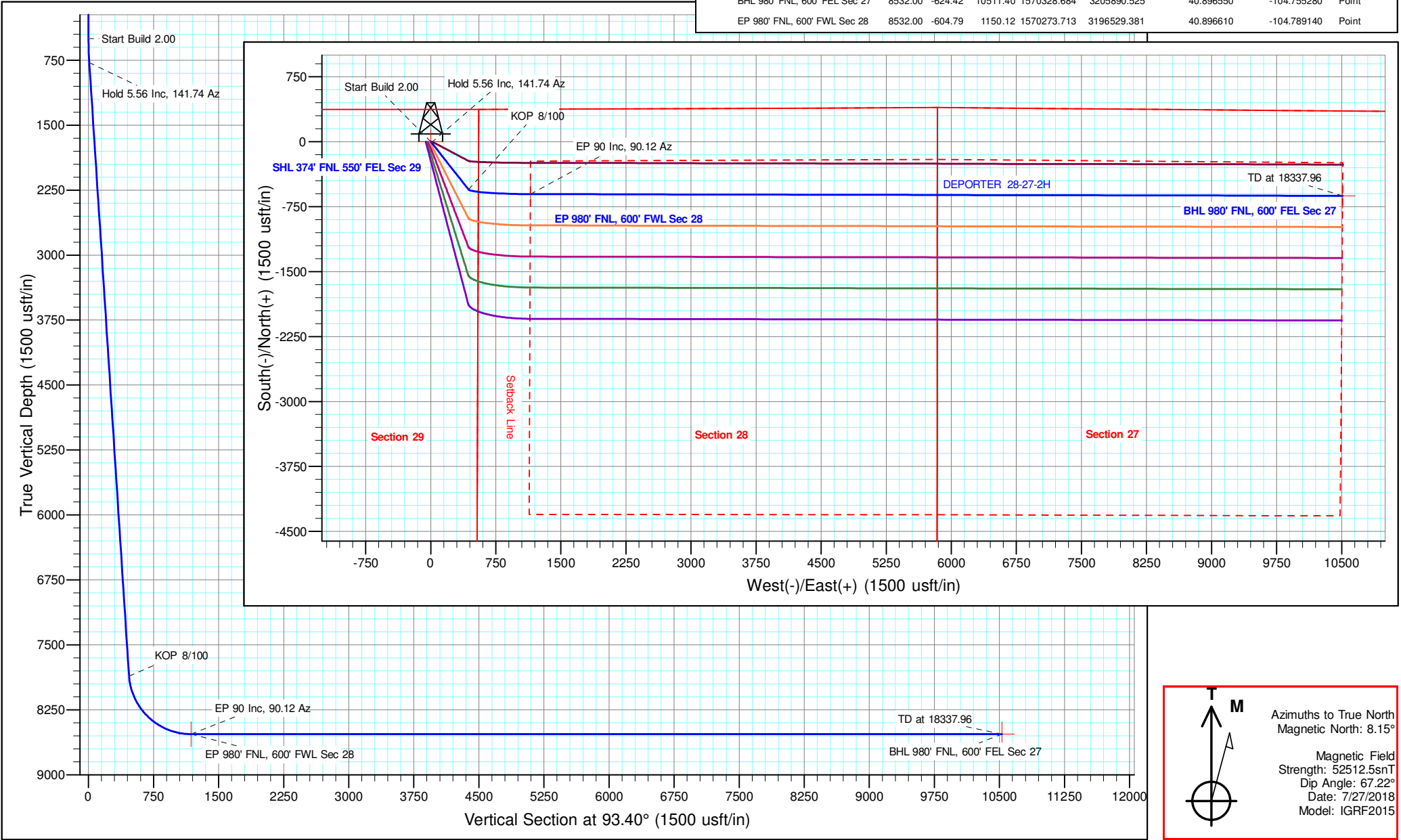


Well Name: DEPORTER 28-27-2H	Project Name: Sec. 29-T11N-R66W, Weld County CO	Pad Name: Deporter 29 A
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ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	Start Build 2.00	
778.02	5.56	141.74	777.58	-10.58	8.35	8.96	13.48	Hold 5.56 Inc, 141.74 Az	
7894.76	5.56	141.74	7860.84	-552.07	435.32	467.30	703.05	KOP 8/100	
8976.65	90.00	90.12	8532.00	-604.79	1150.12	1183.96	1422.94	EP 90 Inc, 90.12 Az	
18337.96	90.00	90.12	8532.00	-624.42	10511.40	10529.94	10783.25	TD at 18337.96	

Geodetic Datum:		Elevation:	
North American Datum 1983		Ground Elevation: 5643.00	
US State Plane 1983, Colorado Northern Zone		KB Elevation: WELL @ 5658.00usft (Original Well Elev)	

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
SHL 374' FNL 550' FEL Sec 29	0.00	0.00	0.00	1570869.315	3195374.482	40.898270	-104.793300	Point	
BHL 980' FNL, 600' FEL Sec 27	8532.00	-624.42	10511.40	1570328.684	3205890.525	40.896550	-104.755280	Point	
EP 980' FNL, 600' FWL Sec 28	8532.00	-604.79	1150.12	1570273.713	3196529.381	40.896610	-104.789140	Point	



Compass rose showing True North (T) and Magnetic North (M).

Azimuths to True North
Magnetic North: 8.15°

Magnetic Field
Strength: 52512.5snT
Dip Angle: 67.22°
Date: 7/27/2018
Model: IGRF2015



Edge Energy, LLC

Sec. 29-T11N-R66W, Weld County CO

Deporter 29 A

DEPORTER 28-27-2H

Wellbore #1

Plan: Design #1 25Jul18 mnh

Standard Planning Report - Geographic

27 July, 2018



Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well DEPORTER 28-27-2H
