

EXTRACTION OIL & GAS

Weld County

Sec 28-T1N-R68W

COYOTE TRAILS 34S-20-12N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

12 September, 2017



Project: Weld County
Site: Sec 28-T1N-R68W
Well: COYOTE TRAILS 34S-20-12N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1

PROJECT DETAILS: Weld County

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level



Azimuths to True North
Magnetic North: 8.31°

Magnetic Field
Strength: 52202.3snT
Dip Angle: 66.51°
Date: 6/29/2017
Model: IGRF2015

WELL DETAILS: COYOTE TRAILS 34S-20-12N

+N/-S	+E/-W	Northing	Easting	5244.00	Latitude	Longitude	Slot
0.00	0.00	1249743.73	3138197.84		40° 1' 4.360 N	105° 0' 23.670 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
3	2164.58	33.29	107.55	2072.48	-141.80	448.25	2.00	107.55	255.90	
4	6338.63	33.29	107.55	5561.52	-832.85	2632.70	0.00	0.00	1502.93	
5	8003.21	0.00	0.00	7134.00	-974.65	3080.95	2.00	180.00	1758.83	
6	8103.21	0.00	0.00	7234.00	-974.65	3080.95	0.00	0.00	1758.83	
7	9003.27	90.00	179.92	7807.00	-1547.65	3081.79	10.00	179.92	2311.42	CT 34S-20-12N LP
8	18677.20	90.00	179.92	7807.00	-11221.56	3095.41	0.00	86.82	11640.66	CT 34S-20-12N PBHL

FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
4440.00	4996.92	PARKMAN
4910.00	5559.20	SUSSEX
7610.00	8513.34	SHARON SPRINGS
7650.00	8568.77	NIOBRARA
7797.00	8896.07	NIO B

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	BUILD 2°/100'
2164.58	33.29	107.55	2072.48	-141.80	448.25	255.90	470.15	HOLD 33.29° INC
6338.63	33.29	107.55	5561.52	-832.85	2632.70	1502.93	2761.29	DROP 2°/100'
8003.21	0.00	0.00	7134.00	-974.65	3080.95	1758.83	3231.44	HOLD VERTICAL
8103.21	0.00	0.00	7234.00	-974.65	3080.95	1758.83	3231.44	KOP, BUILD 10°/100'
9003.27	90.00	179.92	7807.00	-1547.65	3081.79	2311.42	3804.44	LP @ 90° INC, 179.92° AZM HOLD
18677.20	90.00	179.92	7807.00	-11221.56	3095.41	11640.66	13478.36	TD at 18677.20' MD

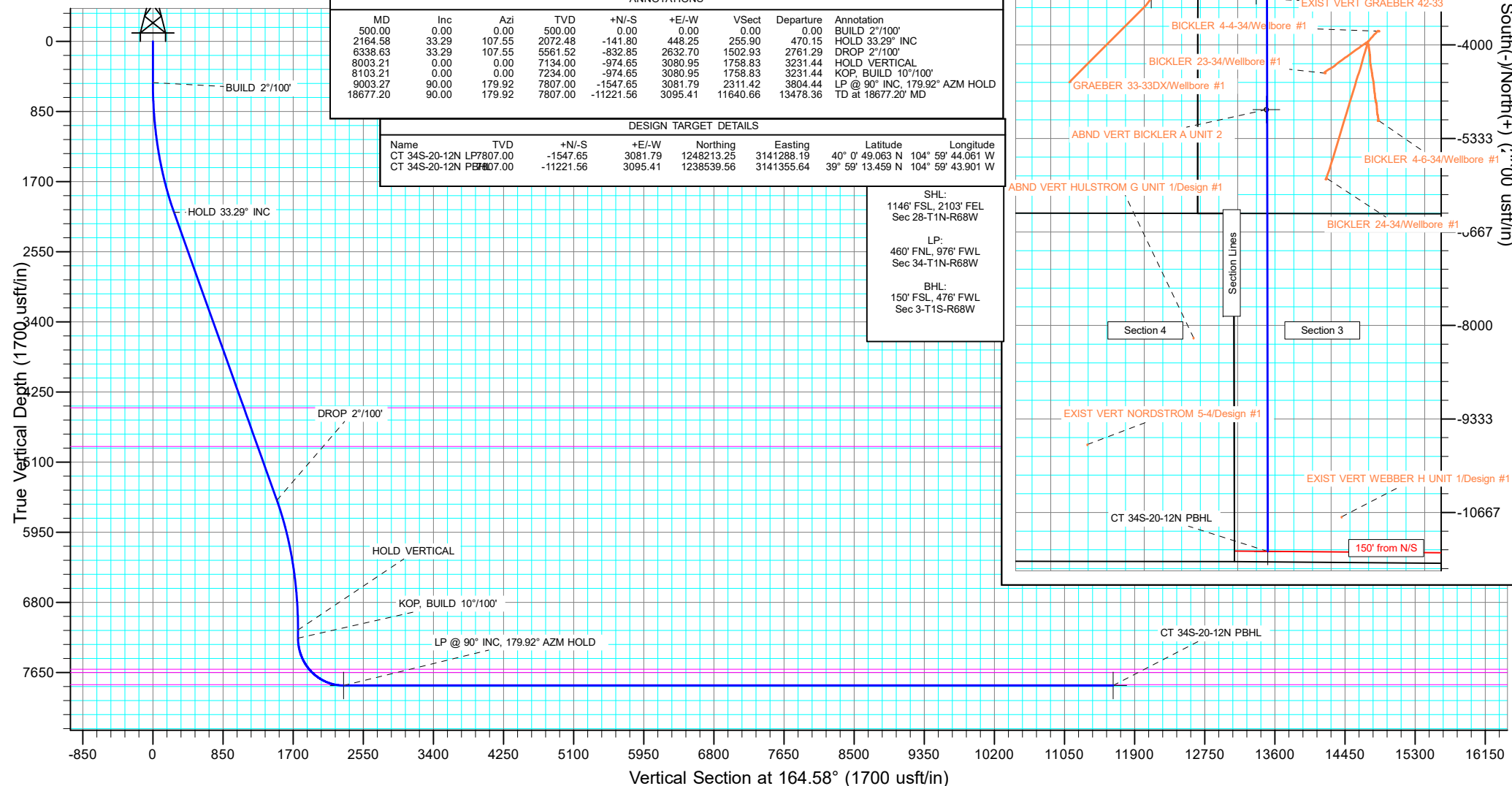
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CT 34S-20-12N LP	7807.00	-1547.65	3081.79	1248213.25	3141288.19	40° 0' 49.063 N	104° 59' 44.061 W
CT 34S-20-12N PBHL	7807.00	-11221.56	3095.41	1238539.56	3141355.64	39° 59' 13.459 N	104° 59' 43.901 W

