

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

NE NE SEC. 20 T5N R65W 6th P.M.

GP-JACKSON C7-17-13

ORIGINAL WELLBORE

12 May, 2016

Plan: PROPOSAL #1

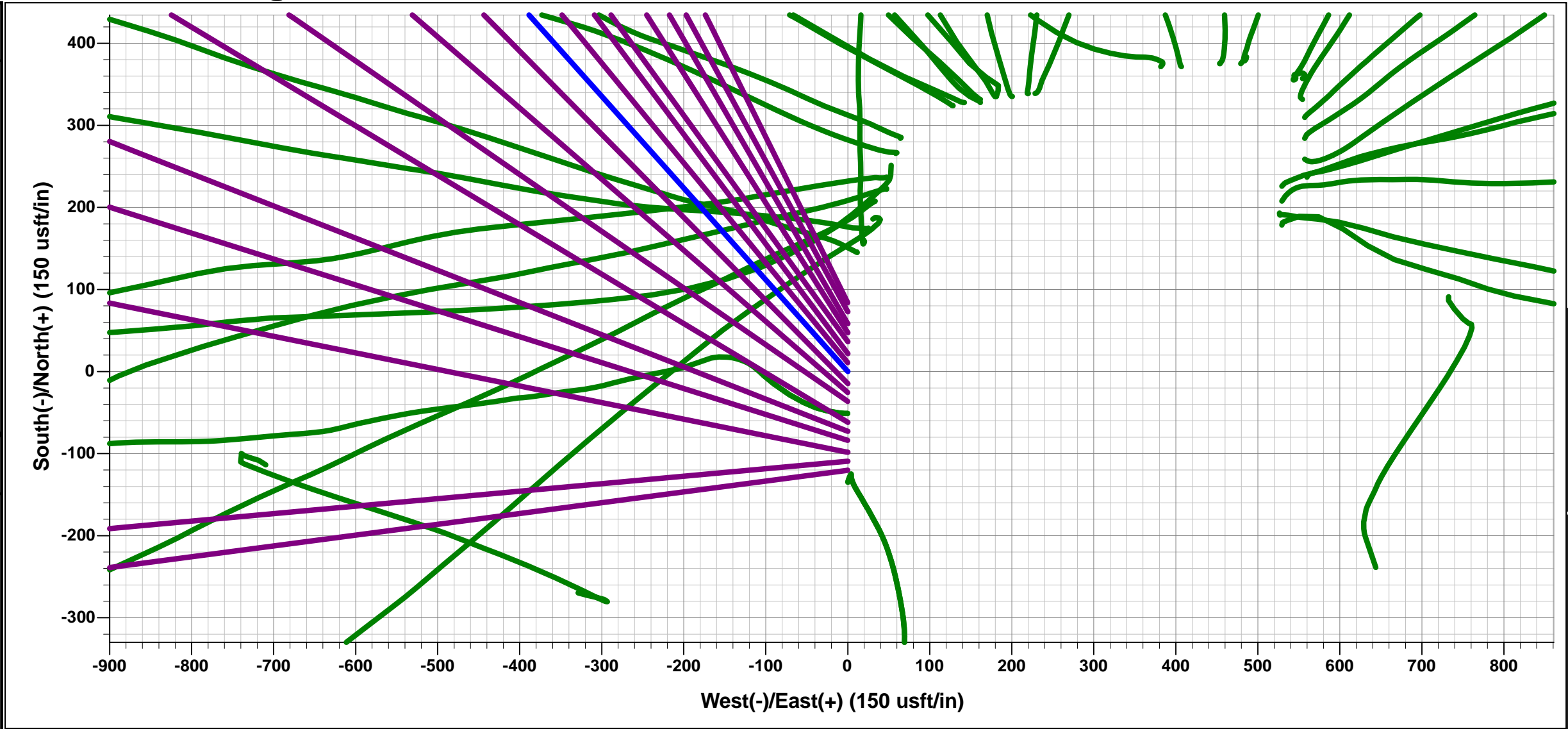




Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NE SEC. 20 T5N R65W 6th P.M.
Well: GP-JACKSON C7-17-13
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation	
1600.0	1600.0	0.00	0.00	0.0	0.0	0.0	0.0	9 5/8" SURFACE CASING	
1800.0	1800.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)	
3048.8	3092.2	25.84	318.20	213.6	-191.0	221.2	286.5	EOB TO 25.84° INC	
6709.0	7159.1	25.84	318.20	1535.2	-1372.6	1590.2	2059.3	KOP (10°/100ft DGLG)	
7090.0	7888.3	90.00	270.55	1676.9	-1918.9	2151.7	2635.1	HZ LANDING PNT *NEW* - GP-JACKSON C7-17-13	
7090.0	17465.2	90.00	270.55	1769.6	-11495.4	11630.8	12212.0	BHL - GP-JACKSON C7-17-13	

WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
HZ LANDING PNT *NEW* - GP-JACKSON C7-17-13	7090.0	1676.9	-1918.9	40.395023	-104.689399	
BHL - GP-JACKSON C7-17-13	7090.0	1769.6	-11495.4	40.395270	-104.723780	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3686.0	3800.2	PARKMAN
4425.0	4621.3	SUSSEX
4935.0	5188.0	SHANNON
6740.0	7193.9	SHARON SPRINGS
6775.0	7234.2	NIOBRARA
7055.0	7680.8	FORT HAYS
7080.0	7777.8	CODELL

