

EXTRACTION OIL & GAS

Weld County

Sec 28-T1N-R68W

COYOTE TRAILS 34S-20-16N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

12 September, 2017



Project: Weld County
Site: Sec 28-T1N-R68W
Well: COYOTE TRAILS 34S-20-16N
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: 8.30°

Magnetic Field
Strength: 52202.4snT
Dip Angle: 66.51°
Date: 6/29/2017
Model: IGRF2015

WELL DETAILS: COYOTE TRAILS 34S-20-16N

+N/-S	+E/-W	Northing	Easting	5244.00	Latitude	Longitude	Slot
0.00	0.00	1249743.73	3138269.82		40° 1' 4.356 N	105° 0' 22.745 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	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
3	2289.01	43.78	102.40	2082.13	-171.07	777.83	2.00	102.40	450.03	
4	6540.74	43.78	102.40	5151.87	-802.93	3650.92	0.00	0.00	2112.33	
5	8729.76	0.00	0.00	7134.00	-974.00	4428.75	2.00	180.00	2562.36	
6	8829.76	0.00	0.00	7234.00	-974.00	4428.75	0.00	0.00	2562.36	
7	9729.85	90.00	179.38	7807.00	-1547.00	4434.92	10.00	179.38	3095.93	CT 34S-20-16N LP
8	19416.15	90.00	179.38	7807.00	-11232.74	4539.17	0.00	174.83	12115.21	CT 34S-20-16N PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4440.00	5554.77	PARKMAN
4910.00	6205.74	SUSSEX
7610.00	9239.89	SHARON SPRINGS
7650.00	9295.32	NIOBRARA
7797.00	9622.62	NIO B

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	BUILD 2°/100'
2289.01	43.78	102.40	2082.13	-171.07	777.83	450.03	796.42	HOLD 43.78° INC
6540.74	43.78	102.40	5151.87	-802.93	3650.92	2112.33	3738.17	DROP 2°/100'
8729.76	0.00	0.00	7134.00	-974.00	4428.75	2562.36	4534.59	HOLD VERTICAL
8829.76	0.00	0.00	7234.00	-974.00	4428.75	2562.36	4534.59	KOP, BUILD 10°/100'
9729.85	90.00	179.38	7807.00	-1547.00	4434.92	3095.93	5107.62	LP @ 90° INC, 179.38° AZM HOLD
19416.15	90.00	179.38	7807.00	-11232.74	4539.17	12115.21	14793.92	TD at 19416.15' MD

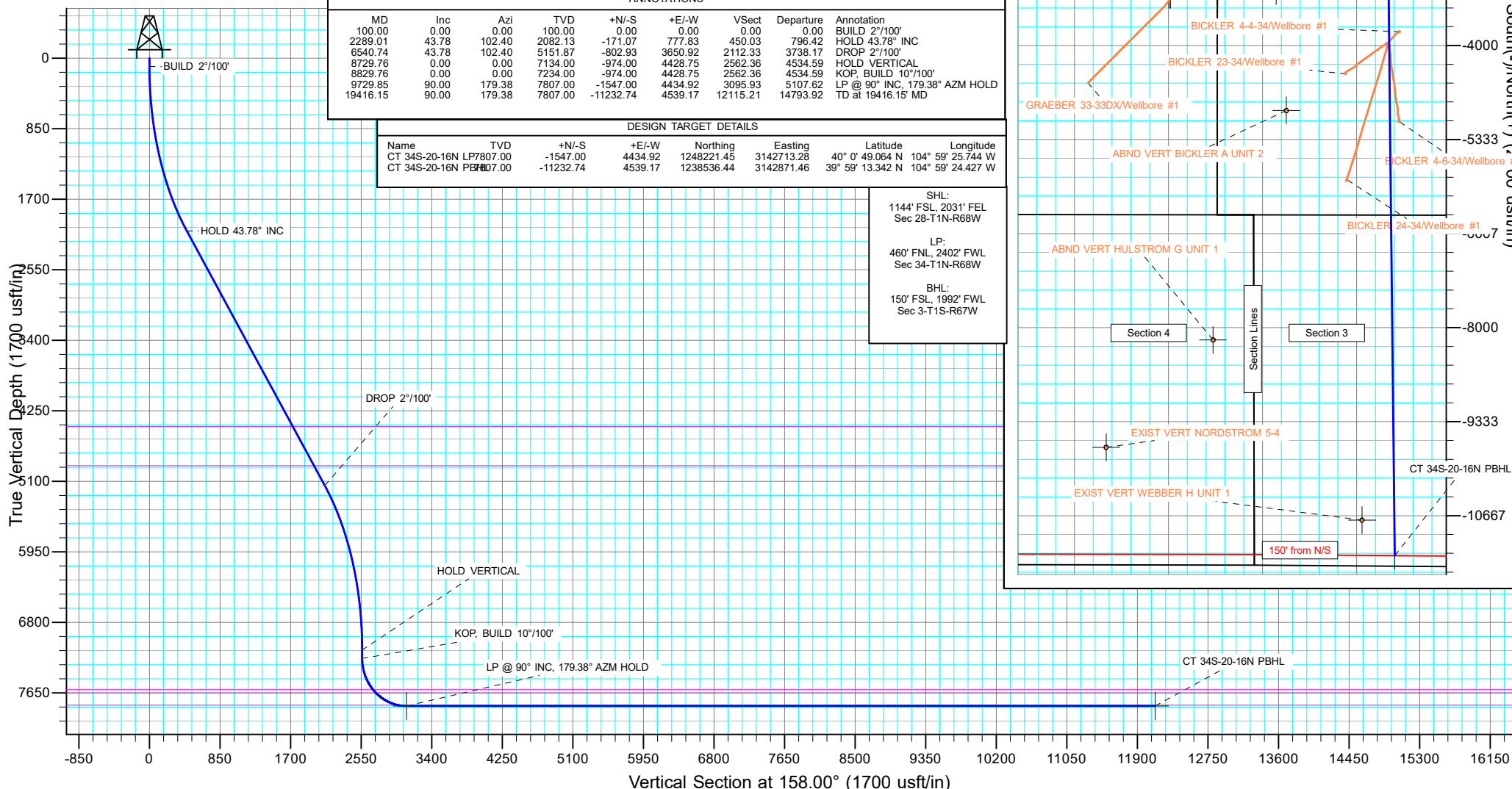
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CT 34S-20-16N LP	7807.00	-1547.00	4434.92	1248221.45	3142713.28	40° 0' 49.064 N	104° 59' 25.744 W
CT 34S-20-16N PBHL	7807.00	-11232.74	4539.17	1238536.44	3142871.46	39° 59' 13.342 N	104° 59' 24.427 W