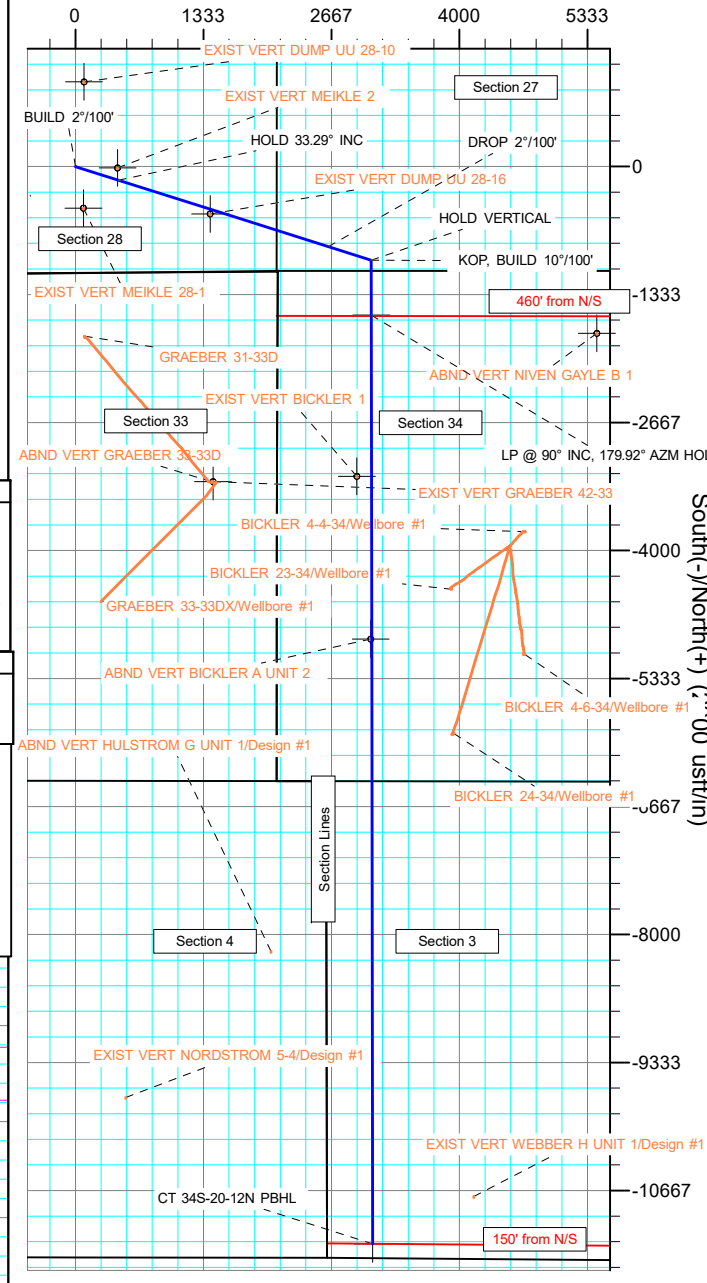
SHL:
1146' FSL, 2103' FEL
Sec 28-T1N-R68W

