

EXTRACTION OIL & GAS

**Weld County
Sec 7-T4N-R68W
TROT 8E-10-1C**

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

23 May, 2017



WELL DETAILS: TROTT 8E-10-1C

+N/-S	+E/-W	Northing	Easting	5036.0	Latitude	Longitude	Slot
0.0	0.0	1361363.18	3128083.85	40° 19' 27.955 N	105° 2' 26.236 W		

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1300.0	0.00	0.00	1300.0	0.0	0.0	0.00	0.00	0.0	
3	3369.3	41.39	330.22	3194.0	620.9	-355.4	2.00	330.22	-165.0	
4	4014.4	41.39	330.22	3678.0	991.1	-567.2	0.00	0.00	-263.3	
5	6083.7	0.00	0.00	5572.0	1612.0	-922.6	2.00	180.00	-428.3	
6	6183.7	0.00	0.00	5672.0	1612.0	-922.6	0.00	0.00	-428.3	
7	7083.8	90.00	88.97	6245.0	1622.3	-349.7	10.00	88.97	124.1	
8	8924.3	90.00	88.97	6245.0	1655.4	1490.5	0.00	0.00	1898.3	
9	13336.1	90.00	88.76	6245.0	1742.8	5901.5	0.00	-90.00	6153.5	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
1300.0	0.00	0.00	1300.0	0.0	0.0	0.0	0.0	BUILD 2°/100'
3369.3	41.39	330.22	3194.0	620.9	-355.4	-165.0	715.4	HOLD 41.39° INC
4014.4	41.39	330.22	3678.0	991.1	-567.2	-263.3	1141.9	DROP 2°/100'
6083.7	0.00	0.00	5572.0	1612.0	-922.6	-428.3	1857.3	HOLD VERTICAL
6183.7	0.00	0.00	5672.0	1612.0	-922.6	-428.3	1857.3	KOP, BUILD 10°/100'
7083.8	90.00	88.97	6245.0	1622.3	-349.7	124.1	2430.3	LP @ 90° INC
8924.3	90.00	88.97	6245.0	1655.4	1490.5	1898.3	4270.8	HOLD
13336.1	90.00	88.76	6245.0	1742.8	5901.5	6153.5	8662.7	TD at 13336.1' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
TROTT 1 - LP REV 2	6245.0	1655.4	1490.5	1363026.28	3129565.73	40° 19' 44.314 N	105° 2' 6.990 W	Point
- plan hits target center								
TROTT 1 - PBHL REV 2	6245.0	1742.8	5901.5	1363136.50	3133976.24	40° 19' 45.170 N	105° 1' 10.033 W	Point
- plan hits target center								