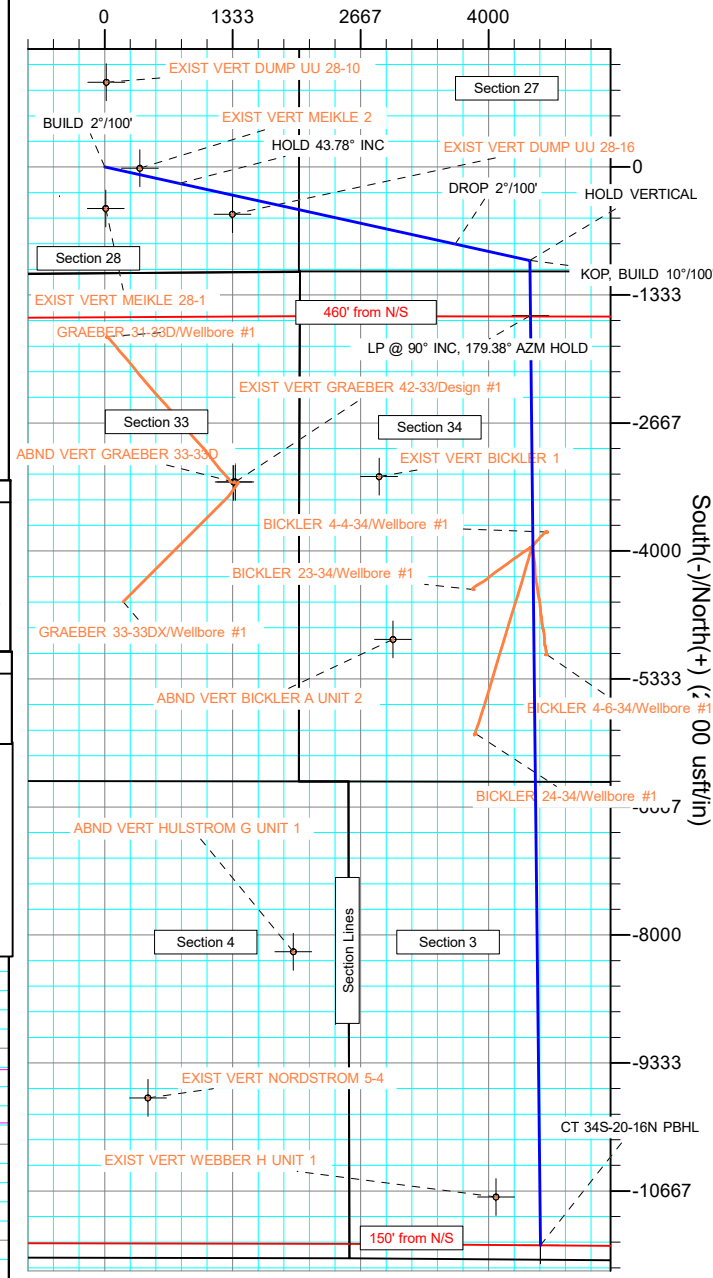
SHL:
1144' FSL, 2031' FEL
Sec 28-T1N-R68W