PROPOSED LOCAL COORDINATES		
SHL: 526ft FNL & 1305ft FEL of Sec 20		
LP *NEW*: 1144ft FSL & 2093ft FWL of Sec 17		
BHL: 1185ft FSL & 2219ft FEL of Sec 13		

T
M

Azimuths to True North

Magnetic North: 8.28°

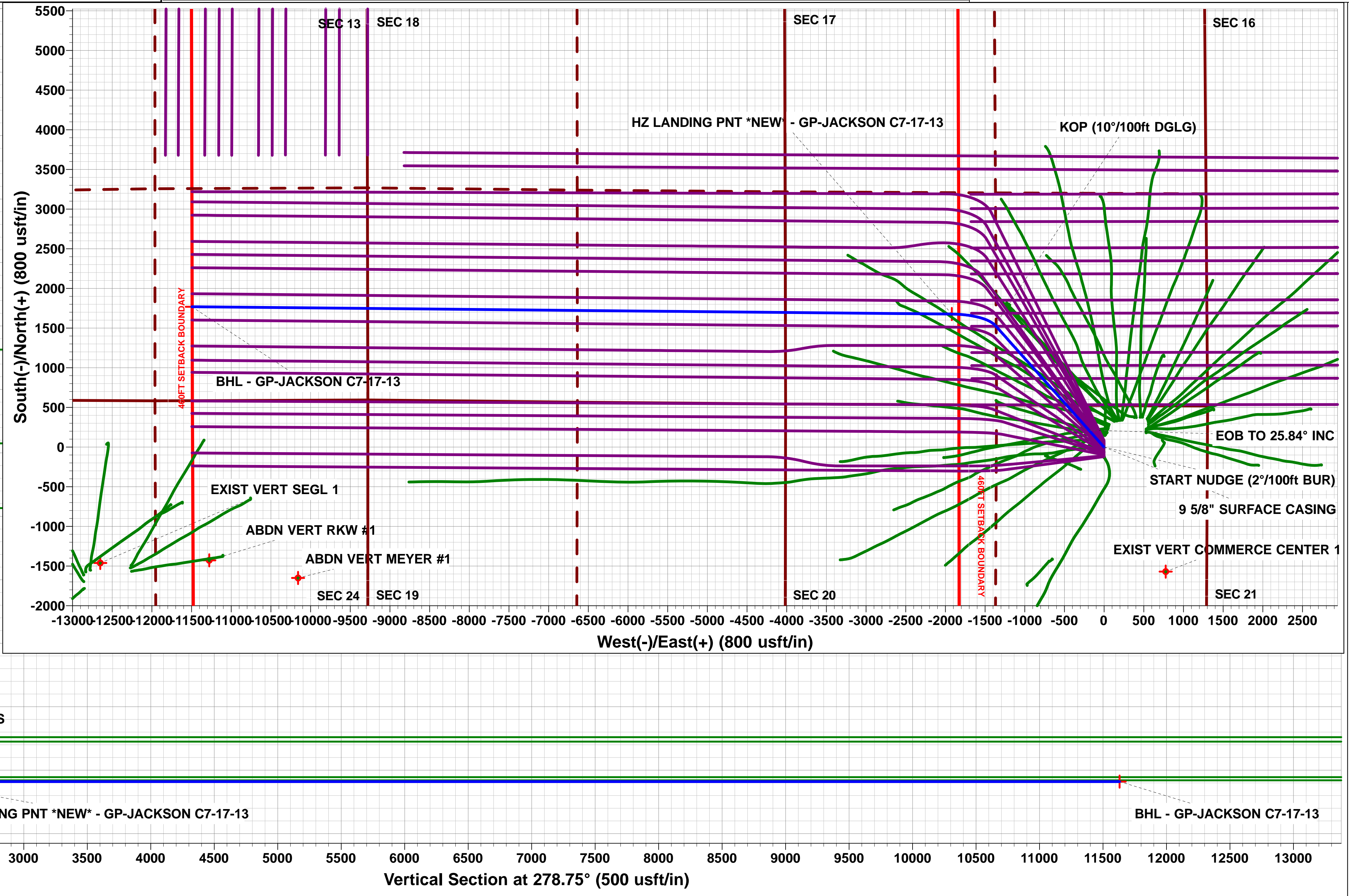
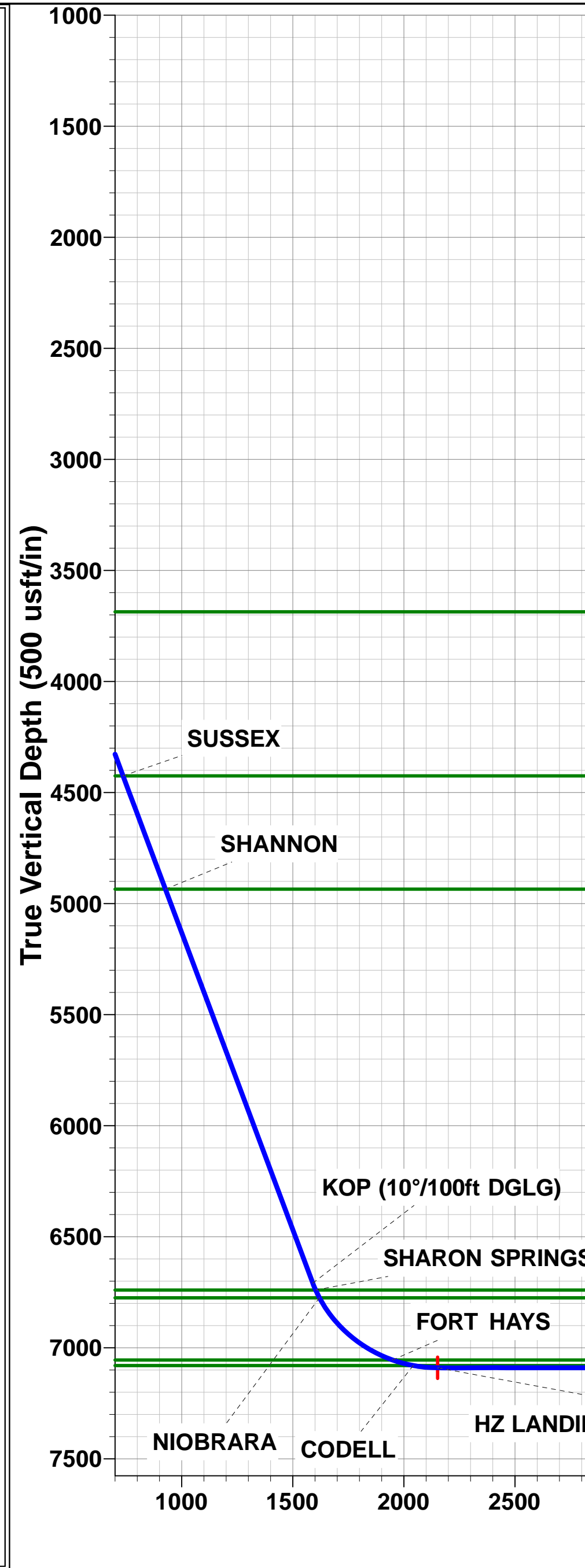
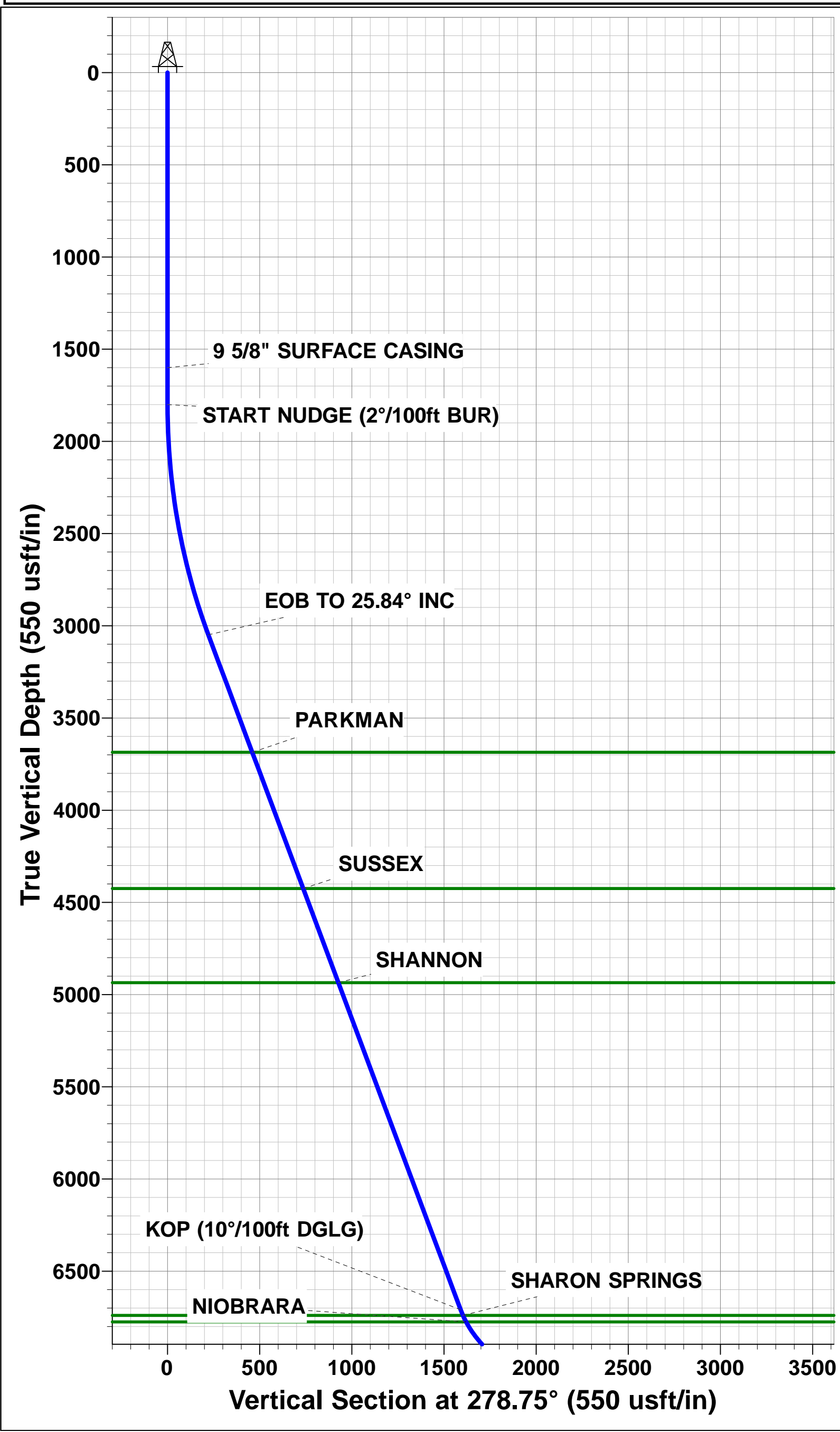
Magnetic Field

