

EXTRACTION OIL & GAS

WELD COUNTY

Sec 28-T1N-R68W

COYOTE TRAILS 33W-15-2N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

11 February, 2019



Project: WELD COUNTY
Site: Sec 28-T1N-R68W
Well: COYOTE TRAILS 33W-15-2N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.30°
Magnetic Field
Strength: 52159.8nT
Dip Angle: 66.51°
Date: 6/29/2017
Model: IGRF2015

WELL DETAILS: COYOTE TRAILS 33W-15-2N

	5273.00								
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot		
	0.00	0.00	1249858.63	3137882.94	40.018198°N	105.007697°W			

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00	
3	2365.92	19.32	175.03	2347.73	-160.70	13.97	2.00	175.03	21.12	
4	6541.59	19.32	175.03	6288.27	-1536.90	133.56	0.00	0.00	201.99	
5	7507.51	0.00	0.00	7236.00	-1697.60	147.53	2.00	180.00	223.11	
6	7537.51	0.00	0.00	7266.00	-1697.60	147.53	0.00	0.00	223.11	
7	8437.58	90.00	269.90	7839.00	-1698.60	-425.47	10.00	269.90	782.77	CT 33W-2N LP
8	15713.14	90.00	269.90	7839.00	-1711.25	-7701.02	0.00	0.00	7888.86	CT 33W-2N PBHL

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	Start Build 2.00
2365.92	19.32	175.03	2347.73	-160.70	13.97	21.12	161.30	Start 4175.66 hold at 2365.92 MD
6541.59	19.32	175.03	6288.27	-1536.90	133.56	201.99	1542.69	Start Drop -2.00
7507.51	0.00	0.00	7236.00	-1697.60	147.53	223.11	1704.00	Start 30.00 hold at 7507.51 MD
7537.51	0.00	0.00	7266.00	-1697.60	147.53	223.11	1704.00	Start DLS 10.00 TFO 269.90
8437.58	90.00	269.90	7839.00	-1698.60	-425.47	782.77	2277.00	Start 7275.56 hold at 8437.58 MD
15713.14	90.00	269.90	7839.00	-1711.29	-7701.02	7888.86	9552.56	TD at 15713.14

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CT 33W-2N LP	7839.00	-1698.60	-425.47	1248157.70	3137466.91	40.013535°N	105.009216°W	Point
- plan hits target center								
CT 33W-2N PBHL	7839.00	-1711.25	-7701.02	1248104.65	3130191.54	40.013497°N	105.035191°W	Point
- plan hits target center								

