

EXTRACTION OIL & GAS

Weld County

Sec 28-T1N-R68W

COYOTE TRAILS 34S-20-15N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

10 August, 2017



Project: Weld County
Site: Sec 28-T1N-R68W
Well: COYOTE TRAILS 34S-20-15N
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: 52202.4snT
Dip Angle: 66.51°
Date: 6/29/2017
Model: IGRF2015

WELL DETAILS: COYOTE TRAILS 34S-20-15N

+N/-S	+E/-W	Northing	Easting	5244.00	Latitude	Longitude	Slot
0.00	0.00	1249743.73	3138251.62		40° 1' 4.357 N	105° 0' 22.976 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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	2284.61	41.69	103.31	2105.46	-166.98	706.10	2.00	103.31	402.89	
4	6466.99	41.69	103.31	5228.54	-807.18	3413.25	0.00	0.00	1947.55	
5	8551.60	0.00	0.00	7134.00	-974.16	4119.35	2.00	180.00	2350.44	
6	8651.60	0.00	0.00	7234.00	-974.16	4119.35	0.00	0.00	2350.44	
7	9551.68	90.00	179.65	7807.00	-1547.16	4122.82	10.00	179.65	2888.63	CT 34S-20-15N LP
8	19234.64	90.00	179.65	7807.00	-11229.94	4181.93	0.00	-112.82	11983.33	CT 34S-20-15N PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4440.00	5410.98	PARKMAN
4910.00	6040.40	SUSSEX
7610.00	9061.73	SHARON SPRINGS
7650.00	9117.16	NIOBRARA
7797.00	9444.46	NIO B

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	BUILD 2°/100'
2284.61	41.69	103.31	2105.46	-166.98	706.10	402.89	725.57	HOLD 41.69° INC
6466.99	41.69	103.31	5228.54	-807.18	3413.25	1947.55	3507.40	DROP 2°/100'
8551.60	0.00	0.00	7134.00	-974.16	4119.35	2350.44	4232.97	HOLD VERTICAL
8651.60	0.00	0.00	7234.00	-974.16	4119.35	2350.44	4232.97	KOP, BUILD 10°/100'
9551.68	90.00	179.65	7807.00	-1547.16	4122.82	2888.63	4805.98	LP @ 90° INC, 179.65° AZM HOLD
19234.64	90.00	179.65	7807.00	-11229.94	4181.93	11983.33	14488.94	TD at 19234.64' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CT 34S-20-15N LP	7807.00	-1547.16	4122.82	1248219.55	3142383.20	40° 0' 49.063 N	104° 59' 29.987 W
CT 34S-20-15N PBHL	7807.00	-11229.94	4181.93	1238537.24	3142496.20	39° 59' 13.372 N	104° 59' 29.248 W

SHL:

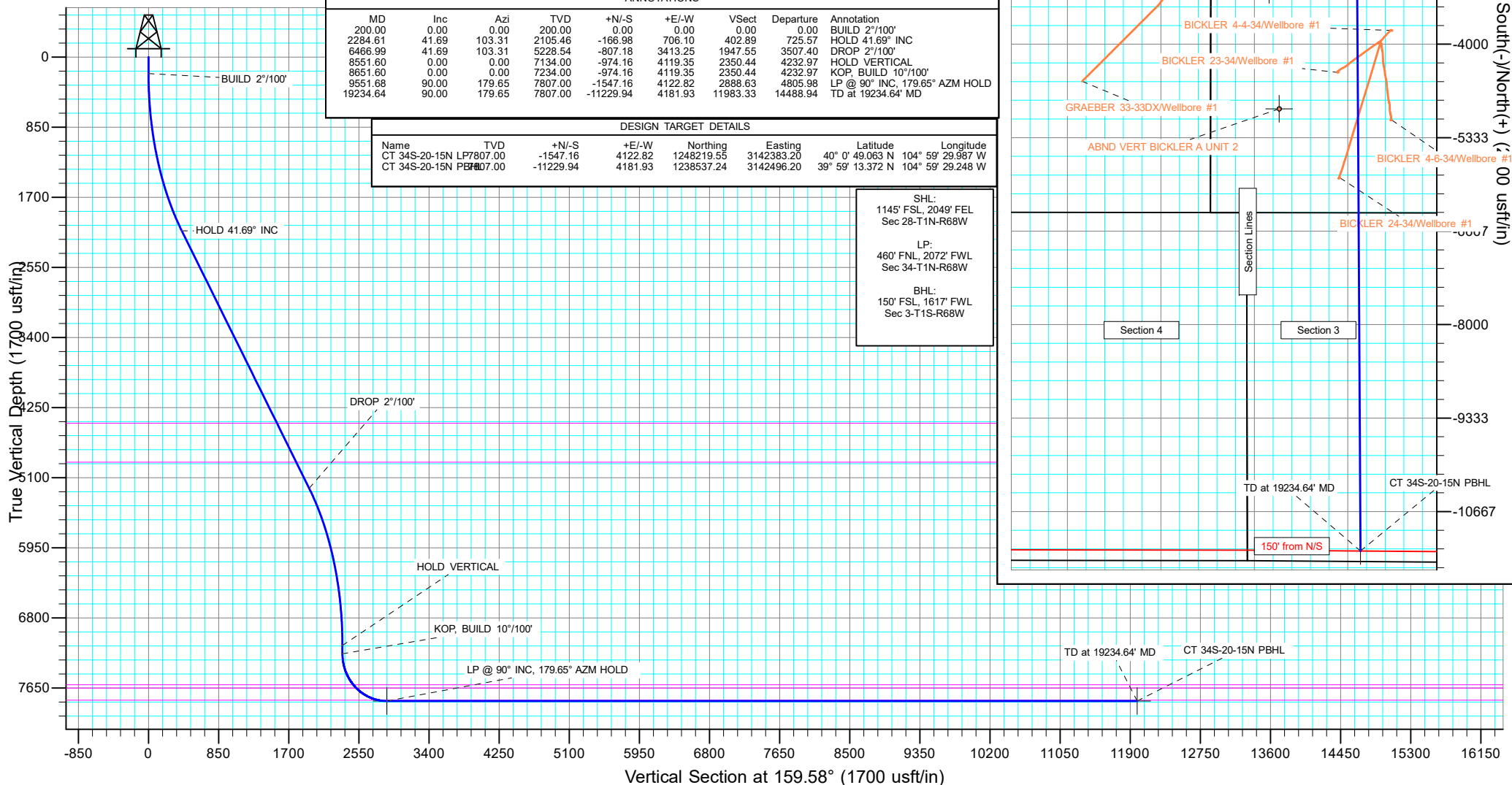
1145' FSL, 2049' FEL
Sec 28-T1N-R68W

LP:

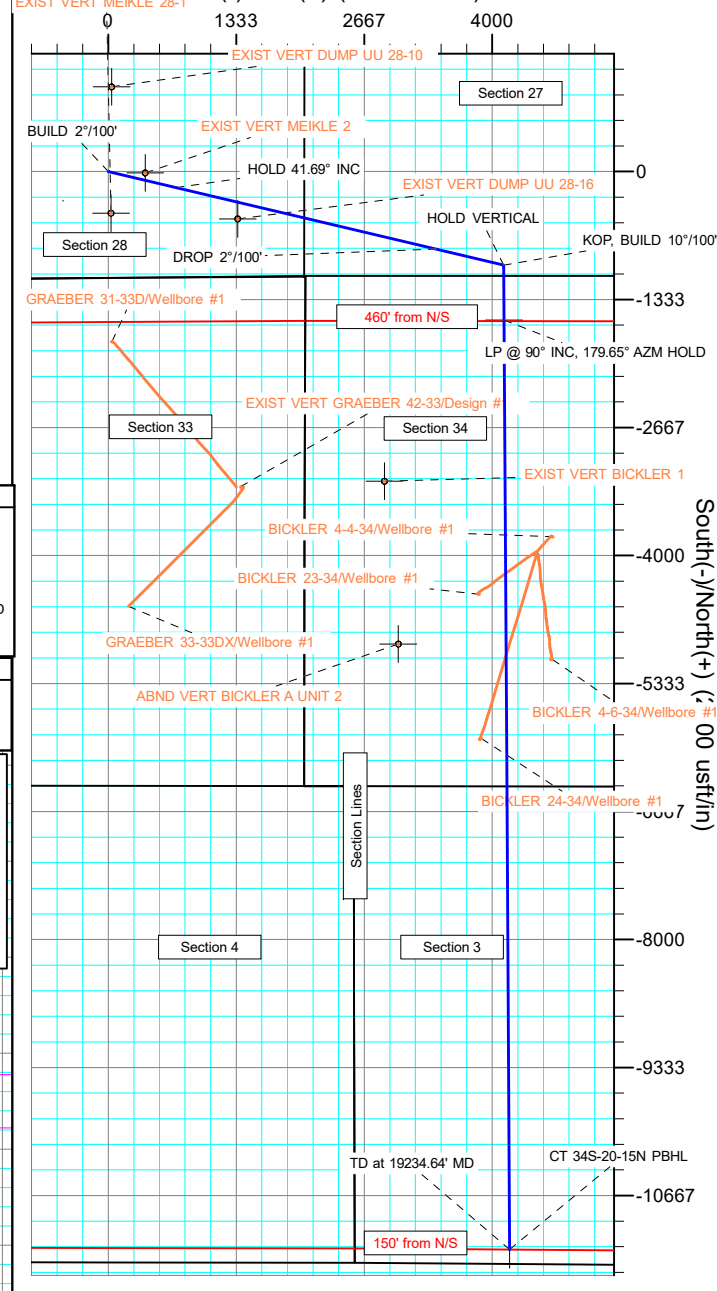
460' FNL, 2072' FWL
Sec 34-T1N-R68W

BHL:

150' FSL, 1617' FWL
Sec 3-T1S-R68W



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



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-15N
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-20-15N	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-20-15N					
Well Position	+N/-S	1,095.07 usft	Northing:	1,249,743.73 usft	Latitude:	40° 1' 4.357 N
	+E/-W	-2,041.85 usft	Easting:	3,138,251.82 usft	Longitude:	105° 0' 22.976 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	52,202.36924356

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	159.58

Plan Survey Tool Program	Date	8/10/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,234.64	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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,284.61	41.69	103.31	2,105.46	-166.98	706.10	2.00	2.00	0.00	103.31	
6,466.99	41.69	103.31	5,228.54	-807.18	3,413.25	0.00	0.00	0.00	0.00	
8,551.60	0.00	0.00	7,134.00	-974.16	4,119.35	2.00	-2.00	0.00	180.00	
8,651.60	0.00	0.00	7,234.00	-974.16	4,119.35	0.00	0.00	0.00	0.00	
9,551.68	90.00	179.65	7,807.00	-1,547.16	4,122.82	10.00	10.00	19.96	179.65	CT 34S-20-15N LP
19,234.64	90.00	179.65	7,807.00	-11,229.94	4,181.93	0.00	0.00	0.00	-112.82	CT 34S-20-15N PBHI

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-15N
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-20-15N	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
BUILD 2°/100'									
300.00	2.00	103.31	299.98	-0.40	1.70	0.97	2.00	2.00	0.00
400.00	4.00	103.31	399.84	-1.61	6.79	3.87	2.00	2.00	0.00
500.00	6.00	103.31	499.45	-3.61	15.27	8.71	2.00	2.00	0.00
600.00	8.00	103.31	598.70	-6.42	27.13	15.48	2.00	2.00	0.00
700.00	10.00	103.31	697.47	-10.02	42.35	24.17	2.00	2.00	0.00
800.00	12.00	103.31	795.62	-14.41	60.92	34.76	2.00	2.00	0.00
900.00	14.00	103.31	893.06	-19.58	82.81	47.25	2.00	2.00	0.00
1,000.00	16.00	103.31	989.64	-25.54	108.00	61.62	2.00	2.00	0.00
1,100.00	18.00	103.31	1,085.27	-32.27	136.45	77.86	2.00	2.00	0.00
1,200.00	20.00	103.31	1,179.82	-39.76	168.13	95.93	2.00	2.00	0.00
1,300.00	22.00	103.31	1,273.17	-48.01	203.00	115.83	2.00	2.00	0.00
1,400.00	24.00	103.31	1,365.21	-57.00	241.03	137.53	2.00	2.00	0.00
1,500.00	26.00	103.31	1,455.84	-66.72	282.15	160.99	2.00	2.00	0.00
1,600.00	28.00	103.31	1,544.94	-77.17	326.33	186.20	2.00	2.00	0.00
1,700.00	30.00	103.31	1,632.39	-88.33	373.51	213.12	2.00	2.00	0.00
1,800.00	32.00	103.31	1,718.11	-100.18	423.63	241.71	2.00	2.00	0.00
1,900.00	34.00	103.31	1,801.97	-112.71	476.63	271.96	2.00	2.00	0.00
2,000.00	36.00	103.31	1,883.88	-125.91	532.44	303.80	2.00	2.00	0.00
2,100.00	38.00	103.31	1,963.74	-139.76	591.00	337.22	2.00	2.00	0.00
2,200.00	40.00	103.31	2,041.45	-154.25	652.24	372.16	2.00	2.00	0.00
2,284.61	41.69	103.31	2,105.46	-166.98	706.10	402.89	2.00	2.00	0.00
HOLD 41.69° INC									
2,300.00	41.69	103.31	2,116.94	-169.34	716.06	408.57	0.00	0.00	0.00
2,400.00	41.69	103.31	2,191.62	-184.64	780.78	445.50	0.00	0.00	0.00
2,500.00	41.69	103.31	2,266.29	-199.95	845.51	482.44	0.00	0.00	0.00
2,600.00	41.69	103.31	2,340.96	-215.26	910.24	519.37	0.00	0.00	0.00
2,700.00	41.69	103.31	2,415.64	-230.56	974.97	556.30	0.00	0.00	0.00
2,800.00	41.69	103.31	2,490.31	-245.87	1,039.70	593.23	0.00	0.00	0.00
2,900.00	41.69	103.31	2,564.98	-261.18	1,104.42	630.17	0.00	0.00	0.00
3,000.00	41.69	103.31	2,639.65	-276.49	1,169.15	667.10	0.00	0.00	0.00
3,100.00	41.69	103.31	2,714.33	-291.79	1,233.88	704.03	0.00	0.00	0.00
3,200.00	41.69	103.31	2,789.00	-307.10	1,298.61	740.97	0.00	0.00	0.00
3,300.00	41.69	103.31	2,863.67	-322.41	1,363.33	777.90	0.00	0.00	0.00
3,400.00	41.69	103.31	2,938.34	-337.71	1,428.06	814.83	0.00	0.00	0.00
3,500.00	41.69	103.31	3,013.02	-353.02	1,492.79	851.76	0.00	0.00	0.00
3,600.00	41.69	103.31	3,087.69	-368.33	1,557.52	888.70	0.00	0.00	0.00
3,700.00	41.69	103.31	3,162.36	-383.63	1,622.25	925.63	0.00	0.00	0.00
3,800.00	41.69	103.31	3,237.04	-398.94	1,686.97	962.56	0.00	0.00	0.00
3,900.00	41.69	103.31	3,311.71	-414.25	1,751.70	999.49	0.00	0.00	0.00
4,000.00	41.69	103.31	3,386.38	-429.56	1,816.43	1,036.43	0.00	0.00	0.00
4,100.00	41.69	103.31	3,461.05	-444.86	1,881.16	1,073.36	0.00	0.00	0.00
4,200.00	41.69	103.31	3,535.73	-460.17	1,945.88	1,110.29	0.00	0.00	0.00
4,300.00	41.69	103.31	3,610.40	-475.48	2,010.61	1,147.22	0.00	0.00	0.00
4,400.00	41.69	103.31	3,685.07	-490.78	2,075.34	1,184.16	0.00	0.00	0.00
4,500.00	41.69	103.31	3,759.74	-506.09	2,140.07	1,221.09	0.00	0.00	0.00
4,600.00	41.69	103.31	3,834.42	-521.40	2,204.79	1,258.02	0.00	0.00	0.00
4,700.00	41.69	103.31	3,909.09	-536.71	2,269.52	1,294.96	0.00	0.00	0.00
4,800.00	41.69	103.31	3,983.76	-552.01	2,334.25	1,331.89	0.00	0.00	0.00
4,900.00	41.69	103.31	4,058.43	-567.32	2,398.98	1,368.82	0.00	0.00	0.00