LP:
460' FNL, 2402' FWL
Sec 34-T1N-R68W

BHL:
150' FSL, 1992' FWL
Sec 3-T1S-R67W



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



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-16N
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-20-16N	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-20-16N					
Well Position	+N/-S	1,094.96 usft	Northing:	1,249,743.73 usft	Latitude:	40° 1' 4.356 N
	+E/-W	-2,023.86 usft	Easting:	3,138,269.82 usft	Longitude:	105° 0' 22.745 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	52,202.37602168

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	158.00

Plan Survey Tool Program			Date	9/12/2017	
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	19,415.71	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	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,289.01	43.78	102.40	2,082.13	-171.07	777.83	2.00	2.00	0.00	102.40	
6,540.74	43.78	102.40	5,151.87	-802.93	3,650.92	0.00	0.00	0.00	0.00	
8,729.76	0.00	0.00	7,134.00	-974.00	4,428.75	2.00	-2.00	0.00	180.00	
8,829.76	0.00	0.00	7,234.00	-974.00	4,428.75	0.00	0.00	0.00	0.00	
9,729.85	90.00	179.38	7,807.00	-1,547.00	4,434.92	10.00	10.00	19.93	179.38	CT 34S-20-16N LP
19,416.15	90.00	179.38	7,807.00	-11,232.74	4,539.17	0.00	0.00	0.00	174.83	CT 34S-20-16N PBHI

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-16N
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-20-16N	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
BUILD 2°/100'									
200.00	2.00	102.40	199.98	-0.37	1.70	0.99	2.00	2.00	0.00
300.00	4.00	102.40	299.84	-1.50	6.82	3.94	2.00	2.00	0.00
400.00	6.00	102.40	399.45	-3.37	15.33	8.87	2.00	2.00	0.00
500.00	8.00	102.40	498.70	-5.99	27.23	15.75	2.00	2.00	0.00
600.00	10.00	102.40	597.47	-9.35	42.51	24.59	2.00	2.00	0.00
700.00	12.00	102.40	695.62	-13.45	61.14	35.37	2.00	2.00	0.00
800.00	14.00	102.40	793.06	-18.28	83.11	48.09	2.00	2.00	0.00
900.00	16.00	102.40	889.64	-23.84	108.39	62.71	2.00	2.00	0.00
1,000.00	18.00	102.40	985.27	-30.12	136.94	79.23	2.00	2.00	0.00
1,100.00	20.00	102.40	1,079.82	-37.11	168.74	97.63	2.00	2.00	0.00
1,200.00	22.00	102.40	1,173.17	-44.81	203.73	117.88	2.00	2.00	0.00
1,300.00	24.00	102.40	1,265.21	-53.20	241.89	139.95	2.00	2.00	0.00
1,400.00	26.00	102.40	1,355.84	-62.28	283.17	163.83	2.00	2.00	0.00
1,500.00	28.00	102.40	1,444.94	-72.03	327.50	189.49	2.00	2.00	0.00
1,600.00	30.00	102.40	1,532.39	-82.44	374.85	216.88	2.00	2.00	0.00
1,700.00	32.00	102.40	1,618.11	-93.50	425.15	245.98	2.00	2.00	0.00
1,800.00	34.00	102.40	1,701.97	-105.20	478.34	276.76	2.00	2.00	0.00
1,900.00	36.00	102.40	1,783.88	-117.52	534.36	309.16	2.00	2.00	0.00
2,000.00	38.00	102.40	1,863.74	-130.45	593.13	343.17	2.00	2.00	0.00
2,100.00	40.00	102.40	1,941.45	-143.96	654.59	378.73	2.00	2.00	0.00
2,200.00	42.00	102.40	2,016.92	-158.05	718.66	415.80	2.00	2.00	0.00
2,289.01	43.78	102.40	2,082.13	-171.07	777.83	450.03	2.00	2.00	0.00
HOLD 43.78° INC									
2,300.00	43.78	102.40	2,090.06	-172.70	785.25	454.33	0.00	0.00	0.00
2,400.00	43.78	102.40	2,162.26	-187.56	852.83	493.42	0.00	0.00	0.00
2,500.00	43.78	102.40	2,234.46	-202.42	920.40	532.52	0.00	0.00	0.00
2,600.00	43.78	102.40	2,306.66	-217.28	987.98	571.62	0.00	0.00	0.00
2,700.00	43.78	102.40	2,378.86	-232.14	1,055.55	610.71	0.00	0.00	0.00
2,800.00	43.78	102.40	2,451.06	-247.01	1,123.13	649.81	0.00	0.00	0.00
2,900.00	43.78	102.40	2,523.26	-261.87	1,190.70	688.91	0.00	0.00	0.00
3,000.00	43.78	102.40	2,595.46	-276.73	1,258.28	728.01	0.00	0.00	0.00
3,100.00	43.78	102.40	2,667.66	-291.59	1,325.85	767.10	0.00	0.00	0.00
3,200.00	43.78	102.40	2,739.86	-306.45	1,393.42	806.20	0.00	0.00	0.00
3,300.00	43.78	102.40	2,812.06	-321.31	1,461.00	845.30	0.00	0.00	0.00
3,400.00	43.78	102.40	2,884.26	-336.17	1,528.57	884.39	0.00	0.00	0.00
3,500.00	43.78	102.40	2,956.46	-351.04	1,596.15	923.49	0.00	0.00	0.00
3,600.00	43.78	102.40	3,028.66	-365.90	1,663.72	962.59	0.00	0.00	0.00
3,700.00	43.78	102.40	3,100.86	-380.76	1,731.30	1,001.68	0.00	0.00	0.00
3,800.00	43.78	102.40	3,173.06	-395.62	1,798.87	1,040.78	0.00	0.00	0.00
3,900.00	43.78	102.40	3,245.26	-410.48	1,866.45	1,079.88	0.00	0.00	0.00
4,000.00	43.78	102.40	3,317.46	-425.34	1,934.02	1,118.97	0.00	0.00	0.00
4,100.00	43.78	102.40	3,389.66	-440.20	2,001.60	1,158.07	0.00	0.00	0.00
4,200.00	43.78	102.40	3,461.86	-455.07	2,069.17	1,197.17	0.00	0.00	0.00
4,300.00	43.78	102.40	3,534.06	-469.93	2,136.75	1,236.27	0.00	0.00	0.00
4,400.00	43.78	102.40	3,606.26	-484.79	2,204.32	1,275.36	0.00	0.00	0.00
4,500.00	43.78	102.40	3,678.46	-499.65	2,271.90	1,314.46	0.00	0.00	0.00
4,600.00	43.78	102.40	3,750.66	-514.51	2,339.47	1,353.56	0.00	0.00	0.00
4,700.00	43.78	102.40	3,822.86	-529.37	2,407.04	1,392.65	0.00	0.00	0.00
4,800.00	43.78	102.40	3,895.06	-544.23	2,474.62	1,431.75	0.00	0.00	0.00
4,900.00	43.78	102.40	3,967.26	-559.10	2,542.19	1,470.85	0.00	0.00	0.00

