

# **EXTRACTION OIL & GAS**

**WELD COUNTY**

**Sec 29-T7N-R67W**

**FRYE NORTH 29E-20-12N**

**ORIGINAL WELLBORE**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**06 August, 2018**



Project: WELD COUNTY  
Site: Sec 29-T7N-R67W  
Well: FRYE NORTH 29E-20-12N  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL 1



Azimuths to True North  
Magnetic North: 8.19°  
Magnetic Field  
Strength: 52322.8nT  
Dip Angle: 66.92°  
Date: 7/23/2018  
Model: IGRF2015

WELL DETAILS: FRYE NORTH 29E-20-12N

+N/-S	+E/-W	Northing	Easting	4960.00	Latitude	Longitude	Slot
0.00	0.00	1440594.00	3161783.86	40° 32'	28.943 N	104° 55' 4.411 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	800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	
3	1293.11	9.86	214.34	1290.68	-34.96	-23.88	2.00	214.34	-21.37	
4	5734.39	9.86	214.34	5666.32	-663.09	-452.95	0.00	0.00	-405.29	
5	6227.49	0.00	0.00	6157.00	-698.05	-476.83	2.00	180.00	-426.65	
6	6257.49	0.00	0.00	6187.00	-698.05	-476.83	0.00	0.00	-426.65	
7	7157.56	90.00	90.25	6760.00	-700.56	96.17	10.00	90.25	145.11	
8	17667.61	90.00	90.25	6760.00	-746.37	10606.11	0.00	0.00	10632.34	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	Start Build 2.00
1293.11	9.86	214.34	1290.68	-34.96	-23.88	-21.37	42.33	Start 4441.28 hold at 1293.11 MD
5734.39	9.86	214.34	5666.32	-663.09	-452.95	-405.29	803.03	Start Drop -2.00
6227.49	0.00	0.00	6157.00	-698.05	-476.83	-426.65	845.36	Start 30.00 hold at 6227.49 MD
6257.49	0.00	0.00	6187.00	-698.05	-476.83	-426.65	845.36	Start DLS 10.00 TFO 90.25
7157.56	90.00	90.25	6760.00	-700.56	96.17	145.11	1418.37	Start 10510.05 hold at 7157.56 MD
17667.61	90.00	90.25	6760.00	-746.37	10606.11	10632.34	11928.41	TD at 17667.61

DESIGN TARGET DETAILS

FN	Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
FN	29E-12N - LP	6760.00	-700.56	96.17	1439894.08	3161884.62	40° 32' 22.020 N	104° 55' 3.166 W	Point
FN	29E-12N - PBHL	6760.00	-746.37	10606.11	1439917.27	3172394.64	40° 32' 21.545 N	104° 52' 47.035 W	Point