Strength: 52522.4snT

Dip Angle: 66.89°

Date: 12/05/2016

Model: IGRF2015



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GP-JACKSON C7-17-13
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4690.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4690.0usft (Original Well Elev)
Site:	NE NE SEC. 20 T5N R65W 6th P.M.	North Reference:	True
Well:	GP-JACKSON C7-17-13	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	NE NE SEC. 20 T5N R65W 6th P.M.		
Site Position:		Northing:	1,386,203.84 usft
From:	Lat/Long	Easting:	3,227,707.61 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.390650
		Longitude:	-104.682510
		Grid Convergence:	0.53 °

Well	GP-JACKSON C7-17-13		
Well Position	+N/-S	-83.8 usft	Northing:
	+E/-W	0.0 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	12/05/2016	8.28	66.89	52,522

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 (°)
	7,090.0	0.0	0.0	278.75

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100usf)	Turn Rate (°/100usf)	TFO (°)	Target
0.0	0.00	0.00	0.0	-4,690.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	-2,890.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,092.2	25.84	318.20	3,048.8	-1,641.2	213.6	-191.0	2.00	2.00	0.00	318.20	
7,159.1	25.84	318.20	6,709.0	2,019.0	1,535.2	-1,372.6	0.00	0.00	0.00	0.00	
7,888.3	90.00	270.55	7,090.0	2,400.0	1,676.9	-1,918.9	10.00	8.80	-6.53	-50.63	HZ LANDING PNT
17,465.2	90.00	270.55	7,090.0	2,400.0	1,769.6	-11,495.4	0.00	0.00	0.00	0.00	BHL - GP-JACKSO

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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4690.0usft (Original Well Elev)
Site:	NE NE SEC. 20 T5N R65W 6th P.M.	North Reference:	True
Well:	GP-JACKSON C7-17-13	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	4,690.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,590.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,490.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,390.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,290.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,190.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,090.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	3,990.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	3,890.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,790.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,690.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	3,590.00	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	3,490.00	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	3,390.00	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	3,290.00	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	3,190.00	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8" SURFACE CASING										
1,600.0	0.00	0.00	1,600.0	3,090.00	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	2,990.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
1,800.0	0.00	0.00	1,800.0	2,890.00	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	2.00	318.20	1,900.0	2,790.02	1.3	-1.2	1.3	2.00	2.00	0.00
2,000.0	4.00	318.20	1,999.8	2,690.16	5.2	-4.7	5.4	2.00	2.00	0.00
2,100.0	6.00	318.20	2,099.5	2,590.55	11.7	-10.5	12.1	2.00	2.00	0.00
2,200.0	8.00	318.20	2,198.7	2,491.30	20.8	-18.6	21.5	2.00	2.00	0.00
2,300.0	10.00	318.20	2,297.5	2,392.53	32.4	-29.0	33.6	2.00	2.00	0.00
2,400.0	12.00	318.20	2,395.6	2,294.38	46.7	-41.7	48.3	2.00	2.00	0.00
2,500.0	14.00	318.20	2,493.1	2,196.94	63.4	-56.7	65.7	2.00	2.00	0.00
2,600.0	16.00	318.20	2,589.6	2,100.36	82.7	-74.0	85.7	2.00	2.00	0.00
2,700.0	18.00	318.20	2,685.3	2,004.73	104.5	-93.5	108.3	2.00	2.00	0.00
2,800.0	20.00	318.20	2,779.8	1,910.18	128.8	-115.2	133.4	2.00	2.00	0.00
2,900.0	22.00	318.20	2,873.2	1,816.83	155.5	-139.0	161.1	2.00	2.00	0.00
3,000.0	24.00	318.20	2,965.2	1,724.79	184.6	-165.1	191.2	2.00	2.00	0.00
EOB TO 25.84° INC										
3,092.2	25.84	318.20	3,048.8	1,641.21	213.6	-191.0	221.2	2.00	2.00	0.00
3,100.0	25.84	318.20	3,055.8	1,634.15	216.1	-193.2	223.9	0.00	0.00	0.00
3,200.0	25.84	318.20	3,145.8	1,544.16	248.6	-222.3	257.5	0.00	0.00	0.00
3,300.0	25.84	318.20	3,235.8	1,454.16	281.1	-251.3	291.2	0.00	0.00	0.00
3,400.0	25.84	318.20	3,325.8	1,364.16	313.6	-280.4	324.9	0.00	0.00	0.00
3,500.0	25.84	318.20	3,415.8	1,274.16	346.1	-309.5	358.5	0.00	0.00	0.00
3,600.0	25.84	318.20	3,505.8	1,184.16	378.6	-338.5	392.2	0.00	0.00	0.00
3,700.0	25.84	318.20	3,595.8	1,094.16	411.1	-367.6	425.8	0.00	0.00	0.00
3,800.0	25.84	318.20	3,685.8	1,004.16	443.6	-396.6	459.5	0.00	0.00	0.00
PARKMAN										
3,800.2	25.84	318.20	3,686.0	1,004.00	443.7	-396.7	459.6	0.00	0.00	0.00
3,900.0	25.84	318.20	3,775.8	914.16	476.1	-425.7	493.2	0.00	0.00	0.00
4,000.0	25.84	318.20	3,865.8	824.16	508.6	-454.7	526.8	0.00	0.00	0.00
4,100.0	25.84	318.20	3,955.8	734.16	541.1	-483.8	560.5	0.00	0.00	0.00
4,200.0	25.84	318.20	4,045.8	644.17	573.6	-512.8	594.1	0.00	0.00	0.00
4,300.0	25.84	318.20	4,135.8	554.17	606.1	-541.9	627.8	0.00	0.00	0.00
4,400.0	25.84	318.20	4,225.8	464.17	638.6	-570.9	661.4	0.00	0.00	0.00
4,500.0	25.84	318.20	4,315.8	374.17	671.1	-600.0	695.1	0.00	0.00	0.00
4,600.0	25.84	318.20	4,405.8	284.17	703.6	-629.0	728.8	0.00	0.00	0.00
SUSSEX										

