

EXTRACTION OIL & GAS

WELD COUNTY

Sec 28-T1N-R68W

COYOTE TRAILS 33W-15-1N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

07 June, 2018

WELL DETAILS: COYOTE TRAILS 33W-15-1N

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1249828.71	3137873.87	40° 1' 5.217 N	105° 0' 27.828 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	1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
3	1823.03	14.46	173.51	1815.38	-90.18	10.26	2.00	173.51	5.95	
4	6649.17	14.46	173.51	6488.62	-1287.61	146.52	0.00	0.00	85.00	
5	7372.20	0.00	0.00	7204.00	-1377.79	156.78	2.00	180.00	90.96	
6	7402.20	0.00	0.00	7234.00	-1377.79	156.78	0.00	0.00	90.96	
7	8302.27	90.00	269.90	7807.00	-1378.76	-416.22	10.00	269.90	654.98	CT 33W-1N LP
8	15578.58	90.00	269.90	7807.00	-1391.42	-7692.53	0.00	0.00	7817.35	CT 33W-1N PBHL

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	Start Build 2.00
1823.03	14.46	173.51	1815.38	-90.18	10.26	5.95	90.76	Start 4826.13 hold at 1823.03 MD
6649.17	14.46	173.51	6488.62	-1287.61	146.52	85.00	1295.92	Start Drop -2.00
7372.20	0.00	0.00	7204.00	-1377.79	156.78	90.96	1386.68	Start 30.00 hold at 7372.20 MD
7402.20	0.00	0.00	7234.00	-1377.79	156.78	90.96	1386.68	Start DLS 10.00 TFO 269.90
8302.27	90.00	269.90	7807.00	-1378.76	-416.22	654.98	1959.68	Start 7276.32 hold at 8302.27 MD
15578.58	90.00	269.90	7807.00	-1391.42	-7692.53	7817.35	9236.00	TD at 15578.58

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CT 33W-1N LP	7807.00	-1378.76	-416.22	1248447.66	3137465.31	40° 0' 51.592 N	105° 0' 33.178 W	Point
- plan hits target center								
CT 33W-1N PBHL	7807.00	-1391.42	-7692.53	1248394.61	3130189.18	40° 0' 51.455 N	105° 2' 6.698 W	Point
- plan hits target center								

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4440.00	4533.52	PARKMAN
4910.00	5018.90	SUSSEX
7610.00	7812.33	SHARON SPRINGS
7650.00	7867.76	NIOBRARA
7797.00	8195.06	NIO B