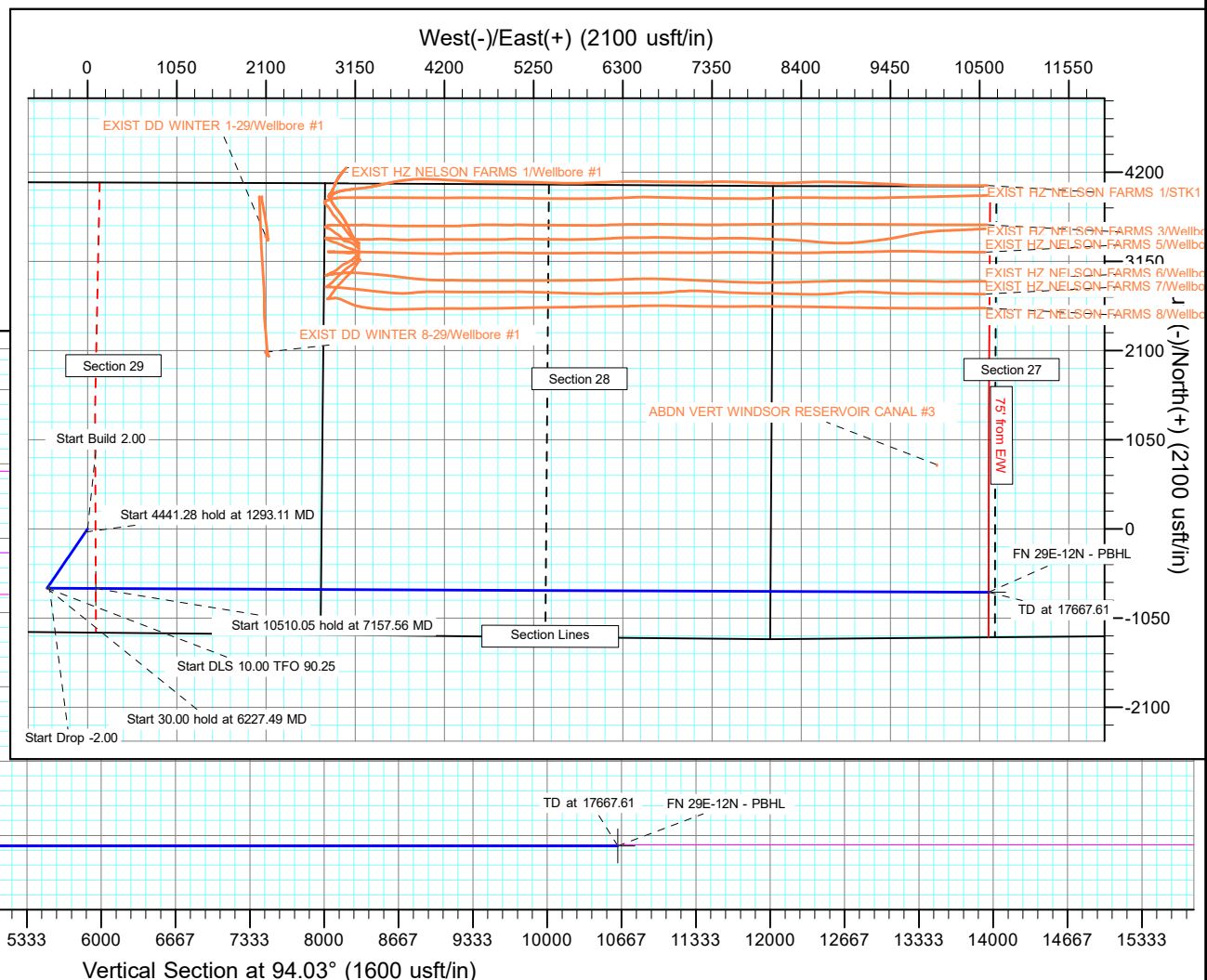
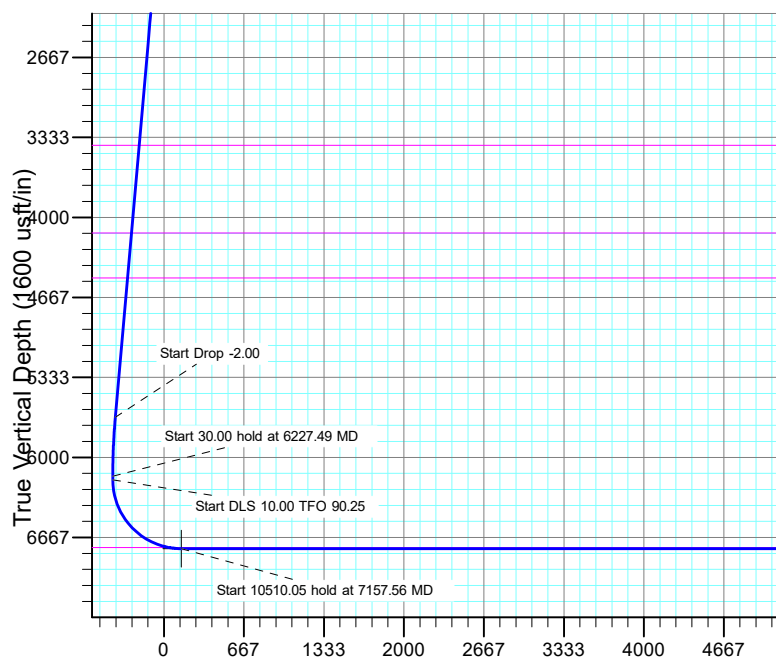
FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
3398.00	3432.04	PARKMAN
4130.00	4175.02	SUSSEX
4504.00	4554.63	SHANNON
6750.00	7050.35	NIOBRARA

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:  
2538' FWL, 1220' FSL  
Sec 29-T7N-R67W  
LP:  
520' FSL, 2640' FWL  
Sec 29-T7N-R67W  
BHL:  
529' FSL, 2568' FWL  
Sec 27-T7N-R67W



Vertical Section at 94.03° (1600 usft/in)

