

EXTRACTION OIL & GAS

WELD COUNTY

Sec 28-T1N-R68W

COYOTE TRAILS 33W-15-7N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

07 June, 2018



Project: WELD COUNTY
Site: Sec 28-T1N-R68W
Well: COYOTE TRAILS 33W-15-7N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.30°

Magnetic Field
Strength: 52159.9nT
Dip Angle: 66.51°
Date: 6/29/2017
Model: IGRF2015

WELL DETAILS: COYOTE TRAILS 33W-15-7N

	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
	0.00	0.00	1249778.74	3137927.92	40° 1' 4.721 N	105° 0' 27.137 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	2042.01	30.84	178.07	1968.62	-404.85	13.63	2.00	178.07	136.62	
4	6429.10	30.84	178.07	5735.38	-2652.60	89.34	0.00	0.00	895.13	
5	7971.11	0.00	0.00	7204.00	-3057.45	102.97	2.00	180.00	1031.74	
6	8001.11	0.00	0.00	7234.00	-3057.45	102.97	0.00	0.00	1031.74	
7	8901.18	90.00	269.90	7807.00	-3058.43	-470.03	10.00	269.90	1564.73	CT 33W-7N LP
8	16172.40	90.00	269.90	7807.00	-3071.07	-7741.24	0.00	0.00	8328.16	CT 33W-7N PBHL

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
2042.01	30.84	178.07	1968.62	-404.85	13.63	136.62	405.08	Start 4387.10 hold at 2042.01 MD
6429.10	30.84	178.07	5735.38	-2652.60	89.34	895.13	2654.10	Start Drop -2.00
7971.11	0.00	0.00	7204.00	-3057.45	102.97	1031.74	3059.18	Start 30.00 hold at 7971.11 MD
8001.11	0.00	0.00	7234.00	-3057.45	102.97	1031.74	3059.18	Start DLS 10.00 TFO 269.90
8901.18	90.00	269.90	7807.00	-3058.43	-470.03	1564.73	3632.19	Start 7271.22 hold at 8901.18 MD
16172.40	90.00	269.90	7806.97	-3070.87	-7741.24	8328.09	10903.41	TD at 16172.40

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CT 33W-7N LP	7807.00	-3058.43	-470.03	1246717.74	3137474.88	40° 0' 34.495 N	105° 0' 33.178 W	Point
- plan hits target center								
CT 33W-7N PBHL	7807.00	-3071.07	-7741.24	1246664.72	3130203.85	40° 0' 34.358 N	105° 2' 6.626 W	Point
- plan hits target center								

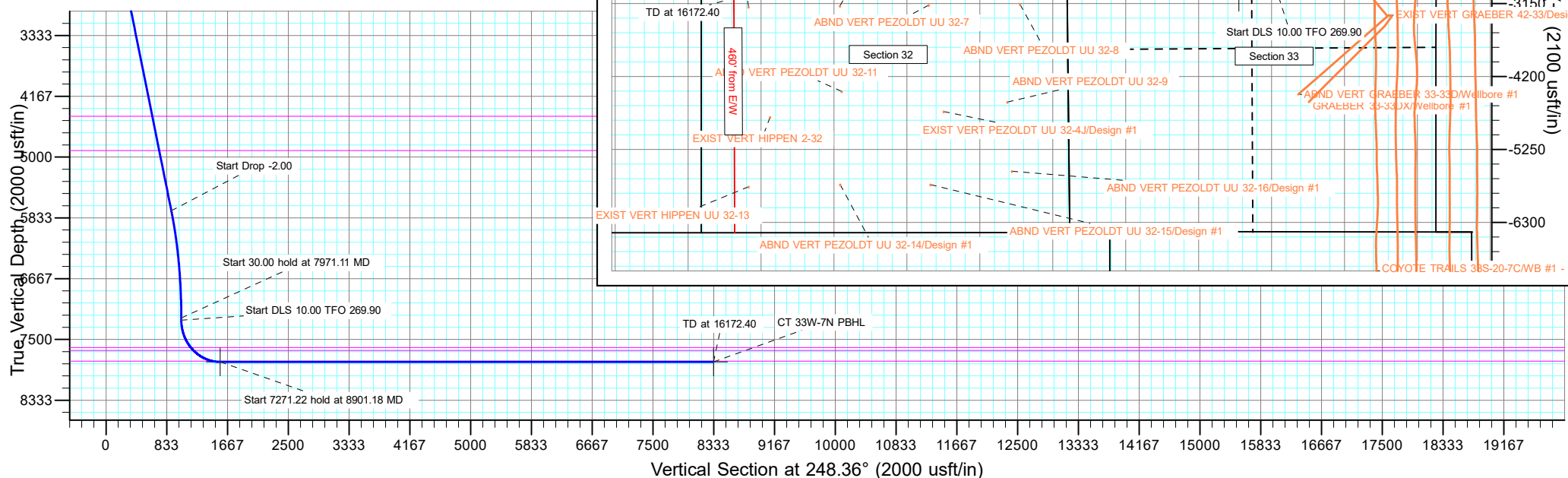
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4440.00	4920.39	PARKMAN
4910.00	5467.79	SUSSEX
7610.00	8411.25	SHARON SPRINGS
7650.00	8466.67	NIOBRARA
7797.00	8793.97	NIO B

