

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

NW SE SEC. 32 T6N R65W 6th P.M.

WAKE NORTH 24

ORIGINAL WELLBORE

30 June, 2016

Plan: PROPOSAL #1

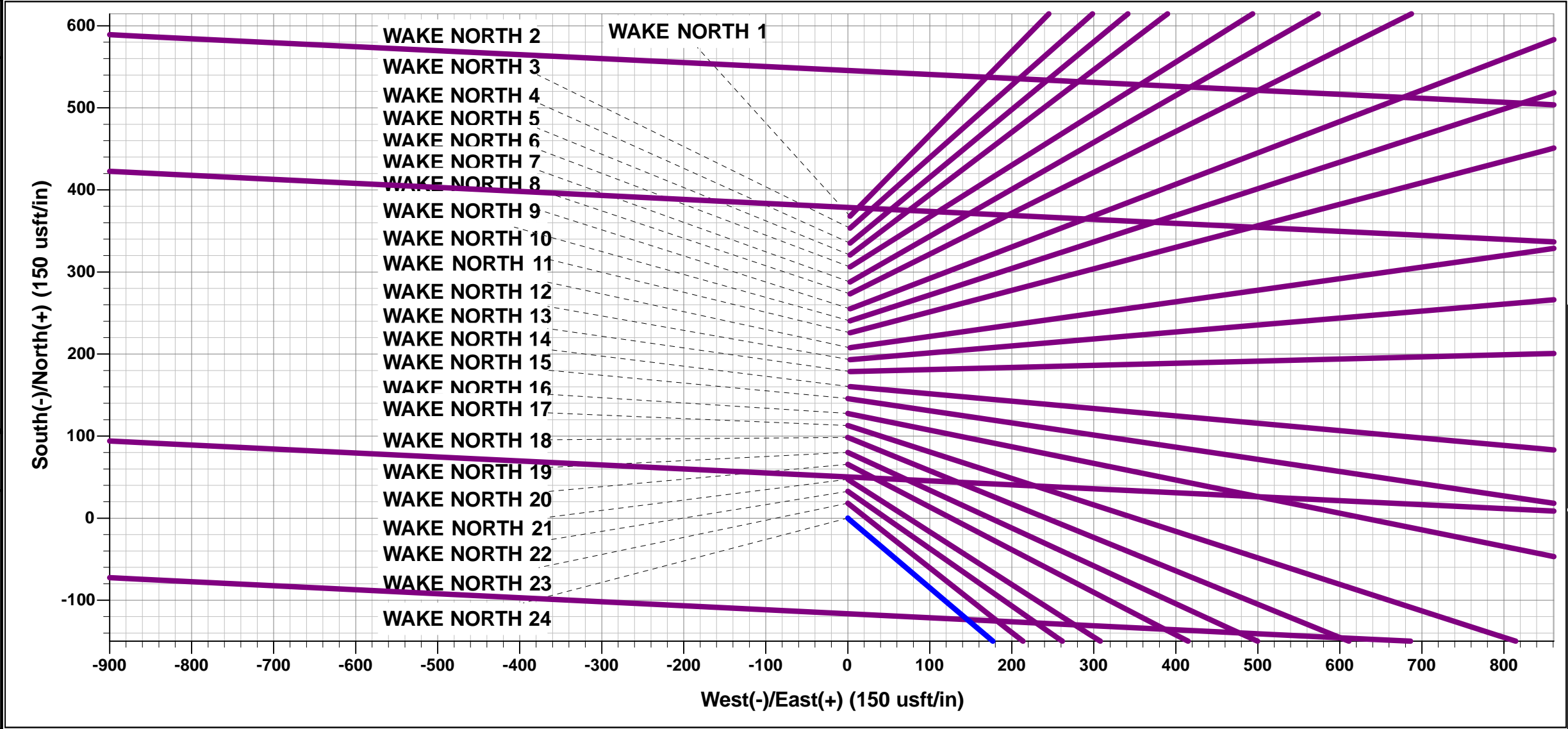




Project: WELD COUNTY, COLORADO (NAD 83)
Site: NW SE SEC. 32 T6N R65W 6th P.M.
Well: WAKE NORTH 24
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Dep	Annotation	
100.0	100.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)	
1470.4	1529.0	28.58	130.30	-225.8	266.2	-213.6	349.1	EOB TO 28.58° INC	
6327.9	7060.4	28.58	130.30	-1937.4	2284.2	-1832.7	2995.1	KOP (10°/100ft DGLG)	
7078.0	8183.3	90.00	272.78	-2160.3	1742.6	-1256.6	3712.0	HZ LANDING PNT - WAKE NORTH 24	
7078.0	17904.2	90.00	272.78	-1689.1	-7966.8	8143.9	13432.8	BHL - WAKE NORTH 24	

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
HZ LP - WAKE NORTH 24	7078.0	-2160.3	1742.6	40.436670	-104.679330
BHL - WAKE NORTH 24	7078.0	-1689.1	-7966.8	40.437960	-104.714210



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3626.0	3983.6	PARKMAN
4330.0	4785.3	SUSSEX
4875.0	5405.9	SHANNON
6730.0	7494.4	SHARON SPRINGS
6760.0	7528.7	NIOBRARA
7040.0	7967.9	FORT HAYS
7068.0	8073.3	CODELL

PROPOSED LOCAL COORDINATES	
SHL: 2176ft FSL & 2176ft FEL of Sec 32	
LP: 163ft FSL & 460ft FEL of Sec 32	
BHL: 197ft FSL & 460ft FWL of Sec 31	