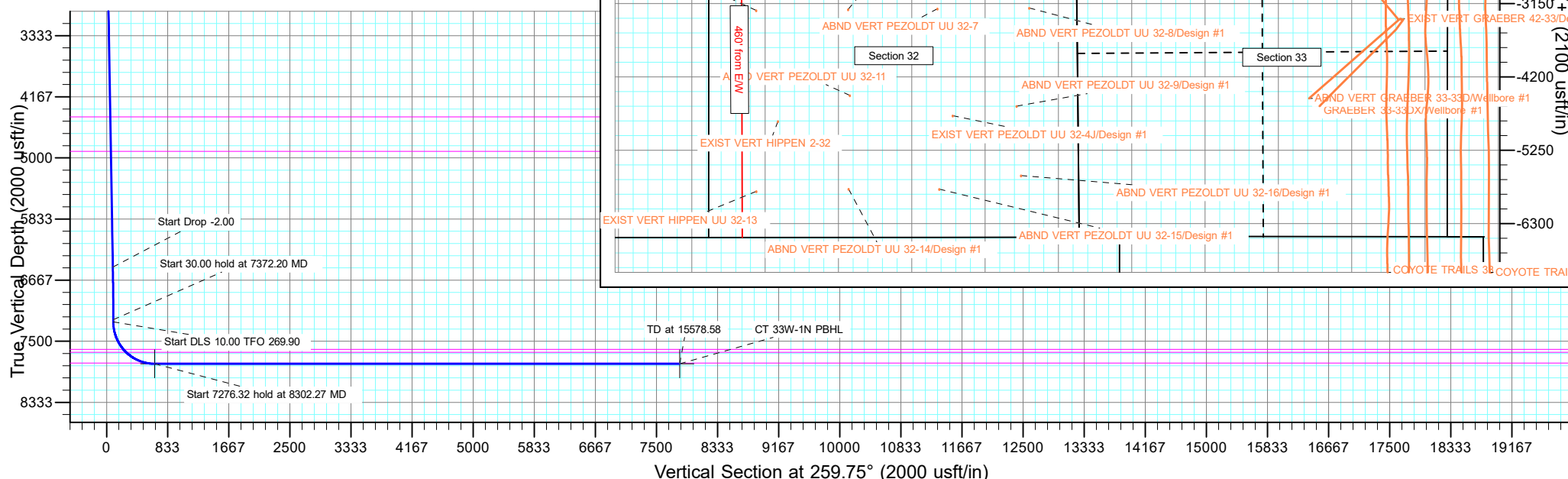
PROJECT DETAILS: WELD COUNTY

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

SHL:
1201' FSL, 2427' FEL
Sec 28-T1N-R68W

LP:
174' FNL, 2492' FWL
Sec 33-T1N-R68W

BHL:
172' FNL, 460' FWL
Sec 32-T1N-R68W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-1N
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-15-1N	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-15-1N					
Well Position	+N/-S	1,182.18 usft	Northing:	1,249,828.71 usft	Latitude:	40° 1' 5.217 N
	+E/-W	-2,419.32 usft	Easting:	3,137,873.87 usft	Longitude:	105° 0' 27.828 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	52,159.99806907

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	259.75

Plan Survey Tool Program	Date	6/7/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,578.58	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	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,823.03	14.46	173.51	1,815.38	-90.18	10.26	2.00	2.00	0.00	173.51	
6,649.17	14.46	173.51	6,488.62	-1,287.61	146.52	0.00	0.00	0.00	0.00	
7,372.20	0.00	0.00	7,204.00	-1,377.79	156.78	2.00	-2.00	0.00	180.00	
7,402.20	0.00	0.00	7,234.00	-1,377.79	156.78	0.00	0.00	0.00	0.00	
8,302.27	90.00	269.90	7,807.00	-1,378.76	-416.22	10.00	10.00	-10.01	269.90	CT 33W-1N LP
15,578.58	90.00	269.90	7,807.00	-1,391.42	-7,692.53	0.00	0.00	0.00	0.00	CT 33W-1N PBHL