Company:	Edge Energy, LLC	TVD Reference:	WELL @ 5658.00usft (Original Well Elev)
Project:	Sec. 29-T11N-R66W, Weld County CO	MD Reference:	WELL @ 5658.00usft (Original Well Elev)
Site:	Deporter 29 A	North Reference:	True
Well:	DEPORTER 28-27-2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul18 mnh		

Project	Sec. 29-T11N-R66W, Weld County CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Deporter 29 A			
Site Position:		Northing:	1,570,919.868 usft	Latitude: 40.898410
From:	Lat/Long	Easting:	3,195,316.021 usft	Longitude: -104.793510
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.46 °

Well	DEPORTER 28-27-2H					
Well Position	+N/-S	0.00 usft	Northing:	1,570,869.316 usft	Latitude:	40.898270
	+E/-W	0.00 usft	Easting:	3,195,374.483 usft	Longitude:	-104.793300
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,643.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/27/2018	8.15	67.22	52,512.45908923

Design	Design #1 25Jul18 mnh			
Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	93.40

Plan Survey Tool Program	Date	7/27/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,337.64 Design #1 25Jul18 mnh (Wellbor	MWD	
			OWSG MWD - Standard	

Plan Sections										
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
0.00	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	
778.02	5.56	141.74	777.58	-10.58	8.35	2.00	2.00	0.00	141.74	
7,894.76	5.56	141.74	7,860.84	-552.07	435.32	0.00	0.00	0.00	0.00	
8,976.65	90.00	90.12	8,532.00	-604.79	1,150.12	8.00	7.80	-4.77	-51.75	EP 980' FNL, 600' FW
18,337.96	90.00	90.12	8,532.00	-624.42	10,511.40	0.00	0.00	0.00	0.00	BHL 980' FNL, 600' F