LP:
460' FNL, 976' FWL
Sec 34-T1N-R68W

BHL:
150' FSL, 476' FWL
Sec 3-T1S-R68W



West(-)/East(+) (2000 usft/in)



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-12N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-12N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Project	Weld County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec 28-T1N-R68W			
Site Position:		Northing:	1,248,660.21 usft	Latitude:	40° 0' 53.536 N
From:	Lat/Long	Easting:	3,140,299.83 usft	Longitude:	104° 59' 56.731 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.32 °

Well		COYOTE TRAILS 34S-20-12N				
Well Position	+N/-S	1,095.37 usft	Northing:	1,249,743.73 usft	Latitude:	40° 1' 4.360 N
	+E/-W	-2,095.84 usft	Easting:	3,138,197.84 usft	Longitude:	105° 0' 23.670 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,244.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/29/2017	8.31	66.51	52,202.34889853

Design	PROPOSAL 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	164.58

Plan Survey Tool Program	Date	9/12/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,676.71	PROPOSAL 1 (ORIGINAL WELL	MWD OWSG
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	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	
2,164.58	33.29	107.55	2,072.48	-141.80	448.25	2.00	2.00	0.00	107.55	
6,338.63	33.29	107.55	5,561.52	-832.85	2,632.70	0.00	0.00	0.00	0.00	
8,003.21	0.00	0.00	7,134.00	-974.65	3,080.95	2.00	-2.00	0.00	180.00	
8,103.21	0.00	0.00	7,234.00	-974.65	3,080.95	0.00	0.00	0.00	0.00	
9,003.27	90.00	179.92	7,807.00	-1,547.65	3,081.79	10.00	10.00	19.99	179.92	CT 34S-20-12N LP
18,677.20	90.00	179.92	7,807.00	-11,221.56	3,095.41	0.00	0.00	0.00	86.82	CT 34S-20-12N PBHI

