

# **EXTRACTION OIL & GAS**

**WELD COUNTY**

**Sec 28-T1N-R68W**

**COYOTE TRAILS 33W-15-5N**

**ORIGINAL WELLBORE**

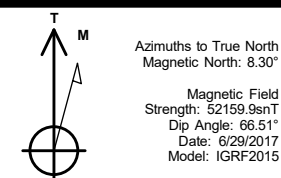
**Plan: PROPOSAL 1**

## **Standard Planning Report**

**07 June, 2018**



Project: WELD COUNTY  
Site: Sec 28-T1N-R68W  
Well: COYOTE TRAILS 33W-15-5N  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL 1



#### WELL DETAILS: COYOTE TRAILS 33W-15-5N

5244.00							
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.00	0.00	1249778.64	3137909.99	40° 1' 4.721 N	105° 0' 27.367 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	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	
3	1973.05	25.46	177.21	1931.56	-277.90	13.56	2.00	177.21	72.38	
4	6448.60	25.46	177.21	5972.44	-2199.65	107.35	0.00	0.00	572.93	
5	7721.65	0.00	0.00	7204.00	-2477.55	120.91	2.00	180.00	645.31	
6	7751.65	0.00	0.00	7234.00	-2477.55	120.91	0.00	0.00	645.31	
7	8651.72	90.00	269.90	7807.00	-2478.51	-452.09	10.00	269.90	1190.96	CT 33W-5N LP
8	15924.73	90.00	269.90	7807.00	-2491.15	-7725.09	0.00	-96.57	8116.83	CT 33W-5N PBHL

#### ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	Start Build 2.00
1973.05	25.46	177.21	1931.56	-277.90	13.56	72.38	278.23	Start 4475.55 hold at 1973.05 MD
6448.60	25.46	177.21	5972.44	-2199.65	107.35	572.93	2202.26	Start Drop -2.00
7721.65	0.00	0.00	7204.00	-2477.55	120.91	645.31	2480.50	Start 30.00 hold at 7721.65 MD
7751.65	0.00	0.00	7234.00	-2477.55	120.91	645.31	2480.50	Start DLS 10.00 TFO 269.90
8651.72	90.00	269.90	7807.00	-2478.51	-452.09	1190.96	3053.50	Start DLS 0.00 TFO -96.57
15924.73	90.00	269.90	7807.00	-2491.15	-7725.09	8116.83	10326.51	TD at 15924.73

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CT 33W-5N LP	7807.00	-2478.51	-452.09	1247297.66	3137471.67	40° 0' 40.226 N	105° 0' 33.178 W	Point
- plan hits target center								
CT 33W-5N PBHL	7807.00	-2491.15	-7725.09	1247244.63	3130198.85	40° 0' 04.090 N	105° 2' 6.652 W	Point
- plan hits target center								

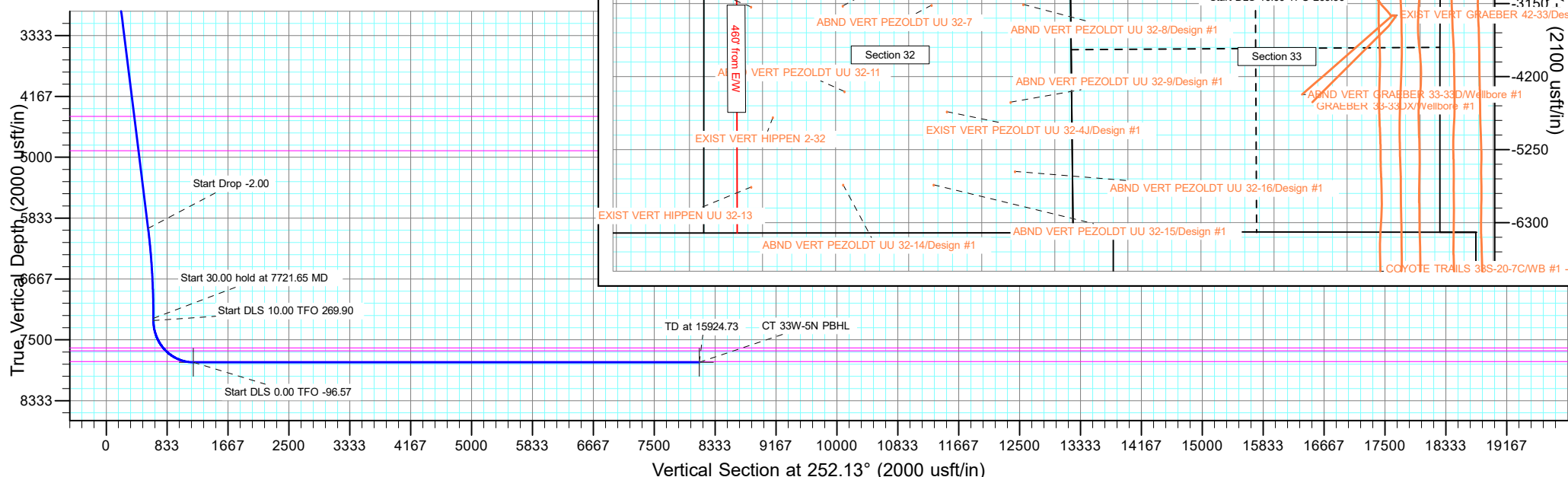
#### FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
4440.00	4751.32	PARKMAN
4910.00	5271.88	SUSSEX
7610.00	8161.78	SHARON SPRINGS
7650.00	8217.21	NIOBRARA
7797.00	8544.51	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, 2391' FEL  
Sec 28-T1N-R68W  
LP:  
1324' FNL, 2479' FWL  
Sec 33-T1N-R68W  
BHL:  
1323' FNL, 460' FWL  
Sec 32-T1N-R68W



## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-5N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-5N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL 1		

<b>Project</b>	WELD COUNTY		
<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		

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-15-5N					
Well Position	+N/-S	1,131.90 usft	Northing:	1,249,778.64 usft	Latitude:	40° 1' 4.721 N
	+E/-W	-2,383.48 usft	Easting:	3,137,909.99 usft	Longitude:	105° 0' 27.367 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,244.00 usft

<b>Wellbore</b>	ORIGINAL WELLBORE				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	6/29/2017	8.30	66.51	52,159.93945022

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	252.13

<b>Plan Survey Tool Program</b>	<b>Date</b>	6/7/2018			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	15,924.73	PROPOSAL 1 (ORIGINAL WELL	MWD OWSG	
			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 (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</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	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,973.05	25.46	177.21	1,931.56	-277.90	13.56	2.00	2.00	0.00	177.21	
6,448.60	25.46	177.21	5,972.44	-2,199.65	107.35	0.00	0.00	0.00	0.00	
7,721.65	0.00	0.00	7,204.00	-2,477.55	120.91	2.00	-2.00	0.00	180.00	
7,751.65	0.00	0.00	7,234.00	-2,477.55	120.91	0.00	0.00	0.00	0.00	
8,651.72	90.00	269.90	7,807.00	-2,478.51	-452.09	10.00	10.00	-10.01	269.90	CT 33W-5N LP
15,924.73	90.00	269.90	7,807.00	-2,491.15	-7,725.09	0.00	0.00	0.00	-96.57	CT 33W-5N PBHL