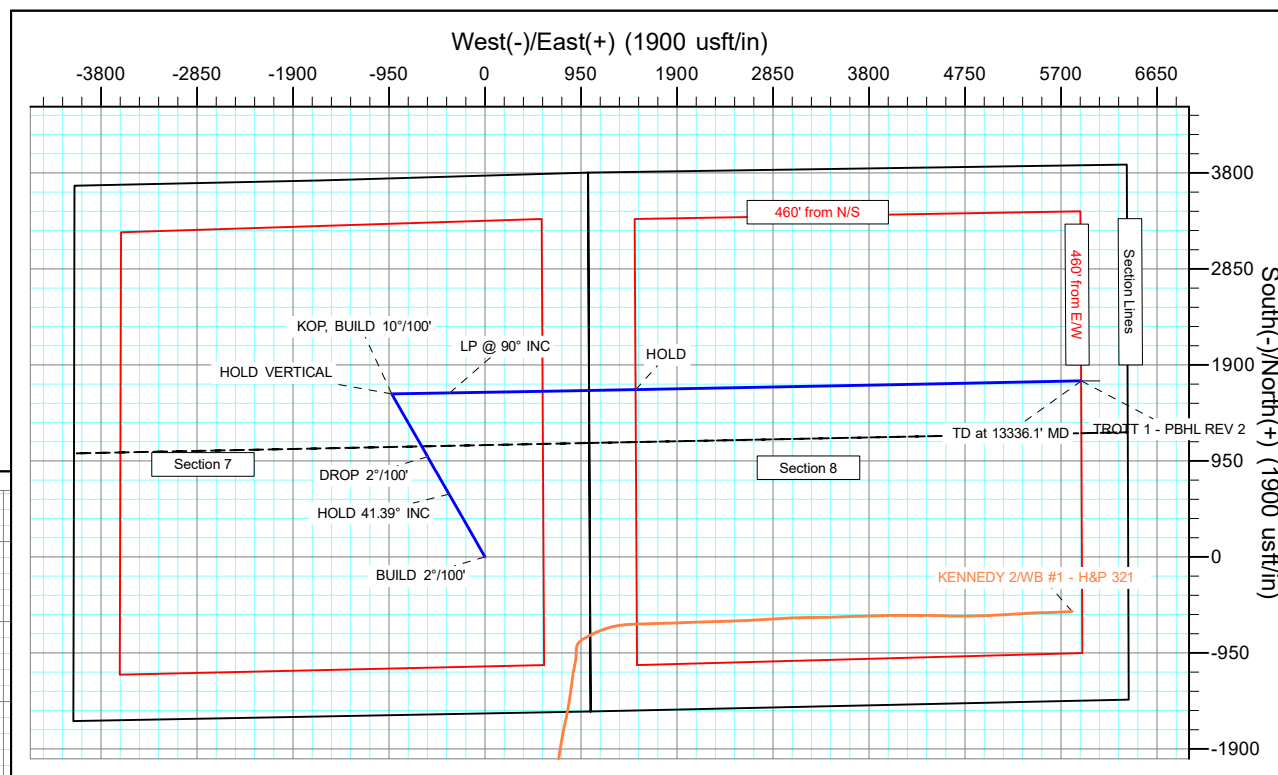
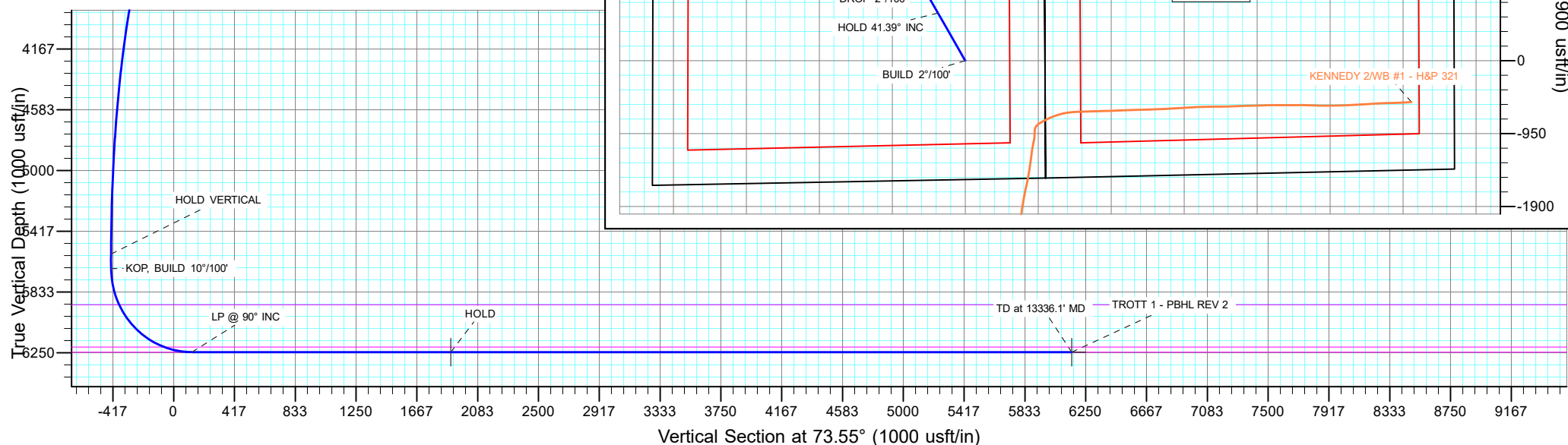
FORMATION TOP DETAILS

TVDPATH	MDPath	Formation
2410.0	2439.8	PARKMAN
3010.0	3132.4	SUSSEX
3450.0	3710.5	SHANNON
5920.0	6440.2	NIOBRARA
6210.0	6882.5	FORT HAYS
6245.0	7083.8	CODELL