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-1N
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-15-1N	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
Start Build 2.00									
1,200.00	2.00	173.51	1,199.98	-1.73	0.20	0.11	2.00	2.00	0.00
1,300.00	4.00	173.51	1,299.84	-6.93	0.79	0.46	2.00	2.00	0.00
1,400.00	6.00	173.51	1,399.45	-15.59	1.77	1.03	2.00	2.00	0.00
1,500.00	8.00	173.51	1,498.70	-27.70	3.15	1.83	2.00	2.00	0.00
1,600.00	10.00	173.51	1,597.47	-43.24	4.92	2.85	2.00	2.00	0.00
1,700.00	12.00	173.51	1,695.62	-62.20	7.08	4.11	2.00	2.00	0.00
1,800.00	14.00	173.51	1,793.06	-84.55	9.62	5.58	2.00	2.00	0.00
1,823.03	14.46	173.51	1,815.38	-90.18	10.26	5.95	2.00	2.00	0.00
Start 4826.13 hold at 1823.03 MD									
1,900.00	14.46	173.51	1,889.91	-109.27	12.43	7.21	0.00	0.00	0.00
2,000.00	14.46	173.51	1,986.74	-134.08	15.26	8.85	0.00	0.00	0.00
2,100.00	14.46	173.51	2,083.57	-158.90	18.08	10.49	0.00	0.00	0.00
2,200.00	14.46	173.51	2,180.41	-183.71	20.90	12.13	0.00	0.00	0.00
2,300.00	14.46	173.51	2,277.24	-208.52	23.73	13.77	0.00	0.00	0.00
2,400.00	14.46	173.51	2,374.07	-233.33	26.55	15.40	0.00	0.00	0.00
2,500.00	14.46	173.51	2,470.90	-258.14	29.37	17.04	0.00	0.00	0.00
2,600.00	14.46	173.51	2,567.73	-282.95	32.20	18.68	0.00	0.00	0.00
2,700.00	14.46	173.51	2,664.57	-307.77	35.02	20.32	0.00	0.00	0.00
2,800.00	14.46	173.51	2,761.40	-332.58	37.84	21.96	0.00	0.00	0.00
2,900.00	14.46	173.51	2,858.23	-357.39	40.67	23.59	0.00	0.00	0.00
3,000.00	14.46	173.51	2,955.06	-382.20	43.49	25.23	0.00	0.00	0.00
3,100.00	14.46	173.51	3,051.89	-407.01	46.31	26.87	0.00	0.00	0.00
3,200.00	14.46	173.51	3,148.72	-431.82	49.14	28.51	0.00	0.00	0.00
3,300.00	14.46	173.51	3,245.56	-456.63	51.96	30.15	0.00	0.00	0.00
3,400.00	14.46	173.51	3,342.39	-481.45	54.78	31.78	0.00	0.00	0.00
3,500.00	14.46	173.51	3,439.22	-506.26	57.61	33.42	0.00	0.00	0.00
3,600.00	14.46	173.51	3,536.05	-531.07	60.43	35.06	0.00	0.00	0.00
3,700.00	14.46	173.51	3,632.88	-555.88	63.25	36.70	0.00	0.00	0.00
3,800.00	14.46	173.51	3,729.72	-580.69	66.08	38.34	0.00	0.00	0.00
3,900.00	14.46	173.51	3,826.55	-605.50	68.90	39.97	0.00	0.00	0.00
4,000.00	14.46	173.51	3,923.38	-630.32	71.72	41.61	0.00	0.00	0.00
4,100.00	14.46	173.51	4,020.21	-655.13	74.55	43.25	0.00	0.00	0.00
4,200.00	14.46	173.51	4,117.04	-679.94	77.37	44.89	0.00	0.00	0.00
4,300.00	14.46	173.51	4,213.88	-704.75	80.19	46.53	0.00	0.00	0.00
4,400.00	14.46	173.51	4,310.71	-729.56	83.02	48.16	0.00	0.00	0.00
4,500.00	14.46	173.51	4,407.54	-754.37	85.84	49.80	0.00	0.00	0.00
4,533.52	14.46	173.51	4,440.00	-762.69	86.79	50.35	0.00	0.00	0.00
PARKMAN									
4,600.00	14.46	173.51	4,504.37	-779.18	88.66	51.44	0.00	0.00	0.00