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-5N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-5N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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
Start Build 2.00									
800.00	2.00	177.21	799.98	-1.74	0.09	0.45	2.00	2.00	0.00
900.00	4.00	177.21	899.84	-6.97	0.34	1.82	2.00	2.00	0.00
1,000.00	6.00	177.21	999.45	-15.67	0.76	4.08	2.00	2.00	0.00
1,100.00	8.00	177.21	1,098.70	-27.85	1.36	7.25	2.00	2.00	0.00
1,200.00	10.00	177.21	1,197.47	-43.47	2.12	11.32	2.00	2.00	0.00
1,300.00	12.00	177.21	1,295.62	-62.53	3.05	16.29	2.00	2.00	0.00
1,400.00	14.00	177.21	1,393.06	-85.00	4.15	22.14	2.00	2.00	0.00
1,500.00	16.00	177.21	1,489.64	-110.85	5.41	28.87	2.00	2.00	0.00
1,600.00	18.00	177.21	1,585.27	-140.05	6.83	36.48	2.00	2.00	0.00
1,700.00	20.00	177.21	1,679.82	-172.56	8.42	44.95	2.00	2.00	0.00
1,800.00	22.00	177.21	1,773.17	-208.36	10.17	54.27	2.00	2.00	0.00
1,900.00	24.00	177.21	1,865.21	-247.38	12.07	64.43	2.00	2.00	0.00
1,973.05	25.46	177.21	1,931.56	-277.90	13.56	72.38	2.00	2.00	0.00
Start 4475.55 hold at 1973.05 MD									
2,000.00	25.46	177.21	1,955.90	-289.48	14.13	75.40	0.00	0.00	0.00
2,100.00	25.46	177.21	2,046.18	-332.41	16.22	86.58	0.00	0.00	0.00
2,200.00	25.46	177.21	2,136.47	-375.35	18.32	97.77	0.00	0.00	0.00
2,300.00	25.46	177.21	2,226.76	-418.29	20.41	108.95	0.00	0.00	0.00
2,400.00	25.46	177.21	2,317.05	-461.23	22.51	120.13	0.00	0.00	0.00
2,500.00	25.46	177.21	2,407.33	-504.17	24.60	131.32	0.00	0.00	0.00
2,600.00	25.46	177.21	2,497.62	-547.11	26.70	142.50	0.00	0.00	0.00
2,700.00	25.46	177.21	2,587.91	-590.05	28.80	153.69	0.00	0.00	0.00
2,800.00	25.46	177.21	2,678.20	-632.99	30.89	164.87	0.00	0.00	0.00
2,900.00	25.46	177.21	2,768.49	-675.92	32.99	176.05	0.00	0.00	0.00
3,000.00	25.46	177.21	2,858.77	-718.86	35.08	187.24	0.00	0.00	0.00
3,100.00	25.46	177.21	2,949.06	-761.80	37.18	198.42	0.00	0.00	0.00
3,200.00	25.46	177.21	3,039.35	-804.74	39.27	209.61	0.00	0.00	0.00
3,300.00	25.46	177.21	3,129.64	-847.68	41.37	220.79	0.00	0.00	0.00
3,400.00	25.46	177.21	3,219.92	-890.62	43.46	231.97	0.00	0.00	0.00
3,500.00	25.46	177.21	3,310.21	-933.56	45.56	243.16	0.00	0.00	0.00
3,600.00	25.46	177.21	3,400.50	-976.49	47.66	254.34	0.00	0.00	0.00
3,700.00	25.46	177.21	3,490.79	-1,019.43	49.75	265.53	0.00	0.00	0.00
3,800.00	25.46	177.21	3,581.08	-1,062.37	51.85	276.71	0.00	0.00	0.00
3,900.00	25.46	177.21	3,671.36	-1,105.31	53.94	287.89	0.00	0.00	0.00
4,000.00	25.46	177.21	3,761.65	-1,148.25	56.04	299.08	0.00	0.00	0.00
4,100.00	25.46	177.21	3,851.94	-1,191.19	58.13	310.26	0.00	0.00	0.00
4,200.00	25.46	177.21	3,942.23	-1,234.13	60.23	321.45	0.00	0.00	0.00
4,300.00	25.46	177.21	4,032.51	-1,277.07	62.32	332.63	0.00	0.00	0.00
4,400.00	25.46	177.21	4,122.80	-1,320.00	64.42	343.81	0.00	0.00	0.00
4,500.00	25.46	177.21	4,213.09	-1,362.94	66.51	355.00	0.00	0.00	0.00
4,600.00	25.46	177.21	4,303.38	-1,405.88	68.61	366.18	0.00	0.00	0.00
4,700.00	25.46	177.21	4,393.66	-1,448.82	70.71	377.37	0.00	0.00	0.00
4,751.32	25.46	177.21	4,440.00	-1,470.86	71.78	383.11	0.00	0.00	0.00
PARKMAN									