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:
1549' FSL, 1038' FEL
Sec 7-T4N-R68W
LP:
2134' FNL, 460' FWL
Sec 8-T4N-R68W
BHL:
2127' FNL, 460' FEL
Sec 8-T4N-R68W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well TROTT 8E-10-1C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5060.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5060.0usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 8E-10-1C	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 7-T4N-R68W			
Site Position:		Northing:	1,359,838.99 usft	Latitude:	40° 19' 12.839 N
From:	Lat/Long	Easting:	3,129,136.57 usft	Longitude:	105° 2' 12.746 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	0.30 °

Well	TROTT 8E-10-1C					
Well Position	+N/-S	1,529.7 usft	Northing:	1,361,363.18 usft	Latitude:	40° 19' 27.955 N
	+E/-W	-1,044.7 usft	Easting:	3,128,083.85 usft	Longitude:	105° 2' 26.236 W
Position Uncertainty	0.0 usft		Wellhead Elevation:		Ground Level:	5,036.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/4/2017	8.37	66.76	52,345.08158297

Design	PROPOSAL 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	73.55

Plan Survey Tool Program	Date	5/23/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	13,336.1	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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,369.3	41.39	330.22	3,194.0	620.9	-355.4	2.00	2.00	0.00	330.22	
4,014.4	41.39	330.22	3,678.0	991.1	-567.2	0.00	0.00	0.00	0.00	
6,083.7	0.00	0.00	5,572.0	1,612.0	-922.6	2.00	-2.00	0.00	180.00	
6,183.7	0.00	0.00	5,672.0	1,612.0	-922.6	0.00	0.00	0.00	0.00	
7,083.8	90.00	88.97	6,245.0	1,622.3	-349.7	10.00	10.00	0.00	88.97	
8,924.3	90.00	88.97	6,245.0	1,655.4	1,490.5	0.00	0.00	0.00	0.00	TROTT 1 - LP REV 2
13,336.1	90.00	88.76	6,245.0	1,742.8	5,901.5	0.00	0.00	0.00	-90.00	TROTT 1 - PBHL RE\