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well FRYE NORTH 29E-20-12N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 4989.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 4989.00usft
<b>Site:</b>	Sec 29-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	FRYE NORTH 29E-20-12N	<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 29-T7N-R67W			
Site Position:		Northing:	1,444,683.95 usft	Latitude:	40° 33' 9.176 N
From:	Lat/Long	Easting:	3,164,551.74 usft	Longitude:	104° 54' 28.206 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.38 °

Well		FRYE NORTH 29E-20-12N				
Well Position	+N/-S	-4,071.38 usft	Northing:	1,440,594.00 usft	Latitude:	40° 32' 28.943 N
	+E/-W	-2,795.14 usft	Easting:	3,161,783.86 usft	Longitude:	104° 55' 4.411 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	4,960.00 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	7/23/2018	8.19	66.92	52,322.79666918

<b>Design</b>	PROPOSAL 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	94.03

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/6/2018		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	17,667.59	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	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,293.11	9.86	214.34	1,290.68	-34.96	-23.88	2.00	2.00	0.00	214.34	
5,734.39	9.86	214.34	5,666.32	-663.09	-452.95	0.00	0.00	0.00	0.00	
6,227.49	0.00	0.00	6,157.00	-698.05	-476.83	2.00	-2.00	0.00	180.00	
6,257.49	0.00	0.00	6,187.00	-698.05	-476.83	0.00	0.00	0.00	0.00	
7,157.56	90.00	90.25	6,760.00	-700.56	96.17	10.00	10.00	10.03	90.25	FN 29E-12N - LP
17,667.61	90.00	90.25	6,760.00	-746.37	10,606.11	0.00	0.00	0.00	0.00	FN 29E-12N - PBHL