Planning Report

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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-20-16N	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	43.78	102.40	4,039.46	-573.96	2,609.77	1,509.94	0.00	0.00	0.00
5,100.00	43.78	102.40	4,111.66	-588.82	2,677.34	1,549.04	0.00	0.00	0.00
5,200.00	43.78	102.40	4,183.86	-603.68	2,744.92	1,588.14	0.00	0.00	0.00
5,300.00	43.78	102.40	4,256.06	-618.54	2,812.49	1,627.24	0.00	0.00	0.00
5,400.00	43.78	102.40	4,328.25	-633.40	2,880.07	1,666.33	0.00	0.00	0.00
5,500.00	43.78	102.40	4,400.45	-648.26	2,947.64	1,705.43	0.00	0.00	0.00
5,554.77	43.78	102.40	4,440.00	-656.40	2,984.65	1,726.84	0.00	0.00	0.00
PARKMAN									
5,600.00	43.78	102.40	4,472.65	-663.13	3,015.22	1,744.53	0.00	0.00	0.00
5,700.00	43.78	102.40	4,544.85	-677.99	3,082.79	1,783.62	0.00	0.00	0.00
5,800.00	43.78	102.40	4,617.05	-692.85	3,150.37	1,822.72	0.00	0.00	0.00
5,900.00	43.78	102.40	4,689.25	-707.71	3,217.94	1,861.82	0.00	0.00	0.00
6,000.00	43.78	102.40	4,761.45	-722.57	3,285.52	1,900.91	0.00	0.00	0.00
6,100.00	43.78	102.40	4,833.65	-737.43	3,353.09	1,940.01	0.00	0.00	0.00
6,200.00	43.78	102.40	4,905.85	-752.30	3,420.66	1,979.11	0.00	0.00	0.00
6,205.74	43.78	102.40	4,910.00	-753.15	3,424.55	1,981.35	0.00	0.00	0.00
SUSSEX									
6,300.00	43.78	102.40	4,978.05	-767.16	3,488.24	2,018.20	0.00	0.00	0.00
6,400.00	43.78	102.40	5,050.25	-782.02	3,555.81	2,057.30	0.00	0.00	0.00
6,500.00	43.78	102.40	5,122.45	-796.88	3,623.39	2,096.40	0.00	0.00	0.00
6,540.74	43.78	102.40	5,151.87	-802.93	3,650.92	2,112.33	0.00	0.00	0.00
DROP 2°/100'									
6,600.00	42.60	102.40	5,195.07	-811.65	3,690.53	2,135.24	2.00	-2.00	0.00
6,700.00	40.60	102.40	5,269.85	-825.90	3,755.36	2,172.75	2.00	-2.00	0.00
6,800.00	38.60	102.40	5,346.91	-839.59	3,817.61	2,208.77	2.00	-2.00	0.00
6,900.00	36.60	102.40	5,426.14	-852.70	3,877.19	2,243.24	2.00	-2.00	0.00
7,000.00	34.60	102.40	5,507.45	-865.20	3,934.03	2,276.13	2.00	-2.00	0.00
7,100.00	32.60	102.40	5,590.74	-877.08	3,988.07	2,307.39	2.00	-2.00	0.00
7,200.00	30.60	102.40	5,675.91	-888.34	4,039.24	2,337.00	2.00	-2.00	0.00
7,300.00	28.60	102.40	5,762.86	-898.94	4,087.47	2,364.90	2.00	-2.00	0.00
7,400.00	26.60	102.40	5,851.48	-908.89	4,132.71	2,391.08	2.00	-2.00	0.00
7,500.00	24.60	102.40	5,941.66	-918.17	4,174.90	2,415.49	2.00	-2.00	0.00
7,600.00	22.60	102.40	6,033.30	-926.77	4,213.99	2,438.10	2.00	-2.00	0.00
7,700.00	20.60	102.40	6,126.27	-934.67	4,249.93	2,458.90	2.00	-2.00	0.00
7,800.00	18.60	102.40	6,220.48	-941.88	4,282.69	2,477.85	2.00	-2.00	0.00
7,900.00	16.60	102.40	6,315.80	-948.37	4,312.21	2,494.93	2.00	-2.00	0.00
8,000.00	14.60	102.40	6,412.11	-954.14	4,338.46	2,510.12	2.00	-2.00	0.00
8,100.00	12.60	102.40	6,509.30	-959.19	4,361.42	2,523.40	2.00	-2.00	0.00
8,200.00	10.60	102.40	6,607.26	-963.51	4,381.05	2,534.76	2.00	-2.00	0.00