Planning Report

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5060.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5060.0usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 8E-10-1C	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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
BUILD 2°/100'									
1,400.0	2.00	330.22	1,400.0	1.5	-0.9	-0.4	2.00	2.00	0.00
1,500.0	4.00	330.22	1,499.8	6.1	-3.5	-1.6	2.00	2.00	0.00
1,600.0	6.00	330.22	1,599.5	13.6	-7.8	-3.6	2.00	2.00	0.00
1,700.0	8.00	330.22	1,698.7	24.2	-13.8	-6.4	2.00	2.00	0.00
1,800.0	10.00	330.22	1,797.5	37.8	-21.6	-10.0	2.00	2.00	0.00
1,900.0	12.00	330.22	1,895.6	54.3	-31.1	-14.4	2.00	2.00	0.00
2,000.0	14.00	330.22	1,993.1	73.9	-42.3	-19.6	2.00	2.00	0.00
2,100.0	16.00	330.22	2,089.6	96.3	-55.1	-25.6	2.00	2.00	0.00
2,200.0	18.00	330.22	2,185.3	121.7	-69.6	-32.3	2.00	2.00	0.00
2,300.0	20.00	330.22	2,279.8	149.9	-85.8	-39.8	2.00	2.00	0.00
2,400.0	22.00	330.22	2,373.2	181.0	-103.6	-48.1	2.00	2.00	0.00
2,439.8	22.80	330.22	2,410.0	194.2	-111.2	-51.6	2.00	2.00	0.00
PARKMAN									
2,500.0	24.00	330.22	2,465.2	215.0	-123.0	-57.1	2.00	2.00	0.00
2,600.0	26.00	330.22	2,555.8	251.6	-144.0	-66.9	2.00	2.00	0.00
2,700.0	28.00	330.22	2,644.9	291.0	-166.6	-77.3	2.00	2.00	0.00
2,800.0	30.00	330.22	2,732.4	333.1	-190.6	-88.5	2.00	2.00	0.00
2,900.0	32.00	330.22	2,818.1	377.8	-216.2	-100.4	2.00	2.00	0.00
3,000.0	34.00	330.22	2,902.0	425.1	-243.3	-112.9	2.00	2.00	0.00
3,100.0	36.00	330.22	2,983.9	474.9	-271.8	-126.2	2.00	2.00	0.00
3,132.4	36.65	330.22	3,010.0	491.5	-281.3	-130.6	2.00	2.00	0.00
SUSSEX									
3,200.0	38.00	330.22	3,063.7	527.1	-301.7	-140.0	2.00	2.00	0.00
3,300.0	40.00	330.22	3,141.5	581.7	-332.9	-154.6	2.00	2.00	0.00
3,369.3	41.39	330.22	3,194.0	620.9	-355.4	-165.0	2.00	2.00	0.00
HOLD 41.39° INC									
3,400.0	41.39	330.22	3,217.0	638.5	-365.5	-169.7	0.00	0.00	0.00
3,500.0	41.39	330.22	3,292.1	695.9	-398.3	-184.9	0.00	0.00	0.00
3,600.0	41.39	330.22	3,367.1	753.3	-431.1	-200.2	0.00	0.00	0.00
3,700.0	41.39	330.22	3,442.1	810.7	-464.0	-215.4	0.00	0.00	0.00
3,710.5	41.39	330.22	3,450.0	816.7	-467.4	-217.0	0.00	0.00	0.00
SHANNON									
3,800.0	41.39	330.22	3,517.1	868.1	-496.8	-230.6	0.00	0.00	0.00
3,900.0	41.39	330.22	3,592.2	925.4	-529.7	-245.9	0.00	0.00	0.00
4,000.0	41.39	330.22	3,667.2	982.8	-562.5	-261.1	0.00	0.00	0.00
4,014.4	41.39	330.22	3,678.0	991.1	-567.2	-263.3	0.00	0.00	0.00
DROP 2°/100'									
4,100.0	39.67	330.22	3,743.0	1,039.4	-594.9	-276.2	2.00	-2.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well TROTT 8E-10-1C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5060.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5060.0usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 8E-10-1C	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)	
4,200.0	37.67	330.22	3,821.1	1,093.6	-625.9	-290.6	2.00	-2.00	0.00	
4,300.0	35.67	330.22	3,901.3	1,145.4	-655.6	-304.3	2.00	-2.00	0.00	