4,700.00	14.46	173.51	4,601.20	-804.00	91.49	53.08	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-15-1N	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	14.46	173.51	4,698.04	-828.81	94.31	54.72	0.00	0.00	0.00
4,900.00	14.46	173.51	4,794.87	-853.62	97.13	56.35	0.00	0.00	0.00
5,000.00	14.46	173.51	4,891.70	-878.43	99.96	57.99	0.00	0.00	0.00
5,018.90	14.46	173.51	4,910.00	-883.12	100.49	58.30	0.00	0.00	0.00
SUSSEX									
5,100.00	14.46	173.51	4,988.53	-903.24	102.78	59.63	0.00	0.00	0.00
5,200.00	14.46	173.51	5,085.36	-928.05	105.60	61.27	0.00	0.00	0.00
5,300.00	14.46	173.51	5,182.19	-952.86	108.43	62.91	0.00	0.00	0.00
5,400.00	14.46	173.51	5,279.03	-977.68	111.25	64.54	0.00	0.00	0.00
5,500.00	14.46	173.51	5,375.86	-1,002.49	114.07	66.18	0.00	0.00	0.00
5,600.00	14.46	173.51	5,472.69	-1,027.30	116.90	67.82	0.00	0.00	0.00
5,700.00	14.46	173.51	5,569.52	-1,052.11	119.72	69.46	0.00	0.00	0.00
5,800.00	14.46	173.51	5,666.35	-1,076.92	122.54	71.10	0.00	0.00	0.00
5,900.00	14.46	173.51	5,763.19	-1,101.73	125.37	72.73	0.00	0.00	0.00
6,000.00	14.46	173.51	5,860.02	-1,126.55	128.19	74.37	0.00	0.00	0.00
6,100.00	14.46	173.51	5,956.85	-1,151.36	131.01	76.01	0.00	0.00	0.00
6,200.00	14.46	173.51	6,053.68	-1,176.17	133.84	77.65	0.00	0.00	0.00
6,300.00	14.46	173.51	6,150.51	-1,200.98	136.66	79.29	0.00	0.00	0.00
6,400.00	14.46	173.51	6,247.35	-1,225.79	139.48	80.92	0.00	0.00	0.00
6,500.00	14.46	173.51	6,344.18	-1,250.60	142.31	82.56	0.00	0.00	0.00
6,600.00	14.46	173.51	6,441.01	-1,275.41	145.13	84.20	0.00	0.00	0.00
6,649.17	14.46	173.51	6,488.62	-1,287.61	146.52	85.00	0.00	0.00	0.00
Start Drop -2.00									
6,700.00	13.44	173.51	6,537.95	-1,299.79	147.90	85.81	2.00	-2.00	0.00
6,800.00	11.44	173.51	6,635.60	-1,321.20	150.34	87.22	2.00	-2.00	0.00
6,900.00	9.44	173.51	6,733.94	-1,339.21	152.39	88.41	2.00	-2.00	0.00
7,000.00	7.44	173.51	6,832.85	-1,353.80	154.05	89.37	2.00	-2.00	0.00
7,100.00	5.44	173.51	6,932.21	-1,364.95	155.32	90.11	2.00	-2.00	0.00
7,200.00	3.44	173.51	7,031.90	-1,372.65	156.20	90.62	2.00	-2.00	0.00
7,300.00	1.44	173.51	7,131.81	-1,376.89	156.68	90.90	2.00	-2.00	0.00
7,372.20	0.00	0.00	7,204.00	-1,377.79	156.78	90.96	2.00	-2.00	0.00
Start 30.00 hold at 7372.20 MD									
7,402.20	0.00	0.00	7,234.00	-1,377.79	156.78	90.96	0.00	0.00	0.00
Start DLS 10.00 TFO 269.90									
7,450.00	4.78	269.90	7,281.74	-1,377.79	154.79	92.92	10.00	10.00	0.00
7,500.00	9.78	269.90	7,331.33	-1,377.80	148.45	99.15	10.00	10.00	0.00
7,550.00	14.78	269.90	7,380.17	-1,377.82	137.82	109.62	10.00	10.00	0.00
7,600.00	19.78	269.90	7,427.90	-1,377.85	122.98	124.23	10.00	10.00	0.00
7,650.00	24.78	269.90	7,474.15	-1,377.88	104.03	142.88	10.00	10.00	0.00
7,700.00	29.78	269.90	7,518.57	-1,377.92	81.12	165.43	10.00	10.00	0.00
7,750.00	34.78	269.90	7,560.83	-1,377.96	54.43	191.71	10.00	10.00	0.00