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-12N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-12N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	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
BUILD 2°/100'									
600.00	2.00	107.55	599.98	-0.53	1.66	0.95	2.00	2.00	0.00
700.00	4.00	107.55	699.84	-2.10	6.65	3.80	2.00	2.00	0.00
800.00	6.00	107.55	799.45	-4.73	14.96	8.54	2.00	2.00	0.00
900.00	8.00	107.55	898.70	-8.41	26.58	15.17	2.00	2.00	0.00
1,000.00	10.00	107.55	997.47	-13.13	41.50	23.69	2.00	2.00	0.00
1,100.00	12.00	107.55	1,095.62	-18.88	59.69	34.07	2.00	2.00	0.00
1,200.00	14.00	107.55	1,193.06	-25.67	81.13	46.32	2.00	2.00	0.00
1,300.00	16.00	107.55	1,289.64	-33.47	105.81	60.40	2.00	2.00	0.00
1,400.00	18.00	107.55	1,385.27	-42.29	133.68	76.32	2.00	2.00	0.00
1,500.00	20.00	107.55	1,479.82	-52.11	164.72	94.04	2.00	2.00	0.00
1,600.00	22.00	107.55	1,573.17	-62.92	198.89	113.54	2.00	2.00	0.00
1,700.00	24.00	107.55	1,665.21	-74.70	236.14	134.81	2.00	2.00	0.00
1,800.00	26.00	107.55	1,755.84	-87.45	276.43	157.81	2.00	2.00	0.00
1,900.00	28.00	107.55	1,844.94	-101.14	319.71	182.52	2.00	2.00	0.00
2,000.00	30.00	107.55	1,932.39	-115.76	365.94	208.90	2.00	2.00	0.00
2,100.00	32.00	107.55	2,018.11	-131.30	415.04	236.93	2.00	2.00	0.00
2,164.58	33.29	107.55	2,072.48	-141.80	448.25	255.90	2.00	2.00	0.00
HOLD 33.29° INC									
2,200.00	33.29	107.55	2,102.09	-147.67	466.79	266.48	0.00	0.00	0.00
2,300.00	33.29	107.55	2,185.68	-164.22	519.12	296.35	0.00	0.00	0.00
2,400.00	33.29	107.55	2,269.27	-180.78	571.46	326.23	0.00	0.00	0.00
2,500.00	33.29	107.55	2,352.86	-197.33	623.79	356.10	0.00	0.00	0.00
2,600.00	33.29	107.55	2,436.45	-213.89	676.13	385.98	0.00	0.00	0.00
2,700.00	33.29	107.55	2,520.03	-230.45	728.46	415.86	0.00	0.00	0.00
2,800.00	33.29	107.55	2,603.62	-247.00	780.79	445.73	0.00	0.00	0.00
2,900.00	33.29	107.55	2,687.21	-263.56	833.13	475.61	0.00	0.00	0.00
3,000.00	33.29	107.55	2,770.80	-280.11	885.46	505.48	0.00	0.00	0.00
3,100.00	33.29	107.55	2,854.39	-296.67	937.79	535.36	0.00	0.00	0.00
3,200.00	33.29	107.55	2,937.98	-313.22	990.13	565.24	0.00	0.00	0.00
3,300.00	33.29	107.55	3,021.57	-329.78	1,042.46	595.11	0.00	0.00	0.00
3,400.00	33.29	107.55	3,105.15	-346.34	1,094.80	624.99	0.00	0.00	0.00
3,500.00	33.29	107.55	3,188.74	-362.89	1,147.13	654.86	0.00	0.00	0.00
3,600.00	33.29	107.55	3,272.33	-379.45	1,199.46	684.74	0.00	0.00	0.00
3,700.00	33.29	107.55	3,355.92	-396.00	1,251.80	714.62	0.00	0.00	0.00
3,800.00	33.29	107.55	3,439.51	-412.56	1,304.13	744.49	0.00	0.00	0.00
3,900.00	33.29	107.55	3,523.10	-429.11	1,356.47	774.37	0.00	0.00	0.00
4,000.00	33.29	107.55	3,606.69	-445.67	1,408.80	804.24	0.00	0.00	0.00
4,100.00	33.29	107.55	3,690.28	-462.23	1,461.13	834.12	0.00	0.00	0.00
4,200.00	33.29	107.55	3,773.86	-478.78	1,513.47	864.00	0.00	0.00	0.00
4,300.00	33.29	107.55	3,857.45	-495.34	1,565.80	893.87	0.00	0.00	0.00
4,400.00	33.29	107.55	3,941.04	-511.89	1,618.14	923.75	0.00	0.00	0.00
4,500.00	33.29	107.55	4,024.63	-528.45	1,670.47	953.62	0.00	0.00	0.00
4,600.00	33.29	107.55	4,108.22	-545.00	1,722.80	983.50	0.00	0.00	0.00
4,700.00	33.29	107.55	4,191.81	-561.56	1,775.14	1,013.38	0.00	0.00	0.00
4,800.00	33.29	107.55	4,275.40	-578.12	1,827.47	1,043.25	0.00	0.00	0.00
4,900.00	33.29	107.55	4,358.98	-594.67	1,879.81	1,073.13	0.00	0.00	0.00

