

EXTRACTION OIL & GAS

**Weld County
Sec 32-T6N-R65W
WAKE NORTH 13**

ORIGINAL WELLBORE

Plan: PROPOSAL #1

Standard Planning Report

16 November, 2017



Project: Weld County
Site: Sec 32-T6N-R65W
Well: WAKE NORTH 13
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1



Azimuths to True North
Magnetic North: 8.27°

Magnetic Field
Strength: 52532.7nT
Dip Angle: 66.92°
Date: 6/29/2016
Model: IGRF2015

WELL DETAILS: WAKE NORTH 13

+N/-S	+E/-W	Northing	Ground Level: Easting	4640.00 Latitude	Longitude	Slot
0.00	0.00	1403754.84	3227136.61	40° 26' 19.824 N	104° 41' 2.328 W	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	BUILD 10°/100'
1233.62	22.67	51.34	1204.27	138.30	172.87	-133.74	221.38	HOLD 22.67° INC
6645.82	22.67	51.34	6198.23	1441.55	1801.91	-1394.02	2307.59	KOP, BUILD 10°/100'
7713.74	90.00	272.79	6910.00	1664.89	1263.63	-817.44	2978.98	LP @ 90° INC, 272.79° AZM HOLD
17461.22	90.00	272.79	6910.00	2139.91	-8472.26	8738.33	12726.45	TD at 17461.22' MD

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	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
3	1233.62	22.67	51.34	1204.27	138.30	172.87	2.00	51.34	-133.74	
4	6645.82	22.67	51.34	6198.23	1441.55	1801.91	0.00	0.00	-1394.02	
5	7713.74	90.00	272.79	6910.00	1664.89	1263.63	10.00	-136.25	-817.44	WAI
6	17461.22	90.00	272.79	6910.00	2139.91	-8472.26	0.00	0.00	8738.33	WAI

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
WAKE NORTH 13 - LP	6910.00	1664.89	1263.63	1405431.29	3228384.86	40° 26' 36.276 N	104° 40' 45.984 W	Point
- plan hits target center								
WAKE NORTH 13 - PBHL	6910.00	2139.91	-8472.26	1405816.69	3218645.01	40° 26' 40.956 N	104° 42' 51.912 W	Point
- plan hits target center								

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3626.00	3858.17	PARKMAN
4330.00	4621.13	SUSSEX
4875.00	5211.77	SHANNON
6730.00	7237.55	SHARON SPRINGS
6760.00	7281.25	NIOBRARA
6900.00	7604.54	NIO B TARGET