7,800.00	39.78	269.90	7,600.61	-1,378.02	24.15	221.51	10.00	10.00	0.00
7,812.33	41.01	269.90	7,610.00	-1,378.03	16.16	229.37	10.00	10.00	0.00
SHARON SPRINGS									
7,850.00	44.78	269.90	7,637.59	-1,378.07	-9.47	254.60	10.00	10.00	0.00
7,867.76	46.55	269.90	7,650.00	-1,378.09	-22.17	267.11	10.00	10.00	0.00
NIOBRARA									
7,900.00	49.78	269.90	7,671.50	-1,378.13	-46.19	290.75	10.00	10.00	0.00
7,950.00	54.78	269.90	7,702.09	-1,378.20	-85.73	329.67	10.00	10.00	0.00
8,000.00	59.78	269.90	7,729.11	-1,378.27	-127.78	371.06	10.00	10.00	0.00
8,050.00	64.78	269.90	7,752.36	-1,378.35	-172.02	414.61	10.00	10.00	0.00
8,100.00	69.77	269.90	7,771.67	-1,378.43	-218.13	459.99	10.00	10.00	0.00
8,150.00	74.77	269.90	7,786.89	-1,378.51	-265.74	506.86	10.00	10.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-1N
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-15-1N	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)
8,195.06	79.28	269.90	7,797.00	-1,378.58	-309.64	550.07	10.00	10.00	0.00
NIO B									
8,200.00	79.77	269.90	7,797.90	-1,378.59	-314.50	554.85	10.00	10.00	0.00
8,250.00	84.77	269.90	7,804.62	-1,378.67	-364.03	603.60	10.00	10.00	0.00
8,302.27	90.00	269.90	7,807.00	-1,378.76	-416.22	654.98	10.00	10.00	0.00
Start 7276.32 hold at 8302.27 MD									
8,400.00	90.00	269.90	7,807.00	-1,378.93	-513.95	751.18	0.00	0.00	0.00
8,500.00	90.00	269.90	7,807.00	-1,379.10	-613.95	849.62	0.00	0.00	0.00
8,600.00	90.00	269.90	7,807.00	-1,379.27	-713.95	948.05	0.00	0.00	0.00
8,700.00	90.00	269.90	7,807.00	-1,379.44	-813.95	1,046.48	0.00	0.00	0.00
8,800.00	90.00	269.90	7,807.00	-1,379.61	-913.95	1,144.92	0.00	0.00	0.00
8,900.00	90.00	269.90	7,807.00	-1,379.78	-1,013.95	1,243.35	0.00	0.00	0.00
9,000.00	90.00	269.90	7,807.00	-1,379.95	-1,113.95	1,341.78	0.00	0.00	0.00
9,100.00	90.00	269.90	7,807.00	-1,380.12	-1,213.95	1,440.22	0.00	0.00	0.00
9,200.00	90.00	269.90	7,807.00	-1,380.29	-1,313.95	1,538.65	0.00	0.00	0.00
9,300.00	90.00	269.90	7,807.00	-1,380.46	-1,413.95	1,637.08	0.00	0.00	0.00
9,400.00	90.00	269.90	7,807.00	-1,380.63	-1,513.95	1,735.52	0.00	0.00	0.00
9,500.00	90.00	269.90	7,807.00	-1,380.80	-1,613.95	1,833.95	0.00	0.00	0.00
9,600.00	90.00	269.90	7,807.00	-1,380.97	-1,713.95	1,932.38	0.00	0.00	0.00
9,700.00	90.00	269.90	7,807.00	-1,381.14	-1,813.95	2,030.82	0.00	0.00	0.00
9,800.00	90.00	269.90	7,807.00	-1,381.31	-1,913.95	2,129.25	0.00	0.00	0.00
9,900.00	90.00	269.90	7,807.00	-1,381.47	-2,013.95	2,227.68	0.00	0.00	0.00
10,000.00	90.00	269.90	7,807.00	-1,381.64	-2,113.95	2,326.12	0.00	0.00	0.00
10,100.00	90.00	269.90	7,807.00	-1,381.81	-2,213.95	2,424.55	0.00	0.00	0.00
10,200.00	90.00	269.90	7,806.99	-1,381.98	-2,313.95	2,522.98	0.00	0.00	0.00