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

SHL:
1150' FSL, 2373' FEL
Sec 28-T1N-R68W
LP:
1904' FNL, 2473' FWL
Sec 33-T1N-R68W
BHL:
1903' FNL, 460' FWL
Sec 32-T1N-R68W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-7N
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 33W-15-7N	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 33W-15-7N					
Well Position	+N/-S	1,131.90 usft	Northing:	1,249,778.73 usft	Latitude:	40° 1' 4.721 N
	+E/-W	-2,365.55 usft	Easting:	3,137,927.92 usft	Longitude:	105° 0' 27.137 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	8.30	66.51	52,159.94633798

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	248.36

Plan Survey Tool Program	Date	6/7/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,172.40	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	
2,042.01	30.84	178.07	1,968.62	-404.85	13.63	2.00	2.00	0.00	178.07	
6,429.10	30.84	178.07	5,735.38	-2,652.60	89.34	0.00	0.00	0.00	0.00	
7,971.11	0.00	0.00	7,204.00	-3,057.45	102.97	2.00	-2.00	0.00	180.00	
8,001.11	0.00	0.00	7,234.00	-3,057.45	102.97	0.00	0.00	0.00	0.00	
8,901.18	90.00	269.90	7,807.00	-3,058.43	-470.03	10.00	10.00	-10.01	269.90	CT 33W-7N LP
16,172.40	90.00	269.90	7,807.00	-3,071.07	-7,741.24	0.00	0.00	0.00	0.00	CT 33W-7N PBHL