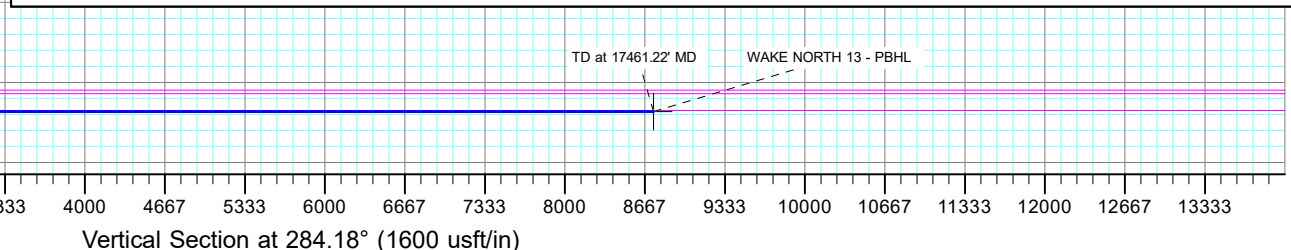
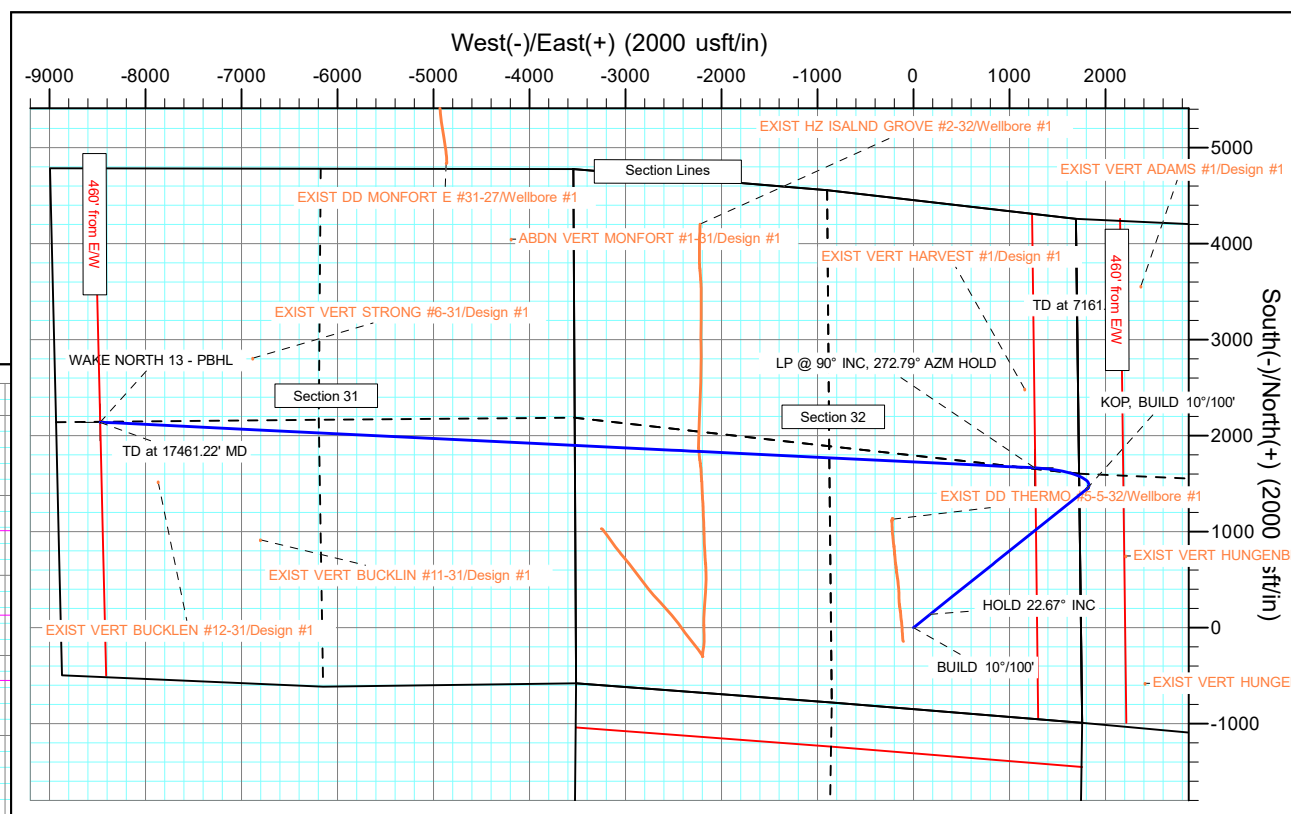
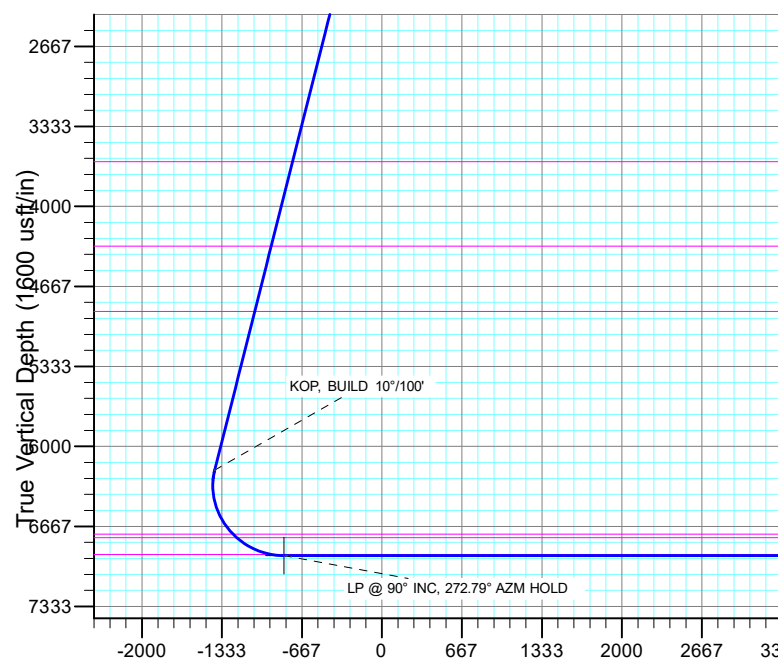
PROJECT DETAILS: Weld County