Planning Report



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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)
4,621.3	25.84	318.20	4,425.0	265.00	710.5	-635.2	735.9	0.00	0.00	0.00
4,700.0	25.84	318.20	4,495.8	194.17	736.1	-658.1	762.4	0.00	0.00	0.00
4,800.0	25.84	318.20	4,585.8	104.17	768.6	-687.2	796.1	0.00	0.00	0.00
4,900.0	25.84	318.20	4,675.8	14.17	801.1	-716.2	829.7	0.00	0.00	0.00
5,000.0	25.84	318.20	4,765.8	-75.83	833.6	-745.3	863.4	0.00	0.00	0.00
5,100.0	25.84	318.20	4,855.8	-165.83	866.1	-774.3	897.1	0.00	0.00	0.00
SHANNON										
5,188.0	25.84	318.20	4,935.0	-245.00	894.7	-799.9	926.7	0.00	0.00	0.00
5,200.0	25.84	318.20	4,945.8	-255.82	898.6	-803.4	930.7	0.00	0.00	0.00
5,300.0	25.84	318.20	5,035.8	-345.82	931.1	-832.4	964.4	0.00	0.00	0.00
5,400.0	25.84	318.20	5,125.8	-435.82	963.6	-861.5	998.0	0.00	0.00	0.00
5,500.0	25.84	318.20	5,215.8	-525.82	996.1	-890.5	1,031.7	0.00	0.00	0.00
5,600.0	25.84	318.20	5,305.8	-615.82	1,028.6	-919.6	1,065.4	0.00	0.00	0.00
5,700.0	25.84	318.20	5,395.8	-705.82	1,061.1	-948.6	1,099.0	0.00	0.00	0.00
5,800.0	25.84	318.20	5,485.8	-795.82	1,093.6	-977.7	1,132.7	0.00	0.00	0.00
5,900.0	25.84	318.20	5,575.8	-885.82	1,126.1	-1,006.7	1,166.3	0.00	0.00	0.00
6,000.0	25.84	318.20	5,665.8	-975.82	1,158.6	-1,035.8	1,200.0	0.00	0.00	0.00
6,100.0	25.84	318.20	5,755.8	-1,065.82	1,191.1	-1,064.8	1,233.7	0.00	0.00	0.00
6,200.0	25.84	318.20	5,845.8	-1,155.81	1,223.5	-1,093.9	1,267.3	0.00	0.00	0.00
6,300.0	25.84	318.20	5,935.8	-1,245.81	1,256.0	-1,123.0	1,301.0	0.00	0.00	0.00
6,400.0	25.84	318.20	6,025.8	-1,335.81	1,288.5	-1,152.0	1,334.6	0.00	0.00	0.00
6,500.0	25.84	318.20	6,115.8	-1,425.81	1,321.0	-1,181.1	1,368.3	0.00	0.00	0.00
6,600.0	25.84	318.20	6,205.8	-1,515.81	1,353.5	-1,210.1	1,402.0	0.00	0.00	0.00
6,700.0	25.84	318.20	6,295.8	-1,605.81	1,386.0	-1,239.2	1,435.6	0.00	0.00	0.00
6,800.0	25.84	318.20	6,385.8	-1,695.81	1,418.5	-1,268.2	1,469.3	0.00	0.00	0.00
6,900.0	25.84	318.20	6,475.8	-1,785.81	1,451.0	-1,297.3	1,502.9	0.00	0.00	0.00
7,000.0	25.84	318.20	6,565.8	-1,875.81	1,483.5	-1,326.3	1,536.6	0.00	0.00	0.00
7,100.0	25.84	318.20	6,655.8	-1,965.81	1,516.0	-1,355.4	1,570.3	0.00	0.00	0.00
KOP (10°/100ft DGLG)										
7,159.1	25.84	318.20	6,709.0	-2,018.98	1,535.2	-1,372.6	1,590.2	0.00	0.00	0.00
SHARON SPRINGS										
7,193.9	28.17	312.49	6,740.0	-2,050.00	1,546.4	-1,383.7	1,602.8	10.00	6.69	-16.39
7,200.0	28.60	311.58	6,745.4	-2,055.37	1,548.4	-1,385.8	1,605.3	10.00	7.05	-14.91
NIOBRARA										
7,234.2	31.11	306.93	6,775.0	-2,085.00	1,559.1	-1,399.0	1,619.9	10.00	7.35	-13.63
7,300.0	36.33	299.68	6,829.8	-2,139.76	1,579.0	-1,429.6	1,653.2	10.00	7.93	-11.01
7,400.0	44.87	291.63	6,905.7	-2,215.67	1,606.7	-1,488.3	1,715.4	10.00	8.54	-8.05
7,500.0	53.82	285.73	6,970.8	-2,280.79	1,630.8	-1,560.1	1,790.0	10.00	8.95	-5.90
7,600.0	63.00	281.06	7,023.1	-2,333.14	1,650.3	-1,642.9	1,874.8	10.00	9.18	-4.67
FORT HAYS										
7,680.8	70.51	277.83	7,055.0	-2,365.00	1,662.4	-1,716.0	1,949.0	10.00	9.30	-4.00
7,700.0	72.31	277.11	7,061.1	-2,371.13	1,664.8	-1,734.1	1,967.2	10.00	9.35	-3.75
CODELL										
7,777.8	79.60	274.32	7,080.0	-2,390.00	1,672.3	-1,809.1	2,042.5	10.00	9.38	-3.59