T M

Azimuths to True North

Magnetic North: 8.28°

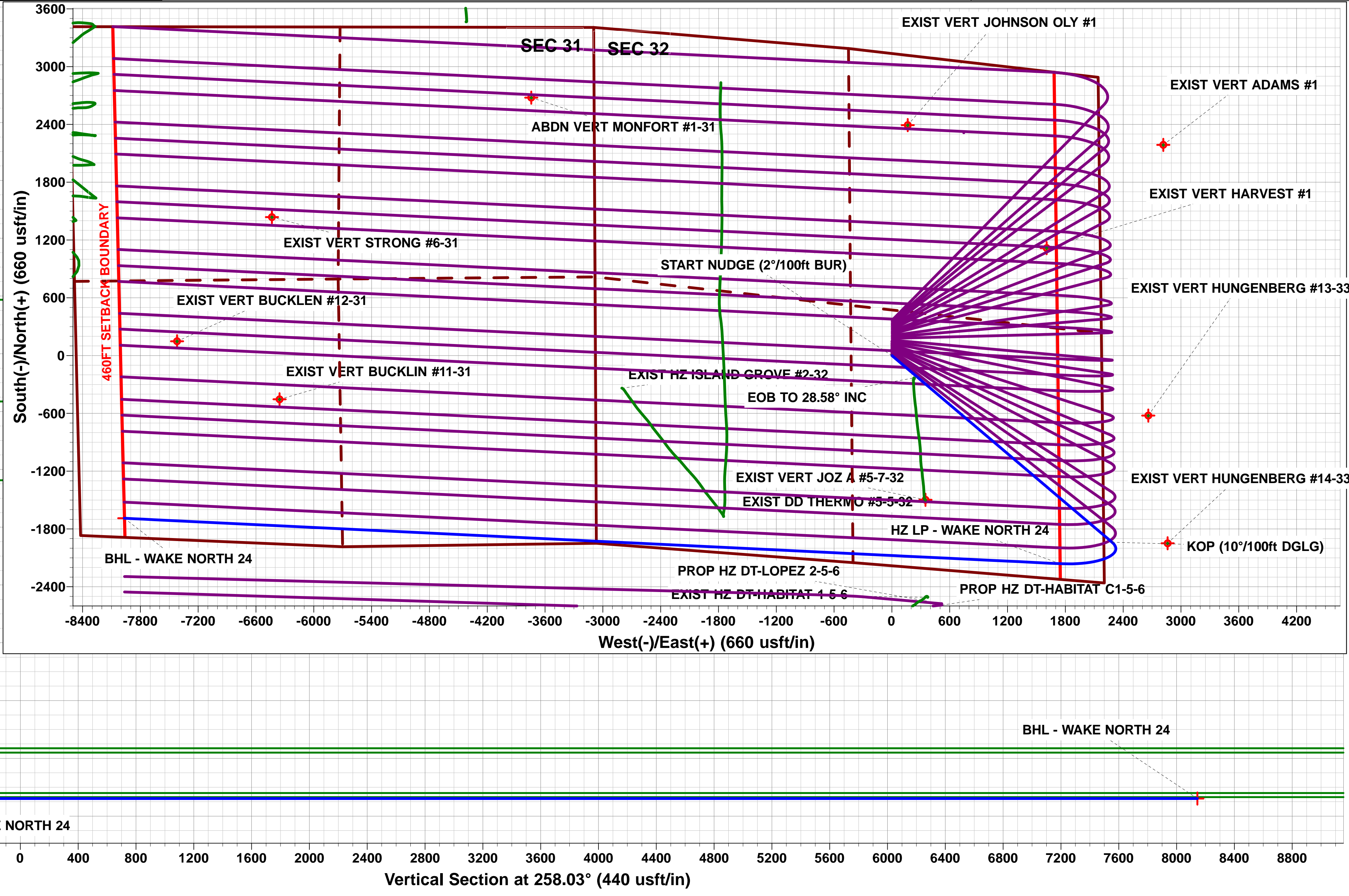