Microsoft
Planning Report - Geographic

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well DEPORTER 28-27-2H
Company:	Edge Energy, LLC	TVD Reference:	WELL @ 5658.00usft (Original Well Elev)
Project:	Sec. 29-T11N-R66W, Weld County CO	MD Reference:	WELL @ 5658.00usft (Original Well Elev)
Site:	Deporter 29 A	North Reference:	True
Well:	DEPORTER 28-27-2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul18 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
0.00	0.00	0.00	0.00	0.00	0.00	1,570,869.316	3,195,374.483	40.898270	-104.793300
200.00	0.00	0.00	200.00	0.00	0.00	1,570,869.316	3,195,374.483	40.898270	-104.793300
400.00	0.00	0.00	400.00	0.00	0.00	1,570,869.316	3,195,374.483	40.898270	-104.793300
500.00	0.00	0.00	500.00	0.00	0.00	1,570,869.316	3,195,374.483	40.898270	-104.793300
Start Build 2.00									
600.00	2.00	141.74	599.98	-1.37	1.08	1,570,867.954	3,195,375.574	40.898266	-104.793296
778.02	5.56	141.74	777.58	-10.58	8.35	1,570,858.798	3,195,382.913	40.898241	-104.793270
Hold 5.56 Inc, 141.74 Az									
800.00	5.56	141.74	799.46	-12.26	9.67	1,570,857.136	3,195,384.245	40.898236	-104.793265
1,000.00	5.56	141.74	998.52	-27.47	21.66	1,570,842.015	3,195,396.366	40.898195	-104.793222
1,200.00	5.56	141.74	1,197.58	-42.69	33.66	1,570,826.894	3,195,408.486	40.898153	-104.793178
1,400.00	5.56	141.74	1,396.64	-57.91	45.66	1,570,811.773	3,195,420.606	40.898111	-104.793135
1,600.00	5.56	141.74	1,595.70	-73.13	57.66	1,570,796.652	3,195,432.726	40.898069	-104.793092
1,800.00	5.56	141.74	1,794.76	-88.34	69.66	1,570,781.531	3,195,444.846	40.898028	-104.793048
2,000.00	5.56	141.74	1,993.81	-103.56	81.66	1,570,766.410	3,195,456.966	40.897986	-104.793005
2,200.00	5.56	141.74	2,192.87	-118.78	93.66	1,570,751.289	3,195,469.086	40.897944	-104.792961
2,400.00	5.56	141.74	2,391.93	-133.99	105.66	1,570,736.168	3,195,481.207	40.897902	-104.792918
2,600.00	5.56	141.74	2,590.99	-149.21	117.66	1,570,721.047	3,195,493.327	40.897861	-104.792875
2,800.00	5.56	141.74	2,790.05	-164.43	129.66	1,570,705.926	3,195,505.447	40.897819	-104.792831
3,000.00	5.56	141.74	2,989.11	-179.65	141.66	1,570,690.805	3,195,517.567	40.897777	-104.792788
3,200.00	5.56	141.74	3,188.17	-194.86	153.66	1,570,675.684	3,195,529.687	40.897735	-104.792744
3,400.00	5.56	141.74	3,387.23	-210.08	165.66	1,570,660.563	3,195,541.807	40.897693	-104.792701
3,600.00	5.56	141.74	3,586.29	-225.30	177.65	1,570,645.442	3,195,553.927	40.897652	-104.792658
3,800.00	5.56	141.74	3,785.34	-240.51	189.65	1,570,630.321	3,195,566.047	40.897610	-104.792614
4,000.00	5.56	141.74	3,984.40	-255.73	201.65	1,570,615.200	3,195,578.168	40.897568	-104.792571