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well FRYE NORTH 29E-20-12N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 4989.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 4989.00usft
<b>Site:</b>	Sec 29-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	FRYE NORTH 29E-20-12N	<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
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
900.00	2.00	214.34	899.98	-1.44	-0.98	-0.88	2.00	2.00	0.00
1,000.00	4.00	214.34	999.84	-5.76	-3.94	-3.52	2.00	2.00	0.00
1,100.00	6.00	214.34	1,099.45	-12.96	-8.85	-7.92	2.00	2.00	0.00
1,200.00	8.00	214.34	1,198.70	-23.02	-15.73	-14.07	2.00	2.00	0.00
1,293.11	9.86	214.34	1,290.68	-34.96	-23.88	-21.37	2.00	2.00	0.00
Start 4441.28 hold at 1293.11 MD									
1,300.00	9.86	214.34	1,297.47	-35.93	-24.54	-21.96	0.00	0.00	0.00
1,400.00	9.86	214.34	1,395.99	-50.07	-34.21	-30.61	0.00	0.00	0.00
1,500.00	9.86	214.34	1,494.51	-64.22	-43.87	-39.25	0.00	0.00	0.00
1,600.00	9.86	214.34	1,593.03	-78.36	-53.53	-47.89	0.00	0.00	0.00
1,700.00	9.86	214.34	1,691.56	-92.50	-63.19	-56.54	0.00	0.00	0.00
1,800.00	9.86	214.34	1,790.08	-106.65	-72.85	-65.18	0.00	0.00	0.00
1,900.00	9.86	214.34	1,888.60	-120.79	-82.51	-73.83	0.00	0.00	0.00
2,000.00	9.86	214.34	1,987.12	-134.93	-92.17	-82.47	0.00	0.00	0.00
2,100.00	9.86	214.34	2,085.64	-149.08	-101.83	-91.12	0.00	0.00	0.00
2,200.00	9.86	214.34	2,184.17	-163.22	-111.49	-99.76	0.00	0.00	0.00
2,300.00	9.86	214.34	2,282.69	-177.36	-121.15	-108.41	0.00	0.00	0.00
2,400.00	9.86	214.34	2,381.21	-191.51	-130.82	-117.05	0.00	0.00	0.00
2,500.00	9.86	214.34	2,479.73	-205.65	-140.48	-125.69	0.00	0.00	0.00
2,600.00	9.86	214.34	2,578.26	-219.79	-150.14	-134.34	0.00	0.00	0.00
2,700.00	9.86	214.34	2,676.78	-233.94	-159.80	-142.98	0.00	0.00	0.00
2,800.00	9.86	214.34	2,775.30	-248.08	-169.46	-151.63	0.00	0.00	0.00
2,900.00	9.86	214.34	2,873.82	-262.22	-179.12	-160.27	0.00	0.00	0.00
3,000.00	9.86	214.34	2,972.35	-276.37	-188.78	-168.92	0.00	0.00	0.00
3,100.00	9.86	214.34	3,070.87	-290.51	-198.44	-177.56	0.00	0.00	0.00
3,200.00	9.86	214.34	3,169.39	-304.65	-208.10	-186.20	0.00	0.00	0.00
3,300.00	9.86	214.34	3,267.91	-318.79	-217.76	-194.85	0.00	0.00	0.00
3,400.00	9.86	214.34	3,366.43	-332.94	-227.43	-203.49	0.00	0.00	0.00
3,432.04	9.86	214.34	3,398.00	-337.47	-230.52	-206.26	0.00	0.00	0.00
PARKMAN									
3,500.00	9.86	214.34	3,464.96	-347.08	-237.09	-212.14	0.00	0.00	0.00
3,600.00	9.86	214.34	3,563.48	-361.22	-246.75	-220.78	0.00	0.00	0.00
3,700.00	9.86	214.34	3,662.00	-375.37	-256.41	-229.43	0.00	0.00	0.00
3,800.00	9.86	214.34	3,760.52	-389.51	-266.07	-238.07	0.00	0.00	0.00
3,900.00	9.86	214.34	3,859.05	-403.65	-275.73	-246.72	0.00	0.00	0.00
4,000.00	9.86	214.34	3,957.57	-417.80	-285.39	-255.36	0.00	0.00	0.00
4,100.00	9.86	214.34	4,056.09	-431.94	-295.05	-264.00	0.00	0.00	0.00
4,175.02	9.86	214.34	4,130.00	-442.55	-302.30	-270.49	0.00	0.00	0.00
SUSSEX									
4,200.00	9.86	214.34	4,154.61	-446.08	-304.71	-272.65	0.00	0.00	0.00
4,300.00	9.86	214.34	4,253.13	-460.23	-314.38	-281.29	0.00	0.00	0.00
4,400.00	9.86	214.34	4,351.66	-474.37	-324.04	-289.94	0.00	0.00	0.00
4,500.00	9.86	214.34	4,450.18	-488.51	-333.70	-298.58	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well FRYE NORTH 29E-20-12N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 4989.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 4989.00usft
<b>Site:</b>	Sec 29-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	FRYE NORTH 29E-20-12N	<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)
4,554.63	9.86	214.34	4,504.00	-496.24	-338.97	-303.30	0.00	0.00	0.00
<b>SHANNON</b>									
4,600.00	9.86	214.34	4,548.70	-502.66	-343.36	-307.23	0.00	0.00	0.00