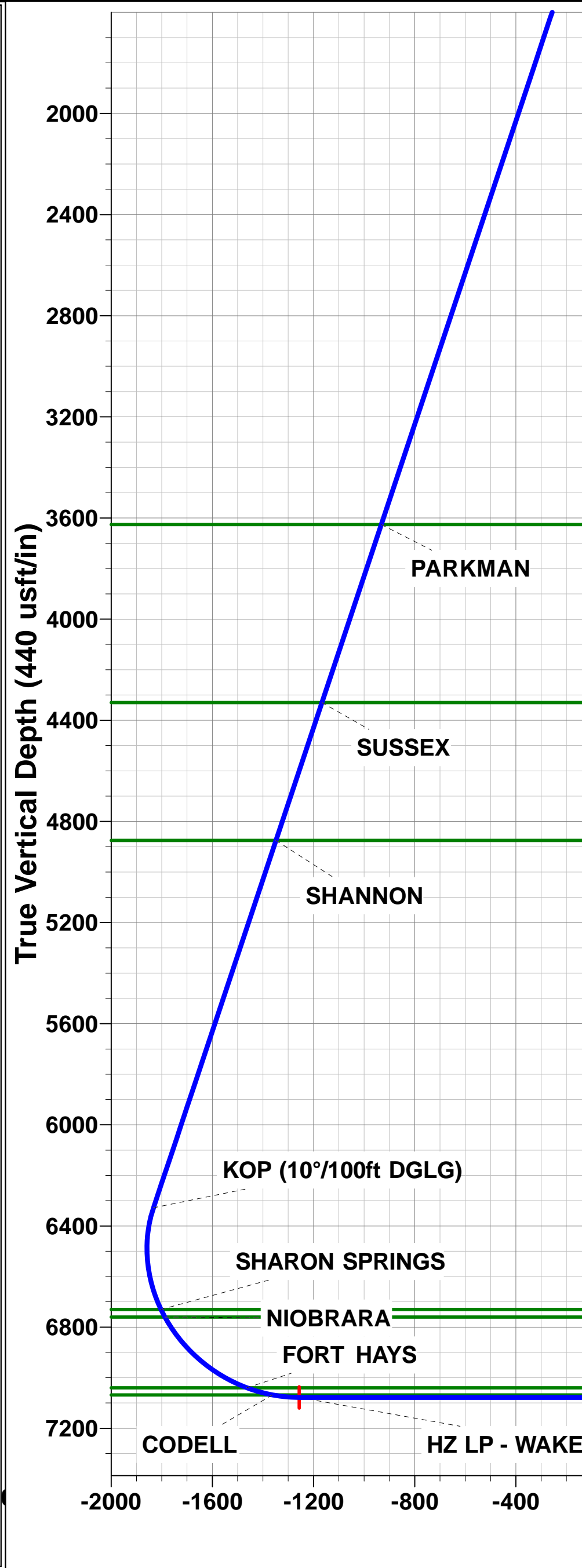
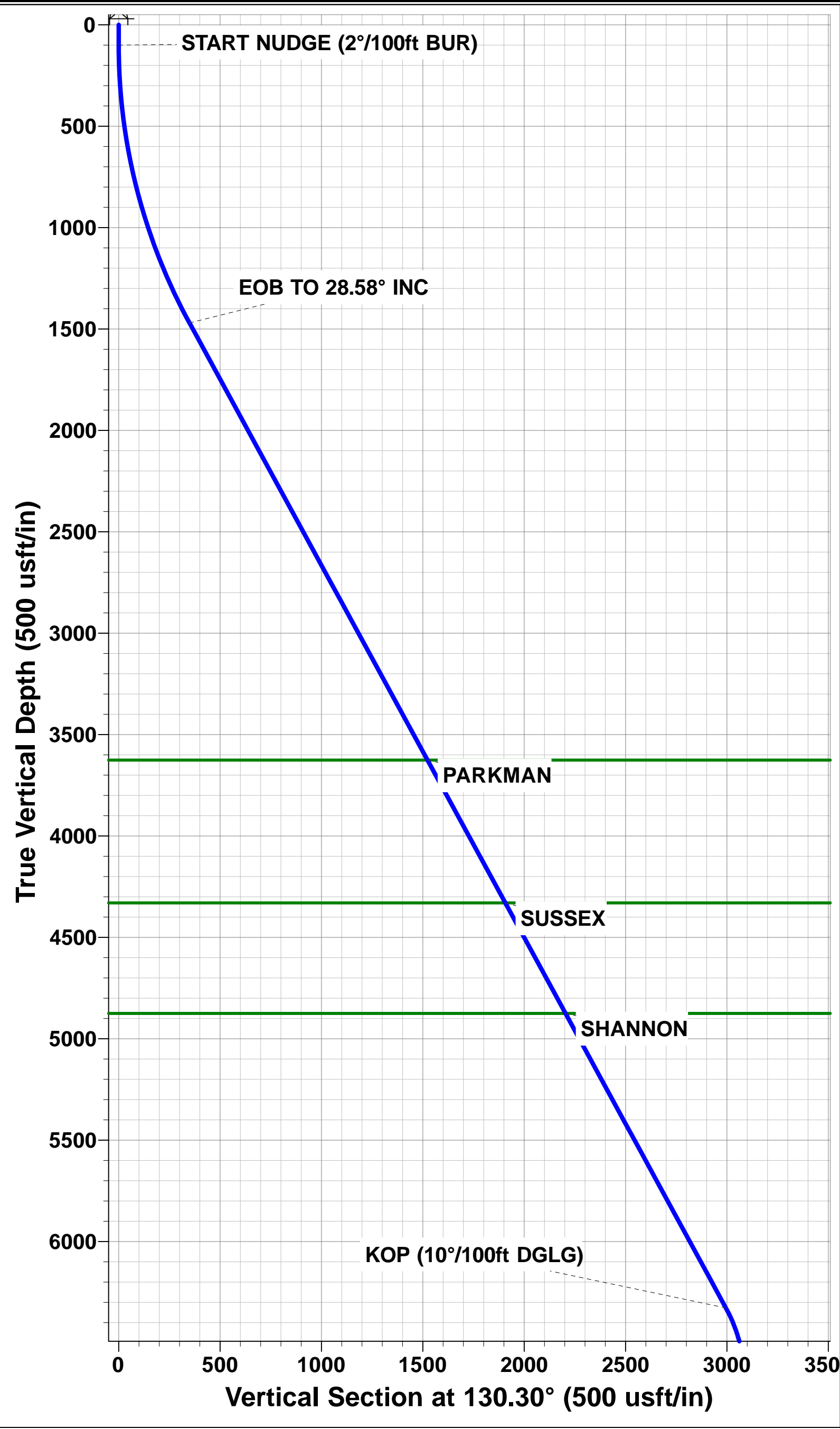
Magnetic Field