4,200.00	5.56	141.74	4,183.46	-270.95	213.65	1,570,600.079	3,195,590.288	40.897526	-104.792527
4,400.00	5.56	141.74	4,382.52	-286.16	225.65	1,570,584.958	3,195,602.408	40.897485	-104.792484
4,600.00	5.56	141.74	4,581.58	-301.38	237.65	1,570,569.837	3,195,614.528	40.897443	-104.792441
4,800.00	5.56	141.74	4,780.64	-316.60	249.65	1,570,554.716	3,195,626.648	40.897401	-104.792397
5,000.00	5.56	141.74	4,979.70	-331.82	261.65	1,570,539.595	3,195,638.768	40.897359	-104.792354
5,200.00	5.56	141.74	5,178.76	-347.03	273.65	1,570,524.474	3,195,650.888	40.897318	-104.792310
5,400.00	5.56	141.74	5,377.82	-362.25	285.65	1,570,509.353	3,195,663.009	40.897276	-104.792267
5,600.00	5.56	141.74	5,576.87	-377.47	297.65	1,570,494.232	3,195,675.129	40.897234	-104.792224
5,800.00	5.56	141.74	5,775.93	-392.68	309.65	1,570,479.111	3,195,687.249	40.897192	-104.792180
6,000.00	5.56	141.74	5,974.99	-407.90	321.65	1,570,463.990	3,195,699.369	40.897151	-104.792137
6,200.00	5.56	141.74	6,174.05	-423.12	333.65	1,570,448.869	3,195,711.489	40.897109	-104.792093
6,400.00	5.56	141.74	6,373.11	-438.34	345.64	1,570,433.748	3,195,723.609	40.897067	-104.792050
6,600.00	5.56	141.74	6,572.17	-453.55	357.64	1,570,418.627	3,195,735.729	40.897025	-104.792007
6,800.00	5.56	141.74	6,771.23	-468.77	369.64	1,570,403.506	3,195,747.850	40.896983	-104.791963
7,000.00	5.56	141.74	6,970.29	-483.99	381.64	1,570,388.385	3,195,759.970	40.896942	-104.791920
7,200.00	5.56	141.74	7,169.35	-499.20	393.64	1,570,373.264	3,195,772.090	40.896900	-104.791876
7,400.00	5.56	141.74	7,368.41	-514.42	405.64	1,570,358.143	3,195,784.210	40.896858	-104.791833
7,600.00	5.56	141.74	7,567.46	-529.64	417.64	1,570,343.022	3,195,796.330	40.896816	-104.791790
7,800.00	5.56	141.74	7,766.52	-544.86	429.64	1,570,327.901	3,195,808.450	40.896775	-104.791746
7,894.76	5.56	141.74	7,860.84	-552.07	435.32	1,570,320.737	3,195,814.193	40.896755	-104.791726
KOP 8/100									
8,000.00	12.63	110.03	7,964.74	-560.02	449.32	1,570,312.890	3,195,828.251	40.896733	-104.791675
8,200.00	28.18	98.31	8,151.68	-574.43	517.04	1,570,299.021	3,195,896.084	40.896693	-104.791430
8,400.00	44.04	94.65	8,312.76	-586.97	633.82	1,570,287.413	3,196,012.957	40.896659	-104.791008
8,600.00	59.96	92.65	8,435.50	-596.67	790.60	1,570,278.967	3,196,169.817	40.896632	-104.790441
8,800.00	75.91	91.22	8,510.39	-602.77	975.25	1,570,274.336	3,196,354.509	40.896616	-104.789773
8,976.65	90.00	90.12	8,532.00	-604.79	1,150.12	1,570,273.714	3,196,529.381	40.896610	-104.789140
EP 90 Inc, 90.12 Az									
9,000.00	90.00	90.12	8,532.00	-604.84	1,173.46	1,570,273.851	3,196,552.730	40.896610	-104.789056