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

SHL:
846' FSL, 1744' FEL
Sec 32-T6N-R65W

LP:
2610' FSL, 460' FEL
Sec 32-T6N-R65W

BHL:
2646' FNL, 460' FWL
Sec 31-T6N-R65W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WAKE NORTH 13
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4665.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4665.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WAKE NORTH 13	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 32-T6N-R65W			
Site Position:		Northing:	1,405,488.40 usft	Latitude:	40° 26' 36.996 N
From:	Lat/Long	Easting:	3,226,675.31 usft	Longitude:	104° 41' 8.088 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.53 °

Well	WAKE NORTH 13					
Well Position	+N/-S	-1,737.72 usft	Northing:	1,403,754.84 usft	Latitude:	40° 26' 19.824 N
	+E/-W	445.36 usft	Easting:	3,227,136.61 usft	Longitude:	104° 41' 2.328 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,640.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/29/2016	8.27	66.92	52,532.65116071

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	284.18

Plan Survey Tool Program			Date	11/16/2017	
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	17,461.22	PROPOSAL #1 (ORIGINAL WEL	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	
1,233.62	22.67	51.34	1,204.27	138.30	172.87	2.00	2.00	0.00	51.34	
6,645.82	22.67	51.34	6,198.23	1,441.55	1,801.91	0.00	0.00	0.00	0.00	
7,713.74	90.00	272.79	6,910.00	1,664.89	1,263.63	10.00	6.30	-12.97	-136.25	WAKE NORTH 13 - L
17,461.22	90.00	272.79	6,910.00	2,139.91	-8,472.26	0.00	0.00	0.00	0.00	WAKE NORTH 13 - P

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WAKE NORTH 13
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4665.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4665.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WAKE NORTH 13	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 10°/100'									
200.00	2.00	51.34	199.98	1.09	1.36	-1.05	2.00	2.00	0.00
300.00	4.00	51.34	299.84	4.36	5.45	-4.22	2.00	2.00	0.00
400.00	6.00	51.34	399.45	9.80	12.25	-9.48	2.00	2.00	0.00
500.00	8.00	51.34	498.70	17.42	21.77	-16.84	2.00	2.00	0.00
600.00	10.00	51.34	597.47	27.19	33.99	-26.29	2.00	2.00	0.00
700.00	12.00	51.34	695.62	39.11	48.88	-37.82	2.00	2.00	0.00
800.00	14.00	51.34	793.06	53.16	66.45	-51.41	2.00	2.00	0.00
900.00	16.00	51.34	889.64	69.33	86.66	-67.04	2.00	2.00	0.00
1,000.00	18.00	51.34	985.27	87.59	109.49	-84.70	2.00	2.00	0.00
1,100.00	20.00	51.34	1,079.82	107.93	134.91	-104.37	2.00	2.00	0.00
1,200.00	22.00	51.34	1,173.17	130.31	162.89	-126.02	2.00	2.00	0.00
1,233.62	22.67	51.34	1,204.27	138.30	172.87	-133.74	2.00	2.00	0.00
HOLD 22.67° INC									
1,300.00	22.67	51.34	1,265.52	154.28	192.85	-149.19	0.00	0.00	0.00
1,400.00	22.67	51.34	1,357.79	178.36	222.95	-172.48	0.00	0.00	0.00
1,500.00	22.67	51.34	1,450.06	202.44	253.05	-195.77	0.00	0.00	0.00
1,600.00	22.67	51.34	1,542.33	226.52	283.15	-219.05	0.00	0.00	0.00
1,700.00	22.67	51.34	1,634.61	250.60	313.25	-242.34	0.00	0.00	0.00
1,800.00	22.67	51.34	1,726.88	274.68	343.34	-265.62	0.00	0.00	0.00
1,900.00	22.67	51.34	1,819.15	298.76	373.44	-288.91	0.00	0.00	0.00
2,000.00	22.67	51.34	1,911.42	322.84	403.54	-312.20	0.00	0.00	0.00
2,100.00	22.67	51.34	2,003.69	346.92	433.64	-335.48	0.00	0.00	0.00
2,200.00	22.67	51.34	2,095.97	371.00	463.74	-358.77	0.00	0.00	0.00
2,300.00	22.67	51.34	2,188.24	395.08	493.84	-382.05	0.00	0.00	0.00
2,400.00	22.67	51.34	2,280.51	419.16	523.94	-405.34	0.00	0.00	0.00
2,500.00	22.67	51.34	2,372.78	443.24	554.04	-428.63	0.00	0.00	0.00
2,600.00	22.67	51.34	2,465.06	467.32	584.14	-451.91	0.00	0.00	0.00
2,700.00	22.67	51.34	2,557.33	491.40	614.24	-475.20	0.00	0.00	0.00
2,800.00	22.67	51.34	2,649.60	515.48	644.34	-498.48	0.00	0.00	0.00
2,900.00	22.67	51.34	2,741.87	539.56	674.44	-521.77	0.00	0.00	0.00
3,000.00	22.67	51.34	2,834.15	563.64	704.54	-545.06	0.00	0.00	0.00
3,100.00	22.67	51.34	2,926.42	587.72	734.64	-568.34	0.00	0.00	0.00
3,200.00	22.67	51.34	3,018.69	611.80	764.74	-591.63	0.00	0.00	0.00
3,300.00	22.67	51.34	3,110.96	635.88	794.84	-614.92	0.00	0.00	0.00
3,400.00	22.67	51.34	3,203.24	659.96	824.93	-638.20	0.00	0.00	0.00
3,500.00	22.67	51.34	3,295.51	684.04	855.03	-661.49	0.00	0.00	0.00
3,600.00	22.67	51.34	3,387.78	708.12	885.13	-684.77	0.00	0.00	0.00
3,700.00	22.67	51.34	3,480.05	732.20	915.23	-708.06	0.00	0.00	0.00
3,800.00	22.67	51.34	3,572.32	756.28	945.33	-731.35	0.00	0.00	0.00
3,858.17	22.67	51.34	3,626.00	770.29	962.84	-744.89	0.00	0.00	0.00
PARKMAN									
3,900.00	22.67	51.34	3,664.60	780.36	975.43	-754.63	0.00	0.00	0.00
4,000.00	22.67	51.34	3,756.87	804.44	1,005.53	-777.92	0.00	0.00	0.00
4,100.00	22.67	51.34	3,849.14	828.52	1,035.63	-801.20	0.00	0.00	0.00
4,200.00	22.67	51.34	3,941.41	852.60	1,065.73	-824.49	0.00	0.00	0.00
4,300.00	22.67	51.34	4,033.69	876.68	1,095.83	-847.78	0.00	0.00	0.00
4,400.00	22.67	51.34	4,125.96	900.76	1,125.93	-871.06	0.00	0.00	0.00
4,500.00	22.67	51.34	4,218.23	924.84	1,156.03	-894.35	0.00	0.00	0.00
4,600.00	22.67	51.34	4,310.50	948.92	1,186.13	-917.63	0.00	0.00	0.00
4,621.13	22.67	51.34	4,330.00	954.01	1,192.49	-922.55	0.00	0.00	0.00