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-7N
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 33W-15-7N	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
Start Build 2.00									
600.00	2.00	178.07	599.98	-1.74	0.06	0.59	2.00	2.00	0.00
700.00	4.00	178.07	699.84	-6.97	0.23	2.35	2.00	2.00	0.00
800.00	6.00	178.07	799.45	-15.68	0.53	5.29	2.00	2.00	0.00
900.00	8.00	178.07	898.70	-27.86	0.94	9.40	2.00	2.00	0.00
1,000.00	10.00	178.07	997.47	-43.50	1.46	14.68	2.00	2.00	0.00
1,100.00	12.00	178.07	1,095.62	-62.57	2.11	21.11	2.00	2.00	0.00
1,200.00	14.00	178.07	1,193.06	-85.05	2.86	28.70	2.00	2.00	0.00
1,300.00	16.00	178.07	1,289.64	-110.91	3.74	37.43	2.00	2.00	0.00
1,400.00	18.00	178.07	1,385.27	-140.13	4.72	47.29	2.00	2.00	0.00
1,500.00	20.00	178.07	1,479.82	-172.67	5.82	58.27	2.00	2.00	0.00
1,600.00	22.00	178.07	1,573.17	-208.49	7.02	70.35	2.00	2.00	0.00
1,700.00	24.00	178.07	1,665.21	-247.53	8.34	83.53	2.00	2.00	0.00
1,800.00	26.00	178.07	1,755.84	-289.77	9.76	97.78	2.00	2.00	0.00
1,900.00	28.00	178.07	1,844.94	-335.14	11.29	113.09	2.00	2.00	0.00
2,000.00	30.00	178.07	1,932.39	-383.59	12.92	129.44	2.00	2.00	0.00
2,042.01	30.84	178.07	1,968.62	-404.85	13.63	136.62	2.00	2.00	0.00
Start 4387.10 hold at 2042.01 MD									
2,100.00	30.84	178.07	2,018.41	-434.56	14.64	146.64	0.00	0.00	0.00
2,200.00	30.84	178.07	2,104.27	-485.80	16.36	163.93	0.00	0.00	0.00
2,300.00	30.84	178.07	2,190.13	-537.03	18.09	181.22	0.00	0.00	0.00
2,400.00	30.84	178.07	2,275.99	-588.27	19.81	198.51	0.00	0.00	0.00
2,500.00	30.84	178.07	2,361.85	-639.50	21.54	215.80	0.00	0.00	0.00
2,600.00	30.84	178.07	2,447.71	-690.74	23.26	233.09	0.00	0.00	0.00
2,700.00	30.84	178.07	2,533.57	-741.98	24.99	250.38	0.00	0.00	0.00
2,800.00	30.84	178.07	2,619.43	-793.21	26.71	267.67	0.00	0.00	0.00
2,900.00	30.84	178.07	2,705.29	-844.45	28.44	284.96	0.00	0.00	0.00
3,000.00	30.84	178.07	2,791.15	-895.68	30.17	302.25	0.00	0.00	0.00
3,100.00	30.84	178.07	2,877.01	-946.92	31.89	319.54	0.00	0.00	0.00
3,200.00	30.84	178.07	2,962.87	-998.15	33.62	336.83	0.00	0.00	0.00
3,300.00	30.84	178.07	3,048.73	-1,049.39	35.34	354.12	0.00	0.00	0.00
3,400.00	30.84	178.07	3,134.59	-1,100.62	37.07	371.41	0.00	0.00	0.00
3,500.00	30.84	178.07	3,220.45	-1,151.86	38.79	388.70	0.00	0.00	0.00
3,600.00	30.84	178.07	3,306.31	-1,203.09	40.52	405.99	0.00	0.00	0.00
3,700.00	30.84	178.07	3,392.17	-1,254.33	42.24	423.28	0.00	0.00	0.00
3,800.00	30.84	178.07	3,478.03	-1,305.57	43.97	440.57	0.00	0.00	0.00
3,900.00	30.84	178.07	3,563.89	-1,356.80	45.69	457.86	0.00	0.00	0.00
4,000.00	30.84	178.07	3,649.75	-1,408.04	47.42	475.15	0.00	0.00	0.00
4,100.00	30.84	178.07	3,735.61	-1,459.27	49.15	492.43	0.00	0.00	0.00
4,200.00	30.84	178.07	3,821.47	-1,510.51	50.87	509.72	0.00	0.00	0.00
4,300.00	30.84	178.07	3,907.33	-1,561.74	52.60	527.01	0.00	0.00	0.00
4,400.00	30.84	178.07	3,993.19	-1,612.98	54.32	544.30	0.00	0.00	0.00
4,500.00	30.84	178.07	4,079.05	-1,664.21	56.05	561.59	0.00	0.00	0.00
4,600.00	30.84	178.07	4,164.91	-1,715.45	57.77	578.88	0.00	0.00	0.00
4,700.00	30.84	178.07	4,250.77	-1,766.69	59.50	596.17	0.00	0.00	0.00
4,800.00	30.84	178.07	4,336.63	-1,817.92	61.22	613.46	0.00	0.00	0.00
4,900.00	30.84	178.07	4,422.49	-1,869.16	62.95	630.75	0.00	0.00	0.00