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-5N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-5N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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	25.46	177.21	4,483.95	-1,491.76	72.80	388.55	0.00	0.00	0.00
4,900.00	25.46	177.21	4,574.24	-1,534.70	74.90	399.73	0.00	0.00	0.00
5,000.00	25.46	177.21	4,664.53	-1,577.64	76.99	410.92	0.00	0.00	0.00
5,100.00	25.46	177.21	4,754.82	-1,620.57	79.09	422.10	0.00	0.00	0.00
5,200.00	25.46	177.21	4,845.10	-1,663.51	81.18	433.29	0.00	0.00	0.00
5,271.88	25.46	177.21	4,910.00	-1,694.38	82.69	441.33	0.00	0.00	0.00
<b>SUSSEX</b>									
5,300.00	25.46	177.21	4,935.39	-1,706.45	83.28	444.47	0.00	0.00	0.00
5,400.00	25.46	177.21	5,025.68	-1,749.39	85.37	455.66	0.00	0.00	0.00
5,500.00	25.46	177.21	5,115.97	-1,792.33	87.47	466.84	0.00	0.00	0.00
5,600.00	25.46	177.21	5,206.25	-1,835.27	89.57	478.02	0.00	0.00	0.00
5,700.00	25.46	177.21	5,296.54	-1,878.21	91.66	489.21	0.00	0.00	0.00
5,800.00	25.46	177.21	5,386.83	-1,921.15	93.76	500.39	0.00	0.00	0.00
5,900.00	25.46	177.21	5,477.12	-1,964.08	95.85	511.58	0.00	0.00	0.00
6,000.00	25.46	177.21	5,567.41	-2,007.02	97.95	522.76	0.00	0.00	0.00
6,100.00	25.46	177.21	5,657.69	-2,049.96	100.04	533.94	0.00	0.00	0.00
6,200.00	25.46	177.21	5,747.98	-2,092.90	102.14	545.13	0.00	0.00	0.00
6,300.00	25.46	177.21	5,838.27	-2,135.84	104.23	556.31	0.00	0.00	0.00
6,400.00	25.46	177.21	5,928.56	-2,178.78	106.33	567.50	0.00	0.00	0.00
6,448.60	25.46	177.21	5,972.44	-2,199.65	107.35	572.93	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
6,500.00	24.43	177.21	6,019.04	-2,221.30	108.40	578.57	2.00	-2.00	0.00
6,600.00	22.43	177.21	6,110.79	-2,261.02	110.34	588.92	2.00	-2.00	0.00
6,700.00	20.43	177.21	6,203.87	-2,297.51	112.12	598.42	2.00	-2.00	0.00
6,800.00	18.43	177.21	6,298.17	-2,330.74	113.75	607.08	2.00	-2.00	0.00
6,900.00	16.43	177.21	6,393.57	-2,360.67	115.21	614.87	2.00	-2.00	0.00
7,000.00	14.43	177.21	6,489.96	-2,387.24	116.50	621.79	2.00	-2.00	0.00
7,100.00	12.43	177.21	6,587.22	-2,410.45	117.64	627.84	2.00	-2.00	0.00
7,200.00	10.43	177.21	6,685.23	-2,430.24	118.60	632.99	2.00	-2.00	0.00
7,300.00	8.43	177.21	6,783.87	-2,446.61	119.40	637.26	2.00	-2.00	0.00
7,400.00	6.43	177.21	6,883.02	-2,459.53	120.03	640.62	2.00	-2.00	0.00
7,500.00	4.43	177.21	6,982.57	-2,468.99	120.49	643.09	2.00	-2.00	0.00
7,600.00	2.43	177.21	7,082.39	-2,474.97	120.78	644.64	2.00	-2.00	0.00
7,700.00	0.43	177.21	7,182.35	-2,477.47	120.91	645.29	2.00	-2.00	0.00
7,721.65	0.00	0.00	7,204.00	-2,477.55	120.91	645.31	2.00	-2.00	-818.47
<b>Start 30.00 hold at 7721.65 MD</b>									