7,800.0	81.69	273.55	7,083.6	-2,393.61	1,673.8	-1,831.0	2,064.3	10.00	9.40	-3.46
HZ LANDING PNT *NEW* - GP-JACKSON C7-17-13										
7,888.3	90.00	270.55	7,090.0	-2,400.00	1,676.9	-1,918.9	2,151.7	10.00	9.41	-3.39
7,900.0	90.00	270.55	7,090.0	-2,400.00	1,677.0	-1,930.6	2,163.3	0.00	0.00	0.00
8,000.0	90.00	270.55	7,090.0	-2,400.00	1,678.0	-2,030.6	2,262.3	0.00	0.00	0.00
8,100.0	90.00	270.55	7,090.0	-2,400.00	1,678.9	-2,130.6	2,361.2	0.00	0.00	0.00
8,200.0	90.00	270.55	7,090.0	-2,400.00	1,679.9	-2,230.6	2,460.2	0.00	0.00	0.00
8,300.0	90.00	270.55	7,090.0	-2,400.00	1,680.9	-2,330.6	2,559.2	0.00	0.00	0.00
8,400.0	90.00	270.55	7,090.0	-2,400.00	1,681.9	-2,430.6	2,658.2	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GP-JACKSON C7-17-13
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4690.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4690.0usft (Original Well Elev)
Site:	NE NE SEC. 20 T5N R65W 6th P.M.	North Reference:	True
Well:	GP-JACKSON C7-17-13	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	270.55	7,090.0	-2,400.00	1,682.8	-2,530.6	2,757.1	0.00	0.00	0.00
8,600.0	90.00	270.55	7,090.0	-2,400.00	1,683.8	-2,630.6	2,856.1	0.00	0.00	0.00
8,700.0	90.00	270.55	7,090.0	-2,400.00	1,684.8	-2,730.6	2,955.1	0.00	0.00	0.00
8,800.0	90.00	270.55	7,090.0	-2,400.00	1,685.7	-2,830.6	3,054.1	0.00	0.00	0.00
8,900.0	90.00	270.55	7,090.0	-2,400.00	1,686.7	-2,930.6	3,153.1	0.00	0.00	0.00
9,000.0	90.00	270.55	7,090.0	-2,400.00	1,687.7	-3,030.5	3,252.0	0.00	0.00	0.00
9,100.0	90.00	270.55	7,090.0	-2,400.00	1,688.6	-3,130.5	3,351.0	0.00	0.00	0.00
9,200.0	90.00	270.55	7,090.0	-2,400.00	1,689.6	-3,230.5	3,450.0	0.00	0.00	0.00
9,300.0	90.00	270.55	7,090.0	-2,400.00	1,690.6	-3,330.5	3,549.0	0.00	0.00	0.00
9,400.0	90.00	270.55	7,090.0	-2,400.00	1,691.5	-3,430.5	3,648.0	0.00	0.00	0.00
9,500.0	90.00	270.55	7,090.0	-2,400.00	1,692.5	-3,530.5	3,746.9	0.00	0.00	0.00
9,600.0	90.00	270.55	7,090.0	-2,400.00	1,693.5	-3,630.5	3,845.9	0.00	0.00	0.00
9,700.0	90.00	270.55	7,090.0	-2,400.00	1,694.4	-3,730.5	3,944.9	0.00	0.00	0.00
9,800.0	90.00	270.55	7,090.0	-2,400.00	1,695.4	-3,830.5	4,043.9	0.00	0.00	0.00
9,900.0	90.00	270.55	7,090.0	-2,400.00	1,696.4	-3,930.5	4,142.8	0.00	0.00	0.00
10,000.0	90.00	270.55	7,090.0	-2,400.00	1,697.3	-4,030.5	4,241.8	0.00	0.00	0.00
10,100.0	90.00	270.55	7,090.0	-2,400.00	1,698.3	-4,130.5	4,340.8	0.00	0.00	0.00
10,200.0	90.00	270.55	7,090.0	-2,400.00	1,699.3	-4,230.5	4,439.8	0.00	0.00	0.00
10,300.0	90.00	270.55	7,090.0	-2,400.00	1,700.2	-4,330.5	4,538.8	0.00	0.00	0.00
10,400.0	90.00	270.55	7,090.0	-2,400.00	1,701.2	-4,430.5	4,637.7	0.00	0.00	0.00
10,500.0	90.00	270.55	7,090.0	-2,400.00	1,702.2	-4,530.5	4,736.7	0.00	0.00	0.00
10,600.0	90.00	270.55	7,090.0	-2,400.00	1,703.1	-4,630.5	4,835.7	0.00	0.00	0.00
10,700.0	90.00	270.55	7,090.0	-2,400.00	1,704.1	-4,730.5	4,934.7	0.00	0.00	0.00
10,800.0	90.00	270.55	7,090.0	-2,400.00	1,705.1	-4,830.5	5,033.6	0.00	0.00	0.00
10,900.0	90.00	270.55	7,090.0	-2,400.00	1,706.0	-4,930.5	5,132.6	0.00	0.00	0.00
11,000.0	90.00	270.55	7,090.0	-2,400.00	1,707.0	-5,030.5	5,231.6	0.00	0.00	0.00
11,100.0	90.00	270.55	7,090.0	-2,400.00	1,708.0	-5,130.4	5,330.6	0.00	0.00	0.00
11,200.0	90.00	270.55	7,090.0	-2,400.00	1,709.0	-5,230.4	5,429.6	0.00	0.00	0.00