Planning Report

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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 33W-15-7N	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)
4,920.39	30.84	178.07	4,440.00	-1,879.60	63.30	634.28	0.00	0.00	0.00
PARKMAN									
5,000.00	30.84	178.07	4,508.35	-1,920.39	64.68	648.04	0.00	0.00	0.00
5,100.00	30.84	178.07	4,594.21	-1,971.63	66.40	665.33	0.00	0.00	0.00
5,200.00	30.84	178.07	4,680.07	-2,022.86	68.13	682.62	0.00	0.00	0.00
5,300.00	30.84	178.07	4,765.93	-2,074.10	69.85	699.91	0.00	0.00	0.00
5,400.00	30.84	178.07	4,851.79	-2,125.33	71.58	717.20	0.00	0.00	0.00
5,467.79	30.84	178.07	4,910.00	-2,160.07	72.75	728.92	0.00	0.00	0.00
SUSSEX									
5,500.00	30.84	178.07	4,937.65	-2,176.57	73.30	734.49	0.00	0.00	0.00
5,600.00	30.84	178.07	5,023.51	-2,227.80	75.03	751.78	0.00	0.00	0.00
5,700.00	30.84	178.07	5,109.37	-2,279.04	76.75	769.07	0.00	0.00	0.00
5,800.00	30.84	178.07	5,195.23	-2,330.28	78.48	786.36	0.00	0.00	0.00
5,900.00	30.84	178.07	5,281.09	-2,381.51	80.21	803.65	0.00	0.00	0.00
6,000.00	30.84	178.07	5,366.95	-2,432.75	81.93	820.94	0.00	0.00	0.00
6,100.00	30.84	178.07	5,452.81	-2,483.98	83.66	838.23	0.00	0.00	0.00
6,200.00	30.84	178.07	5,538.67	-2,535.22	85.38	855.52	0.00	0.00	0.00
6,300.00	30.84	178.07	5,624.53	-2,586.45	87.11	872.80	0.00	0.00	0.00
6,400.00	30.84	178.07	5,710.39	-2,637.69	88.83	890.09	0.00	0.00	0.00
6,429.10	30.84	178.07	5,735.38	-2,652.60	89.34	895.13	0.00	0.00	0.00
Start Drop -2.00									
6,500.00	29.42	178.07	5,796.70	-2,688.17	90.53	907.13	2.00	-2.00	0.00
6,600.00	27.42	178.07	5,884.64	-2,735.73	92.14	923.18	2.00	-2.00	0.00
6,700.00	25.42	178.07	5,974.19	-2,780.21	93.63	938.19	2.00	-2.00	0.00
6,800.00	23.42	178.07	6,065.24	-2,821.53	95.02	952.13	2.00	-2.00	0.00
6,900.00	21.42	178.07	6,157.67	-2,859.65	96.31	964.99	2.00	-2.00	0.00
7,000.00	19.42	178.07	6,251.38	-2,894.52	97.48	976.76	2.00	-2.00	0.00
7,100.00	17.42	178.07	6,346.25	-2,926.10	98.55	987.42	2.00	-2.00	0.00
7,200.00	15.42	178.07	6,442.17	-2,954.35	99.50	996.95	2.00	-2.00	0.00
7,300.00	13.42	178.07	6,539.01	-2,979.25	100.34	1,005.35	2.00	-2.00	0.00
7,400.00	11.42	178.07	6,636.66	-3,000.74	101.06	1,012.61	2.00	-2.00	0.00
7,500.00	9.42	178.07	6,735.01	-3,018.82	101.67	1,018.71	2.00	-2.00	0.00
7,600.00	7.42	178.07	6,833.93	-3,033.46	102.16	1,023.65	2.00	-2.00	0.00
7,700.00	5.42	178.07	6,933.29	-3,044.64	102.54	1,027.42	2.00	-2.00	0.00
7,800.00	3.42	178.07	7,032.99	-3,052.34	102.80	1,030.02	2.00	-2.00	0.00
7,900.00	1.42	178.07	7,132.90	-3,056.57	102.94	1,031.45	2.00	-2.00	0.00
7,971.11	0.00	0.00	7,204.00	-3,057.45	102.97	1,031.74	2.00	-2.00	0.00
Start 30.00 hold at 7971.11 MD									
8,001.11	0.00	0.00	7,234.00	-3,057.45	102.97	1,031.74	0.00	0.00	0.00
Start DLS 10.00 TFO 269.90									
8,050.00	4.89	269.90	7,282.83	-3,057.45	100.89	1,033.68	10.00	10.00	0.00
8,100.00	9.89	269.90	7,332.40	-3,057.46	94.46	1,039.66	10.00	10.00	0.00
8,150.00	14.89	269.90	7,381.22	-3,057.48	83.73	1,049.64	10.00	10.00	0.00
8,200.00	19.89	269.90	7,428.92	-3,057.51	68.80	1,063.53	10.00	10.00	0.00
8,250.00	24.89	269.90	7,475.14	-3,057.54	49.76	1,081.24	10.00	10.00	0.00
8,300.00	29.89	269.90	7,519.52	-3,057.58	26.77	1,102.62	10.00	10.00	0.00
8,350.00	34.89	269.90	7,561.73	-3,057.63	0.00	1,127.53	10.00	10.00	0.00
8,400.00	39.89	269.90	7,601.44	-3,057.68	-30.35	1,155.76	10.00	10.00	0.00
8,411.25	41.01	269.90	7,610.00	-3,057.69	-37.65	1,162.54	10.00	10.00	0.00
SHARON SPRINGS									
8,450.00	44.89	269.90	7,638.36	-3,057.74	-64.05	1,187.10	10.00	10.00	0.00
8,466.67	46.55	269.90	7,650.00	-3,057.76	-75.98	1,198.20	10.00	10.00	0.00
NIOBRARA									