7,751.65	0.00	0.00	7,234.00	-2,477.55	120.91	645.31	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 269.90</b>									
7,800.00	4.83	269.90	7,282.29	-2,477.55	118.87	647.26	10.00	10.00	0.00
7,850.00	9.83	269.90	7,331.87	-2,477.56	112.49	653.33	10.00	10.00	0.00
7,900.00	14.83	269.90	7,380.70	-2,477.58	101.81	663.50	10.00	10.00	0.00
7,950.00	19.83	269.90	7,428.41	-2,477.61	86.92	677.68	10.00	10.00	0.00
8,000.00	24.83	269.90	7,474.65	-2,477.64	67.93	695.77	10.00	10.00	0.00
8,050.00	29.83	269.90	7,519.05	-2,477.68	44.98	717.62	10.00	10.00	0.00
8,100.00	34.83	269.90	7,561.28	-2,477.72	18.24	743.08	10.00	10.00	0.00
8,150.00	39.83	269.90	7,601.03	-2,477.77	-12.07	771.94	10.00	10.00	0.00
8,161.78	41.01	269.90	7,610.00	-2,477.78	-19.71	779.22	10.00	10.00	0.00
<b>SHARON SPRINGS</b>									
8,200.00	44.83	269.90	7,637.98	-2,477.83	-45.73	804.00	10.00	10.00	0.00
8,217.21	46.55	269.90	7,650.00	-2,477.85	-58.04	815.72	10.00	10.00	0.00
<b>NIOBRARA</b>									
8,250.00	49.83	269.90	7,671.86	-2,477.89	-82.48	838.99	10.00	10.00	0.00
8,300.00	54.83	269.90	7,702.40	-2,477.96	-122.05	876.67	10.00	10.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-5N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-5N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)	
8,350.00	59.83	269.90	7,729.38	-2,478.03	-164.12	916.74	10.00	10.00	0.00	
8,400.00	64.83	269.90	7,752.59	-2,478.10	-208.39	958.89	10.00	10.00	0.00	
8,450.00	69.83	269.90	7,771.86	-2,478.18	-254.51	1,002.81	10.00	10.00	0.00	
8,500.00	74.83	269.90	7,787.03	-2,478.26	-302.14	1,048.16	10.00	10.00	0.00	
8,544.51	79.28	269.90	7,797.00	-2,478.33	-345.51	1,089.46	10.00	10.00	0.00	
NIO B										
8,550.00	79.83	269.90	7,798.00	-2,478.34	-350.91	1,094.60	10.00	10.00	0.00	
8,600.00	84.83	269.90	7,804.67	-2,478.42	-400.44	1,141.77	10.00	10.00	0.00	
8,651.72	90.00	269.90	7,807.00	-2,478.51	-452.09	1,190.96	10.00	10.00	0.00	
Start DLS 0.00 TFO -96.57										
8,700.00	90.00	269.90	7,807.00	-2,478.59	-500.37	1,236.93	0.00	0.00	0.00	
8,800.00	90.00	269.90	7,807.00	-2,478.75	-600.37	1,332.16	0.00	0.00	0.00	
8,900.00	90.00	269.90	7,807.00	-2,478.92	-700.37	1,427.38	0.00	0.00	0.00	
9,000.00	90.00	269.90	7,807.00	-2,479.09	-800.37	1,522.61	0.00	0.00	0.00	
9,100.00	90.00	269.90	7,807.00	-2,479.26	-900.37	1,617.83	0.00	0.00	0.00	
9,200.00	90.00	269.90	7,807.00	-2,479.42	-1,000.37	1,713.06	0.00	0.00	0.00	
9,300.00	90.00	269.90	7,807.00	-2,479.59	-1,100.37	1,808.28	0.00	0.00	0.00	
9,400.00	90.00	269.90	7,806.99	-2,479.76	-1,200.37	1,903.51	0.00	0.00	0.00	
9,500.00	90.00	269.90	7,806.99	-2,479.93	-1,300.37	1,998.73	0.00	0.00	0.00	
9,600.00	90.00	269.90	7,806.99	-2,480.10	-1,400.37	2,093.96	0.00	0.00	0.00	