Planning Report

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Project:	Weld County	MD Reference:	KB 25' @ 4665.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WAKE NORTH 13	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)
SUSSEX									
4,700.00	22.67	51.34	4,402.78	973.00	1,216.23	-940.92	0.00	0.00	0.00
4,800.00	22.67	51.34	4,495.05	997.08	1,246.33	-964.21	0.00	0.00	0.00
4,900.00	22.67	51.34	4,587.32	1,021.16	1,276.43	-987.49	0.00	0.00	0.00
5,000.00	22.67	51.34	4,679.59	1,045.24	1,306.53	-1,010.78	0.00	0.00	0.00
5,100.00	22.67	51.34	4,771.86	1,069.32	1,336.62	-1,034.06	0.00	0.00	0.00
5,200.00	22.67	51.34	4,864.14	1,093.40	1,366.72	-1,057.35	0.00	0.00	0.00
5,211.77	22.67	51.34	4,875.00	1,096.24	1,370.27	-1,060.09	0.00	0.00	0.00
SHANNON									
5,300.00	22.67	51.34	4,956.41	1,117.48	1,396.82	-1,080.64	0.00	0.00	0.00
5,400.00	22.67	51.34	5,048.68	1,141.56	1,426.92	-1,103.92	0.00	0.00	0.00
5,500.00	22.67	51.34	5,140.95	1,165.64	1,457.02	-1,127.21	0.00	0.00	0.00
5,600.00	22.67	51.34	5,233.23	1,189.72	1,487.12	-1,150.49	0.00	0.00	0.00
5,700.00	22.67	51.34	5,325.50	1,213.80	1,517.22	-1,173.78	0.00	0.00	0.00
5,800.00	22.67	51.34	5,417.77	1,237.88	1,547.32	-1,197.07	0.00	0.00	0.00
5,900.00	22.67	51.34	5,510.04	1,261.96	1,577.42	-1,220.35	0.00	0.00	0.00
6,000.00	22.67	51.34	5,602.32	1,286.04	1,607.52	-1,243.64	0.00	0.00	0.00
6,100.00	22.67	51.34	5,694.59	1,310.12	1,637.62	-1,266.92	0.00	0.00	0.00
6,200.00	22.67	51.34	5,786.86	1,334.20	1,667.72	-1,290.21	0.00	0.00	0.00
6,300.00	22.67	51.34	5,879.13	1,358.28	1,697.82	-1,313.50	0.00	0.00	0.00
6,400.00	22.67	51.34	5,971.40	1,382.36	1,727.92	-1,336.78	0.00	0.00	0.00
6,500.00	22.67	51.34	6,063.68	1,406.44	1,758.02	-1,360.07	0.00	0.00	0.00
6,600.00	22.67	51.34	6,155.95	1,430.52	1,788.12	-1,383.35	0.00	0.00	0.00
6,645.82	22.67	51.34	6,198.23	1,441.55	1,801.91	-1,394.02	0.00	0.00	0.00
KOP, BUILD 10°/100'									
6,650.00	22.37	50.58	6,202.09	1,442.56	1,803.15	-1,394.98	10.00	-7.18	-18.17
6,700.00	19.11	39.84	6,248.86	1,454.90	1,815.75	-1,404.18	10.00	-6.52	-21.49
6,750.00	16.69	25.53	6,296.46	1,467.67	1,824.10	-1,409.14	10.00	-4.84	-28.61
6,800.00	15.52	7.94	6,344.52	1,480.78	1,828.12	-1,409.83	10.00	-2.35	-35.19
6,850.00	15.87	349.42	6,392.69	1,494.13	1,827.79	-1,406.24	10.00	0.70	-37.03
6,900.00	17.65	333.15	6,440.59	1,507.63	1,823.10	-1,398.40	10.00	3.57	-32.54
6,950.00	20.50	320.51	6,487.86	1,521.15	1,814.11	-1,386.36	10.00	5.69	-25.28
7,000.00	24.03	311.13	6,534.14	1,534.61	1,800.87	-1,370.23	10.00	7.06	-18.76
7,050.00	27.99	304.15	6,579.08	1,547.90	1,783.48	-1,350.11	10.00	7.92	-13.97
7,100.00	32.22	298.82	6,622.33	1,560.92	1,762.08	-1,326.17	10.00	8.46	-10.65
7,150.00	36.63	294.63	6,663.57	1,573.57	1,736.83	-1,298.59	10.00	8.81	-8.38
7,200.00	41.15	291.24	6,702.49	1,585.76	1,707.92	-1,267.58	10.00	9.05	-6.79
7,237.55	44.61	289.08	6,730.00	1,594.55	1,683.93	-1,242.18	10.00	9.20	-5.77
SHARON SPRINGS									
7,250.00	45.76	288.42	6,738.78	1,597.39	1,675.57	-1,233.37	10.00	9.27	-5.30
7,281.25	48.67	286.87	6,760.00	1,604.33	1,653.72	-1,210.49	10.00	9.32	-4.95
NIOBRARA									
7,300.00	50.43	286.01	6,772.17	1,608.36	1,640.03	-1,196.23	10.00	9.37	-4.60
7,350.00	55.14	283.90	6,802.40	1,618.61	1,601.57	-1,156.43	10.00	9.42	-4.21
7,400.00	59.88	282.03	6,829.25	1,628.05	1,560.48	-1,114.28	10.00	9.49	-3.75
7,450.00	64.65	280.32	6,852.52	1,636.61	1,517.08	-1,070.10	10.00	9.54	-3.41
7,500.00	69.43	278.75	6,872.02	1,644.22	1,471.69	-1,024.23	10.00	9.57	-3.15
7,550.00	74.23	277.27	6,887.60	1,650.83	1,424.66	-977.01	10.00	9.60	-2.95
7,600.00	79.04	275.86	6,899.15	1,656.39	1,376.35	-928.81	10.00	9.62	-2.82
7,604.54	79.48	275.74	6,900.00	1,656.84	1,371.91	-924.40	10.00	9.62	-2.76
NIO B TARGET									
7,650.00	83.86	274.50	6,906.59	1,660.85	1,327.12	-879.99	10.00	9.63	-2.72
7,700.00	88.68	273.16	6,909.84	1,664.18	1,277.35	-830.92	10.00	9.64	-2.68