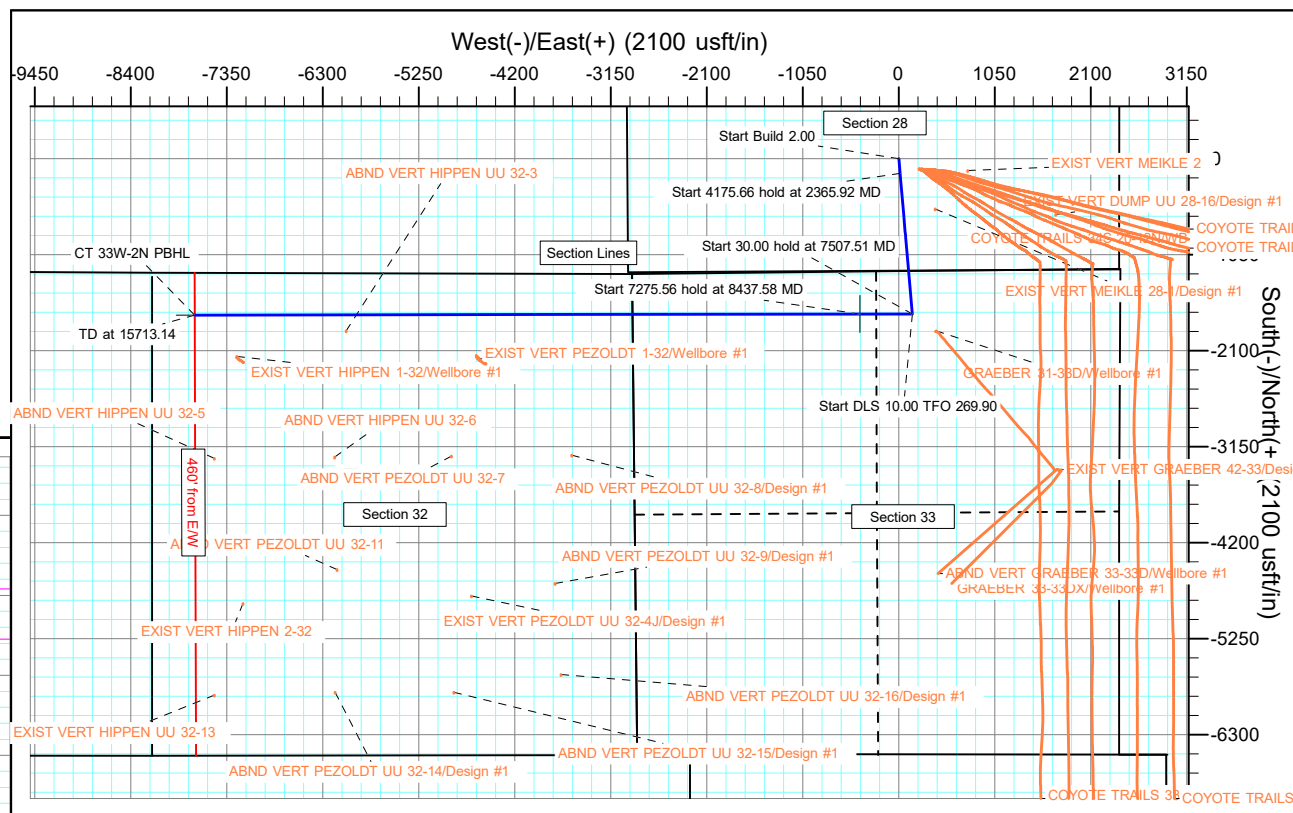
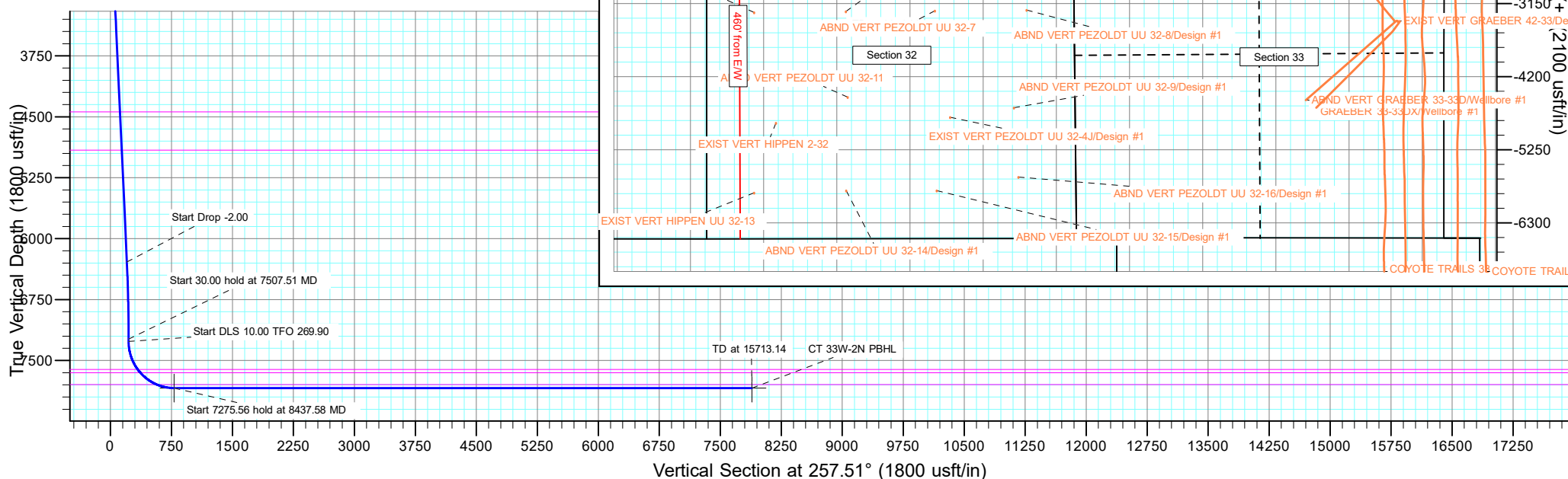
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4440.00	4583.03	PARKMAN
4910.00	5081.08	SUSSEX
7610.00	7906.49	SHARON SPRINGS
7650.00	7958.33	NIOBRARA
7797.00	8216.82	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:
1231' FSL, 2417' FEL
Sec 28-T1N-R68W
LP:
464' FNL, 2488' FWL
Sec 33-T1N-R68W
BHL:
462' FNL, 460' FWL
Sec 32-T1N-R68W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2N	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:	40.014871°N
From:	Lat/Long	Easting:	3,140,299.83 usft	Longitude:	104.999092°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.32 °