Planning Report

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Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-12N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,996.92	33.29	107.55	4,440.00	-610.72	1,930.53	1,102.08	0.00	0.00	0.00
PARKMAN									
5,000.00	33.29	107.55	4,442.57	-611.23	1,932.14	1,103.00	0.00	0.00	0.00
5,100.00	33.29	107.55	4,526.16	-627.78	1,984.47	1,132.88	0.00	0.00	0.00
5,200.00	33.29	107.55	4,609.75	-644.34	2,036.81	1,162.75	0.00	0.00	0.00
5,300.00	33.29	107.55	4,693.34	-660.89	2,089.14	1,192.63	0.00	0.00	0.00
5,400.00	33.29	107.55	4,776.93	-677.45	2,141.48	1,222.51	0.00	0.00	0.00
5,500.00	33.29	107.55	4,860.52	-694.01	2,193.81	1,252.38	0.00	0.00	0.00
5,559.20	33.29	107.55	4,910.00	-703.81	2,224.79	1,270.07	0.00	0.00	0.00
SUSSEX									
5,600.00	33.29	107.55	4,944.11	-710.56	2,246.14	1,282.26	0.00	0.00	0.00
5,700.00	33.29	107.55	5,027.69	-727.12	2,298.48	1,312.13	0.00	0.00	0.00
5,800.00	33.29	107.55	5,111.28	-743.67	2,350.81	1,342.01	0.00	0.00	0.00
5,900.00	33.29	107.55	5,194.87	-760.23	2,403.14	1,371.89	0.00	0.00	0.00
6,000.00	33.29	107.55	5,278.46	-776.78	2,455.48	1,401.76	0.00	0.00	0.00
6,100.00	33.29	107.55	5,362.05	-793.34	2,507.81	1,431.64	0.00	0.00	0.00
6,200.00	33.29	107.55	5,445.64	-809.90	2,560.15	1,461.51	0.00	0.00	0.00
6,300.00	33.29	107.55	5,529.23	-826.45	2,612.48	1,491.39	0.00	0.00	0.00
6,338.63	33.29	107.55	5,561.52	-832.85	2,632.70	1,502.93	0.00	0.00	0.00
DROP 2°/100'									
6,400.00	32.06	107.55	5,613.17	-842.84	2,664.29	1,520.97	2.00	-2.00	0.00
6,500.00	30.06	107.55	5,698.83	-858.40	2,713.48	1,549.05	2.00	-2.00	0.00
6,600.00	28.06	107.55	5,786.23	-873.05	2,759.80	1,575.49	2.00	-2.00	0.00
6,700.00	26.06	107.55	5,875.27	-886.78	2,803.17	1,600.25	2.00	-2.00	0.00
6,800.00	24.06	107.55	5,965.85	-899.55	2,843.56	1,623.31	2.00	-2.00	0.00
6,900.00	22.06	107.55	6,057.86	-911.37	2,880.91	1,644.63	2.00	-2.00	0.00
7,000.00	20.06	107.55	6,151.17	-922.21	2,915.18	1,664.19	2.00	-2.00	0.00
7,100.00	18.06	107.55	6,245.68	-932.06	2,946.32	1,681.97	2.00	-2.00	0.00
7,200.00	16.06	107.55	6,341.27	-940.91	2,974.30	1,697.94	2.00	-2.00	0.00
7,300.00	14.06	107.55	6,437.83	-948.75	2,999.07	1,712.09	2.00	-2.00	0.00
7,400.00	12.06	107.55	6,535.24	-955.57	3,020.62	1,724.39	2.00	-2.00	0.00
7,500.00	10.06	107.55	6,633.37	-961.35	3,038.92	1,734.83	2.00	-2.00	0.00
7,600.00	8.06	107.55	6,732.12	-966.11	3,053.94	1,743.41	2.00	-2.00	0.00
7,700.00	6.06	107.55	6,831.36	-969.81	3,065.67	1,750.10	2.00	-2.00	0.00
7,800.00	4.06	107.55	6,930.96	-972.48	3,074.08	1,754.90	2.00	-2.00	0.00
7,900.00	2.06	107.55	7,030.81	-974.09	3,079.18	1,757.81	2.00	-2.00	0.00
8,003.21	0.00	0.00	7,134.00	-974.65	3,080.95	1,758.83	2.00	-2.00	0.00
HOLD VERTICAL									
8,103.21	0.00	0.00	7,234.00	-974.65	3,080.95	1,758.83	0.00	0.00	0.00
KOP, BUILD 10°/100'									
8,150.00	4.68	179.92	7,280.74	-976.56	3,080.95	1,760.67	10.00	10.00	0.00
8,200.00	9.68	179.92	7,330.33	-982.81	3,080.96	1,766.69	10.00	10.00	0.00
8,250.00	14.68	179.92	7,379.19	-993.35	3,080.98	1,776.86	10.00	10.00	0.00
8,300.00	19.68	179.92	7,426.94	-1,008.11	3,081.00	1,791.10	10.00	10.00	0.00
8,350.00	24.68	179.92	7,473.23	-1,026.98	3,081.03	1,809.29	10.00	10.00	0.00
8,400.00	29.68	179.92	7,517.70	-1,049.81	3,081.06	1,831.31	10.00	10.00	0.00
8,450.00	34.68	179.92	7,560.00	-1,076.43	3,081.10	1,856.98	10.00	10.00	0.00
8,500.00	39.68	179.92	7,599.83	-1,106.63	3,081.14	1,886.11	10.00	10.00	0.00
8,513.34	41.01	179.92	7,610.00	-1,115.27	3,081.16	1,894.44	10.00	10.00	0.00
SHARON SPRINGS									
8,550.00	44.68	179.92	7,636.87	-1,140.19	3,081.19	1,918.47	10.00	10.00	0.00
8,568.77	46.55	179.92	7,650.00	-1,153.60	3,081.21	1,931.41	10.00	10.00	0.00
NIOBRARA									