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WAKE NORTH 13
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4665.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4665.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WAKE NORTH 13	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)	
7,713.74	90.00	272.79	6,910.00	1,664.89	1,263.63	-817.44	10.00	9.64	-2.67	
LP @ 90° INC, 272.79° AZM HOLD										
7,800.00	90.00	272.79	6,910.00	1,669.10	1,177.47	-732.88	0.00	0.00	0.00	
7,900.00	90.00	272.79	6,910.00	1,673.97	1,077.59	-634.85	0.00	0.00	0.00	
8,000.00	90.00	272.79	6,910.00	1,678.84	977.71	-536.81	0.00	0.00	0.00	
8,100.00	90.00	272.79	6,910.00	1,683.72	877.83	-438.78	0.00	0.00	0.00	
8,200.00	90.00	272.79	6,910.00	1,688.59	777.95	-340.75	0.00	0.00	0.00	
8,300.00	90.00	272.79	6,910.00	1,693.46	678.07	-242.71	0.00	0.00	0.00	
8,400.00	90.00	272.79	6,910.00	1,698.34	578.19	-144.68	0.00	0.00	0.00	
8,500.00	90.00	272.79	6,910.00	1,703.21	478.31	-46.65	0.00	0.00	0.00	
8,600.00	90.00	272.79	6,910.00	1,708.08	378.42	51.39	0.00	0.00	0.00	
8,700.00	90.00	272.79	6,910.00	1,712.95	278.54	149.42	0.00	0.00	0.00	
8,800.00	90.00	272.79	6,910.00	1,717.83	178.66	247.45	0.00	0.00	0.00	
8,900.00	90.00	272.79	6,910.00	1,722.70	78.78	345.49	0.00	0.00	0.00	
9,000.00	90.00	272.79	6,910.00	1,727.57	-21.10	443.52	0.00	0.00	0.00	
9,100.00	90.00	272.79	6,910.00	1,732.45	-120.98	541.55	0.00	0.00	0.00	
9,200.00	90.00	272.79	6,910.00	1,737.32	-220.86	639.59	0.00	0.00	0.00	
9,300.00	90.00	272.79	6,910.00	1,742.19	-320.74	737.62	0.00	0.00	0.00	
9,400.00	90.00	272.79	6,910.00	1,747.07	-420.63	835.65	0.00	0.00	0.00	
9,500.00	90.00	272.79	6,910.00	1,751.94	-520.51	933.69	0.00	0.00	0.00	
9,600.00	90.00	272.79	6,910.00	1,756.81	-620.39	1,031.72	0.00	0.00	0.00	
9,700.00	90.00	272.79	6,910.00	1,761.69	-720.27	1,129.75	0.00	0.00	0.00	
9,800.00	90.00	272.79	6,910.00	1,766.56	-820.15	1,227.79	0.00	0.00	0.00	
9,900.00	90.00	272.79	6,910.00	1,771.43	-920.03	1,325.82	0.00	0.00	0.00	
10,000.00	90.00	272.79	6,910.00	1,776.31	-1,019.91	1,423.85	0.00	0.00	0.00	
10,100.00	90.00	272.79	6,910.00	1,781.18	-1,119.79	1,521.89	0.00	0.00	0.00	
10,200.00	90.00	272.79	6,910.00	1,786.05	-1,219.67	1,619.92	0.00	0.00	0.00	
10,300.00	90.00	272.79	6,910.00	1,790.93	-1,319.56	1,717.95	0.00	0.00	0.00	
10,400.00	90.00	272.79	6,910.00	1,795.80	-1,419.44	1,815.99	0.00	0.00	0.00	
10,500.00	90.00	272.79	6,910.00	1,800.67	-1,519.32	1,914.02	0.00	0.00	0.00	
10,600.00	90.00	272.79	6,910.00	1,805.55	-1,619.20	2,012.05	0.00	0.00	0.00	
10,700.00	90.00	272.79	6,910.00	1,810.42	-1,719.08	2,110.09	0.00	0.00	0.00	
10,800.00	90.00	272.79	6,910.00	1,815.29	-1,818.96	2,208.12	0.00	0.00	0.00	