Microsoft
Planning Report - Geographic

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well DEPORTER 28-27-2H
Company:	Edge Energy, LLC	TVD Reference:	WELL @ 5658.00usft (Original Well Elev)
Project:	Sec. 29-T11N-R66W, Weld County CO	MD Reference:	WELL @ 5658.00usft (Original Well Elev)
Site:	Deporter 29 A	North Reference:	True
Well:	DEPORTER 28-27-2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul18 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
9,200.00	90.00	90.12	8,532.00	-605.26	1,373.46	1,570,275.025	3,196,752.726	40.896609	-104.788332
9,400.00	90.00	90.12	8,532.00	-605.67	1,573.46	1,570,276.200	3,196,952.723	40.896608	-104.787609
9,600.00	90.00	90.12	8,532.00	-606.09	1,773.46	1,570,277.374	3,197,152.719	40.896606	-104.786886
9,800.00	90.00	90.12	8,532.00	-606.51	1,973.46	1,570,278.549	3,197,352.716	40.896605	-104.786162
10,000.00	90.00	90.12	8,532.00	-606.93	2,173.46	1,570,279.723	3,197,552.712	40.896604	-104.785439
10,200.00	90.00	90.12	8,532.00	-607.35	2,373.46	1,570,280.898	3,197,752.709	40.896603	-104.784715
10,400.00	90.00	90.12	8,532.00	-607.77	2,573.46	1,570,282.072	3,197,952.705	40.896602	-104.783992
10,600.00	90.00	90.12	8,532.00	-608.19	2,773.46	1,570,283.246	3,198,152.702	40.896600	-104.783269
10,800.00	90.00	90.12	8,532.00	-608.61	2,973.46	1,570,284.421	3,198,352.699	40.896599	-104.782545
11,000.00	90.00	90.12	8,532.00	-609.03	3,173.46	1,570,285.595	3,198,552.695	40.896598	-104.781822
11,200.00	90.00	90.12	8,532.00	-609.45	3,373.46	1,570,286.770	3,198,752.692	40.896597	-104.781098
11,400.00	90.00	90.12	8,532.00	-609.87	3,573.46	1,570,287.944	3,198,952.688	40.896596	-104.780375
11,600.00	90.00	90.12	8,532.00	-610.29	3,773.46	1,570,289.118	3,199,152.685	40.896594	-104.779652
11,800.00	90.00	90.12	8,532.00	-610.71	3,973.46	1,570,290.293	3,199,352.681	40.896593	-104.778928
12,000.00	90.00	90.12	8,532.00	-611.13	4,173.46	1,570,291.467	3,199,552.678	40.896592	-104.778205
12,200.00	90.00	90.12	8,532.00	-611.55	4,373.46	1,570,292.642	3,199,752.674	40.896591	-104.777481
12,400.00	90.00	90.12	8,532.00	-611.97	4,573.46	1,570,293.816	3,199,952.671	40.896589	-104.776758
12,600.00	90.00	90.12	8,532.00	-612.39	4,773.46	1,570,294.991	3,200,152.667	40.896588	-104.776035
12,800.00	90.00	90.12	8,532.00	-612.81	4,973.46	1,570,296.165	3,200,352.664	40.896587	-104.775311
13,000.00	90.00	90.12	8,532.00	-613.23	5,173.46	1,570,297.339	3,200,552.660	40.896586	-104.774588
13,200.00	90.00	90.12	8,532.00	-613.64	5,373.45	1,570,298.514	3,200,752.657	40.896584	-104.773864
13,400.00	90.00	90.12	8,532.00	-614.06	5,573.45	1,570,299.688	3,200,952.654	40.896583	-104.773141
13,600.00	90.00	90.12	8,532.00	-614.48	5,773.45	1,570,300.863	3,201,152.650	40.896582	-104.772418
13,800.00	90.00	90.12	8,532.00	-614.90	5,973.45	1,570,302.037	3,201,352.647	40.896580	-104.771694
14,000.00	90.00	90.12	8,532.00	-615.32	6,173.45	1,570,303.212	3,201,552.643	40.896579	-104.770971
14,200.00	90.00	90.12	8,532.00	-615.74	6,373.45	1,570,304.386	3,201,752.640	40.896578	-104.770247
14,400.00	90.00	90.12	8,532.00	-616.16	6,573.45	1,570,305.560	3,201,952.636	40.896577	-104.769524