10,300.00	90.00	269.90	7,806.99	-1,382.15	-2,413.95	2,621.42	0.00	0.00	0.00
10,400.00	90.00	269.90	7,806.99	-1,382.32	-2,513.95	2,719.85	0.00	0.00	0.00
10,500.00	90.00	269.90	7,806.99	-1,382.49	-2,613.95	2,818.28	0.00	0.00	0.00
10,600.00	90.00	269.90	7,806.99	-1,382.66	-2,713.95	2,916.72	0.00	0.00	0.00
10,700.00	90.00	269.90	7,806.99	-1,382.83	-2,813.95	3,015.15	0.00	0.00	0.00
10,800.00	90.00	269.90	7,806.99	-1,383.00	-2,913.95	3,113.58	0.00	0.00	0.00
10,900.00	90.00	269.90	7,806.99	-1,383.17	-3,013.95	3,212.02	0.00	0.00	0.00
11,000.00	90.00	269.90	7,806.99	-1,383.34	-3,113.95	3,310.45	0.00	0.00	0.00
11,100.00	90.00	269.90	7,806.99	-1,383.51	-3,213.95	3,408.88	0.00	0.00	0.00
11,200.00	90.00	269.90	7,806.99	-1,383.68	-3,313.95	3,507.32	0.00	0.00	0.00
11,300.00	90.00	269.90	7,806.99	-1,383.85	-3,413.95	3,605.75	0.00	0.00	0.00
11,400.00	90.00	269.90	7,806.99	-1,384.02	-3,513.95	3,704.18	0.00	0.00	0.00
11,500.00	90.00	269.90	7,806.99	-1,384.19	-3,613.95	3,802.61	0.00	0.00	0.00
11,600.00	90.00	269.90	7,806.99	-1,384.36	-3,713.95	3,901.05	0.00	0.00	0.00
11,700.00	90.00	269.90	7,806.99	-1,384.53	-3,813.95	3,999.48	0.00	0.00	0.00
11,800.00	90.00	269.90	7,806.99	-1,384.70	-3,913.95	4,097.91	0.00	0.00	0.00
11,900.00	90.00	269.90	7,806.99	-1,384.87	-4,013.95	4,196.35	0.00	0.00	0.00
12,000.00	90.00	269.90	7,806.99	-1,385.04	-4,113.95	4,294.78	0.00	0.00	0.00
12,100.00	90.00	269.90	7,806.99	-1,385.21	-4,213.95	4,393.21	0.00	0.00	0.00
12,200.00	90.00	269.90	7,806.99	-1,385.38	-4,313.95	4,491.65	0.00	0.00	0.00
12,300.00	90.00	269.90	7,806.99	-1,385.55	-4,413.95	4,590.08	0.00	0.00	0.00
12,400.00	90.00	269.90	7,806.99	-1,385.72	-4,513.95	4,688.51	0.00	0.00	0.00
12,500.00	90.00	269.90	7,806.99	-1,385.89	-4,613.95	4,786.95	0.00	0.00	0.00
12,600.00	90.00	269.90	7,806.99	-1,386.06	-4,713.95	4,885.38	0.00	0.00	0.00
12,700.00	90.00	269.90	7,806.99	-1,386.23	-4,813.95	4,983.81	0.00	0.00	0.00
12,800.00	90.00	269.90	7,806.99	-1,386.40	-4,913.95	5,082.25	0.00	0.00	0.00
12,900.00	90.00	269.90	7,806.99	-1,386.57	-5,013.95	5,180.68	0.00	0.00	0.00
13,000.00	90.00	269.90	7,806.99	-1,386.74	-5,113.95	5,279.11	0.00	0.00	0.00
13,100.00	90.00	269.90	7,806.99	-1,386.91	-5,213.95	5,377.55	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-1N
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-15-1N	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	7,806.99	-1,387.08	-5,313.95	5,475.98	0.00	0.00	0.00	
13,300.00	90.00	269.90	7,806.99	-1,387.25	-5,413.95	5,574.41	0.00	0.00	0.00	
13,400.00	90.00	269.90	7,806.99	-1,387.42	-5,513.95	5,672.85	0.00	0.00	0.00	
13,500.00	90.00	269.90	7,806.99	-1,387.59	-5,613.95	5,771.28	0.00	0.00	0.00	
13,600.00	90.00	269.90	7,806.99	-1,387.76	-5,713.95	5,869.71	0.00	0.00	0.00	