10,900.00	90.00	272.79	6,910.00	1,820.16	-1,918.84	2,306.15	0.00	0.00	0.00	
11,000.00	90.00	272.79	6,910.00	1,825.04	-2,018.72	2,404.19	0.00	0.00	0.00	
11,100.00	90.00	272.79	6,910.00	1,829.91	-2,118.61	2,502.22	0.00	0.00	0.00	
11,200.00	90.00	272.79	6,910.00	1,834.78	-2,218.49	2,600.25	0.00	0.00	0.00	
11,300.00	90.00	272.79	6,910.00	1,839.66	-2,318.37	2,698.29	0.00	0.00	0.00	
11,400.00	90.00	272.79	6,910.00	1,844.53	-2,418.25	2,796.32	0.00	0.00	0.00	
11,500.00	90.00	272.79	6,910.00	1,849.40	-2,518.13	2,894.35	0.00	0.00	0.00	
11,600.00	90.00	272.79	6,910.00	1,854.28	-2,618.01	2,992.39	0.00	0.00	0.00	
11,700.00	90.00	272.79	6,910.00	1,859.15	-2,717.89	3,090.42	0.00	0.00	0.00	
11,800.00	90.00	272.79	6,910.00	1,864.02	-2,817.77	3,188.45	0.00	0.00	0.00	
11,900.00	90.00	272.79	6,910.00	1,868.90	-2,917.65	3,286.49	0.00	0.00	0.00	
12,000.00	90.00	272.79	6,910.00	1,873.77	-3,017.54	3,384.52	0.00	0.00	0.00	
12,100.00	90.00	272.79	6,910.00	1,878.64	-3,117.42	3,482.55	0.00	0.00	0.00	
12,200.00	90.00	272.79	6,910.00	1,883.52	-3,217.30	3,580.59	0.00	0.00	0.00	
12,300.00	90.00	272.79	6,910.00	1,888.39	-3,317.18	3,678.62	0.00	0.00	0.00	
12,400.00	90.00	272.79	6,910.00	1,893.26	-3,417.06	3,776.65	0.00	0.00	0.00	
12,500.00	90.00	272.79	6,910.00	1,898.14	-3,516.94	3,874.69	0.00	0.00	0.00	
12,600.00	90.00	272.79	6,910.00	1,903.01	-3,616.82	3,972.72	0.00	0.00	0.00	
12,700.00	90.00	272.79	6,910.00	1,907.88	-3,716.70	4,070.75	0.00	0.00	0.00	
12,800.00	90.00	272.79	6,910.00	1,912.76	-3,816.59	4,168.79	0.00	0.00	0.00	
12,900.00	90.00	272.79	6,910.00	1,917.63	-3,916.47	4,266.82	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WAKE NORTH 13
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4665.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4665.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WAKE NORTH 13	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	272.79	6,910.00	1,922.50	-4,016.35	4,364.85	0.00	0.00	0.00
13,100.00	90.00	272.79	6,910.00	1,927.37	-4,116.23	4,462.89	0.00	0.00	0.00
13,200.00	90.00	272.79	6,910.00	1,932.25	-4,216.11	4,560.92	0.00	0.00	0.00
13,300.00	90.00	272.79	6,910.00	1,937.12	-4,315.99	4,658.95	0.00	0.00	0.00
13,400.00	90.00	272.79	6,910.00	1,941.99	-4,415.87	4,756.99	0.00	0.00	0.00
13,500.00	90.00	272.79	6,910.00	1,946.87	-4,515.75	4,855.02	0.00	0.00	0.00
13,600.00	90.00	272.79	6,910.00	1,951.74	-4,615.64	4,953.05	0.00	0.00	0.00
13,700.00	90.00	272.79	6,910.00	1,956.61	-4,715.52	5,051.09	0.00	0.00	0.00
13,800.00	90.00	272.79	6,910.00	1,961.49	-4,815.40	5,149.12	0.00	0.00	0.00
13,900.00	90.00	272.79	6,910.00	1,966.36	-4,915.28	5,247.15	0.00	0.00	0.00
14,000.00	90.00	272.79	6,910.00	1,971.23	-5,015.16	5,345.19	0.00	0.00	0.00