8,300.00	8.60	102.40	6,705.85	-967.09	4,397.33	2,544.18	2.00	-2.00	0.00
8,400.00	6.60	102.40	6,804.97	-969.93	4,410.23	2,551.65	2.00	-2.00	0.00
8,500.00	4.60	102.40	6,904.49	-972.02	4,419.76	2,557.16	2.00	-2.00	0.00
8,600.00	2.60	102.40	7,004.29	-973.37	4,425.88	2,560.70	2.00	-2.00	0.00
8,700.00	0.60	102.40	7,104.24	-973.97	4,428.60	2,562.27	2.00	-2.00	0.00
8,729.76	0.00	0.00	7,134.00	-974.00	4,428.75	2,562.36	2.00	-2.00	0.00
HOLD VERTICAL									
8,800.00	0.00	0.00	7,204.24	-974.00	4,428.75	2,562.36	0.00	0.00	0.00
8,829.76	0.00	0.00	7,234.00	-974.00	4,428.75	2,562.36	0.00	0.00	0.00
KOP, BUILD 10°/100'									
8,850.00	2.02	179.38	7,254.24	-974.36	4,428.75	2,562.69	10.00	10.00	0.00
8,900.00	7.02	179.38	7,304.07	-978.30	4,428.80	2,566.36	10.00	10.00	0.00
8,950.00	12.02	179.38	7,353.36	-986.57	4,428.89	2,574.06	10.00	10.00	0.00
9,000.00	17.02	179.38	7,401.75	-999.10	4,429.02	2,585.74	10.00	10.00	0.00
9,050.00	22.02	179.38	7,448.86	-1,015.81	4,429.20	2,601.29	10.00	10.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-16N
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-20-16N	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)
9,100.00	27.02	179.38	7,494.33	-1,036.55	4,429.42	2,620.61	10.00	10.00	0.00
9,150.00	32.02	179.38	7,537.83	-1,061.18	4,429.69	2,643.54	10.00	10.00	0.00
9,200.00	37.02	179.38	7,579.01	-1,089.50	4,429.99	2,669.92	10.00	10.00	0.00
9,239.89	41.01	179.38	7,610.00	-1,114.61	4,430.26	2,693.30	10.00	10.00	0.00
SHARON SPRINGS									
9,250.00	42.02	179.38	7,617.57	-1,121.31	4,430.34	2,699.53	10.00	10.00	0.00
9,295.32	46.55	179.38	7,650.00	-1,152.94	4,430.68	2,728.99	10.00	10.00	0.00
NIOBRARA									
9,300.00	47.02	179.38	7,653.21	-1,156.36	4,430.71	2,732.17	10.00	10.00	0.00
9,350.00	52.02	179.38	7,685.66	-1,194.37	4,431.12	2,767.57	10.00	10.00	0.00
9,400.00	57.02	179.38	7,714.67	-1,235.07	4,431.56	2,805.47	10.00	10.00	0.00
9,450.00	62.02	179.38	7,740.02	-1,278.15	4,432.03	2,845.58	10.00	10.00	0.00
9,500.00	67.02	179.38	7,761.52	-1,323.27	4,432.51	2,887.60	10.00	10.00	0.00
9,550.00	72.02	179.38	7,779.01	-1,370.09	4,433.02	2,931.20	10.00	10.00	0.00
9,600.00	77.02	179.38	7,792.36	-1,418.26	4,433.53	2,976.05	10.00	10.00	0.00
9,622.62	79.28	179.38	7,797.00	-1,440.39	4,433.77	2,996.66	10.00	10.00	0.00
NIO B									
9,650.00	82.02	179.38	7,801.45	-1,467.41	4,434.06	3,021.82	10.00	10.00	0.00
9,700.00	87.02	179.38	7,806.22	-1,517.16	4,434.60	3,068.14	10.00	10.00	0.00
9,729.85	90.00	179.38	7,807.00	-1,547.00	4,434.92	3,095.93	10.00	10.00	0.00
LP @ 90° INC, 179.38° AZM HOLD									
9,800.00	90.00	179.38	7,807.00	-1,617.14	4,435.68	3,161.25	0.00	0.00	0.00
9,900.00	90.00	179.38	7,806.99	-1,717.13	4,436.75	3,254.36	0.00	0.00	0.00
10,000.00	90.00	179.38	7,806.99	-1,817.13	4,437.83	3,347.47	0.00	0.00	0.00
10,100.00	90.00	179.38	7,806.98	-1,917.12	4,438.91	3,440.59	0.00	0.00	0.00