Strength: 52534.1snT

Dip Angle: 66.93°

Date: 30/06/2016

Model: IGRF2015



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WAKE NORTH 24
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4665.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4665.0usft (Original Well Elev)
Site:	NW SE SEC. 32 T6N R65W 6th P.M.	North Reference:	True
Well:	WAKE NORTH 24	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Project	WELD COUNTY, COLORADO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	NW SE SEC. 32 T6N R65W 6th P.M.		
Site Position:		Northing:	1,405,488.40 usft
From:	Lat/Long	Easting:	3,226,675.31 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.443610
		Longitude:	-104.685580
		Grid Convergence:	0.53 °

Well	WAKE NORTH 24		
Well Position	+N/-S	-368.0 usft	Northing:
	+E/-W	-2.8 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	30/06/2016	8.27	66.93	52,534

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 (°)
	7,078.0	0.0	0.0	258.03

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	-4,665.0	0.0	0.0	0.00	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	-4,565.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,529.0	28.58	130.30	1,470.4	-3,194.6	-225.8	266.2	2.00	2.00	0.00	130.30	
7,060.4	28.58	130.30	6,327.9	1,662.9	-1,937.4	2,284.2	0.00	0.00	0.00	0.00	
8,183.3	90.00	272.78	7,078.0	2,413.0	-2,160.3	1,742.6	10.00	5.47	12.69	138.83	HZ LP - WAKE NOI
17,904.2	90.00	272.78	7,078.0	2,413.0	-1,689.1	-7,966.8	0.00	0.00	0.00	0.00	BHL - WAKE NOR1

Planning Report



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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4665.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4665.0usft (Original Well Elev)
Site:	NW SE SEC. 32 T6N R65W 6th P.M.	North Reference:	True
Well:	WAKE NORTH 24	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	4,665.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
100.0	0.00	0.00	100.0	4,565.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	2.00	130.30	200.0	4,465.02	-1.1	1.3	-1.1	2.00	2.00	0.00
300.0	4.00	130.30	299.8	4,365.16	-4.5	5.3	-4.3	2.00	2.00	0.00
400.0	6.00	130.30	399.5	4,265.55	-10.2	12.0	-9.6	2.00	2.00	0.00
500.0	8.00	130.30	498.7	4,166.30	-18.0	21.3	-17.1	2.00	2.00	0.00
600.0	10.00	130.30	597.5	4,067.53	-28.2	33.2	-26.6	2.00	2.00	0.00
700.0	12.00	130.30	695.6	3,969.38	-40.5	47.7	-38.3	2.00	2.00	0.00
800.0	14.00	130.30	793.1	3,871.94	-55.0	64.9	-52.1	2.00	2.00	0.00
900.0	16.00	130.30	889.6	3,775.36	-71.8	84.6	-67.9	2.00	2.00	0.00
1,000.0	18.00	130.30	985.3	3,679.73	-90.7	106.9	-85.8	2.00	2.00	0.00
1,100.0	20.00	130.30	1,079.8	3,585.18	-111.8	131.8	-105.7	2.00	2.00	0.00
1,200.0	22.00	130.30	1,173.2	3,491.83	-134.9	159.1	-127.6	2.00	2.00	0.00
1,300.0	24.00	130.30	1,265.2	3,399.79	-160.2	188.9	-151.5	2.00	2.00	0.00
1,400.0	26.00	130.30	1,355.8	3,309.16	-187.5	221.1	-177.4	2.00	2.00	0.00
1,500.0	28.00	130.30	1,444.9	3,220.06	-216.9	255.7	-205.2	2.00	2.00	0.00
EOB TO 28.58° INC										
1,529.0	28.58	130.30	1,470.4	3,194.56	-225.8	266.2	-213.6	2.00	2.00	0.00
1,600.0	28.58	130.30	1,532.8	3,132.18	-247.8	292.1	-234.4	0.00	0.00	0.00
1,700.0	28.58	130.30	1,620.6	3,044.36	-278.7	328.6	-263.6	0.00	0.00	0.00
1,800.0	28.58	130.30	1,708.5	2,956.55	-309.7	365.1	-292.9	0.00	0.00	0.00
1,900.0	28.58	130.30	1,796.3	2,868.73	-340.6	401.6	-322.2	0.00	0.00	0.00
2,000.0	28.58	130.30	1,884.1	2,780.92	-371.5	438.0	-351.5	0.00	0.00	0.00
2,100.0	28.58	130.30	1,971.9	2,693.10	-402.5	474.5	-380.7	0.00	0.00	0.00
2,200.0	28.58	130.30	2,059.7	2,605.28	-433.4	511.0	-410.0	0.00	0.00	0.00
2,300.0	28.58	130.30	2,147.5	2,517.47	-464.4	547.5	-439.3	0.00	0.00	0.00
2,400.0	28.58	130.30	2,235.3	2,429.65	-495.3	584.0	-468.5	0.00	0.00	0.00
2,500.0	28.58	130.30	2,323.2	2,341.84	-526.3	620.5	-497.8	0.00	0.00	0.00
2,600.0	28.58	130.30	2,411.0	2,254.02	-557.2	656.9	-527.1	0.00	0.00	0.00
2,700.0	28.58	130.30	2,498.8	2,166.21	-588.1	693.4	-556.3	0.00	0.00	0.00
2,800.0	28.58	130.30	2,586.6	2,078.39	-619.1	729.9	-585.6	0.00	0.00	0.00
2,900.0	28.58	130.30	2,674.4	1,990.58	-650.0	766.4	-614.9	0.00	0.00	0.00
3,000.0	28.58	130.30	2,762.2	1,902.76	-681.0	802.9	-644.2	0.00	0.00	0.00
3,100.0	28.58	130.30	2,850.1	1,814.94	-711.9	839.3	-673.4	0.00	0.00	0.00
3,200.0	28.58	130.30	2,937.9	1,727.13	-742.9	875.8	-702.7	0.00	0.00	0.00
3,300.0	28.58	130.30	3,025.7	1,639.31	-773.8	912.3	-732.0	0.00	0.00	0.00
3,400.0	28.58	130.30	3,113.5	1,551.50	-804.7	948.8	-761.2	0.00	0.00	0.00
3,500.0	28.58	130.30	3,201.3	1,463.68	-835.7	985.3	-790.5	0.00	0.00	0.00
3,600.0	28.58	130.30	3,289.1	1,375.87	-866.6	1,021.8	-819.8	0.00	0.00	0.00
3,700.0	28.58	130.30	3,376.9	1,288.05	-897.6	1,058.2	-849.1	0.00	0.00	0.00
3,800.0	28.58	130.30	3,464.8	1,200.24	-928.5	1,094.7	-878.3	0.00	0.00	0.00
3,900.0	28.58	130.30	3,552.6	1,112.42	-959.5	1,131.2	-907.6	0.00	0.00	0.00
PARKMAN										
3,983.6	28.58	130.30	3,626.0	1,039.00	-985.3	1,161.7	-932.1	0.00	0.00	0.00
4,000.0	28.58	130.30	3,640.4	1,024.60	-990.4	1,167.7	-936.9	0.00	0.00	0.00
4,100.0	28.58	130.30	3,728.2	936.79	-1,021.4	1,204.2	-966.1	0.00	0.00	0.00
4,200.0	28.58	130.30	3,816.0	848.97	-1,052.3	1,240.6	-995.4	0.00	0.00	0.00
4,300.0	28.58	130.30	3,903.8	761.16	-1,083.2	1,277.1	-1,024.7	0.00	0.00	0.00
4,400.0	28.58	130.30	3,991.7	673.34	-1,114.2	1,313.6	-1,053.9	0.00	0.00	0.00
4,500.0	28.58	130.30	4,079.5	585.53	-1,145.1	1,350.1	-1,083.2	0.00	0.00	0.00
4,600.0	28.58	130.30	4,167.3	497.71	-1,176.1	1,386.6	-1,112.5	0.00	0.00	0.00
4,700.0	28.58	130.30	4,255.1	409.89	-1,207.0	1,423.1	-1,141.8	0.00	0.00	0.00