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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-20-15N	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)	
5,000.00	41.69	103.31	4,133.11	-582.63	2,463.71	1,405.75	0.00	0.00	0.00	
5,100.00	41.69	103.31	4,207.78	-597.93	2,528.43	1,442.69	0.00	0.00	0.00	
5,200.00	41.69	103.31	4,282.45	-613.24	2,593.16	1,479.62	0.00	0.00	0.00	
5,300.00	41.69	103.31	4,357.13	-628.55	2,657.89	1,516.55	0.00	0.00	0.00	
5,400.00	41.69	103.31	4,431.80	-643.86	2,722.62	1,553.48	0.00	0.00	0.00	
5,410.98	41.69	103.31	4,440.00	-645.54	2,729.73	1,557.54	0.00	0.00	0.00	
PARKMAN										
5,500.00	41.69	103.31	4,506.47	-659.16	2,787.34	1,590.42	0.00	0.00	0.00	
5,600.00	41.69	103.31	4,581.14	-674.47	2,852.07	1,627.35	0.00	0.00	0.00	
5,700.00	41.69	103.31	4,655.82	-689.78	2,916.80	1,664.28	0.00	0.00	0.00	
5,800.00	41.69	103.31	4,730.49	-705.08	2,981.53	1,701.22	0.00	0.00	0.00	
5,900.00	41.69	103.31	4,805.16	-720.39	3,046.26	1,738.15	0.00	0.00	0.00	
6,000.00	41.69	103.31	4,879.83	-735.70	3,110.98	1,775.08	0.00	0.00	0.00	
6,040.40	41.69	103.31	4,910.00	-741.88	3,137.13	1,790.00	0.00	0.00	0.00	
SUSSEX										
6,100.00	41.69	103.31	4,954.51	-751.00	3,175.71	1,812.01	0.00	0.00	0.00	
6,200.00	41.69	103.31	5,029.18	-766.31	3,240.44	1,848.95	0.00	0.00	0.00	
6,300.00	41.69	103.31	5,103.85	-781.62	3,305.17	1,885.88	0.00	0.00	0.00	
6,400.00	41.69	103.31	5,178.52	-796.93	3,369.89	1,922.81	0.00	0.00	0.00	
6,466.99	41.69	103.31	5,228.54	-807.18	3,413.25	1,947.55	0.00	0.00	0.00	
DROP 2°/100'										
6,500.00	41.03	103.31	5,253.32	-812.20	3,434.48	1,959.67	2.00	-2.00	0.00	
6,600.00	39.03	103.31	5,329.89	-827.00	3,497.08	1,995.38	2.00	-2.00	0.00	
6,700.00	37.03	103.31	5,408.65	-841.18	3,557.03	2,029.59	2.00	-2.00	0.00	
6,800.00	35.03	103.31	5,489.52	-854.72	3,614.27	2,062.25	2.00	-2.00	0.00	
6,900.00	33.03	103.31	5,572.38	-867.60	3,668.73	2,093.32	2.00	-2.00	0.00	
7,000.00	31.03	103.31	5,657.15	-879.80	3,720.35	2,122.77	2.00	-2.00	0.00	
7,100.00	29.03	103.31	5,743.72	-891.32	3,769.05	2,150.56	2.00	-2.00	0.00	
7,200.00	27.03	103.31	5,831.99	-902.13	3,814.78	2,176.66	2.00	-2.00	0.00	
7,300.00	25.03	103.31	5,921.84	-912.23	3,857.49	2,201.02	2.00	-2.00	0.00	
7,400.00	23.03	103.31	6,013.17	-921.61	3,897.12	2,223.64	2.00	-2.00	0.00	
7,500.00	21.03	103.31	6,105.86	-930.24	3,933.62	2,244.47	2.00	-2.00	0.00	
7,600.00	19.03	103.31	6,199.80	-938.12	3,966.95	2,263.48	2.00	-2.00	0.00	
7,700.00	17.03	103.31	6,294.89	-945.24	3,997.08	2,280.67	2.00	-2.00	0.00	
7,800.00	15.03	103.31	6,390.99	-951.60	4,023.95	2,296.01	2.00	-2.00	0.00	
7,900.00	13.03	103.31	6,488.00	-957.18	4,047.55	2,309.47	2.00	-2.00	0.00	
8,000.00	11.03	103.31	6,585.80	-961.98	4,067.83	2,321.04	2.00	-2.00	0.00	
8,100.00	9.03	103.31	6,684.27	-965.99	4,084.78	2,330.72	2.00	-2.00	0.00	