13,700.00	90.00	269.90	7,806.99	-1,387.93	-5,813.95	5,968.15	0.00	0.00	0.00	
13,800.00	90.00	269.90	7,806.99	-1,388.10	-5,913.95	6,066.58	0.00	0.00	0.00	
13,900.00	90.00	269.90	7,806.98	-1,388.27	-6,013.95	6,165.01	0.00	0.00	0.00	
14,000.00	90.00	269.90	7,806.98	-1,388.43	-6,113.94	6,263.45	0.00	0.00	0.00	
14,100.00	90.00	269.90	7,806.98	-1,388.60	-6,213.94	6,361.88	0.00	0.00	0.00	
14,200.00	90.00	269.90	7,806.98	-1,388.77	-6,313.94	6,460.31	0.00	0.00	0.00	
14,300.00	90.00	269.90	7,806.98	-1,388.94	-6,413.94	6,558.75	0.00	0.00	0.00	
14,400.00	90.00	269.90	7,806.98	-1,389.11	-6,513.94	6,657.18	0.00	0.00	0.00	
14,500.00	90.00	269.90	7,806.98	-1,389.28	-6,613.94	6,755.61	0.00	0.00	0.00	
14,600.00	90.00	269.90	7,806.98	-1,389.45	-6,713.94	6,854.05	0.00	0.00	0.00	
14,700.00	90.00	269.90	7,806.98	-1,389.62	-6,813.94	6,952.48	0.00	0.00	0.00	
14,800.00	90.00	269.90	7,806.98	-1,389.79	-6,913.94	7,050.91	0.00	0.00	0.00	
14,900.00	90.00	269.90	7,806.98	-1,389.96	-7,013.94	7,149.35	0.00	0.00	0.00	
15,000.00	90.00	269.90	7,806.98	-1,390.13	-7,113.94	7,247.78	0.00	0.00	0.00	
15,100.00	90.00	269.90	7,806.98	-1,390.30	-7,213.94	7,346.21	0.00	0.00	0.00	
15,200.00	90.00	269.90	7,806.98	-1,390.47	-7,313.94	7,444.65	0.00	0.00	0.00	
15,300.00	90.00	269.90	7,806.98	-1,390.64	-7,413.94	7,543.08	0.00	0.00	0.00	
15,400.00	90.00	269.90	7,806.98	-1,390.81	-7,513.94	7,641.51	0.00	0.00	0.00	
15,500.00	90.00	269.90	7,806.98	-1,390.98	-7,613.94	7,739.95	0.00	0.00	0.00	
15,578.58	90.00	269.90	7,806.98	-1,391.11	-7,692.53	7,817.30	0.00	0.00	0.00	
TD at 15578.58										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
CT 33W-1N LP	0.00	0.00	7,807.00	-1,378.76	-416.22	1,248,447.65	3,137,465.31	40° 0' 51.592 N	105° 0' 33.178 W	
- hit/miss target										
- Shape										
- Point										
CT 33W-1N PBHL	0.00	0.00	7,807.00	-1,391.42	-7,692.53	1,248,394.61	3,130,189.18	40° 0' 51.455 N	105° 2' 6.698 W	
- plan misses target center by 0.30usft at 15578.58usft MD (7806.98 TVD, -1391.11 N, -7692.53 E)										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,533.52	4,440.00	PARKMAN				
5,018.90	4,910.00	SUSSEX				
7,812.33	7,610.00	SHARON SPRINGS				
7,867.76	7,650.00	NIOBRARA				
8,195.06	7,797.00	NIO B				

Planning Report

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

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,100.00	1,100.00	0.00	0.00	Start Build 2.00
1,823.03	1,815.38	-90.18	10.26	Start 4826.13 hold at 1823.03 MD
6,649.17	6,488.62	-1,287.61	146.52	Start Drop -2.00
7,372.20	7,204.00	-1,377.79	156.78	Start 30.00 hold at 7372.20 MD
7,402.20	7,234.00	-1,377.79	156.78	Start DLS 10.00 TFO 269.90
8,302.27	7,807.00	-1,378.76	-416.22	Start 7276.32 hold at 8302.27 MD
15,578.58	7,807.00	-1,391.42	-7,692.53	TD at 15578.58