4,400.0	33.67	330.22	3,983.6	1,194.8	-683.8	-317.5	2.00	-2.00	0.00	
4,500.0	31.67	330.22	4,067.7	1,241.6	-710.6	-329.9	2.00	-2.00	0.00	
4,600.0	29.67	330.22	4,153.7	1,285.9	-736.0	-341.7	2.00	-2.00	0.00	
4,700.0	27.67	330.22	4,241.5	1,327.6	-759.8	-352.7	2.00	-2.00	0.00	
4,800.0	25.67	330.22	4,330.8	1,366.5	-782.1	-363.1	2.00	-2.00	0.00	
4,900.0	23.67	330.22	4,421.7	1,402.8	-802.8	-372.7	2.00	-2.00	0.00	
5,000.0	21.67	330.22	4,513.9	1,436.2	-822.0	-381.6	2.00	-2.00	0.00	
5,100.0	19.67	330.22	4,607.5	1,466.8	-839.5	-389.8	2.00	-2.00	0.00	
5,200.0	17.67	330.22	4,702.2	1,494.6	-855.4	-397.1	2.00	-2.00	0.00	
5,300.0	15.67	330.22	4,798.0	1,519.5	-869.7	-403.8	2.00	-2.00	0.00	
5,400.0	13.67	330.22	4,894.8	1,541.5	-882.3	-409.6	2.00	-2.00	0.00	
5,500.0	11.67	330.22	4,992.3	1,560.6	-893.2	-414.7	2.00	-2.00	0.00	
5,600.0	9.67	330.22	5,090.6	1,576.6	-902.4	-418.9	2.00	-2.00	0.00	
5,700.0	7.67	330.22	5,189.4	1,589.7	-909.9	-422.4	2.00	-2.00	0.00	
5,800.0	5.67	330.22	5,288.7	1,599.8	-915.6	-425.1	2.00	-2.00	0.00	
5,900.0	3.67	330.22	5,388.4	1,606.9	-919.7	-427.0	2.00	-2.00	0.00	
6,000.0	1.67	330.22	5,488.3	1,610.9	-922.0	-428.0	2.00	-2.00	0.00	
6,083.7	0.00	0.00	5,572.0	1,612.0	-922.6	-428.3	2.00	-2.00	0.00	
HOLD VERTICAL										
6,100.0	0.00	0.00	5,588.3	1,612.0	-922.6	-428.3	0.00	0.00	0.00	
6,183.7	0.00	0.00	5,672.0	1,612.0	-922.6	-428.3	0.00	0.00	0.00	
KOP, BUILD 10°/100'										
6,200.0	1.63	88.97	5,688.3	1,612.0	-922.4	-428.1	10.00	10.00	0.00	
6,250.0	6.63	88.97	5,738.1	1,612.1	-918.8	-424.6	10.00	10.00	0.00	
6,300.0	11.63	88.97	5,787.5	1,612.2	-910.8	-417.0	10.00	10.00	0.00	
6,350.0	16.63	88.97	5,836.0	1,612.4	-898.6	-405.2	10.00	10.00	0.00	
6,400.0	21.63	88.97	5,883.2	1,612.7	-882.3	-389.4	10.00	10.00	0.00	
6,440.2	25.65	88.97	5,920.0	1,613.0	-866.2	-373.9	10.00	10.00	0.00	
NIOBRARA										
6,450.0	26.63	88.97	5,928.8	1,613.1	-861.8	-369.7	10.00	10.00	0.00	
6,500.0	31.63	88.97	5,972.5	1,613.5	-837.5	-346.3	10.00	10.00	0.00	
6,550.0	36.63	88.97	6,013.8	1,614.0	-809.5	-319.3	10.00	10.00	0.00	
6,600.0	41.62	88.97	6,052.6	1,614.6	-777.9	-288.9	10.00	10.00	0.00	
6,650.0	46.62	88.97	6,088.5	1,615.2	-743.2	-255.3	10.00	10.00	0.00	
6,700.0	51.62	88.97	6,121.2	1,615.9	-705.4	-218.9	10.00	10.00	0.00	
6,750.0	56.62	88.97	6,150.5	1,616.6	-664.9	-179.8	10.00	10.00	0.00	
6,800.0	61.62	88.97	6,176.1	1,617.4	-622.0	-138.5	10.00	10.00	0.00	
6,850.0	66.62	88.97	6,198.0	1,618.2	-577.0	-95.1	10.00	10.00	0.00	
6,882.5	69.87	88.97	6,210.0	1,618.8	-546.9	-66.0	10.00	10.00	0.00	
FORT HAYS										
6,900.0	71.62	88.97	6,215.8	1,619.1	-530.3	-50.1	10.00	10.00	0.00	
6,950.0	76.62	88.97	6,229.5	1,619.9	-482.2	-3.8	10.00	10.00	0.00	
7,000.0	81.62	88.97	6,238.9	1,620.8	-433.2	43.6	10.00	10.00	0.00	
7,050.0	86.62	88.97	6,244.0	1,621.7	-383.5	91.5	10.00	10.00	0.00	
7,083.8	90.00	88.97	6,245.0	1,622.3	-349.7	124.1	10.00	10.00	0.00	
LP @ 90° INC - CODELL										
7,100.0	90.00	88.97	6,245.0	1,622.6	-333.5	139.7	0.00	0.00	0.00	
7,200.0	90.00	88.97	6,245.0	1,624.4	-233.5	236.1	0.00	0.00	0.00	