11,300.0	90.00	270.55	7,090.0	-2,400.00	1,709.9	-5,330.4	5,528.5	0.00	0.00	0.00
11,400.0	90.00	270.55	7,090.0	-2,400.00	1,710.9	-5,430.4	5,627.5	0.00	0.00	0.00
11,500.0	90.00	270.55	7,090.0	-2,400.00	1,711.9	-5,530.4	5,726.5	0.00	0.00	0.00
11,600.0	90.00	270.55	7,090.0	-2,400.00	1,712.8	-5,630.4	5,825.5	0.00	0.00	0.00
11,700.0	90.00	270.55	7,090.0	-2,400.00	1,713.8	-5,730.4	5,924.5	0.00	0.00	0.00
11,800.0	90.00	270.55	7,090.0	-2,400.00	1,714.8	-5,830.4	6,023.4	0.00	0.00	0.00
11,900.0	90.00	270.55	7,090.0	-2,400.00	1,715.7	-5,930.4	6,122.4	0.00	0.00	0.00
12,000.0	90.00	270.55	7,090.0	-2,400.00	1,716.7	-6,030.4	6,221.4	0.00	0.00	0.00
12,100.0	90.00	270.55	7,090.0	-2,400.00	1,717.7	-6,130.4	6,320.4	0.00	0.00	0.00
12,200.0	90.00	270.55	7,090.0	-2,400.00	1,718.6	-6,230.4	6,419.3	0.00	0.00	0.00
12,300.0	90.00	270.55	7,090.0	-2,400.00	1,719.6	-6,330.4	6,518.3	0.00	0.00	0.00
12,400.0	90.00	270.55	7,090.0	-2,400.00	1,720.6	-6,430.4	6,617.3	0.00	0.00	0.00
12,500.0	90.00	270.55	7,090.0	-2,400.00	1,721.5	-6,530.4	6,716.3	0.00	0.00	0.00
12,600.0	90.00	270.55	7,090.0	-2,400.00	1,722.5	-6,630.4	6,815.3	0.00	0.00	0.00
12,700.0	90.00	270.55	7,090.0	-2,400.00	1,723.5	-6,730.4	6,914.2	0.00	0.00	0.00
12,800.0	90.00	270.55	7,090.0	-2,400.00	1,724.4	-6,830.4	7,013.2	0.00	0.00	0.00
12,900.0	90.00	270.55	7,090.0	-2,400.00	1,725.4	-6,930.4	7,112.2	0.00	0.00	0.00
13,000.0	90.00	270.55	7,090.0	-2,400.00	1,726.4	-7,030.4	7,211.2	0.00	0.00	0.00
13,100.0	90.00	270.55	7,090.0	-2,400.00	1,727.3	-7,130.4	7,310.2	0.00	0.00	0.00
13,200.0	90.00	270.55	7,090.0	-2,400.00	1,728.3	-7,230.3	7,409.1	0.00	0.00	0.00
13,300.0	90.00	270.55	7,090.0	-2,400.00	1,729.3	-7,330.3	7,508.1	0.00	0.00	0.00
13,400.0	90.00	270.55	7,090.0	-2,400.00	1,730.2	-7,430.3	7,607.1	0.00	0.00	0.00
13,500.0	90.00	270.55	7,090.0	-2,400.00	1,731.2	-7,530.3	7,706.1	0.00	0.00	0.00
13,600.0	90.00	270.55	7,090.0	-2,400.00	1,732.2	-7,630.3	7,805.0	0.00	0.00	0.00
13,700.0	90.00	270.55	7,090.0	-2,400.00	1,733.1	-7,730.3	7,904.0	0.00	0.00	0.00
13,800.0	90.00	270.55	7,090.0	-2,400.00	1,734.1	-7,830.3	8,003.0	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GP-JACKSON C7-17-13
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4690.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4690.0usft (Original Well Elev)
Site:	NE NE SEC. 20 T5N R65W 6th P.M.	North Reference:	True
Well:	GP-JACKSON C7-17-13	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	270.55	7,090.0	-2,400.00	1,735.1	-7,930.3	8,102.0	0.00	0.00	0.00
14,000.0	90.00	270.55	7,090.0	-2,400.00	1,736.1	-8,030.3	8,201.0	0.00	0.00	0.00
14,100.0	90.00	270.55	7,090.0	-2,400.00	1,737.0	-8,130.3	8,299.9	0.00	0.00	0.00
14,200.0	90.00	270.55	7,090.0	-2,400.00	1,738.0	-8,230.3	8,398.9	0.00	0.00	0.00
14,300.0	90.00	270.55	7,090.0	-2,400.00	1,739.0	-8,330.3	8,497.9	0.00	0.00	0.00
14,400.0	90.00	270.55	7,090.0	-2,400.00	1,739.9	-8,430.3	8,596.9	0.00	0.00	0.00
14,500.0	90.00	270.55	7,090.0	-2,400.00	1,740.9	-8,530.3	8,695.8	0.00	0.00	0.00
14,600.0	90.00	270.55	7,090.0	-2,400.00	1,741.9	-8,630.3	8,794.8	0.00	0.00	0.00
14,700.0	90.00	270.55	7,090.0	-2,400.00	1,742.8	-8,730.3	8,893.8	0.00	0.00	0.00
14,800.0	90.00	270.55	7,090.0	-2,400.00	1,743.8	-8,830.3	8,992.8	0.00	0.00	0.00