10,200.00	90.00	179.38	7,806.98	-2,017.12	4,439.98	3,533.70	0.00	0.00	0.00
10,300.00	90.00	179.38	7,806.97	-2,117.11	4,441.06	3,626.82	0.00	0.00	0.00
10,400.00	90.00	179.38	7,806.97	-2,217.10	4,442.14	3,719.93	0.00	0.00	0.00
10,500.00	90.00	179.38	7,806.96	-2,317.10	4,443.21	3,813.04	0.00	0.00	0.00
10,600.00	90.00	179.38	7,806.96	-2,417.09	4,444.29	3,906.16	0.00	0.00	0.00
10,700.00	90.00	179.38	7,806.95	-2,517.09	4,445.37	3,999.27	0.00	0.00	0.00
10,800.00	90.00	179.38	7,806.95	-2,617.08	4,446.44	4,092.39	0.00	0.00	0.00
10,900.00	90.00	179.38	7,806.95	-2,717.07	4,447.52	4,185.50	0.00	0.00	0.00
11,000.00	90.00	179.38	7,806.94	-2,817.07	4,448.60	4,278.61	0.00	0.00	0.00
11,100.00	90.00	179.38	7,806.94	-2,917.06	4,449.67	4,371.73	0.00	0.00	0.00
11,200.00	90.00	179.38	7,806.94	-3,017.06	4,450.75	4,464.84	0.00	0.00	0.00
11,300.00	90.00	179.38	7,806.93	-3,117.05	4,451.83	4,557.96	0.00	0.00	0.00
11,400.00	90.00	179.38	7,806.93	-3,217.05	4,452.90	4,651.07	0.00	0.00	0.00
11,500.00	90.00	179.38	7,806.92	-3,317.04	4,453.98	4,744.18	0.00	0.00	0.00
11,600.00	90.00	179.38	7,806.92	-3,417.03	4,455.05	4,837.30	0.00	0.00	0.00
11,700.00	90.00	179.38	7,806.92	-3,517.03	4,456.13	4,930.41	0.00	0.00	0.00
11,800.00	90.00	179.38	7,806.92	-3,617.02	4,457.21	5,023.53	0.00	0.00	0.00
11,900.00	90.00	179.38	7,806.91	-3,717.02	4,458.28	5,116.64	0.00	0.00	0.00
12,000.00	90.00	179.38	7,806.91	-3,817.01	4,459.36	5,209.75	0.00	0.00	0.00
12,100.00	90.00	179.38	7,806.91	-3,917.01	4,460.44	5,302.87	0.00	0.00	0.00
12,200.00	90.00	179.38	7,806.90	-4,017.00	4,461.51	5,395.98	0.00	0.00	0.00
12,300.00	90.00	179.38	7,806.90	-4,116.99	4,462.59	5,489.09	0.00	0.00	0.00
12,400.00	90.00	179.38	7,806.90	-4,216.99	4,463.67	5,582.21	0.00	0.00	0.00
12,500.00	90.00	179.38	7,806.90	-4,316.98	4,464.74	5,675.32	0.00	0.00	0.00
12,600.00	90.00	179.38	7,806.90	-4,416.98	4,465.82	5,768.44	0.00	0.00	0.00
12,700.00	90.00	179.38	7,806.89	-4,516.97	4,466.90	5,861.55	0.00	0.00	0.00
12,800.00	90.00	179.38	7,806.89	-4,616.96	4,467.97	5,954.66	0.00	0.00	0.00
12,900.00	90.00	179.38	7,806.89	-4,716.96	4,469.05	6,047.78	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-16N
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-20-16N	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)
13,000.00	90.00	179.38	7,806.89	-4,816.95	4,470.13	6,140.89	0.00	0.00	0.00
13,100.00	90.00	179.38	7,806.89	-4,916.95	4,471.20	6,234.01	0.00	0.00	0.00
13,200.00	90.00	179.38	7,806.88	-5,016.94	4,472.28	6,327.12	0.00	0.00	0.00
13,300.00	90.00	179.38	7,806.88	-5,116.94	4,473.35	6,420.23	0.00	0.00	0.00
13,400.00	90.00	179.38	7,806.88	-5,216.93	4,474.43	6,513.35	0.00	0.00	0.00
13,500.00	90.00	179.38	7,806.88	-5,316.92	4,475.51	6,606.46	0.00	0.00	0.00
13,600.00	90.00	179.38	7,806.88	-5,416.92	4,476.58	6,699.58	0.00	0.00	0.00