Planning Report



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Well:	WAKE NORTH 24	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
SUSSEX										
4,785.3	28.58	130.30	4,330.0	335.00	-1,233.4	1,454.2	-1,166.7	0.00	0.00	0.00
4,800.0	28.58	130.30	4,342.9	322.08	-1,238.0	1,459.5	-1,171.0	0.00	0.00	0.00
4,900.0	28.58	130.30	4,430.7	234.26	-1,268.9	1,496.0	-1,200.3	0.00	0.00	0.00
5,000.0	28.58	130.30	4,518.6	146.45	-1,299.8	1,532.5	-1,229.6	0.00	0.00	0.00
5,100.0	28.58	130.30	4,606.4	58.63	-1,330.8	1,569.0	-1,258.8	0.00	0.00	0.00
5,200.0	28.58	130.30	4,694.2	-29.18	-1,361.7	1,605.5	-1,288.1	0.00	0.00	0.00
5,300.0	28.58	130.30	4,782.0	-117.00	-1,392.7	1,641.9	-1,317.4	0.00	0.00	0.00
5,400.0	28.58	130.30	4,869.8	-204.81	-1,423.6	1,678.4	-1,346.7	0.00	0.00	0.00
SHANNON										
5,405.9	28.58	130.30	4,875.0	-210.00	-1,425.4	1,680.6	-1,348.4	0.00	0.00	0.00
5,500.0	28.58	130.30	4,957.6	-292.63	-1,454.6	1,714.9	-1,375.9	0.00	0.00	0.00
5,600.0	28.58	130.30	5,045.4	-380.45	-1,485.5	1,751.4	-1,405.2	0.00	0.00	0.00
5,700.0	28.58	130.30	5,133.3	-468.26	-1,516.5	1,787.9	-1,434.5	0.00	0.00	0.00
5,800.0	28.58	130.30	5,221.1	-556.08	-1,547.4	1,824.4	-1,463.7	0.00	0.00	0.00
5,900.0	28.58	130.30	5,308.9	-643.89	-1,578.3	1,860.8	-1,493.0	0.00	0.00	0.00
6,000.0	28.58	130.30	5,396.7	-731.71	-1,609.3	1,897.3	-1,522.3	0.00	0.00	0.00
6,100.0	28.58	130.30	5,484.5	-819.52	-1,640.2	1,933.8	-1,551.5	0.00	0.00	0.00
6,200.0	28.58	130.30	5,572.3	-907.34	-1,671.2	1,970.3	-1,580.8	0.00	0.00	0.00
6,300.0	28.58	130.30	5,660.2	-995.15	-1,702.1	2,006.8	-1,610.1	0.00	0.00	0.00
6,400.0	28.58	130.30	5,748.0	-1,082.97	-1,733.1	2,043.2	-1,639.4	0.00	0.00	0.00
6,500.0	28.58	130.30	5,835.8	-1,170.79	-1,764.0	2,079.7	-1,668.6	0.00	0.00	0.00
6,600.0	28.58	130.30	5,923.6	-1,258.60	-1,794.9	2,116.2	-1,697.9	0.00	0.00	0.00
6,700.0	28.58	130.30	6,011.4	-1,346.42	-1,825.9	2,152.7	-1,727.2	0.00	0.00	0.00
6,800.0	28.58	130.30	6,099.2	-1,434.23	-1,856.8	2,189.2	-1,756.4	0.00	0.00	0.00
6,900.0	28.58	130.30	6,187.0	-1,522.05	-1,887.8	2,225.7	-1,785.7	0.00	0.00	0.00
7,000.0	28.58	130.30	6,274.9	-1,609.86	-1,918.7	2,262.1	-1,815.0	0.00	0.00	0.00
KOP (10°/100ft DGLG)										
7,060.4	28.58	130.30	6,327.9	-1,662.89	-1,937.4	2,284.2	-1,832.7	0.00	0.00	0.00
7,100.0	25.72	136.32	6,363.1	-1,698.14	-1,949.8	2,297.3	-1,843.0	10.00	-7.22	15.19
7,200.0	20.10	157.83	6,455.4	-1,790.38	-1,981.4	2,318.9	-1,857.5	10.00	-5.62	21.51
7,300.0	18.43	188.06	6,550.0	-1,885.01	-2,013.1	2,323.1	-1,855.1	10.00	-1.67	30.22
7,400.0	21.64	216.03	6,644.2	-1,979.16	-2,043.7	2,310.0	-1,835.9	10.00	3.21	27.97
SHARON SPRINGS										
7,494.4	27.69	233.56	6,730.0	-2,065.00	-2,070.9	2,282.1	-1,802.9	10.00	6.41	18.58
7,500.0	28.11	234.37	6,735.0	-2,069.97	-2,072.4	2,280.0	-1,800.5	10.00	7.40	14.38
NIORARA										
7,528.7	30.30	238.17	6,760.0	-2,095.00	-2,080.2	2,268.3	-1,787.6	10.00	7.63	13.25
7,600.0	36.12	245.73	6,819.7	-2,154.68	-2,098.3	2,233.8	-1,750.0	10.00	8.16	10.59
7,700.0	44.85	253.29	6,895.7	-2,230.71	-2,120.6	2,173.0	-1,685.9	10.00	8.73	7.56
7,800.0	53.94	258.79	6,960.8	-2,295.76	-2,138.7	2,099.4	-1,610.2	10.00	9.09	5.51
7,900.0	63.23	263.14	7,012.9	-2,347.85	-2,151.9	2,015.3	-1,525.1	10.00	9.29	4.35
FORT HAYS										
7,967.9	69.60	265.69	7,040.0	-2,375.00	-2,157.9	1,953.4	-1,463.3	10.00	9.39	3.76