14,600.00	90.00	90.12	8,532.00	-616.58	6,773.45	1,570,306.735	3,202,152.633	40.896575	-104.768801
14,800.00	90.00	90.12	8,532.00	-617.00	6,973.45	1,570,307.909	3,202,352.629	40.896574	-104.768077
15,000.00	90.00	90.12	8,532.00	-617.42	7,173.45	1,570,309.084	3,202,552.626	40.896573	-104.767354
15,200.00	90.00	90.12	8,532.00	-617.84	7,373.45	1,570,310.258	3,202,752.622	40.896571	-104.766630
15,400.00	90.00	90.12	8,532.00	-618.26	7,573.45	1,570,311.433	3,202,952.619	40.896570	-104.765907
15,600.00	90.00	90.12	8,532.00	-618.68	7,773.45	1,570,312.607	3,203,152.616	40.896569	-104.765183
15,800.00	90.00	90.12	8,532.00	-619.10	7,973.45	1,570,313.781	3,203,352.612	40.896567	-104.764460
16,000.00	90.00	90.12	8,532.00	-619.52	8,173.45	1,570,314.956	3,203,552.609	40.896566	-104.763737
16,200.00	90.00	90.12	8,532.00	-619.94	8,373.45	1,570,316.130	3,203,752.605	40.896565	-104.763013
16,400.00	90.00	90.12	8,532.00	-620.36	8,573.45	1,570,317.305	3,203,952.602	40.896563	-104.762290
16,600.00	90.00	90.12	8,532.00	-620.78	8,773.45	1,570,318.479	3,204,152.598	40.896562	-104.761566
16,800.00	90.00	90.12	8,532.00	-621.20	8,973.45	1,570,319.653	3,204,352.595	40.896561	-104.760843
17,000.00	90.00	90.12	8,532.00	-621.62	9,173.45	1,570,320.828	3,204,552.591	40.896559	-104.760120
17,200.00	90.00	90.12	8,532.00	-622.03	9,373.45	1,570,322.002	3,204,752.588	40.896558	-104.759396
17,400.00	90.00	90.12	8,532.00	-622.45	9,573.45	1,570,323.177	3,204,952.584	40.896557	-104.758673
17,600.00	90.00	90.12	8,532.00	-622.87	9,773.45	1,570,324.351	3,205,152.581	40.896555	-104.757949
17,800.00	90.00	90.12	8,532.00	-623.29	9,973.44	1,570,325.526	3,205,352.577	40.896554	-104.757226
18,000.00	90.00	90.12	8,532.00	-623.71	10,173.44	1,570,326.700	3,205,552.574	40.896552	-104.756503
18,200.00	90.00	90.12	8,532.00	-624.13	10,373.44	1,570,327.874	3,205,752.571	40.896551	-104.755779
18,337.96	90.00	90.12	8,532.00	-624.42	10,511.40	1,570,328.685	3,205,890.524	40.896550	-104.755280
TD at 18337.96									



Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well DEPORTER 28-27-2H
Company:	Edge Energy, LLC	TVD Reference:	WELL @ 5658.00usft (Original Well Elev)
Project:	Sec. 29-T11N-R66W, Weld County CO	MD Reference:	WELL @ 5658.00usft (Original Well Elev)
Site:	Deporter 29 A	North Reference:	True
Well:	DEPORTER 28-27-2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul18 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 374' FNL 550' FEL : - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,570,869.316	3,195,374.483	40.898270	-104.793300
BHL 980' FNL, 600' FEL - plan hits target center - Point	0.00	0.00	8,532.00	-624.42	10,511.40	1,570,328.685	3,205,890.524	40.896550	-104.755280
EP 980' FNL, 600' FWL : - plan hits target center - Point	0.00	0.00	8,532.00	-604.79	1,150.12	1,570,273.714	3,196,529.381	40.896610	-104.789140

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
778.02	777.58	-10.58	8.35	Hold 5.56 Inc, 141.74 Az
7,894.76	7,860.84	-552.07	435.32	KOP 8/100
8,976.65	8,532.00	-604.79	1,150.12	EP 90 Inc, 90.12 Az
18,337.96	8,532.00	-624.42	10,511.40	TD at 18337.96