14,100.00	90.00	272.79	6,910.00	1,976.11	-5,115.04	5,443.22	0.00	0.00	0.00
14,200.00	90.00	272.79	6,910.00	1,980.98	-5,214.92	5,541.25	0.00	0.00	0.00
14,300.00	90.00	272.79	6,910.00	1,985.85	-5,314.80	5,639.29	0.00	0.00	0.00
14,400.00	90.00	272.79	6,910.00	1,990.73	-5,414.68	5,737.32	0.00	0.00	0.00
14,500.00	90.00	272.79	6,910.00	1,995.60	-5,514.57	5,835.35	0.00	0.00	0.00
14,600.00	90.00	272.79	6,910.00	2,000.47	-5,614.45	5,933.39	0.00	0.00	0.00
14,700.00	90.00	272.79	6,910.00	2,005.35	-5,714.33	6,031.42	0.00	0.00	0.00
14,800.00	90.00	272.79	6,910.00	2,010.22	-5,814.21	6,129.45	0.00	0.00	0.00
14,900.00	90.00	272.79	6,910.00	2,015.09	-5,914.09	6,227.49	0.00	0.00	0.00
15,000.00	90.00	272.79	6,910.00	2,019.97	-6,013.97	6,325.52	0.00	0.00	0.00
15,100.00	90.00	272.79	6,910.00	2,024.84	-6,113.85	6,423.55	0.00	0.00	0.00
15,200.00	90.00	272.79	6,910.00	2,029.71	-6,213.73	6,521.59	0.00	0.00	0.00
15,300.00	90.00	272.79	6,910.00	2,034.59	-6,313.62	6,619.62	0.00	0.00	0.00
15,400.00	90.00	272.79	6,910.00	2,039.46	-6,413.50	6,717.65	0.00	0.00	0.00
15,500.00	90.00	272.79	6,910.00	2,044.33	-6,513.38	6,815.69	0.00	0.00	0.00
15,600.00	90.00	272.79	6,910.00	2,049.20	-6,613.26	6,913.72	0.00	0.00	0.00
15,700.00	90.00	272.79	6,910.00	2,054.08	-6,713.14	7,011.75	0.00	0.00	0.00
15,800.00	90.00	272.79	6,910.00	2,058.95	-6,813.02	7,109.79	0.00	0.00	0.00
15,900.00	90.00	272.79	6,910.00	2,063.82	-6,912.90	7,207.82	0.00	0.00	0.00
16,000.00	90.00	272.79	6,910.00	2,068.70	-7,012.78	7,305.85	0.00	0.00	0.00
16,100.00	90.00	272.79	6,910.00	2,073.57	-7,112.66	7,403.89	0.00	0.00	0.00
16,200.00	90.00	272.79	6,910.00	2,078.44	-7,212.55	7,501.92	0.00	0.00	0.00
16,300.00	90.00	272.79	6,910.00	2,083.32	-7,312.43	7,599.95	0.00	0.00	0.00
16,400.00	90.00	272.79	6,910.00	2,088.19	-7,412.31	7,697.99	0.00	0.00	0.00
16,500.00	90.00	272.79	6,910.00	2,093.06	-7,512.19	7,796.02	0.00	0.00	0.00
16,600.00	90.00	272.79	6,910.00	2,097.94	-7,612.07	7,894.05	0.00	0.00	0.00
16,700.00	90.00	272.79	6,910.00	2,102.81	-7,711.95	7,992.09	0.00	0.00	0.00
16,800.00	90.00	272.79	6,910.00	2,107.68	-7,811.83	8,090.12	0.00	0.00	0.00
16,900.00	90.00	272.79	6,910.00	2,112.56	-7,911.71	8,188.15	0.00	0.00	0.00
17,000.00	90.00	272.79	6,910.00	2,117.43	-8,011.60	8,286.19	0.00	0.00	0.00
17,100.00	90.00	272.79	6,910.00	2,122.30	-8,111.48	8,384.22	0.00	0.00	0.00
17,200.00	90.00	272.79	6,910.00	2,127.18	-8,211.36	8,482.25	0.00	0.00	0.00
17,300.00	90.00	272.79	6,910.00	2,132.05	-8,311.24	8,580.29	0.00	0.00	0.00
17,400.00	90.00	272.79	6,910.00	2,136.92	-8,411.12	8,678.32	0.00	0.00	0.00
17,461.22	90.00	272.79	6,910.00	2,139.91	-8,472.26	8,738.33	0.00	0.00	0.00
TD at 17461.22' MD									