Well	COYOTE TRAILS 33W-15-2N					
Well Position	+N/-S	1,212.05 usft	Northing:	1,249,858.63 usft	Latitude:	40.018198°N
	+E/-W	-2,410.08 usft	Easting:	3,137,882.94 usft	Longitude:	105.007697°W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,273.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/29/2017	8.30	66.51	52,159.78756892

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	257.51

Plan Survey Tool Program	Date	2/11/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,713.14	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	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,365.92	19.32	175.03	2,347.73	-160.70	13.97	2.00	2.00	0.00	175.03	
6,541.59	19.32	175.03	6,288.27	-1,536.90	133.56	0.00	0.00	0.00	0.00	
7,507.51	0.00	0.00	7,236.00	-1,697.60	147.53	2.00	-2.00	0.00	180.00	
7,537.51	0.00	0.00	7,266.00	-1,697.60	147.53	0.00	0.00	0.00	0.00	
8,437.58	90.00	269.90	7,839.00	-1,698.60	-425.47	10.00	10.00	-10.01	269.90	CT 33W-2N LP
15,713.14	90.00	269.90	7,839.00	-1,711.25	-7,701.02	0.00	0.00	0.00	0.00	CT 33W-2N PBHL

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2N	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
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,500.00	2.00	175.03	1,499.98	-1.74	0.15	0.23	2.00	2.00	0.00
1,600.00	4.00	175.03	1,599.84	-6.95	0.60	0.91	2.00	2.00	0.00
1,700.00	6.00	175.03	1,699.45	-15.63	1.36	2.05	2.00	2.00	0.00
1,800.00	8.00	175.03	1,798.70	-27.78	2.41	3.65	2.00	2.00	0.00
1,900.00	10.00	175.03	1,897.47	-43.36	3.77	5.70	2.00	2.00	0.00
2,000.00	12.00	175.03	1,995.62	-62.37	5.42	8.20	2.00	2.00	0.00
2,100.00	14.00	175.03	2,093.06	-84.78	7.37	11.14	2.00	2.00	0.00
2,200.00	16.00	175.03	2,189.64	-110.56	9.61	14.53	2.00	2.00	0.00
2,300.00	18.00	175.03	2,285.27	-139.69	12.14	18.36	2.00	2.00	0.00
2,365.92	19.32	175.03	2,347.73	-160.70	13.97	21.12	2.00	2.00	0.00
Start 4175.66 hold at 2365.92 MD									
2,400.00	19.32	175.03	2,379.88	-171.93	14.94	22.60	0.00	0.00	0.00
2,500.00	19.32	175.03	2,474.25	-204.89	17.81	26.93	0.00	0.00	0.00
2,600.00	19.32	175.03	2,568.62	-237.84	20.67	31.26	0.00	0.00	0.00
2,700.00	19.32	175.03	2,662.99	-270.80	23.53	35.59	0.00	0.00	0.00
2,800.00	19.32	175.03	2,757.36	-303.76	26.40	39.92	0.00	0.00	0.00
2,900.00	19.32	175.03	2,851.73	-336.72	29.26	44.25	0.00	0.00	0.00
3,000.00	19.32	175.03	2,946.10	-369.68	32.13	48.59	0.00	0.00	0.00
3,100.00	19.32	175.03	3,040.47	-402.63	34.99	52.92	0.00	0.00	0.00
3,200.00	19.32	175.03	3,134.84	-435.59	37.86	57.25	0.00	0.00	0.00
3,300.00	19.32	175.03	3,229.21	-468.55	40.72	61.58	0.00	0.00	0.00
3,400.00	19.32	175.03	3,323.58	-501.51	43.58	65.91	0.00	0.00	0.00
3,500.00	19.32	175.03	3,417.95	-534.46	46.45	70.24	0.00	0.00	0.00
3,600.00	19.32	175.03	3,512.32	-567.42	49.31	74.58	0.00	0.00	0.00
3,700.00	19.32	175.03	3,606.69	-600.38	52.18	78.91	0.00	0.00	0.00
3,800.00	19.32	175.03	3,701.06	-633.34	55.04	83.24	0.00	0.00	0.00
3,900.00	19.32	175.03	3,795.42	-666.29	57.90	87.57	0.00	0.00	0.00
4,000.00	19.32	175.03	3,889.79	-699.25	60.77	91.90	0.00	0.00	0.00
4,100.00	19.32	175.03	3,984.16	-732.21	63.63	96.23	0.00	0.00	0.00
4,200.00	19.32	175.03	4,078.53	-765.17	66.50	100.56	0.00	0.00	0.00
4,300.00	19.32	175.03	4,172.90	-798.13	69.36	104.90	0.00	0.00	0.00
4,400.00	19.32	175.03	4,267.27	-831.08	72.23	109.23	0.00	0.00	0.00
4,500.00	19.32	175.03	4,361.64	-864.04	75.09	113.56	0.00	0.00	0.00
4,583.03	19.32	175.03	4,440.00	-891.41	77.47	117.16	0.00	0.00	0.00
PARKMAN									
4,600.00	19.32	175.03	4,456.01	-897.00	77.95	117.89	0.00	0.00	0.00
4,700.00	19.32	175.03	4,550.38	-929.96	80.82	122.22	0.00	0.00	0.00