7,300.0	90.00	88.97	6,245.0	1,626.2	-133.5	332.5	0.00	0.00	0.00	
7,400.0	90.00	88.97	6,245.0	1,628.0	-33.5	428.9	0.00	0.00	0.00	
7,500.0	90.00	88.97	6,245.0	1,629.8	66.5	525.3	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well TROTT 8E-10-1C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5060.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5060.0usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 8E-10-1C	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)
7,600.0	90.00	88.97	6,245.0	1,631.6	166.4	621.7	0.00	0.00	0.00
7,700.0	90.00	88.97	6,245.0	1,633.4	266.4	718.1	0.00	0.00	0.00
7,800.0	90.00	88.97	6,245.0	1,635.2	366.4	814.5	0.00	0.00	0.00
7,900.0	90.00	88.97	6,245.0	1,637.0	466.4	910.9	0.00	0.00	0.00
8,000.0	90.00	88.97	6,245.0	1,638.8	566.4	1,007.3	0.00	0.00	0.00
8,100.0	90.00	88.97	6,245.0	1,640.6	666.4	1,103.7	0.00	0.00	0.00
8,200.0	90.00	88.97	6,245.0	1,642.4	766.3	1,200.1	0.00	0.00	0.00
8,300.0	90.00	88.97	6,245.0	1,644.2	866.3	1,296.5	0.00	0.00	0.00
8,400.0	90.00	88.97	6,245.0	1,646.0	966.3	1,392.9	0.00	0.00	0.00
8,500.0	90.00	88.97	6,245.0	1,647.8	1,066.3	1,489.3	0.00	0.00	0.00
8,600.0	90.00	88.97	6,245.0	1,649.6	1,166.3	1,585.7	0.00	0.00	0.00
8,700.0	90.00	88.97	6,245.0	1,651.4	1,266.3	1,682.1	0.00	0.00	0.00
8,800.0	90.00	88.97	6,245.0	1,653.2	1,366.2	1,778.5	0.00	0.00	0.00
8,900.0	90.00	88.97	6,245.0	1,655.0	1,466.2	1,874.9	0.00	0.00	0.00
8,924.3	90.00	88.97	6,245.0	1,655.4	1,490.5	1,898.3	0.00	0.00	0.00
HOLD									
9,000.0	90.00	88.97	6,245.0	1,656.8	1,566.2	1,971.3	0.00	0.00	0.00
9,100.0	90.00	88.96	6,245.0	1,658.6	1,666.2	2,067.7	0.00	0.00	0.00
9,200.0	90.00	88.96	6,245.0	1,660.4	1,766.2	2,164.1	0.00	0.00	0.00
9,300.0	90.00	88.95	6,245.0	1,662.2	1,866.2	2,260.5	0.00	0.00	0.00
9,400.0	90.00	88.95	6,245.0	1,664.0	1,966.1	2,356.9	0.00	0.00	0.00
9,500.0	90.00	88.94	6,245.0	1,665.9	2,066.1	2,453.3	0.00	0.00	0.00
9,600.0	90.00	88.94	6,245.0	1,667.7	2,166.1	2,549.7	0.00	0.00	0.00
9,700.0	90.00	88.93	6,245.0	1,669.6	2,266.1	2,646.1	0.00	0.00	0.00
9,800.0	90.00	88.93	6,245.0	1,671.5	2,366.1	2,742.6	0.00	0.00	0.00
9,900.0	90.00	88.92	6,245.0	1,673.3	2,466.1	2,839.0	0.00	0.00	0.00
10,000.0	90.00	88.92	6,245.0	1,675.2	2,566.0	2,935.4	0.00	0.00	0.00
10,100.0	90.00	88.91	6,245.0	1,677.1	2,666.0	3,031.8	0.00	0.00	0.00
10,200.0	90.00	88.91	6,245.0	1,679.0	2,766.0	3,128.3	0.00	0.00	0.00
10,300.0	90.00	88.90	6,245.0	1,680.9	2,866.0	3,224.7	0.00	0.00	0.00
10,400.0	90.00	88.90	6,245.0	1,682.8	2,966.0	3,321.1	0.00	0.00	0.00
10,500.0	90.00	88.90	6,245.0	1,684.8	3,065.9	3,417.6	0.00	0.00	0.00
10,600.0	90.00	88.89	6,245.0	1,686.7	3,165.9	3,514.0	0.00	0.00	0.00
10,700.0	90.00	88.89	6,245.0	1,688.6	3,265.9	3,610.4	0.00	0.00	0.00
10,800.0	90.00	88.88	6,245.0	1,690.6	3,365.9	3,706.9	0.00	0.00	0.00
10,900.0	90.00	88.88	6,245.0	1,692.5	3,465.9	3,803.3	0.00	0.00	0.00
11,000.0	90.00	88.87	6,245.0	1,694.5	3,565.9	3,899.8	0.00	0.00	0.00
11,100.0	90.00	88.87	6,245.0	1,696.5	3,665.8	3,996.2	0.00	0.00	0.00