8,200.00	7.03	103.31	6,783.28	-969.20	4,098.38	2,338.47	2.00	-2.00	0.00	
8,300.00	5.03	103.31	6,882.72	-971.62	4,108.61	2,344.31	2.00	-2.00	0.00	
8,400.00	3.03	103.31	6,982.47	-973.24	4,115.45	2,348.21	2.00	-2.00	0.00	
8,500.00	1.03	103.31	7,082.40	-974.05	4,118.90	2,350.18	2.00	-2.00	0.00	
8,551.60	0.00	0.00	7,134.00	-974.16	4,119.35	2,350.44	2.00	-2.00	0.00	
HOLD VERTICAL										
8,600.00	0.00	0.00	7,182.40	-974.16	4,119.35	2,350.44	0.00	0.00	0.00	
8,651.60	0.00	0.00	7,234.00	-974.16	4,119.35	2,350.44	0.00	0.00	0.00	
KOP, BUILD 10°/100'										
8,700.00	4.84	179.65	7,282.34	-976.20	4,119.36	2,352.36	10.00	10.00	0.00	
8,750.00	9.84	179.65	7,331.92	-982.59	4,119.40	2,358.36	10.00	10.00	0.00	
8,800.00	14.84	179.65	7,380.75	-993.27	4,119.47	2,368.39	10.00	10.00	0.00	
8,850.00	19.84	179.65	7,428.46	-1,008.17	4,119.56	2,382.38	10.00	10.00	0.00	
8,900.00	24.84	179.65	7,474.69	-1,027.16	4,119.67	2,400.22	10.00	10.00	0.00	
8,950.00	29.84	179.65	7,519.09	-1,050.12	4,119.81	2,421.78	10.00	10.00	0.00	
9,000.00	34.84	179.65	7,561.33	-1,076.85	4,119.97	2,446.89	10.00	10.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-15N
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-20-15N	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)
9,050.00	39.84	179.65	7,601.07	-1,107.17	4,120.16	2,475.37	10.00	10.00	0.00
9,061.73	41.01	179.65	7,610.00	-1,114.78	4,120.20	2,482.51	10.00	10.00	0.00
SHARON SPRINGS									
9,100.00	44.84	179.65	7,638.02	-1,140.83	4,120.36	2,506.99	10.00	10.00	0.00
9,117.16	46.55	179.65	7,650.00	-1,153.11	4,120.43	2,518.52	10.00	10.00	0.00
NIOBRARA									
9,150.00	49.84	179.65	7,671.89	-1,177.59	4,120.58	2,541.51	10.00	10.00	0.00
9,200.00	54.84	179.65	7,702.43	-1,217.15	4,120.82	2,578.67	10.00	10.00	0.00
9,250.00	59.84	179.65	7,729.41	-1,259.23	4,121.08	2,618.19	10.00	10.00	0.00
9,300.00	64.84	179.65	7,752.62	-1,303.50	4,121.35	2,659.77	10.00	10.00	0.00
9,350.00	69.83	179.65	7,771.88	-1,349.63	4,121.63	2,703.10	10.00	10.00	0.00
9,400.00	74.83	179.65	7,787.05	-1,397.25	4,121.92	2,747.83	10.00	10.00	0.00
9,444.46	79.28	179.65	7,797.00	-1,440.57	4,122.18	2,788.51	10.00	10.00	0.00
NIO B									
9,450.00	79.83	179.65	7,798.00	-1,446.02	4,122.21	2,793.63	10.00	10.00	0.00
9,500.00	84.83	179.65	7,804.67	-1,495.55	4,122.51	2,840.16	10.00	10.00	0.00
9,551.68	90.00	179.65	7,807.00	-1,547.16	4,122.82	2,888.63	10.00	10.00	0.00
LP @ 90° INC, 179.65° AZM HOLD									
9,600.00	90.00	179.65	7,807.00	-1,595.48	4,123.12	2,934.02	0.00	0.00	0.00
9,700.00	90.00	179.65	7,807.00	-1,695.48	4,123.72	3,027.94	0.00	0.00	0.00
9,800.00	90.00	179.65	7,807.00	-1,795.48	4,124.33	3,121.86	0.00	0.00	0.00
9,900.00	90.00	179.65	7,806.99	-1,895.48	4,124.94	3,215.79	0.00	0.00	0.00
10,000.00	90.00	179.65	7,806.99	-1,995.48	4,125.54	3,309.71	0.00	0.00	0.00