14,900.0	90.00	270.55	7,090.0	-2,400.00	1,744.8	-8,930.3	9,091.8	0.00	0.00	0.00
15,000.0	90.00	270.55	7,090.0	-2,400.00	1,745.7	-9,030.3	9,190.7	0.00	0.00	0.00
15,100.0	90.00	270.55	7,090.0	-2,400.00	1,746.7	-9,130.3	9,289.7	0.00	0.00	0.00
15,200.0	90.00	270.55	7,090.0	-2,400.00	1,747.7	-9,230.3	9,388.7	0.00	0.00	0.00
15,300.0	90.00	270.55	7,090.0	-2,400.00	1,748.6	-9,330.3	9,487.7	0.00	0.00	0.00
15,400.0	90.00	270.55	7,090.0	-2,400.00	1,749.6	-9,430.2	9,586.7	0.00	0.00	0.00
15,500.0	90.00	270.55	7,090.0	-2,400.00	1,750.6	-9,530.2	9,685.6	0.00	0.00	0.00
15,600.0	90.00	270.55	7,090.0	-2,400.00	1,751.5	-9,630.2	9,784.6	0.00	0.00	0.00
15,700.0	90.00	270.55	7,090.0	-2,400.00	1,752.5	-9,730.2	9,883.6	0.00	0.00	0.00
15,800.0	90.00	270.55	7,090.0	-2,400.00	1,753.5	-9,830.2	9,982.6	0.00	0.00	0.00
15,900.0	90.00	270.55	7,090.0	-2,400.00	1,754.4	-9,930.2	10,081.5	0.00	0.00	0.00
16,000.0	90.00	270.55	7,090.0	-2,400.00	1,755.4	-10,030.2	10,180.5	0.00	0.00	0.00
16,100.0	90.00	270.55	7,090.0	-2,400.00	1,756.4	-10,130.2	10,279.5	0.00	0.00	0.00
16,200.0	90.00	270.55	7,090.0	-2,400.00	1,757.3	-10,230.2	10,378.5	0.00	0.00	0.00
16,300.0	90.00	270.55	7,090.0	-2,400.00	1,758.3	-10,330.2	10,477.5	0.00	0.00	0.00
16,400.0	90.00	270.55	7,090.0	-2,400.00	1,759.3	-10,430.2	10,576.4	0.00	0.00	0.00
16,500.0	90.00	270.55	7,090.0	-2,400.00	1,760.2	-10,530.2	10,675.4	0.00	0.00	0.00
16,600.0	90.00	270.55	7,090.0	-2,400.00	1,761.2	-10,630.2	10,774.4	0.00	0.00	0.00
16,700.0	90.00	270.55	7,090.0	-2,400.00	1,762.2	-10,730.2	10,873.4	0.00	0.00	0.00
16,800.0	90.00	270.55	7,090.0	-2,400.00	1,763.2	-10,830.2	10,972.4	0.00	0.00	0.00
16,900.0	90.00	270.55	7,090.0	-2,400.00	1,764.1	-10,930.2	11,071.3	0.00	0.00	0.00
17,000.0	90.00	270.55	7,090.0	-2,400.00	1,765.1	-11,030.2	11,170.3	0.00	0.00	0.00
17,100.0	90.00	270.55	7,090.0	-2,400.00	1,766.1	-11,130.2	11,269.3	0.00	0.00	0.00
17,200.0	90.00	270.55	7,090.0	-2,400.00	1,767.0	-11,230.2	11,368.3	0.00	0.00	0.00
17,300.0	90.00	270.55	7,090.0	-2,400.00	1,768.0	-11,330.2	11,467.2	0.00	0.00	0.00
17,400.0	90.00	270.55	7,090.0	-2,400.00	1,769.0	-11,430.2	11,566.2	0.00	0.00	0.00
BHL - GP-JACKSON C7-17-13										
17,465.2	90.00	270.55	7,090.0	-2,400.00	1,769.6	-11,495.4	11,630.8	0.00	0.00	0.00

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,800.2	3,686.0	PARKMAN				
4,621.3	4,425.0	SUSSEX				
5,188.0	4,935.0	SHANNON				
7,193.9	6,740.0	SHARON SPRINGS				
7,234.2	6,775.0	NIOBRARA				
7,680.8	7,055.0	FORT HAYS				
7,777.8	7,080.0	CODELL				

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GP-JACKSON C7-17-13
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4690.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4690.0usft (Original Well Elev)
Site:	NE NE SEC. 20 T5N R65W 6th P.M.	North Reference:	True
Well:	GP-JACKSON C7-17-13	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,600.0	1,600.0	0.0	0.0	9 5/8" SURFACE CASING
1,800.0	1,800.0	0.0	0.0	START NUDGE (2°/100ft BUR)
3,092.2	3,048.8	213.6	-191.0	EOB TO 25.84° INC
7,159.1	6,709.0	1,535.2	-1,372.6	KOP (10°/100ft DGLG)
7,888.3	7,090.0	1,676.9	-1,918.9	HZ LANDING PNT *NEW* - GP-JACKSON C7-17-13
17,465.2	7,090.0	1,769.6	-11,495.4	BHL - GP-JACKSON C7-17-13