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-12N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-12N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,600.00	49.68	179.92	7,670.85	-1,176.85	3,081.25	1,953.83	10.00	10.00	0.00
8,650.00	54.67	179.92	7,701.50	-1,216.33	3,081.30	1,991.90	10.00	10.00	0.00
8,700.00	59.67	179.92	7,728.60	-1,258.34	3,081.37	2,032.41	10.00	10.00	0.00
8,750.00	64.67	179.92	7,751.93	-1,302.54	3,081.43	2,075.04	10.00	10.00	0.00
8,800.00	69.67	179.92	7,771.32	-1,348.61	3,081.50	2,119.47	10.00	10.00	0.00
8,850.00	74.67	179.92	7,786.62	-1,396.19	3,081.57	2,165.36	10.00	10.00	0.00
8,896.07	79.28	179.92	7,797.00	-1,441.07	3,081.63	2,208.63	10.00	10.00	0.00
NIO B									
8,900.00	79.67	179.92	7,797.72	-1,444.93	3,081.64	2,212.36	10.00	10.00	0.00
8,950.00	84.67	179.92	7,804.53	-1,494.45	3,081.71	2,260.11	10.00	10.00	0.00
9,003.27	90.00	179.92	7,807.00	-1,547.65	3,081.79	2,311.42	10.00	10.00	0.00
LP @ 90° INC, 179.92° AZM HOLD									
9,100.00	90.00	179.92	7,807.00	-1,644.37	3,081.93	2,404.70	0.00	0.00	0.00
9,200.00	90.00	179.92	7,807.00	-1,744.37	3,082.08	2,501.14	0.00	0.00	0.00
9,300.00	90.00	179.92	7,807.00	-1,844.37	3,082.22	2,597.57	0.00	0.00	0.00
9,400.00	90.00	179.92	7,807.00	-1,944.37	3,082.37	2,694.01	0.00	0.00	0.00
9,500.00	90.00	179.92	7,807.00	-2,044.37	3,082.52	2,790.45	0.00	0.00	0.00
9,600.00	90.00	179.92	7,807.00	-2,144.37	3,082.66	2,886.89	0.00	0.00	0.00
9,700.00	90.00	179.92	7,807.00	-2,244.37	3,082.81	2,983.33	0.00	0.00	0.00
9,800.00	90.00	179.92	7,807.00	-2,344.37	3,082.95	3,079.77	0.00	0.00	0.00
9,900.00	90.00	179.92	7,807.00	-2,444.37	3,083.10	3,176.20	0.00	0.00	0.00
10,000.00	90.00	179.92	7,807.00	-2,544.37	3,083.25	3,272.64	0.00	0.00	0.00
10,100.00	90.00	179.92	7,807.00	-2,644.37	3,083.39	3,369.08	0.00	0.00	0.00
10,200.00	90.00	179.92	7,807.00	-2,744.37	3,083.54	3,465.52	0.00	0.00	0.00
10,300.00	90.00	179.92	7,807.00	-2,844.37	3,083.68	3,561.96	0.00	0.00	0.00
10,400.00	90.00	179.92	7,807.00	-2,944.37	3,083.83	3,658.40	0.00	0.00	0.00
10,500.00	90.00	179.92	7,807.00	-3,044.37	3,083.97	3,754.83	0.00	0.00	0.00
10,600.00	90.00	179.92	7,807.00	-3,144.37	3,084.12	3,851.27	0.00	0.00	0.00
10,700.00	90.00	179.92	7,807.00	-3,244.37	3,084.26	3,947.71	0.00	0.00	0.00
10,800.00	90.00	179.92	7,807.00	-3,344.37	3,084.40	4,044.15	0.00	0.00	0.00
10,900.00	90.00	179.92	7,807.01	-3,444.37	3,084.55	4,140.59	0.00	0.00	0.00
11,000.00	90.00	179.92	7,807.01	-3,544.37	3,084.69	4,237.02	0.00	0.00	0.00
11,100.00	90.00	179.92	7,807.01	-3,644.37	3,084.84	4,333.46	0.00	0.00	0.00
11,200.00	90.00	179.92	7,807.01	-3,744.37	3,084.98	4,429.90	0.00	0.00	0.00
11,300.00	90.00	179.92	7,807.01	-3,844.37	3,085.13	4,526.34	0.00	0.00	0.00
11,400.00	90.00	179.92	7,807.01	-3,944.37	3,085.27	4,622.78	0.00	0.00	0.00
11,500.00	90.00	179.92	7,807.01	-4,044.37	3,085.41	4,719.21	0.00	0.00	0.00
11,600.00	90.00	179.92	7,807.01	-4,144.37	3,085.56	4,815.65	0.00	0.00	0.00
11,700.00	90.00	179.92	7,807.01	-4,244.37	3,085.70	4,912.09	0.00	0.00	0.00
11,800.00	90.00	179.92	7,807.01	-4,344.37	3,085.84	5,008.53	0.00	0.00	0.00
11,900.00	90.00	179.92	7,807.01	-4,444.37	3,085.99	5,104.96	0.00	0.00	0.00
12,000.00	90.00	179.92	7,807.01	-4,544.37	3,086.13	5,201.40	0.00	0.00	0.00