10,100.00	90.00	179.65	7,806.99	-2,095.47	4,126.15	3,403.63	0.00	0.00	0.00
10,200.00	90.00	179.65	7,806.99	-2,195.47	4,126.76	3,497.56	0.00	0.00	0.00
10,300.00	90.00	179.65	7,806.99	-2,295.47	4,127.36	3,591.48	0.00	0.00	0.00
10,400.00	90.00	179.65	7,806.99	-2,395.47	4,127.97	3,685.40	0.00	0.00	0.00
10,500.00	90.00	179.65	7,806.99	-2,495.47	4,128.58	3,779.33	0.00	0.00	0.00
10,600.00	90.00	179.65	7,806.98	-2,595.46	4,129.18	3,873.25	0.00	0.00	0.00
10,700.00	90.00	179.65	7,806.98	-2,695.46	4,129.79	3,967.18	0.00	0.00	0.00
10,800.00	90.00	179.65	7,806.98	-2,795.46	4,130.40	4,061.10	0.00	0.00	0.00
10,900.00	90.00	179.65	7,806.98	-2,895.46	4,131.01	4,155.02	0.00	0.00	0.00
11,000.00	90.00	179.65	7,806.98	-2,995.46	4,131.61	4,248.95	0.00	0.00	0.00
11,100.00	90.00	179.65	7,806.98	-3,095.46	4,132.22	4,342.87	0.00	0.00	0.00
11,200.00	90.00	179.65	7,806.98	-3,195.45	4,132.83	4,436.79	0.00	0.00	0.00
11,300.00	90.00	179.65	7,806.98	-3,295.45	4,133.44	4,530.72	0.00	0.00	0.00
11,400.00	90.00	179.65	7,806.97	-3,395.45	4,134.04	4,624.64	0.00	0.00	0.00
11,500.00	90.00	179.65	7,806.97	-3,495.45	4,134.65	4,718.57	0.00	0.00	0.00
11,600.00	90.00	179.65	7,806.97	-3,595.45	4,135.26	4,812.49	0.00	0.00	0.00
11,700.00	90.00	179.65	7,806.97	-3,695.44	4,135.87	4,906.41	0.00	0.00	0.00
11,800.00	90.00	179.65	7,806.97	-3,795.44	4,136.48	5,000.34	0.00	0.00	0.00
11,900.00	90.00	179.65	7,806.97	-3,895.44	4,137.08	5,094.26	0.00	0.00	0.00
12,000.00	90.00	179.65	7,806.97	-3,995.44	4,137.69	5,188.19	0.00	0.00	0.00
12,100.00	90.00	179.65	7,806.97	-4,095.44	4,138.30	5,282.11	0.00	0.00	0.00
12,200.00	90.00	179.65	7,806.97	-4,195.44	4,138.91	5,376.03	0.00	0.00	0.00
12,300.00	90.00	179.65	7,806.97	-4,295.43	4,139.52	5,469.96	0.00	0.00	0.00
12,400.00	90.00	179.65	7,806.96	-4,395.43	4,140.13	5,563.88	0.00	0.00	0.00
12,500.00	90.00	179.65	7,806.96	-4,495.43	4,140.74	5,657.81	0.00	0.00	0.00
12,600.00	90.00	179.65	7,806.96	-4,595.43	4,141.34	5,751.73	0.00	0.00	0.00
12,700.00	90.00	179.65	7,806.96	-4,695.43	4,141.95	5,845.65	0.00	0.00	0.00
12,800.00	90.00	179.65	7,806.96	-4,795.42	4,142.56	5,939.58	0.00	0.00	0.00
12,900.00	90.00	179.65	7,806.96	-4,895.42	4,143.17	6,033.50	0.00	0.00	0.00
13,000.00	90.00	179.65	7,806.96	-4,995.42	4,143.78	6,127.43	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-15N
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-20-15N	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	179.65	7,806.96	-5,095.42	4,144.39	6,221.35	0.00	0.00	0.00
13,200.00	90.00	179.65	7,806.96	-5,195.42	4,145.00	6,315.28	0.00	0.00	0.00
13,300.00	90.00	179.65	7,806.96	-5,295.41	4,145.61	6,409.20	0.00	0.00	0.00
13,400.00	90.00	179.65	7,806.96	-5,395.41	4,146.22	6,503.13	0.00	0.00	0.00
13,500.00	90.00	179.65	7,806.96	-5,495.41	4,146.83	6,597.05	0.00	0.00	0.00