9,700.00	90.00	269.90	7,806.99	-2,480.27	-1,500.37	2,189.18	0.00	0.00	0.00	
9,800.00	90.00	269.90	7,806.99	-2,480.44	-1,600.37	2,284.41	0.00	0.00	0.00	
9,900.00	90.00	269.90	7,806.99	-2,480.60	-1,700.37	2,379.63	0.00	0.00	0.00	
10,000.00	90.00	269.90	7,806.99	-2,480.77	-1,800.37	2,474.86	0.00	0.00	0.00	
10,100.00	90.00	269.90	7,806.99	-2,480.94	-1,900.37	2,570.09	0.00	0.00	0.00	
10,200.00	90.00	269.90	7,806.99	-2,481.11	-2,000.37	2,665.31	0.00	0.00	0.00	
10,300.00	90.00	269.90	7,806.99	-2,481.28	-2,100.37	2,760.54	0.00	0.00	0.00	
10,400.00	90.00	269.90	7,806.99	-2,481.45	-2,200.37	2,855.76	0.00	0.00	0.00	
10,500.00	90.00	269.90	7,806.99	-2,481.62	-2,300.37	2,950.99	0.00	0.00	0.00	
10,600.00	90.00	269.90	7,806.99	-2,481.79	-2,400.37	3,046.21	0.00	0.00	0.00	
10,700.00	90.00	269.90	7,806.99	-2,481.96	-2,500.37	3,141.44	0.00	0.00	0.00	
10,800.00	90.00	269.90	7,806.99	-2,482.14	-2,600.37	3,236.67	0.00	0.00	0.00	
10,900.00	90.00	269.90	7,806.99	-2,482.31	-2,700.37	3,331.89	0.00	0.00	0.00	
11,000.00	90.00	269.90	7,806.99	-2,482.48	-2,800.37	3,427.12	0.00	0.00	0.00	
11,100.00	90.00	269.90	7,806.99	-2,482.65	-2,900.37	3,522.35	0.00	0.00	0.00	
11,200.00	90.00	269.90	7,806.99	-2,482.82	-3,000.37	3,617.57	0.00	0.00	0.00	
11,300.00	90.00	269.90	7,806.99	-2,482.99	-3,100.37	3,712.80	0.00	0.00	0.00	
11,400.00	90.00	269.90	7,806.99	-2,483.17	-3,200.37	3,808.02	0.00	0.00	0.00	
11,500.00	90.00	269.90	7,806.99	-2,483.34	-3,300.37	3,903.25	0.00	0.00	0.00	
11,600.00	90.00	269.90	7,806.99	-2,483.51	-3,400.37	3,998.48	0.00	0.00	0.00	
11,700.00	90.00	269.90	7,806.99	-2,483.68	-3,500.37	4,093.70	0.00	0.00	0.00	
11,800.00	90.00	269.90	7,806.99	-2,483.86	-3,600.37	4,188.93	0.00	0.00	0.00	
11,900.00	90.00	269.90	7,806.99	-2,484.03	-3,700.37	4,284.16	0.00	0.00	0.00	
12,000.00	90.00	269.90	7,806.99	-2,484.20	-3,800.37	4,379.38	0.00	0.00	0.00	
12,100.00	90.00	269.90	7,806.99	-2,484.38	-3,900.37	4,474.61	0.00	0.00	0.00	
12,200.00	90.00	269.90	7,806.99	-2,484.55	-4,000.37	4,569.84	0.00	0.00	0.00	
12,300.00	90.00	269.90	7,806.99	-2,484.72	-4,100.37	4,665.07	0.00	0.00	0.00	
12,400.00	90.00	269.90	7,806.99	-2,484.90	-4,200.37	4,760.29	0.00	0.00	0.00	
12,500.00	90.00	269.90	7,806.99	-2,485.07	-4,300.37	4,855.52	0.00	0.00	0.00	
12,600.00	90.00	269.90	7,806.99	-2,485.25	-4,400.37	4,950.75	0.00	0.00	0.00	
12,700.00	90.00	269.90	7,806.99	-2,485.42	-4,500.37	5,045.97	0.00	0.00	0.00	
12,800.00	90.00	269.90	7,806.99	-2,485.59	-4,600.37	5,141.20	0.00	0.00	0.00	
12,900.00	90.00	269.90	7,806.99	-2,485.77	-4,700.37	5,236.43	0.00	0.00	0.00	
13,000.00	90.00	269.90	7,806.99	-2,485.94	-4,800.37	5,331.66	0.00	0.00	0.00	