11,200.0	90.00	88.86	6,245.0	1,698.5	3,765.8	4,092.6	0.00	0.00	0.00
11,300.0	90.00	88.86	6,245.0	1,700.4	3,865.8	4,189.1	0.00	0.00	0.00
11,400.0	90.00	88.85	6,245.0	1,702.4	3,965.8	4,285.5	0.00	0.00	0.00
11,500.0	90.00	88.85	6,245.0	1,704.5	4,065.8	4,382.0	0.00	0.00	0.00
11,600.0	90.00	88.84	6,245.0	1,706.5	4,165.7	4,478.5	0.00	0.00	0.00
11,700.0	90.00	88.84	6,245.0	1,708.5	4,265.7	4,574.9	0.00	0.00	0.00
11,800.0	90.00	88.83	6,245.0	1,710.5	4,365.7	4,671.4	0.00	0.00	0.00
11,900.0	90.00	88.83	6,245.0	1,712.6	4,465.7	4,767.8	0.00	0.00	0.00
12,000.0	90.00	88.82	6,245.0	1,714.6	4,565.7	4,864.3	0.00	0.00	0.00
12,100.0	90.00	88.82	6,245.0	1,716.7	4,665.6	4,960.8	0.00	0.00	0.00
12,200.0	90.00	88.81	6,245.0	1,718.7	4,765.6	5,057.3	0.00	0.00	0.00
12,300.0	90.00	88.81	6,245.0	1,720.8	4,865.6	5,153.7	0.00	0.00	0.00
12,400.0	90.00	88.81	6,245.0	1,722.9	4,965.6	5,250.2	0.00	0.00	0.00
12,500.0	90.00	88.80	6,245.0	1,725.0	5,065.5	5,346.7	0.00	0.00	0.00
12,600.0	90.00	88.80	6,245.0	1,727.1	5,165.5	5,443.2	0.00	0.00	0.00
12,700.0	90.00	88.79	6,245.0	1,729.2	5,265.5	5,539.6	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well TROTT 8E-10-1C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5060.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5060.0usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 8E-10-1C	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)	
12,800.0	90.00	88.79	6,245.0	1,731.3	5,365.5	5,636.1	0.00	0.00	0.00	
12,900.0	90.00	88.78	6,245.0	1,733.4	5,465.5	5,732.6	0.00	0.00	0.00	
13,000.0	90.00	88.78	6,245.0	1,735.5	5,565.4	5,829.1	0.00	0.00	0.00	
13,100.0	90.00	88.77	6,245.0	1,737.7	5,665.4	5,925.6	0.00	0.00	0.00	
13,200.0	90.00	88.77	6,245.0	1,739.8	5,765.4	6,022.1	0.00	0.00	0.00	
13,300.0	90.00	88.76	6,245.0	1,742.0	5,865.4	6,118.6	0.00	0.00	0.00	
13,336.1	90.00	88.76	6,245.0	1,742.8	5,901.5	6,153.4	0.00	0.00	0.00	
TD at 13336.1' MD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
- hit/miss target										
- Shape										
TROTT 1 - PBHL REV 2	0.00	0.00	6,245.0	1,742.8	5,901.5	1,363,136.50	3,133,976.24	40° 19' 45.170 N		105° 1' 10.033 W
- plan hits target center										
- Point										
TROTT 1 - LP REV 2	0.00	0.00	6,245.0	1,655.4	1,490.5	1,363,026.28	3,129,565.73	40° 19' 44.314 N		105° 2' 6.990 W
- plan hits target center										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,439.8	2,410.0	PARKMAN				
3,132.4	3,010.0	SUSSEX				
3,710.5	3,450.0	SHANNON				
6,440.2	5,920.0	NIOBRARA				
6,882.5	6,210.0	FORT HAYS				
7,083.8	6,245.0	CODELL				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,300.0	1,300.0	0.0	0.0	BUILD 2°/100'	
3,369.3	3,194.0	620.9	-355.4	HOLD 41.39° INC	
4,014.4	3,678.0	991.1	-567.2	DROP 2°/100'	
6,083.7	5,572.0	1,612.0	-922.6	HOLD VERTICAL	
6,183.7	5,672.0	1,612.0	-922.6	KOP, BUILD 10°/100'	
7,083.8	6,245.0	1,622.3	-349.7	LP @ 90° INC	
8,924.3	6,245.0	1,655.4	1,490.5	HOLD	
13,336.1	6,245.0	1,742.8	5,901.5	TD at 13336.1' MD	