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-7N
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 33W-15-7N	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)	
8,500.00	49.89	269.90	7,672.20	-3,057.80	-100.83	1,221.31	10.00	10.00	0.00	
8,550.00	54.88	269.90	7,702.71	-3,057.87	-140.43	1,258.14	10.00	10.00	0.00	
8,600.00	59.88	269.90	7,729.65	-3,057.94	-182.53	1,297.30	10.00	10.00	0.00	
8,650.00	64.88	269.90	7,752.82	-3,058.01	-226.82	1,338.50	10.00	10.00	0.00	
8,700.00	69.88	269.90	7,772.05	-3,058.09	-272.96	1,381.42	10.00	10.00	0.00	
8,750.00	74.88	269.90	7,787.17	-3,058.17	-320.60	1,425.73	10.00	10.00	0.00	
8,793.97	79.28	269.90	7,797.00	-3,058.25	-363.45	1,465.58	10.00	10.00	0.00	
NIO B										
8,800.00	79.88	269.90	7,798.09	-3,058.26	-369.38	1,471.10	10.00	10.00	0.00	
8,850.00	84.88	269.90	7,804.72	-3,058.34	-418.92	1,517.18	10.00	10.00	0.00	
8,901.18	90.00	269.90	7,807.00	-3,058.43	-470.03	1,564.73	10.00	10.00	0.00	
Start 7271.22 hold at 8901.18 MD										
9,000.00	90.00	269.90	7,807.00	-3,058.60	-568.85	1,656.64	0.00	0.00	0.00	
9,100.00	90.00	269.90	7,807.00	-3,058.77	-668.85	1,749.66	0.00	0.00	0.00	
9,200.00	90.00	269.90	7,807.00	-3,058.94	-768.85	1,842.67	0.00	0.00	0.00	
9,300.00	90.00	269.90	7,807.00	-3,059.11	-868.85	1,935.69	0.00	0.00	0.00	
9,400.00	90.00	269.90	7,807.00	-3,059.28	-968.85	2,028.71	0.00	0.00	0.00	
9,500.00	90.00	269.90	7,807.00	-3,059.46	-1,068.85	2,121.72	0.00	0.00	0.00	
9,600.00	90.00	269.90	7,807.00	-3,059.63	-1,168.85	2,214.74	0.00	0.00	0.00	
9,700.00	90.00	269.90	7,807.00	-3,059.80	-1,268.85	2,307.75	0.00	0.00	0.00	
9,800.00	90.00	269.90	7,807.00	-3,059.97	-1,368.85	2,400.77	0.00	0.00	0.00	
9,900.00	90.00	269.90	7,807.00	-3,060.14	-1,468.85	2,493.78	0.00	0.00	0.00	
10,000.00	90.00	269.90	7,807.00	-3,060.31	-1,568.85	2,586.80	0.00	0.00	0.00	
10,100.00	90.00	269.90	7,806.99	-3,060.48	-1,668.85	2,679.81	0.00	0.00	0.00	
10,200.00	90.00	269.90	7,806.99	-3,060.65	-1,768.85	2,772.83	0.00	0.00	0.00	
10,300.00	90.00	269.90	7,806.99	-3,060.82	-1,868.85	2,865.84	0.00	0.00	0.00	
10,400.00	90.00	269.90	7,806.99	-3,061.00	-1,968.85	2,958.86	0.00	0.00	0.00	
10,500.00	90.00	269.90	7,806.99	-3,061.17	-2,068.85	3,051.88	0.00	0.00	0.00	
10,600.00	90.00	269.90	7,806.99	-3,061.34	-2,168.85	3,144.89	0.00	0.00	0.00	
10,700.00	90.00	269.90	7,806.99	-3,061.51	-2,268.85	3,237.91	0.00	0.00	0.00	
10,800.00	90.00	269.90	7,806.99	-3,061.68	-2,368.85	3,330.92	0.00	0.00	0.00	
10,900.00	90.00	269.90	7,806.99	-3,061.85	-2,468.85	3,423.94	0.00	0.00	0.00	
11,000.00	90.00	269.90	7,806.99	-3,062.02	-2,568.85	3,516.95	0.00	0.00	0.00	
11,100.00	90.00	269.90	7,806.99	-3,062.19	-2,668.85	3,609.97	0.00	0.00	0.00	