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WAKE NORTH 13
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4665.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4665.00usft
Site:	Sec 32-T6N-R65W	North Reference:	True
Well:	WAKE NORTH 13	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	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)		
WAKE NORTH 13 - PBI	0.00	0.00	6,910.00	2,139.91	-8,472.26	1,405,816.69	3,218,645.01	40° 26' 40.956 N	104° 42' 51.912 W
- plan hits target center									
- Point									
WAKE NORTH 13 - LP	0.00	0.00	6,910.00	1,664.89	1,263.63	1,405,431.29	3,228,384.86	40° 26' 36.276 N	104° 40' 45.984 W
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
3,858.17	3,626.00	PARKMAN				
4,621.13	4,330.00	SUSSEX				
5,211.77	4,875.00	SHANNON				
7,237.55	6,730.00	SHARON SPRINGS				
7,281.25	6,760.00	NIOBRARA				
7,604.54	6,900.00	NIO B TARGET				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
100.00	100.00	0.00	0.00	BUILD 10°/100'
1,233.62	1,204.27	138.30	172.87	HOLD 22.67° INC
6,645.82	6,198.23	1,441.55	1,801.91	KOP, BUILD 10°/100'
7,713.74	6,910.00	1,664.89	1,263.63	LP @ 90° INC, 272.79° AZM HOLD
17,461.22	6,910.00	2,139.91	-8,472.26	TD at 17461.22' MD