Planning Report

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Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2N	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)	
4,800.00	19.32	175.03	4,644.75	-962.91	83.68	126.55	0.00	0.00	0.00	
4,900.00	19.32	175.03	4,739.12	-995.87	86.55	130.89	0.00	0.00	0.00	
5,000.00	19.32	175.03	4,833.49	-1,028.83	89.41	135.22	0.00	0.00	0.00	
5,081.08	19.32	175.03	4,910.00	-1,055.55	91.73	138.73	0.00	0.00	0.00	
SUSSEX										
5,100.00	19.32	175.03	4,927.86	-1,061.79	92.27	139.55	0.00	0.00	0.00	
5,200.00	19.32	175.03	5,022.23	-1,094.75	95.14	143.88	0.00	0.00	0.00	
5,300.00	19.32	175.03	5,116.60	-1,127.70	98.00	148.21	0.00	0.00	0.00	
5,400.00	19.32	175.03	5,210.97	-1,160.66	100.87	152.54	0.00	0.00	0.00	
5,500.00	19.32	175.03	5,305.34	-1,193.62	103.73	156.88	0.00	0.00	0.00	
5,600.00	19.32	175.03	5,399.70	-1,226.58	106.60	161.21	0.00	0.00	0.00	
5,700.00	19.32	175.03	5,494.07	-1,259.53	109.46	165.54	0.00	0.00	0.00	
5,800.00	19.32	175.03	5,588.44	-1,292.49	112.32	169.87	0.00	0.00	0.00	
5,900.00	19.32	175.03	5,682.81	-1,325.45	115.19	174.20	0.00	0.00	0.00	
6,000.00	19.32	175.03	5,777.18	-1,358.41	118.05	178.53	0.00	0.00	0.00	
6,100.00	19.32	175.03	5,871.55	-1,391.36	120.92	182.87	0.00	0.00	0.00	
6,200.00	19.32	175.03	5,965.92	-1,424.32	123.78	187.20	0.00	0.00	0.00	
6,300.00	19.32	175.03	6,060.29	-1,457.28	126.64	191.53	0.00	0.00	0.00	
6,400.00	19.32	175.03	6,154.66	-1,490.24	129.51	195.86	0.00	0.00	0.00	
6,500.00	19.32	175.03	6,249.03	-1,523.20	132.37	200.19	0.00	0.00	0.00	
6,541.59	19.32	175.03	6,288.27	-1,536.90	133.56	201.99	0.00	0.00	0.00	
Start Drop -2.00										
6,600.00	18.15	175.03	6,343.59	-1,555.59	135.19	204.45	2.00	-2.00	0.00	
6,700.00	16.15	175.03	6,439.14	-1,584.97	137.74	208.31	2.00	-2.00	0.00	
6,800.00	14.15	175.03	6,535.66	-1,611.00	140.00	211.73	2.00	-2.00	0.00	
6,900.00	12.15	175.03	6,633.03	-1,633.67	141.97	214.71	2.00	-2.00	0.00	
7,000.00	10.15	175.03	6,731.14	-1,652.93	143.65	217.24	2.00	-2.00	0.00	
7,100.00	8.15	175.03	6,829.86	-1,668.77	145.02	219.32	2.00	-2.00	0.00	
7,200.00	6.15	175.03	6,929.08	-1,681.17	146.10	220.95	2.00	-2.00	0.00	
7,300.00	4.15	175.03	7,028.67	-1,690.12	146.88	222.13	2.00	-2.00	0.00	
7,400.00	2.15	175.03	7,128.51	-1,695.59	147.36	222.85	2.00	-2.00	0.00	
7,507.51	0.00	0.00	7,236.00	-1,697.60	147.53	223.11	2.00	-2.00	0.00	
Start 30.00 hold at 7507.51 MD										
7,537.51	0.00	0.00	7,266.00	-1,697.60	147.53	223.11	0.00	0.00	0.00	
Start DLS 10.00 TFO 269.90										
7,550.00	1.25	269.90	7,278.49	-1,697.60	147.39	223.25	10.00	10.00	0.00	
7,600.00	6.25	269.90	7,328.37	-1,697.61	144.13	226.44	10.00	10.00	0.00	
7,650.00	11.25	269.90	7,377.77	-1,697.62	136.52	233.86	10.00	10.00	0.00	
7,700.00	16.25	269.90	7,426.32	-1,697.64	124.64	245.47	10.00	10.00	0.00	