4,700.00	9.86	214.34	4,647.22	-516.80	-353.02	-315.87	0.00	0.00	0.00
4,800.00	9.86	214.34	4,745.75	-530.94	-362.68	-324.51	0.00	0.00	0.00
4,900.00	9.86	214.34	4,844.27	-545.08	-372.34	-333.16	0.00	0.00	0.00
5,000.00	9.86	214.34	4,942.79	-559.23	-382.00	-341.80	0.00	0.00	0.00
5,100.00	9.86	214.34	5,041.31	-573.37	-391.66	-350.45	0.00	0.00	0.00
5,200.00	9.86	214.34	5,139.84	-587.51	-401.32	-359.09	0.00	0.00	0.00
5,300.00	9.86	214.34	5,238.36	-601.66	-410.99	-367.74	0.00	0.00	0.00
5,400.00	9.86	214.34	5,336.88	-615.80	-420.65	-376.38	0.00	0.00	0.00
5,500.00	9.86	214.34	5,435.40	-629.94	-430.31	-385.03	0.00	0.00	0.00
5,600.00	9.86	214.34	5,533.92	-644.09	-439.97	-393.67	0.00	0.00	0.00
5,700.00	9.86	214.34	5,632.45	-658.23	-449.63	-402.31	0.00	0.00	0.00
5,734.39	9.86	214.34	5,666.32	-663.09	-452.95	-405.29	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,800.00	8.55	214.34	5,731.09	-671.76	-458.87	-410.58	2.00	-2.00	0.00
5,900.00	6.55	214.34	5,830.22	-682.61	-466.28	-417.22	2.00	-2.00	0.00
6,000.00	4.55	214.34	5,929.75	-690.60	-471.74	-422.10	2.00	-2.00	0.00
6,100.00	2.55	214.34	6,029.55	-695.71	-475.23	-425.22	2.00	-2.00	0.00
6,200.00	0.55	214.34	6,129.51	-697.94	-476.76	-426.59	2.00	-2.00	0.00
6,227.49	0.00	0.00	6,157.00	-698.05	-476.83	-426.65	2.00	-2.00	0.00
<b>Start 30.00 hold at 6227.49 MD</b>									
6,257.49	0.00	0.00	6,187.00	-698.05	-476.83	-426.65	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 90.25</b>									
6,300.00	4.25	90.25	6,229.47	-698.06	-475.25	-425.08	10.00	10.00	0.00
6,350.00	9.25	90.25	6,279.11	-698.08	-469.38	-419.22	10.00	10.00	0.00
6,400.00	14.25	90.25	6,328.04	-698.13	-459.20	-409.06	10.00	10.00	0.00
6,450.00	19.25	90.25	6,375.91	-698.19	-444.80	-394.69	10.00	10.00	0.00
6,500.00	24.25	90.25	6,422.33	-698.27	-426.27	-376.21	10.00	10.00	0.00
6,550.00	29.25	90.25	6,466.97	-698.37	-403.78	-353.76	10.00	10.00	0.00
6,600.00	34.25	90.25	6,509.47	-698.48	-377.48	-327.51	10.00	10.00	0.00
6,650.00	39.25	90.25	6,549.52	-698.62	-347.57	-297.67	10.00	10.00	0.00
6,700.00	44.25	90.25	6,586.82	-698.76	-314.29	-264.46	10.00	10.00	0.00
6,750.00	49.25	90.25	6,621.07	-698.92	-277.89	-228.14	10.00	10.00	0.00
6,800.00	54.25	90.25	6,652.01	-699.09	-238.63	-188.97	10.00	10.00	0.00
6,850.00	59.25	90.25	6,679.42	-699.28	-196.84	-147.26	10.00	10.00	0.00
6,900.00	64.25	90.25	6,703.08	-699.47	-152.81	-103.33	10.00	10.00	0.00
6,950.00	69.25	90.25	6,722.82	-699.67	-106.88	-57.50	10.00	10.00	0.00
7,000.00	74.25	90.25	6,738.47	-699.88	-59.42	-10.14	10.00	10.00	0.00
7,050.00	79.24	90.25	6,749.93	-700.09	-10.76	38.41	10.00	10.00	0.00
7,050.35	79.28	90.25	6,750.00	-700.09	-10.42	38.75	10.00	10.00	0.00
<b>NIOBRARA</b>									
7,100.00	84.24	90.25	6,757.11	-700.31	38.70	87.77	10.00	10.00	0.00
7,150.00	89.24	90.25	6,759.95	-700.53	88.61	137.56	10.00	10.00	0.00
7,157.56	90.00	90.25	6,760.00	-700.56	96.17	145.11	10.00	10.00	0.00
<b>Start 10510.05 hold at 7157.56 MD</b>									
7,200.00	90.00	90.25	6,760.00	-700.74	138.60	187.45	0.00	0.00	0.00
7,300.00	90.00	90.25	6,760.00	-701.18	238.60	287.24	0.00	0.00	0.00
7,400.00	90.00	90.25	6,760.00	-701.62	338.60	387.02	0.00	0.00	0.00
7,500.00	90.00	90.25	6,760.00	-702.06	438.60	486.80	0.00	0.00	0.00
7,600.00	90.00	90.25	6,760.00	-702.50	538.60	586.59	0.00	0.00	0.00
7,700.00	90.00	90.25	6,760.00	-702.93	638.60	686.37	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well FRYE NORTH 29E-20-12N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 4989.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 4989.00usft
<b>Site:</b>	Sec 29-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	FRYE NORTH 29E-20-12N	<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)
7,800.00	90.00	90.25	6,760.00	-703.37	738.60	786.15	0.00	0.00	0.00