11,200.00	90.00	269.90	7,806.99	-3,062.36	-2,768.85	3,702.98	0.00	0.00	0.00	
11,300.00	90.00	269.90	7,806.99	-3,062.54	-2,868.85	3,796.00	0.00	0.00	0.00	
11,400.00	90.00	269.90	7,806.99	-3,062.71	-2,968.85	3,889.02	0.00	0.00	0.00	
11,500.00	90.00	269.90	7,806.99	-3,062.88	-3,068.85	3,982.03	0.00	0.00	0.00	
11,600.00	90.00	269.90	7,806.99	-3,063.05	-3,168.85	4,075.05	0.00	0.00	0.00	
11,700.00	90.00	269.90	7,806.99	-3,063.22	-3,268.85	4,168.06	0.00	0.00	0.00	
11,800.00	90.00	269.90	7,806.99	-3,063.39	-3,368.85	4,261.08	0.00	0.00	0.00	
11,900.00	90.00	269.90	7,806.99	-3,063.56	-3,468.85	4,354.09	0.00	0.00	0.00	
12,000.00	90.00	269.90	7,806.99	-3,063.73	-3,568.85	4,447.11	0.00	0.00	0.00	
12,100.00	90.00	269.90	7,806.99	-3,063.90	-3,668.85	4,540.12	0.00	0.00	0.00	
12,200.00	90.00	269.90	7,806.99	-3,064.08	-3,768.85	4,633.14	0.00	0.00	0.00	
12,300.00	90.00	269.90	7,806.99	-3,064.25	-3,868.85	4,726.16	0.00	0.00	0.00	
12,400.00	90.00	269.90	7,806.98	-3,064.42	-3,968.85	4,819.17	0.00	0.00	0.00	
12,500.00	90.00	269.90	7,806.98	-3,064.59	-4,068.85	4,912.19	0.00	0.00	0.00	
12,600.00	90.00	269.90	7,806.98	-3,064.76	-4,168.85	5,005.20	0.00	0.00	0.00	
12,700.00	90.00	269.90	7,806.98	-3,064.93	-4,268.85	5,098.22	0.00	0.00	0.00	
12,800.00	90.00	269.90	7,806.98	-3,065.10	-4,368.85	5,191.23	0.00	0.00	0.00	
12,900.00	90.00	269.90	7,806.98	-3,065.27	-4,468.85	5,284.25	0.00	0.00	0.00	
13,000.00	90.00	269.90	7,806.98	-3,065.44	-4,568.85	5,377.26	0.00	0.00	0.00	
13,100.00	90.00	269.90	7,806.98	-3,065.62	-4,668.85	5,470.28	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-7N
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 33W-15-7N	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)
13,200.00	90.00	269.90	7,806.98	-3,065.79	-4,768.85	5,563.30	0.00	0.00	0.00
13,300.00	90.00	269.90	7,806.98	-3,065.96	-4,868.85	5,656.31	0.00	0.00	0.00
13,400.00	90.00	269.90	7,806.98	-3,066.13	-4,968.84	5,749.33	0.00	0.00	0.00
13,500.00	90.00	269.90	7,806.98	-3,066.30	-5,068.84	5,842.34	0.00	0.00	0.00
13,600.00	90.00	269.90	7,806.98	-3,066.47	-5,168.84	5,935.36	0.00	0.00	0.00
13,700.00	90.00	269.90	7,806.98	-3,066.64	-5,268.84	6,028.37	0.00	0.00	0.00
13,800.00	90.00	269.90	7,806.98	-3,066.81	-5,368.84	6,121.39	0.00	0.00	0.00
13,900.00	90.00	269.90	7,806.98	-3,066.98	-5,468.84	6,214.40	0.00	0.00	0.00
14,000.00	90.00	269.90	7,806.98	-3,067.16	-5,568.84	6,307.42	0.00	0.00	0.00
14,100.00	90.00	269.90	7,806.98	-3,067.33	-5,668.84	6,400.44	0.00	0.00	0.00
14,200.00	90.00	269.90	7,806.98	-3,067.50	-5,768.84	6,493.45	0.00	0.00	0.00
14,300.00	90.00	269.90	7,806.98	-3,067.67	-5,868.84	6,586.47	0.00	0.00	0.00