7,750.00	21.25	269.90	7,473.65	-1,697.67	108.58	261.16	10.00	10.00	0.00	
7,800.00	26.25	269.90	7,519.40	-1,697.70	88.45	280.82	10.00	10.00	0.00	
7,850.00	31.25	269.90	7,563.23	-1,697.75	64.41	304.30	10.00	10.00	0.00	
7,900.00	36.25	269.90	7,604.79	-1,697.79	36.64	331.42	10.00	10.00	0.00	
7,906.49	36.89	269.90	7,610.00	-1,697.80	32.78	335.19	10.00	10.00	0.00	
SHARON SPRINGS										
7,950.00	41.25	269.90	7,643.77	-1,697.85	5.36	361.97	10.00	10.00	0.00	
7,958.33	42.08	269.90	7,650.00	-1,697.86	-0.18	367.38	10.00	10.00	0.00	
NIORARA										
8,000.00	46.25	269.90	7,679.88	-1,697.91	-29.20	395.73	10.00	10.00	0.00	
8,050.00	51.25	269.90	7,712.84	-1,697.97	-66.78	432.43	10.00	10.00	0.00	
8,100.00	56.24	269.90	7,742.40	-1,698.04	-107.08	471.80	10.00	10.00	0.00	
8,150.00	61.24	269.90	7,768.34	-1,698.12	-149.81	513.53	10.00	10.00	0.00	
8,200.00	66.24	269.90	7,790.45	-1,698.20	-194.64	557.32	10.00	10.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2N	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)
8,216.82	67.93	269.90	7,797.00	-1,698.22	-210.14	572.45	10.00	10.00	0.00
NIO B									
8,250.00	71.24	269.90	7,808.57	-1,698.28	-241.22	602.81	10.00	10.00	0.00
8,300.00	76.24	269.90	7,822.56	-1,698.36	-289.21	649.68	10.00	10.00	0.00
8,350.00	81.24	269.90	7,832.32	-1,698.45	-338.23	697.56	10.00	10.00	0.00
8,400.00	86.24	269.90	7,837.77	-1,698.53	-387.92	746.09	10.00	10.00	0.00
8,437.58	90.00	269.90	7,839.00	-1,698.60	-425.47	782.77	10.00	10.00	0.00
Start 7275.56 hold at 8437.58 MD									
8,500.00	90.00	269.90	7,839.00	-1,698.71	-487.89	843.74	0.00	0.00	0.00
8,600.00	90.00	269.90	7,839.00	-1,698.88	-587.89	941.41	0.00	0.00	0.00
8,700.00	90.00	269.90	7,839.00	-1,699.06	-687.89	1,039.08	0.00	0.00	0.00
8,800.00	90.00	269.90	7,839.00	-1,699.23	-787.89	1,136.75	0.00	0.00	0.00
8,900.00	90.00	269.90	7,839.00	-1,699.41	-887.89	1,234.42	0.00	0.00	0.00
9,000.00	90.00	269.90	7,839.00	-1,699.58	-987.89	1,332.09	0.00	0.00	0.00
9,100.00	90.00	269.90	7,839.00	-1,699.76	-1,087.89	1,429.76	0.00	0.00	0.00
9,200.00	90.00	269.90	7,839.00	-1,699.93	-1,187.89	1,527.43	0.00	0.00	0.00
9,300.00	90.00	269.90	7,839.00	-1,700.10	-1,287.89	1,625.10	0.00	0.00	0.00
9,400.00	90.00	269.90	7,839.00	-1,700.28	-1,387.89	1,722.77	0.00	0.00	0.00
9,500.00	90.00	269.90	7,839.00	-1,700.45	-1,487.89	1,820.44	0.00	0.00	0.00
9,600.00	90.00	269.90	7,839.00	-1,700.63	-1,587.89	1,918.11	0.00	0.00	0.00
9,700.00	90.00	269.90	7,839.00	-1,700.80	-1,687.89	2,015.79	0.00	0.00	0.00
9,800.00	90.00	269.90	7,839.00	-1,700.98	-1,787.89	2,113.46	0.00	0.00	0.00
9,900.00	90.00	269.90	7,839.00	-1,701.15	-1,887.89	2,211.13	0.00	0.00	0.00
10,000.00	90.00	269.90	7,839.00	-1,701.33	-1,987.89	2,308.80	0.00	0.00	0.00
10,100.00	90.00	269.90	7,839.00	-1,701.50	-2,087.89	2,406.47	0.00	0.00	0.00