7,900.00	90.00	90.25	6,760.00	-703.81	838.60	885.93	0.00	0.00	0.00
8,000.00	90.00	90.25	6,760.00	-704.25	938.60	985.72	0.00	0.00	0.00
8,100.00	90.00	90.25	6,760.00	-704.68	1,038.60	1,085.50	0.00	0.00	0.00
8,200.00	90.00	90.25	6,760.00	-705.12	1,138.60	1,185.28	0.00	0.00	0.00
8,300.00	90.00	90.25	6,760.00	-705.56	1,238.59	1,285.07	0.00	0.00	0.00
8,400.00	90.00	90.25	6,760.00	-706.00	1,338.59	1,384.85	0.00	0.00	0.00
8,500.00	90.00	90.25	6,760.00	-706.43	1,438.59	1,484.63	0.00	0.00	0.00
8,600.00	90.00	90.25	6,760.00	-706.87	1,538.59	1,584.42	0.00	0.00	0.00
8,700.00	90.00	90.25	6,760.00	-707.31	1,638.59	1,684.20	0.00	0.00	0.00
8,800.00	90.00	90.25	6,759.99	-707.75	1,738.59	1,783.98	0.00	0.00	0.00
8,900.00	90.00	90.25	6,759.99	-708.19	1,838.59	1,883.77	0.00	0.00	0.00
9,000.00	90.00	90.25	6,759.99	-708.62	1,938.59	1,983.55	0.00	0.00	0.00
9,100.00	90.00	90.25	6,759.99	-709.06	2,038.59	2,083.33	0.00	0.00	0.00
9,200.00	90.00	90.25	6,759.99	-709.50	2,138.59	2,183.12	0.00	0.00	0.00
9,300.00	90.00	90.25	6,759.99	-709.94	2,238.58	2,282.90	0.00	0.00	0.00
9,400.00	90.00	90.25	6,759.99	-710.37	2,338.58	2,382.68	0.00	0.00	0.00
9,500.00	90.00	90.25	6,759.99	-710.81	2,438.58	2,482.46	0.00	0.00	0.00
9,600.00	90.00	90.25	6,759.99	-711.25	2,538.58	2,582.25	0.00	0.00	0.00
9,700.00	90.00	90.25	6,759.99	-711.69	2,638.58	2,682.03	0.00	0.00	0.00
9,800.00	90.00	90.25	6,759.99	-712.13	2,738.58	2,781.81	0.00	0.00	0.00
9,900.00	90.00	90.25	6,759.99	-712.56	2,838.58	2,881.60	0.00	0.00	0.00
10,000.00	90.00	90.25	6,759.99	-713.00	2,938.58	2,981.38	0.00	0.00	0.00
10,100.00	90.00	90.25	6,759.99	-713.44	3,038.58	3,081.16	0.00	0.00	0.00
10,200.00	90.00	90.25	6,759.99	-713.88	3,138.58	3,180.95	0.00	0.00	0.00
10,300.00	90.00	90.25	6,759.99	-714.31	3,238.58	3,280.73	0.00	0.00	0.00
10,400.00	90.00	90.25	6,759.99	-714.75	3,338.57	3,380.51	0.00	0.00	0.00
10,500.00	90.00	90.25	6,759.99	-715.19	3,438.57	3,480.30	0.00	0.00	0.00
10,600.00	90.00	90.25	6,759.99	-715.63	3,538.57	3,580.08	0.00	0.00	0.00
10,700.00	90.00	90.25	6,759.99	-716.07	3,638.57	3,679.86	0.00	0.00	0.00
10,800.00	90.00	90.25	6,759.99	-716.50	3,738.57	3,779.64	0.00	0.00	0.00
10,900.00	90.00	90.25	6,759.99	-716.94	3,838.57	3,879.43	0.00	0.00	0.00
11,000.00	90.00	90.25	6,759.99	-717.38	3,938.57	3,979.21	0.00	0.00	0.00
11,100.00	90.00	90.25	6,759.99	-717.82	4,038.57	4,078.99	0.00	0.00	0.00
11,200.00	90.00	90.25	6,759.99	-718.25	4,138.57	4,178.78	0.00	0.00	0.00
11,300.00	90.00	90.25	6,759.99	-718.69	4,238.57	4,278.56	0.00	0.00	0.00
11,400.00	90.00	90.25	6,759.99	-719.13	4,338.56	4,378.34	0.00	0.00	0.00
11,500.00	90.00	90.25	6,759.99	-719.57	4,438.56	4,478.13	0.00	0.00	0.00
11,600.00	90.00	90.25	6,759.99	-720.00	4,538.56	4,577.91	0.00	0.00	0.00
11,700.00	90.00	90.25	6,759.99	-720.44	4,638.56	4,677.69	0.00	0.00	0.00
11,800.00	90.00	90.25	6,759.99	-720.88	4,738.56	4,777.48	0.00	0.00	0.00
11,900.00	90.00	90.25	6,759.98	-721.32	4,838.56	4,877.26	0.00	0.00	0.00
12,000.00	90.00	90.25	6,759.98	-721.76	4,938.56	4,977.04	0.00	0.00	0.00
12,100.00	90.00	90.25	6,759.98	-722.19	5,038.56	5,076.82	0.00	0.00	0.00
12,200.00	90.00	90.25	6,759.98	-722.63	5,138.56	5,176.61	0.00	0.00	0.00
12,300.00	90.00	90.25	6,759.98	-723.07	5,238.56	5,276.39	0.00	0.00	0.00
12,400.00	90.00	90.25	6,759.98	-723.51	5,338.55	5,376.17	0.00	0.00	0.00
12,500.00	90.00	90.25	6,759.98	-723.94	5,438.55	5,475.96	0.00	0.00	0.00
12,600.00	90.00	90.25	6,759.98	-724.38	5,538.55	5,575.74	0.00	0.00	0.00
12,700.00	90.00	90.25	6,759.98	-724.82	5,638.55	5,675.52	0.00	0.00	0.00
12,800.00	90.00	90.25	6,759.98	-725.26	5,738.55	5,775.31	0.00	0.00	0.00
12,900.00	90.00	90.25	6,759.98	-725.70	5,838.55	5,875.09	0.00	0.00	0.00
13,000.00	90.00	90.25	6,759.98	-726.13	5,938.55	5,974.87	0.00	0.00	0.00