12,100.00	90.00	179.92	7,807.01	-4,644.37	3,086.27	5,297.84	0.00	0.00	0.00
12,200.00	90.00	179.92	7,807.01	-4,744.37	3,086.42	5,394.28	0.00	0.00	0.00
12,300.00	90.00	179.92	7,807.01	-4,844.37	3,086.56	5,490.71	0.00	0.00	0.00
12,400.00	90.00	179.92	7,807.01	-4,944.37	3,086.70	5,587.15	0.00	0.00	0.00
12,500.00	90.00	179.92	7,807.01	-5,044.37	3,086.84	5,683.59	0.00	0.00	0.00
12,600.00	90.00	179.92	7,807.01	-5,144.37	3,086.99	5,780.03	0.00	0.00	0.00
12,700.00	90.00	179.92	7,807.01	-5,244.37	3,087.13	5,876.46	0.00	0.00	0.00
12,800.00	90.00	179.92	7,807.01	-5,344.37	3,087.27	5,972.90	0.00	0.00	0.00
12,900.00	90.00	179.92	7,807.01	-5,444.37	3,087.41	6,069.34	0.00	0.00	0.00
13,000.00	90.00	179.92	7,807.01	-5,544.37	3,087.55	6,165.78	0.00	0.00	0.00
13,100.00	90.00	179.92	7,807.01	-5,644.37	3,087.70	6,262.21	0.00	0.00	0.00
13,200.00	90.00	179.92	7,807.01	-5,744.37	3,087.84	6,358.65	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-12N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-12N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,300.00	90.00	179.92	7,807.01	-5,844.37	3,087.98	6,455.09	0.00	0.00	0.00
13,400.00	90.00	179.92	7,807.01	-5,944.37	3,088.12	6,551.53	0.00	0.00	0.00
13,500.00	90.00	179.92	7,807.01	-6,044.37	3,088.26	6,647.96	0.00	0.00	0.00
13,600.00	90.00	179.92	7,807.01	-6,144.37	3,088.40	6,744.40	0.00	0.00	0.00
13,700.00	90.00	179.92	7,807.01	-6,244.37	3,088.54	6,840.84	0.00	0.00	0.00
13,800.00	90.00	179.92	7,807.01	-6,344.37	3,088.68	6,937.27	0.00	0.00	0.00
13,900.00	90.00	179.92	7,807.01	-6,444.37	3,088.82	7,033.71	0.00	0.00	0.00
14,000.00	90.00	179.92	7,807.01	-6,544.37	3,088.97	7,130.15	0.00	0.00	0.00
14,100.00	90.00	179.92	7,807.01	-6,644.37	3,089.11	7,226.58	0.00	0.00	0.00
14,200.00	90.00	179.92	7,807.01	-6,744.37	3,089.25	7,323.02	0.00	0.00	0.00
14,300.00	90.00	179.92	7,807.01	-6,844.37	3,089.39	7,419.46	0.00	0.00	0.00
14,400.00	90.00	179.92	7,807.01	-6,944.37	3,089.53	7,515.90	0.00	0.00	0.00
14,500.00	90.00	179.92	7,807.01	-7,044.37	3,089.67	7,612.33	0.00	0.00	0.00
14,600.00	90.00	179.92	7,807.01	-7,144.37	3,089.81	7,708.77	0.00	0.00	0.00
14,700.00	90.00	179.92	7,807.01	-7,244.37	3,089.95	7,805.21	0.00	0.00	0.00
14,800.00	90.00	179.92	7,807.01	-7,344.37	3,090.09	7,901.64	0.00	0.00	0.00
14,900.00	90.00	179.92	7,807.01	-7,444.37	3,090.23	7,998.08	0.00	0.00	0.00
15,000.00	90.00	179.92	7,807.01	-7,544.37	3,090.37	8,094.52	0.00	0.00	0.00
15,100.00	90.00	179.92	7,807.01	-7,644.37	3,090.50	8,190.95	0.00	0.00	0.00
15,200.00	90.00	179.92	7,807.01	-7,744.37	3,090.64	8,287.39	0.00	0.00	0.00
15,300.00	90.00	179.92	7,807.01	-7,844.37	3,090.78	8,383.83	0.00	0.00	0.00
15,400.00	90.00	179.92	7,807.01	-7,944.37	3,090.92	8,480.26	0.00	0.00	0.00
15,500.00	90.00	179.92	7,807.01	-8,044.37	3,091.06	8,576.70	0.00	0.00	0.00
15,600.00	90.00	179.92	7,807.01	-8,144.37	3,091.20	8,673.14	0.00	0.00	0.00
15,700.00	90.00	179.92	7,807.01	-8,244.37	3,091.34	8,769.57	0.00	0.00	0.00
15,800.00	90.00	179.92	7,807.01	-8,344.37	3,091.48	8,866.01	0.00	0.00	0.00
15,900.00	90.00	179.92	7,807.01	-8,444.37	3,091.61	8,962.44	0.00	0.00	0.00
16,000.00	90.00	179.92	7,807.01	-8,544.37	3,091.75	9,058.88	0.00	0.00	0.00