10,200.00	90.00	269.90	7,839.00	-1,701.67	-2,187.89	2,504.14	0.00	0.00	0.00
10,300.00	90.00	269.90	7,839.00	-1,701.85	-2,287.89	2,601.81	0.00	0.00	0.00
10,400.00	90.00	269.90	7,839.00	-1,702.02	-2,387.89	2,699.48	0.00	0.00	0.00
10,500.00	90.00	269.90	7,839.00	-1,702.20	-2,487.89	2,797.15	0.00	0.00	0.00
10,600.00	90.00	269.90	7,839.00	-1,702.37	-2,587.89	2,894.82	0.00	0.00	0.00
10,700.00	90.00	269.90	7,839.00	-1,702.55	-2,687.89	2,992.49	0.00	0.00	0.00
10,800.00	90.00	269.90	7,839.00	-1,702.72	-2,787.89	3,090.16	0.00	0.00	0.00
10,900.00	90.00	269.90	7,839.00	-1,702.90	-2,887.89	3,187.84	0.00	0.00	0.00
11,000.00	90.00	269.90	7,839.00	-1,703.07	-2,987.89	3,285.51	0.00	0.00	0.00
11,100.00	90.00	269.90	7,839.00	-1,703.24	-3,087.89	3,383.18	0.00	0.00	0.00
11,200.00	90.00	269.90	7,839.00	-1,703.42	-3,187.89	3,480.85	0.00	0.00	0.00
11,300.00	90.00	269.90	7,839.00	-1,703.59	-3,287.89	3,578.52	0.00	0.00	0.00
11,400.00	90.00	269.90	7,839.00	-1,703.77	-3,387.89	3,676.19	0.00	0.00	0.00
11,500.00	90.00	269.90	7,839.00	-1,703.94	-3,487.89	3,773.86	0.00	0.00	0.00
11,600.00	90.00	269.90	7,839.00	-1,704.12	-3,587.89	3,871.53	0.00	0.00	0.00
11,700.00	90.00	269.90	7,839.00	-1,704.29	-3,687.89	3,969.20	0.00	0.00	0.00
11,800.00	90.00	269.90	7,839.00	-1,704.47	-3,787.89	4,066.87	0.00	0.00	0.00
11,900.00	90.00	269.90	7,839.00	-1,704.64	-3,887.89	4,164.54	0.00	0.00	0.00
12,000.00	90.00	269.90	7,839.00	-1,704.81	-3,987.89	4,262.21	0.00	0.00	0.00
12,100.00	90.00	269.90	7,839.00	-1,704.99	-4,087.89	4,359.88	0.00	0.00	0.00
12,200.00	90.00	269.90	7,839.00	-1,705.16	-4,187.89	4,457.56	0.00	0.00	0.00
12,300.00	90.00	269.90	7,839.00	-1,705.34	-4,287.89	4,555.23	0.00	0.00	0.00
12,400.00	90.00	269.90	7,839.00	-1,705.51	-4,387.89	4,652.90	0.00	0.00	0.00
12,500.00	90.00	269.90	7,839.00	-1,705.69	-4,487.89	4,750.57	0.00	0.00	0.00
12,600.00	90.00	269.90	7,839.00	-1,705.86	-4,587.89	4,848.24	0.00	0.00	0.00
12,700.00	90.00	269.90	7,839.00	-1,706.04	-4,687.89	4,945.91	0.00	0.00	0.00
12,800.00	90.00	269.90	7,839.00	-1,706.21	-4,787.89	5,043.58	0.00	0.00	0.00
12,900.00	90.00	269.90	7,839.00	-1,706.39	-4,887.89	5,141.25	0.00	0.00	0.00
13,000.00	90.00	269.90	7,839.00	-1,706.56	-4,987.89	5,238.92	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2N	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)
13,100.00	90.00	269.90	7,839.00	-1,706.73	-5,087.89	5,336.59	0.00	0.00	0.00
13,200.00	90.00	269.90	7,839.00	-1,706.91	-5,187.89	5,434.26	0.00	0.00	0.00
13,300.00	90.00	269.90	7,839.00	-1,707.08	-5,287.89	5,531.93	0.00	0.00	0.00
13,400.00	90.00	269.90	7,839.00	-1,707.26	-5,387.88	5,629.61	0.00	0.00	0.00
13,500.00	90.00	269.90	7,839.00	-1,707.43	-5,487.88	5,727.28	0.00	0.00	0.00
13,600.00	90.00	269.90	7,839.00	-1,707.61	-5,587.88	5,824.95	0.00	0.00	0.00