13,100.00	90.00	90.25	6,759.98	-726.57	6,038.55	6,074.66	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well FRYE NORTH 29E-20-12N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 4989.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 4989.00usft
<b>Site:</b>	Sec 29-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	FRYE NORTH 29E-20-12N	<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)
13,200.00	90.00	90.25	6,759.98	-727.01	6,138.55	6,174.44	0.00	0.00	0.00
13,300.00	90.00	90.25	6,759.98	-727.45	6,238.55	6,274.22	0.00	0.00	0.00
13,400.00	90.00	90.25	6,759.98	-727.88	6,338.55	6,374.00	0.00	0.00	0.00
13,500.00	90.00	90.25	6,759.98	-728.32	6,438.54	6,473.79	0.00	0.00	0.00
13,600.00	90.00	90.25	6,759.98	-728.76	6,538.54	6,573.57	0.00	0.00	0.00
13,700.00	90.00	90.25	6,759.98	-729.20	6,638.54	6,673.35	0.00	0.00	0.00
13,800.00	90.00	90.25	6,759.98	-729.64	6,738.54	6,773.14	0.00	0.00	0.00
13,900.00	90.00	90.25	6,759.98	-730.07	6,838.54	6,872.92	0.00	0.00	0.00
14,000.00	90.00	90.25	6,759.98	-730.51	6,938.54	6,972.70	0.00	0.00	0.00
14,100.00	90.00	90.25	6,759.98	-730.95	7,038.54	7,072.49	0.00	0.00	0.00
14,200.00	90.00	90.25	6,759.98	-731.39	7,138.54	7,172.27	0.00	0.00	0.00
14,300.00	90.00	90.25	6,759.98	-731.82	7,238.54	7,272.05	0.00	0.00	0.00
14,400.00	90.00	90.25	6,759.98	-732.26	7,338.54	7,371.84	0.00	0.00	0.00
14,500.00	90.00	90.25	6,759.98	-732.70	7,438.53	7,471.62	0.00	0.00	0.00
14,600.00	90.00	90.25	6,759.98	-733.14	7,538.53	7,571.40	0.00	0.00	0.00
14,700.00	90.00	90.25	6,759.98	-733.57	7,638.53	7,671.18	0.00	0.00	0.00
14,800.00	90.00	90.25	6,759.98	-734.01	7,738.53	7,770.97	0.00	0.00	0.00
14,900.00	90.00	90.25	6,759.98	-734.45	7,838.53	7,870.75	0.00	0.00	0.00
15,000.00	90.00	90.25	6,759.97	-734.89	7,938.53	7,970.53	0.00	0.00	0.00
15,100.00	90.00	90.25	6,759.97	-735.33	8,038.53	8,070.32	0.00	0.00	0.00
15,200.00	90.00	90.25	6,759.97	-735.76	8,138.53	8,170.10	0.00	0.00	0.00
15,300.00	90.00	90.25	6,759.97	-736.20	8,238.53	8,269.88	0.00	0.00	0.00
15,400.00	90.00	90.25	6,759.97	-736.64	8,338.53	8,369.67	0.00	0.00	0.00
15,500.00	90.00	90.25	6,759.97	-737.08	8,438.53	8,469.45	0.00	0.00	0.00
15,600.00	90.00	90.25	6,759.97	-737.51	8,538.52	8,569.23	0.00	0.00	0.00
15,700.00	90.00	90.25	6,759.97	-737.95	8,638.52	8,669.02	0.00	0.00	0.00
15,800.00	90.00	90.25	6,759.97	-738.39	8,738.52	8,768.80	0.00	0.00	0.00
15,900.00	90.00	90.25	6,759.97	-738.83	8,838.52	8,868.58	0.00	0.00	0.00
16,000.00	90.00	90.25	6,759.97	-739.27	8,938.52	8,968.36	0.00	0.00	0.00
16,100.00	90.00	90.25	6,759.97	-739.70	9,038.52	9,068.15	0.00	0.00	0.00
16,200.00	90.00	90.25	6,759.97	-740.14	9,138.52	9,167.93	0.00	0.00	0.00
16,300.00	90.00	90.25	6,759.97	-740.58	9,238.52	9,267.71	0.00	0.00	0.00
16,400.00	90.00	90.25	6,759.97	-741.02	9,338.52	9,367.50	0.00	0.00	0.00
16,500.00	90.00	90.25	6,759.97	-741.45	9,438.52	9,467.28	0.00	0.00	0.00
16,600.00	90.00	90.25	6,759.97	-741.89	9,538.51	9,567.06	0.00	0.00	0.00
16,700.00	90.00	90.25	6,759.97	-742.33	9,638.51	9,666.85	0.00	0.00	0.00
16,800.00	90.00	90.25	6,759.97	-742.77	9,738.51	9,766.63	0.00	0.00	0.00
16,900.00	90.00	90.25	6,759.97	-743.21	9,838.51	9,866.41	0.00	0.00	0.00
17,000.00	90.00	90.25	6,759.97	-743.64	9,938.51	9,966.20	0.00	0.00	0.00
17,100.00	90.00	90.25	6,759.97	-744.08	10,038.51	10,065.98	0.00	0.00	0.00
17,200.00	90.00	90.25	6,759.97	-744.52	10,138.51	10,165.76	0.00	0.00	0.00
17,300.00	90.00	90.25	6,759.97	-744.96	10,238.51	10,265.54	0.00	0.00	0.00
17,400.00	90.00	90.25	6,759.97	-745.39	10,338.51	10,365.33	0.00	0.00	0.00
17,500.00	90.00	90.25	6,759.97	-745.83	10,438.51	10,465.11	0.00	0.00	0.00
17,600.00	90.00	90.25	6,759.97	-746.27	10,538.51	10,564.89	0.00	0.00	0.00
17,667.61	90.00	90.25	6,760.00	-746.37	10,606.11	10,632.34	0.00	0.00	0.00
TD at 17667.61									