13,700.00	90.00	179.38	7,806.88	-5,516.91	4,477.66	6,792.69	0.00	0.00	0.00
13,800.00	90.00	179.38	7,806.88	-5,616.91	4,478.74	6,885.80	0.00	0.00	0.00
13,900.00	90.00	179.38	7,806.88	-5,716.90	4,479.81	6,978.92	0.00	0.00	0.00
14,000.00	90.00	179.38	7,806.88	-5,816.90	4,480.89	7,072.03	0.00	0.00	0.00
14,100.00	90.00	179.38	7,806.88	-5,916.89	4,481.97	7,165.14	0.00	0.00	0.00
14,200.00	90.00	179.38	7,806.87	-6,016.88	4,483.04	7,258.26	0.00	0.00	0.00
14,300.00	90.00	179.38	7,806.87	-6,116.88	4,484.12	7,351.37	0.00	0.00	0.00
14,400.00	90.00	179.38	7,806.87	-6,216.87	4,485.19	7,444.49	0.00	0.00	0.00
14,500.00	90.00	179.38	7,806.87	-6,316.87	4,486.27	7,537.60	0.00	0.00	0.00
14,600.00	90.00	179.38	7,806.87	-6,416.86	4,487.35	7,630.71	0.00	0.00	0.00
14,700.00	90.00	179.38	7,806.87	-6,516.85	4,488.42	7,723.83	0.00	0.00	0.00
14,800.00	90.00	179.38	7,806.87	-6,616.85	4,489.50	7,816.94	0.00	0.00	0.00
14,900.00	90.00	179.38	7,806.87	-6,716.84	4,490.58	7,910.06	0.00	0.00	0.00
15,000.00	90.00	179.38	7,806.88	-6,816.84	4,491.65	8,003.17	0.00	0.00	0.00
15,100.00	90.00	179.38	7,806.88	-6,916.83	4,492.73	8,096.28	0.00	0.00	0.00
15,200.00	90.00	179.38	7,806.88	-7,016.83	4,493.80	8,189.40	0.00	0.00	0.00
15,300.00	90.00	179.38	7,806.88	-7,116.82	4,494.88	8,282.51	0.00	0.00	0.00
15,400.00	90.00	179.38	7,806.88	-7,216.81	4,495.96	8,375.62	0.00	0.00	0.00
15,500.00	90.00	179.38	7,806.88	-7,316.81	4,497.03	8,468.74	0.00	0.00	0.00
15,600.00	90.00	179.38	7,806.88	-7,416.80	4,498.11	8,561.85	0.00	0.00	0.00
15,700.00	90.00	179.38	7,806.88	-7,516.80	4,499.19	8,654.97	0.00	0.00	0.00
15,800.00	90.00	179.38	7,806.88	-7,616.79	4,500.26	8,748.08	0.00	0.00	0.00
15,900.00	90.00	179.38	7,806.88	-7,716.79	4,501.34	8,841.19	0.00	0.00	0.00
16,000.00	90.00	179.38	7,806.89	-7,816.78	4,502.41	8,934.31	0.00	0.00	0.00
16,100.00	90.00	179.38	7,806.89	-7,916.77	4,503.49	9,027.42	0.00	0.00	0.00
16,200.00	90.00	179.38	7,806.89	-8,016.77	4,504.57	9,120.53	0.00	0.00	0.00
16,300.00	90.00	179.38	7,806.89	-8,116.76	4,505.64	9,213.65	0.00	0.00	0.00
16,400.00	90.00	179.38	7,806.89	-8,216.76	4,506.72	9,306.76	0.00	0.00	0.00
16,500.00	90.00	179.38	7,806.89	-8,316.75	4,507.79	9,399.88	0.00	0.00	0.00
16,600.00	90.00	179.38	7,806.90	-8,416.74	4,508.87	9,492.99	0.00	0.00	0.00
16,700.00	90.00	179.38	7,806.90	-8,516.74	4,509.95	9,586.10	0.00	0.00	0.00
16,800.00	90.00	179.38	7,806.90	-8,616.73	4,511.02	9,679.22	0.00	0.00	0.00
16,900.00	90.00	179.38	7,806.90	-8,716.73	4,512.10	9,772.33	0.00	0.00	0.00
17,000.00	90.00	179.38	7,806.91	-8,816.72	4,513.17	9,865.44	0.00	0.00	0.00
17,100.00	90.00	179.38	7,806.91	-8,916.72	4,514.25	9,958.56	0.00	0.00	0.00
17,200.00	90.00	179.38	7,806.91	-9,016.71	4,515.33	10,051.67	0.00	0.00	0.00
17,300.00	90.00	179.38	7,806.91	-9,116.70	4,516.40	10,144.79	0.00	0.00	0.00
17,400.00	90.00	179.38	7,806.92	-9,216.70	4,517.48	10,237.90	0.00	0.00	0.00