13,600.00	90.00	179.65	7,806.96	-5,595.41	4,147.44	6,690.97	0.00	0.00	0.00
13,700.00	90.00	179.65	7,806.96	-5,695.41	4,148.05	6,784.90	0.00	0.00	0.00
13,800.00	90.00	179.65	7,806.96	-5,795.41	4,148.66	6,878.82	0.00	0.00	0.00
13,900.00	90.00	179.65	7,806.96	-5,895.40	4,149.27	6,972.75	0.00	0.00	0.00
14,000.00	90.00	179.65	7,806.96	-5,995.40	4,149.88	7,066.67	0.00	0.00	0.00
14,100.00	90.00	179.65	7,806.96	-6,095.40	4,150.49	7,160.60	0.00	0.00	0.00
14,200.00	90.00	179.65	7,806.96	-6,195.40	4,151.10	7,254.52	0.00	0.00	0.00
14,300.00	90.00	179.65	7,806.96	-6,295.40	4,151.71	7,348.45	0.00	0.00	0.00
14,400.00	90.00	179.65	7,806.96	-6,395.39	4,152.32	7,442.37	0.00	0.00	0.00
14,500.00	90.00	179.65	7,806.96	-6,495.39	4,152.93	7,536.30	0.00	0.00	0.00
14,600.00	90.00	179.65	7,806.96	-6,595.39	4,153.54	7,630.22	0.00	0.00	0.00
14,700.00	90.00	179.65	7,806.96	-6,695.39	4,154.15	7,724.15	0.00	0.00	0.00
14,800.00	90.00	179.65	7,806.96	-6,795.39	4,154.76	7,818.07	0.00	0.00	0.00
14,900.00	90.00	179.65	7,806.96	-6,895.39	4,155.37	7,912.00	0.00	0.00	0.00
15,000.00	90.00	179.65	7,806.96	-6,995.38	4,155.98	8,005.92	0.00	0.00	0.00
15,100.00	90.00	179.65	7,806.96	-7,095.38	4,156.59	8,099.85	0.00	0.00	0.00
15,200.00	90.00	179.65	7,806.96	-7,195.38	4,157.20	8,193.77	0.00	0.00	0.00
15,300.00	90.00	179.65	7,806.96	-7,295.38	4,157.81	8,287.70	0.00	0.00	0.00
15,400.00	90.00	179.65	7,806.96	-7,395.38	4,158.43	8,381.62	0.00	0.00	0.00
15,500.00	90.00	179.65	7,806.96	-7,495.37	4,159.04	8,475.55	0.00	0.00	0.00
15,600.00	90.00	179.65	7,806.96	-7,595.37	4,159.65	8,569.47	0.00	0.00	0.00
15,700.00	90.00	179.65	7,806.96	-7,695.37	4,160.26	8,663.40	0.00	0.00	0.00
15,800.00	90.00	179.65	7,806.96	-7,795.37	4,160.87	8,757.32	0.00	0.00	0.00
15,900.00	90.00	179.65	7,806.96	-7,895.37	4,161.48	8,851.25	0.00	0.00	0.00
16,000.00	90.00	179.65	7,806.96	-7,995.36	4,162.10	8,945.17	0.00	0.00	0.00
16,100.00	90.00	179.65	7,806.96	-8,095.36	4,162.71	9,039.10	0.00	0.00	0.00
16,200.00	90.00	179.65	7,806.96	-8,195.36	4,163.32	9,133.02	0.00	0.00	0.00
16,300.00	90.00	179.65	7,806.96	-8,295.36	4,163.93	9,226.95	0.00	0.00	0.00
16,400.00	90.00	179.65	7,806.97	-8,395.36	4,164.54	9,320.87	0.00	0.00	0.00
16,500.00	90.00	179.65	7,806.97	-8,495.36	4,165.16	9,414.80	0.00	0.00	0.00
16,600.00	90.00	179.65	7,806.97	-8,595.35	4,165.77	9,508.72	0.00	0.00	0.00
16,700.00	90.00	179.65	7,806.97	-8,695.35	4,166.38	9,602.65	0.00	0.00	0.00
16,800.00	90.00	179.65	7,806.97	-8,795.35	4,166.99	9,696.57	0.00	0.00	0.00
16,900.00	90.00	179.65	7,806.97	-8,895.35	4,167.60	9,790.50	0.00	0.00	0.00
17,000.00	90.00	179.65	7,806.97	-8,995.35	4,168.22	9,884.42	0.00	0.00	0.00
17,100.00	90.00	179.65	7,806.97	-9,095.34	4,168.83	9,978.35	0.00	0.00	0.00
17,200.00	90.00	179.65	7,806.97	-9,195.34	4,169.44	10,072.28	0.00	0.00	0.00