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well FRYE NORTH 29E-20-12N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 4989.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 4989.00usft
<b>Site:</b>	Sec 29-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	FRYE NORTH 29E-20-12N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
FN 29E-12N - PBHL	0.00	0.00	6,760.00	-746.37	10,606.11	1,439,917.27	3,172,394.64	40° 32' 21.545 N	104° 52' 47.035 W
- plan hits target center									
- Point									
FN 29E-12N - LP	0.00	0.00	6,760.00	-700.56	96.17	1,439,894.09	3,161,884.62	40° 32' 22.020 N	104° 55' 3.166 W
- plan hits target center									
- Point									

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(usft)	(usft)			(°)	(°)
3,432.04	3,398.00	PARKMAN			
4,175.02	4,130.00	SUSSEX			
4,554.63	4,504.00	SHANNON			
7,050.35	6,750.00	NIOBRARA			

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
800.00	800.00	0.00	0.00	Start Build 2.00
1,293.11	1,290.68	-34.96	-23.88	Start 4441.28 hold at 1293.11 MD
5,734.39	5,666.32	-663.09	-452.95	Start Drop -2.00
6,227.49	6,157.00	-698.05	-476.83	Start 30.00 hold at 6227.49 MD
6,257.49	6,187.00	-698.05	-476.83	Start DLS 10.00 TFO 90.25
7,157.56	6,760.00	-700.56	96.17	Start 10510.05 hold at 7157.56 MD
17,667.61	6,760.00	-746.37	10,606.11	TD at 17667.61