17,500.00	90.00	179.38	7,806.92	-9,316.69	4,518.55	10,331.01	0.00	0.00	0.00
17,600.00	90.00	179.38	7,806.92	-9,416.69	4,519.63	10,424.13	0.00	0.00	0.00
17,700.00	90.00	179.38	7,806.93	-9,516.68	4,520.71	10,517.24	0.00	0.00	0.00
17,800.00	90.00	179.38	7,806.93	-9,616.68	4,521.78	10,610.35	0.00	0.00	0.00
17,900.00	90.00	179.38	7,806.93	-9,716.67	4,522.86	10,703.47	0.00	0.00	0.00
18,000.00	90.00	179.38	7,806.94	-9,816.66	4,523.93	10,796.58	0.00	0.00	0.00
18,100.00	90.00	179.38	7,806.94	-9,916.66	4,525.01	10,889.70	0.00	0.00	0.00
18,200.00	90.00	179.38	7,806.94	-10,016.65	4,526.09	10,982.81	0.00	0.00	0.00
18,300.00	90.00	179.38	7,806.95	-10,116.65	4,527.16	11,075.92	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-16N
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-20-16N	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)	
18,400.00	90.00	179.38	7,806.95	-10,216.64	4,528.24	11,169.04	0.00	0.00	0.00	
18,500.00	90.00	179.38	7,806.96	-10,316.63	4,529.31	11,262.15	0.00	0.00	0.00	
18,600.00	90.00	179.38	7,806.96	-10,416.63	4,530.39	11,355.26	0.00	0.00	0.00	
18,700.00	90.00	179.38	7,806.97	-10,516.62	4,531.47	11,448.38	0.00	0.00	0.00	
18,800.00	90.00	179.38	7,806.97	-10,616.62	4,532.54	11,541.49	0.00	0.00	0.00	
18,900.00	90.00	179.38	7,806.97	-10,716.61	4,533.62	11,634.60	0.00	0.00	0.00	
19,000.00	90.00	179.38	7,806.98	-10,816.61	4,534.69	11,727.72	0.00	0.00	0.00	
19,100.00	90.00	179.38	7,806.98	-10,916.60	4,535.77	11,820.83	0.00	0.00	0.00	
19,200.00	90.00	179.38	7,806.99	-11,016.59	4,536.84	11,913.95	0.00	0.00	0.00	
19,300.00	90.00	179.38	7,806.99	-11,116.59	4,537.92	12,007.06	0.00	0.00	0.00	
19,400.00	90.00	179.38	7,807.00	-11,216.58	4,539.00	12,100.17	0.00	0.00	0.00	
19,416.15	90.00	179.38	7,807.00	-11,232.74	4,539.17	12,115.21	0.00	0.00	0.00	
TD at 19416.15' 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										
CT 34S-20-16N LP	0.00	0.00	7,807.00	-1,547.00	4,434.92	1,248,221.45	3,142,713.28	40° 0' 49.064 N	104° 59' 25.744 W	
- plan hits target center										
- Point										
CT 34S-20-16N PBHL	0.00	0.00	7,807.00	-11,232.74	4,539.17	1,238,536.44	3,142,871.46	39° 59' 13.342 N	104° 59' 24.427 W	
- plan hits target center										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,554.77	4,440.00	PARKMAN				
6,205.74	4,910.00	SUSSEX				
9,239.89	7,610.00	SHARON SPRINGS				
9,295.32	7,650.00	NIOBRARA				
9,622.62	7,797.00	NIO B				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
100.00	100.00	0.00	0.00	BUILD 2°/100'	
2,289.01	2,082.13	-171.07	777.83	HOLD 43.78° INC	
6,540.74	5,151.87	-802.93	3,650.92	DROP 2°/100'	
8,729.76	7,134.00	-974.00	4,428.75	HOLD VERTICAL	
8,829.76	7,234.00	-974.00	4,428.75	KOP, BUILD 10°/100'	
9,729.85	7,807.00	-1,547.00	4,434.92	LP @ 90° INC, 179.38° AZM HOLD	
19,416.15	7,807.00	-11,232.74	4,539.17	TD at 19416.15' MD	