13,700.00	90.00	269.90	7,839.00	-1,707.78	-5,687.88	5,922.62	0.00	0.00	0.00
13,800.00	90.00	269.90	7,839.00	-1,707.96	-5,787.88	6,020.29	0.00	0.00	0.00
13,900.00	90.00	269.90	7,839.00	-1,708.13	-5,887.88	6,117.96	0.00	0.00	0.00
14,000.00	90.00	269.90	7,839.00	-1,708.30	-5,987.88	6,215.63	0.00	0.00	0.00
14,100.00	90.00	269.90	7,839.00	-1,708.48	-6,087.88	6,313.30	0.00	0.00	0.00
14,200.00	90.00	269.90	7,839.00	-1,708.65	-6,187.88	6,410.97	0.00	0.00	0.00
14,300.00	90.00	269.90	7,839.00	-1,708.83	-6,287.88	6,508.64	0.00	0.00	0.00
14,400.00	90.00	269.90	7,839.00	-1,709.00	-6,387.88	6,606.31	0.00	0.00	0.00
14,500.00	90.00	269.90	7,839.00	-1,709.18	-6,487.88	6,703.98	0.00	0.00	0.00
14,600.00	90.00	269.90	7,839.00	-1,709.35	-6,587.88	6,801.65	0.00	0.00	0.00
14,700.00	90.00	269.90	7,839.00	-1,709.53	-6,687.88	6,899.33	0.00	0.00	0.00
14,800.00	90.00	269.90	7,839.00	-1,709.70	-6,787.88	6,997.00	0.00	0.00	0.00
14,900.00	90.00	269.90	7,839.00	-1,709.87	-6,887.88	7,094.67	0.00	0.00	0.00
15,000.00	90.00	269.90	7,839.00	-1,710.05	-6,987.88	7,192.34	0.00	0.00	0.00
15,100.00	90.00	269.90	7,839.00	-1,710.22	-7,087.88	7,290.01	0.00	0.00	0.00
15,200.00	90.00	269.90	7,839.00	-1,710.40	-7,187.88	7,387.68	0.00	0.00	0.00
15,300.00	90.00	269.90	7,839.00	-1,710.57	-7,287.88	7,485.35	0.00	0.00	0.00
15,400.00	90.00	269.90	7,839.00	-1,710.75	-7,387.88	7,583.02	0.00	0.00	0.00
15,500.00	90.00	269.90	7,839.00	-1,710.92	-7,487.88	7,680.69	0.00	0.00	0.00
15,600.00	90.00	269.90	7,839.00	-1,711.10	-7,587.88	7,778.36	0.00	0.00	0.00
15,700.00	90.00	269.90	7,839.00	-1,711.27	-7,687.88	7,876.03	0.00	0.00	0.00
15,713.14	90.00	269.90	7,839.00	-1,711.29	-7,701.02	7,888.86	0.00	0.00	0.00
TD at 15713.14									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CT 33W-2N PBHL	0.00	0.00	7,839.00	-1,711.25	-7,701.02	1,248,104.65	3,130,191.54	40.013497°N	105.035191°W
- hit/miss target									
- Shape									
- plan misses target center by 0.04usft at 15713.14usft MD (7839.00 TVD, -1711.29 N, -7701.02 E)									
- Point									
CT 33W-2N LP	0.00	0.00	7,839.00	-1,698.60	-425.47	1,248,157.70	3,137,466.91	40.013535°N	105.009216°W
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,583.03	4,440.00	PARKMAN				
5,081.08	4,910.00	SUSSEX				
7,906.49	7,610.00	SHARON SPRINGS				
7,958.33	7,650.00	NIOBRARA				
8,216.82	7,797.00	NIO B				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,400.00	1,400.00	0.00	0.00	Start Build 2.00	
2,365.92	2,347.73	-160.70	13.97	Start 4175.66 hold at 2365.92 MD	
6,541.59	6,288.27	-1,536.90	133.56	Start Drop -2.00	
7,507.51	7,236.00	-1,697.60	147.53	Start 30.00 hold at 7507.51 MD	
7,537.51	7,266.00	-1,697.60	147.53	Start DLS 10.00 TFO 269.90	
8,437.58	7,839.00	-1,698.60	-425.47	Start 7275.56 hold at 8437.58 MD	
15,713.14	7,839.00	-1,711.29	-7,701.02	TD at 15713.14	