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-5N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-5N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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	7,806.99	-2,486.12	-4,900.37	5,426.88	0.00	0.00	0.00	
13,200.00	90.00	269.90	7,806.99	-2,486.30	-5,000.37	5,522.11	0.00	0.00	0.00	
13,300.00	90.00	269.90	7,806.99	-2,486.47	-5,100.37	5,617.34	0.00	0.00	0.00	
13,400.00	90.00	269.90	7,806.99	-2,486.65	-5,200.37	5,712.57	0.00	0.00	0.00	
13,500.00	90.00	269.90	7,806.99	-2,486.82	-5,300.37	5,807.79	0.00	0.00	0.00	
13,600.00	90.00	269.90	7,806.99	-2,487.00	-5,400.36	5,903.02	0.00	0.00	0.00	
13,700.00	90.00	269.90	7,806.99	-2,487.18	-5,500.36	5,998.25	0.00	0.00	0.00	
13,800.00	90.00	269.90	7,806.99	-2,487.35	-5,600.36	6,093.48	0.00	0.00	0.00	
13,900.00	90.00	269.90	7,806.99	-2,487.53	-5,700.36	6,188.71	0.00	0.00	0.00	
14,000.00	90.00	269.90	7,806.99	-2,487.71	-5,800.36	6,283.93	0.00	0.00	0.00	
14,100.00	90.00	269.90	7,806.99	-2,487.88	-5,900.36	6,379.16	0.00	0.00	0.00	
14,200.00	90.00	269.90	7,806.99	-2,488.06	-6,000.36	6,474.39	0.00	0.00	0.00	
14,300.00	90.00	269.90	7,806.99	-2,488.24	-6,100.36	6,569.62	0.00	0.00	0.00	
14,400.00	90.00	269.90	7,806.99	-2,488.42	-6,200.36	6,664.85	0.00	0.00	0.00	
14,500.00	90.00	269.90	7,806.99	-2,488.59	-6,300.36	6,760.07	0.00	0.00	0.00	
14,600.00	90.00	269.90	7,806.99	-2,488.77	-6,400.36	6,855.30	0.00	0.00	0.00	
14,700.00	90.00	269.90	7,806.99	-2,488.95	-6,500.36	6,950.53	0.00	0.00	0.00	
14,800.00	90.00	269.90	7,806.99	-2,489.13	-6,600.36	7,045.76	0.00	0.00	0.00	
14,900.00	90.00	269.90	7,806.99	-2,489.31	-6,700.36	7,140.99	0.00	0.00	0.00	
15,000.00	90.00	269.90	7,806.99	-2,489.49	-6,800.36	7,236.22	0.00	0.00	0.00	
15,100.00	90.00	269.90	7,806.99	-2,489.67	-6,900.36	7,331.45	0.00	0.00	0.00	
15,200.00	90.00	269.90	7,806.99	-2,489.85	-7,000.36	7,426.67	0.00	0.00	0.00	
15,300.00	90.00	269.90	7,807.00	-2,490.03	-7,100.36	7,521.90	0.00	0.00	0.00	
15,400.00	90.00	269.90	7,807.00	-2,490.21	-7,200.36	7,617.13	0.00	0.00	0.00	
15,500.00	90.00	269.90	7,807.00	-2,490.39	-7,300.36	7,712.36	0.00	0.00	0.00	
15,600.00	90.00	269.90	7,807.00	-2,490.57	-7,400.36	7,807.59	0.00	0.00	0.00	
15,700.00	90.00	269.90	7,807.00	-2,490.75	-7,500.36	7,902.82	0.00	0.00	0.00	
15,800.00	90.00	269.90	7,807.00	-2,490.93	-7,600.36	7,998.05	0.00	0.00	0.00	
15,900.00	90.00	269.90	7,807.00	-2,491.11	-7,700.36	8,093.28	0.00	0.00	0.00	
15,924.73	90.00	269.90	7,807.00	-2,491.15	-7,725.09	8,116.83	0.00	0.00	0.00	
TD at 15924.73										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
CT 33W-5N PBHL - hit/miss target - Shape - plan hits target center - Point	0.00	0.00	7,807.00	-2,491.15	-7,725.09	1,247,244.63	3,130,198.85	40° 0' 40.090 N	105° 2' 6.652 W	
CT 33W-5N LP - plan hits target center - Point	0.00	0.00	7,807.00	-2,478.51	-452.09	1,247,297.66	3,137,471.67	40° 0' 40.226 N	105° 0' 33.178 W	

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-5N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-5N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,751.32	4,440.00	PARKMAN				
5,271.88	4,910.00	SUSSEX				
8,161.78	7,610.00	SHARON SPRINGS				
8,217.21	7,650.00	NIOBRARA				
8,544.51	7,797.00	NIO B				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
700.00	700.00	0.00	0.00	Start Build 2.00
1,973.05	1,931.56	-277.90	13.56	Start 4475.55 hold at 1973.05 MD
6,448.60	5,972.44	-2,199.65	107.35	Start Drop -2.00
7,721.65	7,204.00	-2,477.55	120.91	Start 30.00 hold at 7721.65 MD
7,751.65	7,234.00	-2,477.55	120.91	Start DLS 10.00 TFO 269.90
8,651.72	7,807.00	-2,478.51	-452.09	Start DLS 0.00 TFO -96.57
15,924.73	7,807.00	-2,491.15	-7,725.09	TD at 15924.73