8,000.0	72.63	266.82	7,050.4	-2,385.40	-2,159.9	1,923.1	-1,433.3	10.00	9.43	3.52
CODELL										
8,073.3	79.56	269.27	7,068.0	-2,403.00	-2,162.3	1,852.0	-1,363.2	10.00	9.46	3.35
8,100.0	82.09	270.14	7,072.3	-2,407.26	-2,162.4	1,825.6	-1,337.4	10.00	9.48	3.23
HZ LANDING PNT - WAKE NORTH 24										
8,183.3	90.00	272.78	7,078.0	-2,413.00	-2,160.3	1,742.6	-1,256.6	10.00	9.49	3.17
8,200.0	90.00	272.78	7,078.0	-2,413.00	-2,159.5	1,726.0	-1,240.5	0.00	0.00	0.00
8,300.0	90.00	272.78	7,078.0	-2,413.00	-2,154.7	1,626.1	-1,143.8	0.00	0.00	0.00
8,400.0	90.00	272.78	7,078.0	-2,413.00	-2,149.8	1,526.2	-1,047.1	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WAKE NORTH 24
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4665.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4665.0usft (Original Well Elev)
Site:	NW SE SEC. 32 T6N R65W 6th P.M.	North Reference:	True
Well:	WAKE NORTH 24	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,500.0	90.00	272.78	7,078.0	-2,413.00	-2,145.0	1,426.3	-950.4	0.00	0.00	0.00
8,600.0	90.00	272.78	7,078.0	-2,413.00	-2,140.1	1,326.4	-853.7	0.00	0.00	0.00
8,700.0	90.00	272.78	7,078.0	-2,413.00	-2,135.3	1,226.5	-757.0	0.00	0.00	0.00
8,800.0	90.00	272.78	7,078.0	-2,413.00	-2,130.4	1,126.7	-660.3	0.00	0.00	0.00
8,900.0	90.00	272.78	7,078.0	-2,413.00	-2,125.6	1,026.8	-563.6	0.00	0.00	0.00
9,000.0	90.00	272.78	7,078.0	-2,413.00	-2,120.7	926.9	-466.9	0.00	0.00	0.00
9,100.0	90.00	272.78	7,078.0	-2,413.00	-2,115.9	827.0	-370.2	0.00	0.00	0.00
9,200.0	90.00	272.78	7,078.0	-2,413.00	-2,111.0	727.1	-273.5	0.00	0.00	0.00
9,300.0	90.00	272.78	7,078.0	-2,413.00	-2,106.2	627.2	-176.8	0.00	0.00	0.00
9,400.0	90.00	272.78	7,078.0	-2,413.00	-2,101.3	527.4	-80.1	0.00	0.00	0.00
9,500.0	90.00	272.78	7,078.0	-2,413.00	-2,096.5	427.5	16.6	0.00	0.00	0.00
9,600.0	90.00	272.78	7,078.0	-2,413.00	-2,091.6	327.6	113.4	0.00	0.00	0.00
9,700.0	90.00	272.78	7,078.0	-2,413.00	-2,086.8	227.7	210.1	0.00	0.00	0.00
9,800.0	90.00	272.78	7,078.0	-2,413.00	-2,081.9	127.8	306.8	0.00	0.00	0.00
9,900.0	90.00	272.78	7,078.0	-2,413.00	-2,077.1	28.0	403.5	0.00	0.00	0.00
10,000.0	90.00	272.78	7,078.0	-2,413.00	-2,072.3	-71.9	500.2	0.00	0.00	0.00
10,100.0	90.00	272.78	7,078.0	-2,413.00	-2,067.4	-171.8	596.9	0.00	0.00	0.00
10,200.0	90.00	272.78	7,078.0	-2,413.00	-2,062.6	-271.7	693.6	0.00	0.00	0.00
10,300.0	90.00	272.78	7,078.0	-2,413.00	-2,057.7	-371.6	790.3	0.00	0.00	0.00
10,400.0	90.00	272.78	7,078.0	-2,413.00	-2,052.9	-471.5	887.0	0.00	0.00	0.00
10,500.0	90.00	272.78	7,078.0	-2,413.00	-2,048.0	-571.3	983.7	0.00	0.00	0.00
10,600.0	90.00	272.78	7,078.0	-2,413.00	-2,043.2	-671.2	1,080.4	0.00	0.00	0.00
10,700.0	90.00	272.78	7,078.0	-2,413.00	-2,038.3	-771.1	1,177.1	0.00	0.00	0.00
10,800.0	90.00	272.78	7,078.0	-2,413.00	-2,033.5	-871.0	1,273.8	0.00	0.00	0.00
10,900.0	90.00	272.78	7,078.0	-2,413.00	-2,028.6	-970.9	1,370.5	0.00	0.00	0.00
11,000.0	90.00	272.78	7,078.0	-2,413.00	-2,023.8	-1,070.8	1,467.2	0.00	0.00	0.00
11,100.0	90.00	272.78	7,078.0	-2,413.00	-2,018.9	-1,170.6	1,563.9	0.00	0.00	0.00
11,200.0	90.00	272.78	7,078.0	-2,413.00	-2,014.1	-1,270.5	1,660.6	0.00	0.00	0.00
11,300.0	90.00	272.78	7,078.0	-2,413.00	-2,009.2	-1,370.4	1,757.3	0.00	0.00	0.00
11,400.0	90.00	272.78	7,078.0	-2,413.00	-2,004.4	-1,470.3	1,854.0	0.00	0.00	0.00