17,300.00	90.00	179.65	7,806.97	-9,295.34	4,170.06	10,166.20	0.00	0.00	0.00
17,400.00	90.00	179.65	7,806.97	-9,395.34	4,170.67	10,260.13	0.00	0.00	0.00
17,500.00	90.00	179.65	7,806.98	-9,495.34	4,171.28	10,354.05	0.00	0.00	0.00
17,600.00	90.00	179.65	7,806.98	-9,595.33	4,171.90	10,447.98	0.00	0.00	0.00
17,700.00	90.00	179.65	7,806.98	-9,695.33	4,172.51	10,541.90	0.00	0.00	0.00
17,800.00	90.00	179.65	7,806.98	-9,795.33	4,173.12	10,635.83	0.00	0.00	0.00
17,900.00	90.00	179.65	7,806.98	-9,895.33	4,173.73	10,729.76	0.00	0.00	0.00
18,000.00	90.00	179.65	7,806.98	-9,995.33	4,174.35	10,823.68	0.00	0.00	0.00
18,100.00	90.00	179.65	7,806.98	-10,095.33	4,174.96	10,917.61	0.00	0.00	0.00
18,200.00	90.00	179.65	7,806.98	-10,195.32	4,175.58	11,011.53	0.00	0.00	0.00
18,300.00	90.00	179.65	7,806.99	-10,295.32	4,176.19	11,105.46	0.00	0.00	0.00
18,400.00	90.00	179.65	7,806.99	-10,395.32	4,176.80	11,199.38	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-15N
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-20-15N	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)	
18,500.00	90.00	179.65	7,806.99	-10,495.32	4,177.42	11,293.31	0.00	0.00	0.00	
18,600.00	90.00	179.65	7,806.99	-10,595.32	4,178.03	11,387.24	0.00	0.00	0.00	
18,700.00	90.00	179.65	7,806.99	-10,695.31	4,178.65	11,481.16	0.00	0.00	0.00	
18,800.00	90.00	179.65	7,806.99	-10,795.31	4,179.26	11,575.09	0.00	0.00	0.00	
18,900.00	90.00	179.65	7,806.99	-10,895.31	4,179.87	11,669.01	0.00	0.00	0.00	
19,000.00	90.00	179.65	7,807.00	-10,995.31	4,180.49	11,762.94	0.00	0.00	0.00	
19,100.00	90.00	179.65	7,807.00	-11,095.31	4,181.10	11,856.87	0.00	0.00	0.00	
19,200.00	90.00	179.65	7,807.00	-11,195.30	4,181.72	11,950.79	0.00	0.00	0.00	
19,234.64	90.00	179.65	7,807.00	-11,229.94	4,181.93	11,983.33	0.00	0.00	0.00	
TD at 19234.64' MD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
CT 34S-20-15N LP - hit/miss target - Shape - Point	0.00	0.00	7,807.00	-1,547.16	4,122.82	1,248,219.54	3,142,383.20	40° 0' 49.063 N	104° 59' 29.987 W	
CT 34S-20-15N PBHL - plan hits target center - Point	0.00	0.00	7,807.00	-11,229.94	4,181.93	1,238,537.24	3,142,496.20	39° 59' 13.372 N	104° 59' 29.248 W	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,410.98	4,440.00	PARKMAN				
6,040.40	4,910.00	SUSSEX				
9,061.73	7,610.00	SHARON SPRINGS				
9,117.16	7,650.00	NIOBRARA				
9,444.46	7,797.00	NIO B				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
200.00	200.00	0.00	0.00	BUILD 2°/100'	
2,284.61	2,105.46	-166.98	706.10	HOLD 41.69° INC	
6,466.99	5,228.54	-807.18	3,413.25	DROP 2°/100'	
8,551.60	7,134.00	-974.16	4,119.35	HOLD VERTICAL	
8,651.60	7,234.00	-974.16	4,119.35	KOP, BUILD 10°/100'	
9,551.68	7,807.00	-1,547.16	4,122.82	LP @ 90° INC, 179.65° AZM HOLD	
19,234.64	7,807.00	-11,229.94	4,181.93	TD at 19234.64' MD	