16,100.00	90.00	179.92	7,807.01	-8,644.37	3,091.89	9,155.32	0.00	0.00	0.00
16,200.00	90.00	179.92	7,807.01	-8,744.37	3,092.03	9,251.75	0.00	0.00	0.00
16,300.00	90.00	179.92	7,807.01	-8,844.37	3,092.17	9,348.19	0.00	0.00	0.00
16,400.00	90.00	179.92	7,807.01	-8,944.37	3,092.31	9,444.63	0.00	0.00	0.00
16,500.00	90.00	179.92	7,807.01	-9,044.37	3,092.44	9,541.06	0.00	0.00	0.00
16,600.00	90.00	179.92	7,807.01	-9,144.37	3,092.58	9,637.50	0.00	0.00	0.00
16,700.00	90.00	179.92	7,807.01	-9,244.37	3,092.72	9,733.93	0.00	0.00	0.00
16,800.00	90.00	179.92	7,807.01	-9,344.37	3,092.85	9,830.37	0.00	0.00	0.00
16,900.00	90.00	179.92	7,807.00	-9,444.37	3,092.99	9,926.81	0.00	0.00	0.00
17,000.00	90.00	179.92	7,807.00	-9,544.37	3,093.13	10,023.24	0.00	0.00	0.00
17,100.00	90.00	179.92	7,807.00	-9,644.36	3,093.27	10,119.68	0.00	0.00	0.00
17,200.00	90.00	179.92	7,807.00	-9,744.36	3,093.40	10,216.12	0.00	0.00	0.00
17,300.00	90.00	179.92	7,807.00	-9,844.36	3,093.54	10,312.55	0.00	0.00	0.00
17,400.00	90.00	179.92	7,807.00	-9,944.36	3,093.68	10,408.99	0.00	0.00	0.00
17,500.00	90.00	179.92	7,807.00	-10,044.36	3,093.81	10,505.42	0.00	0.00	0.00
17,600.00	90.00	179.92	7,807.00	-10,144.36	3,093.95	10,601.86	0.00	0.00	0.00
17,700.00	90.00	179.92	7,807.00	-10,244.36	3,094.09	10,698.29	0.00	0.00	0.00
17,800.00	90.00	179.92	7,807.00	-10,344.36	3,094.22	10,794.73	0.00	0.00	0.00
17,900.00	90.00	179.92	7,807.00	-10,444.36	3,094.36	10,891.17	0.00	0.00	0.00
18,000.00	90.00	179.92	7,807.00	-10,544.36	3,094.49	10,987.60	0.00	0.00	0.00
18,100.00	90.00	179.92	7,807.00	-10,644.36	3,094.63	11,084.04	0.00	0.00	0.00
18,200.00	90.00	179.92	7,807.00	-10,744.36	3,094.76	11,180.47	0.00	0.00	0.00
18,300.00	90.00	179.92	7,807.00	-10,844.36	3,094.90	11,276.91	0.00	0.00	0.00
18,400.00	90.00	179.92	7,807.00	-10,944.36	3,095.04	11,373.34	0.00	0.00	0.00
18,500.00	90.00	179.92	7,807.00	-11,044.36	3,095.17	11,469.78	0.00	0.00	0.00
18,600.00	90.00	179.92	7,807.00	-11,144.36	3,095.31	11,566.22	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-12N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-12N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
18,677.20	90.00	179.92	7,807.00	-11,221.56	3,095.41	11,640.66	0.00	0.00	0.00
TD at 18677.20' MD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CT 34S-20-12N LP - plan hits target center - Point	0.00	0.00	7,807.00	-1,547.65	3,081.79	1,248,213.25	3,141,288.19	40° 0' 49.063 N	104° 59' 44.061 W
CT 34S-20-12N PBHL - plan hits target center - Point	0.00	0.00	7,807.00	-11,221.56	3,095.41	1,238,539.56	3,141,355.64	39° 59' 13.459 N	104° 59' 43.901 W

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,996.92	4,440.00	PARKMAN				
5,559.20	4,910.00	SUSSEX				
8,513.34	7,610.00	SHARON SPRINGS				
8,568.77	7,650.00	NIOBRARA				
8,896.07	7,797.00	NIO B				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
500.00	500.00	0.00	0.00	BUILD 2°/100'
2,164.58	2,072.48	-141.80	448.25	HOLD 33.29° INC
6,338.63	5,561.52	-832.85	2,632.70	DROP 2°/100'
8,003.21	7,134.00	-974.65	3,080.95	HOLD VERTICAL
8,103.21	7,234.00	-974.65	3,080.95	KOP, BUILD 10°/100'
9,003.27	7,807.00	-1,547.65	3,081.79	LP @ 90° INC, 179.92° AZM HOLD
18,677.20	7,807.00	-11,221.56	3,095.41	TD at 18677.20' MD