11,500.0	90.00	272.78	7,078.0	-2,413.00	-1,999.5	-1,570.2	1,950.7	0.00	0.00	0.00
11,600.0	90.00	272.78	7,078.0	-2,413.00	-1,994.7	-1,670.0	2,047.5	0.00	0.00	0.00
11,700.0	90.00	272.78	7,078.0	-2,413.00	-1,989.9	-1,769.9	2,144.2	0.00	0.00	0.00
11,800.0	90.00	272.78	7,078.0	-2,413.00	-1,985.0	-1,869.8	2,240.9	0.00	0.00	0.00
11,900.0	90.00	272.78	7,078.0	-2,413.00	-1,980.2	-1,969.7	2,337.6	0.00	0.00	0.00
12,000.0	90.00	272.78	7,078.0	-2,413.00	-1,975.3	-2,069.6	2,434.3	0.00	0.00	0.00
12,100.0	90.00	272.78	7,078.0	-2,413.00	-1,970.5	-2,169.5	2,531.0	0.00	0.00	0.00
12,200.0	90.00	272.78	7,078.0	-2,413.00	-1,965.6	-2,269.3	2,627.7	0.00	0.00	0.00
12,300.0	90.00	272.78	7,078.0	-2,413.00	-1,960.8	-2,369.2	2,724.4	0.00	0.00	0.00
12,400.0	90.00	272.78	7,078.0	-2,413.00	-1,955.9	-2,469.1	2,821.1	0.00	0.00	0.00
12,500.0	90.00	272.78	7,078.0	-2,413.00	-1,951.1	-2,569.0	2,917.8	0.00	0.00	0.00
12,600.0	90.00	272.78	7,078.0	-2,413.00	-1,946.2	-2,668.9	3,014.5	0.00	0.00	0.00
12,700.0	90.00	272.78	7,078.0	-2,413.00	-1,941.4	-2,768.8	3,111.2	0.00	0.00	0.00
12,800.0	90.00	272.78	7,078.0	-2,413.00	-1,936.5	-2,868.6	3,207.9	0.00	0.00	0.00
12,900.0	90.00	272.78	7,078.0	-2,413.00	-1,931.7	-2,968.5	3,304.6	0.00	0.00	0.00
13,000.0	90.00	272.78	7,078.0	-2,413.00	-1,926.8	-3,068.4	3,401.3	0.00	0.00	0.00
13,100.0	90.00	272.78	7,078.0	-2,413.00	-1,922.0	-3,168.3	3,498.0	0.00	0.00	0.00
13,200.0	90.00	272.78	7,078.0	-2,413.00	-1,917.1	-3,268.2	3,594.7	0.00	0.00	0.00
13,300.0	90.00	272.78	7,078.0	-2,413.00	-1,912.3	-3,368.1	3,691.4	0.00	0.00	0.00
13,400.0	90.00	272.78	7,078.0	-2,413.00	-1,907.4	-3,467.9	3,788.1	0.00	0.00	0.00
13,500.0	90.00	272.78	7,078.0	-2,413.00	-1,902.6	-3,567.8	3,884.8	0.00	0.00	0.00
13,600.0	90.00	272.78	7,078.0	-2,413.00	-1,897.8	-3,667.7	3,981.6	0.00	0.00	0.00
13,700.0	90.00	272.78	7,078.0	-2,413.00	-1,892.9	-3,767.6	4,078.3	0.00	0.00	0.00
13,800.0	90.00	272.78	7,078.0	-2,413.00	-1,888.1	-3,867.5	4,175.0	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WAKE NORTH 24
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4665.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4665.0usft (Original Well Elev)
Site:	NW SE SEC. 32 T6N R65W 6th P.M.	North Reference:	True
Well:	WAKE NORTH 24	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,900.0	90.00	272.78	7,078.0	-2,413.00	-1,883.2	-3,967.3	4,271.7	0.00	0.00	0.00
14,000.0	90.00	272.78	7,078.0	-2,413.00	-1,878.4	-4,067.2	4,368.4	0.00	0.00	0.00
14,100.0	90.00	272.78	7,078.0	-2,413.00	-1,873.5	-4,167.1	4,465.1	0.00	0.00	0.00
14,200.0	90.00	272.78	7,078.0	-2,413.00	-1,868.7	-4,267.0	4,561.8	0.00	0.00	0.00
14,300.0	90.00	272.78	7,078.0	-2,413.00	-1,863.8	-4,366.9	4,658.5	0.00	0.00	0.00
14,400.0	90.00	272.78	7,078.0	-2,413.00	-1,859.0	-4,466.8	4,755.2	0.00	0.00	0.00
14,500.0	90.00	272.78	7,078.0	-2,413.00	-1,854.1	-4,566.6	4,851.9	0.00	0.00	0.00
14,600.0	90.00	272.78	7,078.0	-2,413.00	-1,849.3	-4,666.5	4,948.6	0.00	0.00	0.00
14,700.0	90.00	272.78	7,078.0	-2,413.00	-1,844.4	-4,766.4	5,045.3	0.00	0.00	0.00
14,800.0	90.00	272.78	7,078.0	-2,413.00	-1,839.6	-4,866.3	5,142.0	0.00	0.00	0.00
14,900.0	90.00	272.78	7,078.0	-2,413.00	-1,834.7	-4,966.2	5,238.7	0.00	0.00	0.00
15,000.0	90.00	272.78	7,078.0	-2,413.00	-1,829.9	-5,066.1	5,335.4	0.00	0.00	0.00
15,100.0	90.00	272.78	7,078.0	-2,413.00	-1,825.0	-5,165.9	5,432.1	0.00	0.00	0.00