14,400.00	90.00	269.90	7,806.98	-3,067.84	-5,968.84	6,679.48	0.00	0.00	0.00
14,500.00	90.00	269.90	7,806.98	-3,068.01	-6,068.84	6,772.50	0.00	0.00	0.00
14,600.00	90.00	269.90	7,806.98	-3,068.18	-6,168.84	6,865.51	0.00	0.00	0.00
14,700.00	90.00	269.90	7,806.97	-3,068.35	-6,268.84	6,958.53	0.00	0.00	0.00
14,800.00	90.00	269.90	7,806.97	-3,068.52	-6,368.84	7,051.54	0.00	0.00	0.00
14,900.00	90.00	269.90	7,806.97	-3,068.70	-6,468.84	7,144.56	0.00	0.00	0.00
15,000.00	90.00	269.90	7,806.97	-3,068.87	-6,568.84	7,237.58	0.00	0.00	0.00
15,100.00	90.00	269.90	7,806.97	-3,069.04	-6,668.84	7,330.59	0.00	0.00	0.00
15,200.00	90.00	269.90	7,806.97	-3,069.21	-6,768.84	7,423.61	0.00	0.00	0.00
15,300.00	90.00	269.90	7,806.97	-3,069.38	-6,868.84	7,516.62	0.00	0.00	0.00
15,400.00	90.00	269.90	7,806.97	-3,069.55	-6,968.84	7,609.64	0.00	0.00	0.00
15,500.00	90.00	269.90	7,806.97	-3,069.72	-7,068.84	7,702.65	0.00	0.00	0.00
15,600.00	90.00	269.90	7,806.97	-3,069.89	-7,168.84	7,795.67	0.00	0.00	0.00
15,700.00	90.00	269.90	7,806.97	-3,070.06	-7,268.84	7,888.68	0.00	0.00	0.00
15,800.00	90.00	269.90	7,806.97	-3,070.24	-7,368.84	7,981.70	0.00	0.00	0.00
15,900.00	90.00	269.90	7,806.97	-3,070.41	-7,468.84	8,074.72	0.00	0.00	0.00
16,000.00	90.00	269.90	7,806.97	-3,070.58	-7,568.84	8,167.73	0.00	0.00	0.00
16,100.00	90.00	269.90	7,806.97	-3,070.75	-7,668.84	8,260.75	0.00	0.00	0.00
16,172.40	90.00	269.90	7,806.97	-3,070.87	-7,741.24	8,328.09	0.00	0.00	0.00
TD at 16172.40									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CT 33W-7N LP - hit/miss target - Shape - Point	0.00	0.00	7,807.00	-3,058.43	-470.03	1,246,717.74	3,137,474.88	40° 0' 34.495 N	105° 0' 33.178 W
CT 33W-7N PBHL - plan misses target center by 0.20usft at 16172.40usft MD (7806.97 TVD, -3070.87 N, -7741.24 E) - Point	0.00	0.00	7,807.00	-3,071.07	-7,741.24	1,246,664.72	3,130,203.85	40° 0' 34.358 N	105° 2' 6.626 W

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-7N
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 33W-15-7N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,920.39	4,440.00	PARKMAN				
5,467.79	4,910.00	SUSSEX				
8,411.25	7,610.00	SHARON SPRINGS				
8,466.67	7,650.00	NIOBRARA				
8,793.97	7,797.00	NIO B				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
500.00	500.00	0.00	0.00	Start Build 2.00	
2,042.01	1,968.62	-404.85	13.63	Start 4387.10 hold at 2042.01 MD	
6,429.10	5,735.38	-2,652.60	89.34	Start Drop -2.00	
7,971.11	7,204.00	-3,057.45	102.97	Start 30.00 hold at 7971.11 MD	
8,001.11	7,234.00	-3,057.45	102.97	Start DLS 10.00 TFO 269.90	
8,901.18	7,807.00	-3,058.43	-470.03	Start 7271.22 hold at 8901.18 MD	
16,172.40	7,806.97	-3,070.87	-7,741.24	TD at 16172.40	