15,200.0	90.00	272.78	7,078.0	-2,413.00	-1,820.2	-5,265.8	5,528.8	0.00	0.00	0.00
15,300.0	90.00	272.78	7,078.0	-2,413.00	-1,815.4	-5,365.7	5,625.5	0.00	0.00	0.00
15,400.0	90.00	272.78	7,078.0	-2,413.00	-1,810.5	-5,465.6	5,722.2	0.00	0.00	0.00
15,500.0	90.00	272.78	7,078.0	-2,413.00	-1,805.7	-5,565.5	5,819.0	0.00	0.00	0.00
15,600.0	90.00	272.78	7,078.0	-2,413.00	-1,800.8	-5,665.3	5,915.7	0.00	0.00	0.00
15,700.0	90.00	272.78	7,078.0	-2,413.00	-1,796.0	-5,765.2	6,012.4	0.00	0.00	0.00
15,800.0	90.00	272.78	7,078.0	-2,413.00	-1,791.1	-5,865.1	6,109.1	0.00	0.00	0.00
15,900.0	90.00	272.78	7,078.0	-2,413.00	-1,786.3	-5,965.0	6,205.8	0.00	0.00	0.00
16,000.0	90.00	272.78	7,078.0	-2,413.00	-1,781.4	-6,064.9	6,302.5	0.00	0.00	0.00
16,100.0	90.00	272.78	7,078.0	-2,413.00	-1,776.6	-6,164.8	6,399.2	0.00	0.00	0.00
16,200.0	90.00	272.78	7,078.0	-2,413.00	-1,771.7	-6,264.6	6,495.9	0.00	0.00	0.00
16,300.0	90.00	272.78	7,078.0	-2,413.00	-1,766.9	-6,364.5	6,592.6	0.00	0.00	0.00
16,400.0	90.00	272.78	7,078.0	-2,413.00	-1,762.0	-6,464.4	6,689.3	0.00	0.00	0.00
16,500.0	90.00	272.78	7,078.0	-2,413.00	-1,757.2	-6,564.3	6,786.0	0.00	0.00	0.00
16,600.0	90.00	272.78	7,078.0	-2,413.00	-1,752.3	-6,664.2	6,882.7	0.00	0.00	0.00
16,700.0	90.00	272.78	7,078.0	-2,413.00	-1,747.5	-6,764.1	6,979.4	0.00	0.00	0.00
16,800.0	90.00	272.78	7,078.0	-2,413.00	-1,742.6	-6,863.9	7,076.1	0.00	0.00	0.00
16,900.0	90.00	272.78	7,078.0	-2,413.00	-1,737.8	-6,963.8	7,172.8	0.00	0.00	0.00
17,000.0	90.00	272.78	7,078.0	-2,413.00	-1,732.9	-7,063.7	7,269.5	0.00	0.00	0.00
17,100.0	90.00	272.78	7,078.0	-2,413.00	-1,728.1	-7,163.6	7,366.2	0.00	0.00	0.00
17,200.0	90.00	272.78	7,078.0	-2,413.00	-1,723.3	-7,263.5	7,462.9	0.00	0.00	0.00
17,300.0	90.00	272.78	7,078.0	-2,413.00	-1,718.4	-7,363.3	7,559.6	0.00	0.00	0.00
17,400.0	90.00	272.78	7,078.0	-2,413.00	-1,713.6	-7,463.2	7,656.3	0.00	0.00	0.00
17,500.0	90.00	272.78	7,078.0	-2,413.00	-1,708.7	-7,563.1	7,753.1	0.00	0.00	0.00
17,600.0	90.00	272.78	7,078.0	-2,413.00	-1,703.9	-7,663.0	7,849.8	0.00	0.00	0.00
17,700.0	90.00	272.78	7,078.0	-2,413.00	-1,699.0	-7,762.9	7,946.5	0.00	0.00	0.00
17,800.0	90.00	272.78	7,078.0	-2,413.00	-1,694.2	-7,862.8	8,043.2	0.00	0.00	0.00
17,900.0	90.00	272.78	7,078.0	-2,413.00	-1,689.3	-7,962.6	8,139.9	0.00	0.00	0.00
BHL - WAKE NORTH 24										
17,904.2	90.00	272.78	7,078.0	-2,413.00	-1,689.1	-7,966.8	8,143.9	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WAKE NORTH 24
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4665.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4665.0usft (Original Well Elev)
Site:	NW SE SEC. 32 T6N R65W 6th P.M.	North Reference:	True
Well:	WAKE NORTH 24	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Formations					
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,983.6	3,626.0	PARKMAN			
4,785.3	4,330.0	SUSSEX			
5,405.9	4,875.0	SHANNON			
7,494.4	6,730.0	SHARON SPRINGS			
7,528.7	6,760.0	NIOBRARA			
7,967.9	7,040.0	FORT HAYS			
8,073.3	7,068.0	CODELL			

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
100.0	100.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,529.0	1,470.4	-225.8	266.2	EOB TO 28.58° INC
7,060.4	6,327.9	-1,937.4	2,284.2	KOP (10°/100ft DGLG)
8,183.3	7,078.0	-2,160.3	1,742.6	HZ LANDING PNT - WAKE NORTH 24
17,904.2	7,078.0	-1,689.1	-7,966.8	BHL - WAKE NORTH 24