

# **EXTRACTION OIL & GAS**

**WELD COUNTY, COLORADO (NAD 83)**

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

**GP-JACKSON C8-17-13**

**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 C8-17-13  
 Wellbore: ORIGINAL WELLBORE  
 Design: PROPOSAL #1

ANNOTATIONS

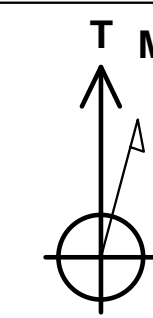
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Dep	Annotation
1600.0	1600.0	0.00	0.00	0.0	0.0	0.0	0.0	9 5/8" SURFACE CASING
2100.0	2100.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
3194.2	3222.8	22.46	304.65	123.5	-178.7	189.9	217.2	EOB TO 22.46° INC
6708.3	7025.2	22.46	304.65	949.4	-1373.4	1459.8	1669.6	KOP (10°/100ft DGLG)
7090.0	7740.8	90.00	270.53	1042.9	-1916.1	2009.1	2225.4	HZ LANDING PNT *NEW* - GP-JACKSON C8-17-13
7090.0	17320.8	90.00	270.53	1132.0	-11495.7	11551.3	11805.4	BHL - GP-JACKSON C8-17-13

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3686.0	3754.9	PARKMAN
4425.0	4554.5	SUSSEX
4935.0	5106.3	SHANNON
6740.0	7059.8	SHARON SPRINGS
6775.0	7099.1	NIOBRARA
7055.0	7536.8	FORT HAYS
7080.0	7632.2	CODELL

PROPOSED LOCAL COORDINATES

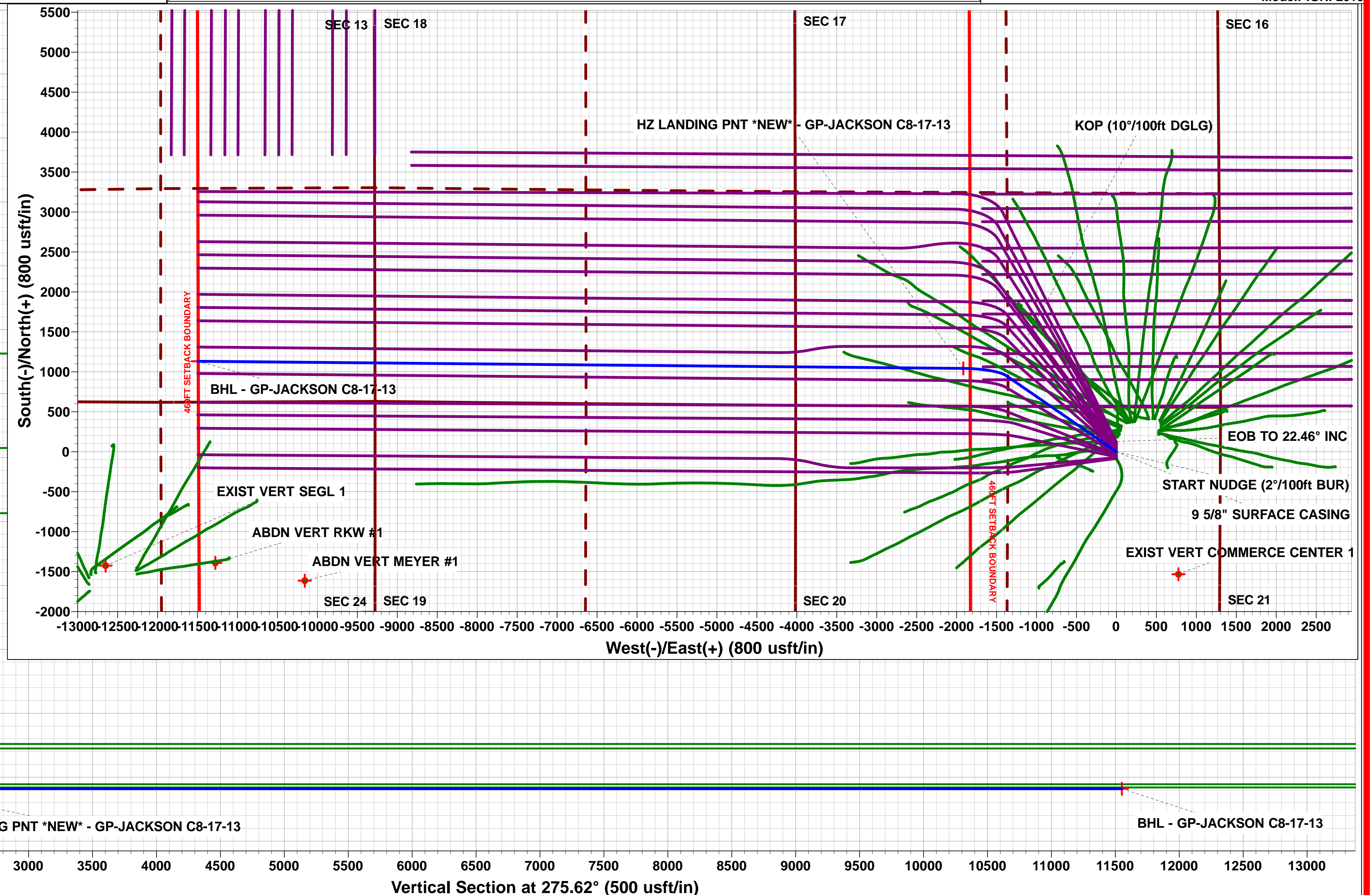
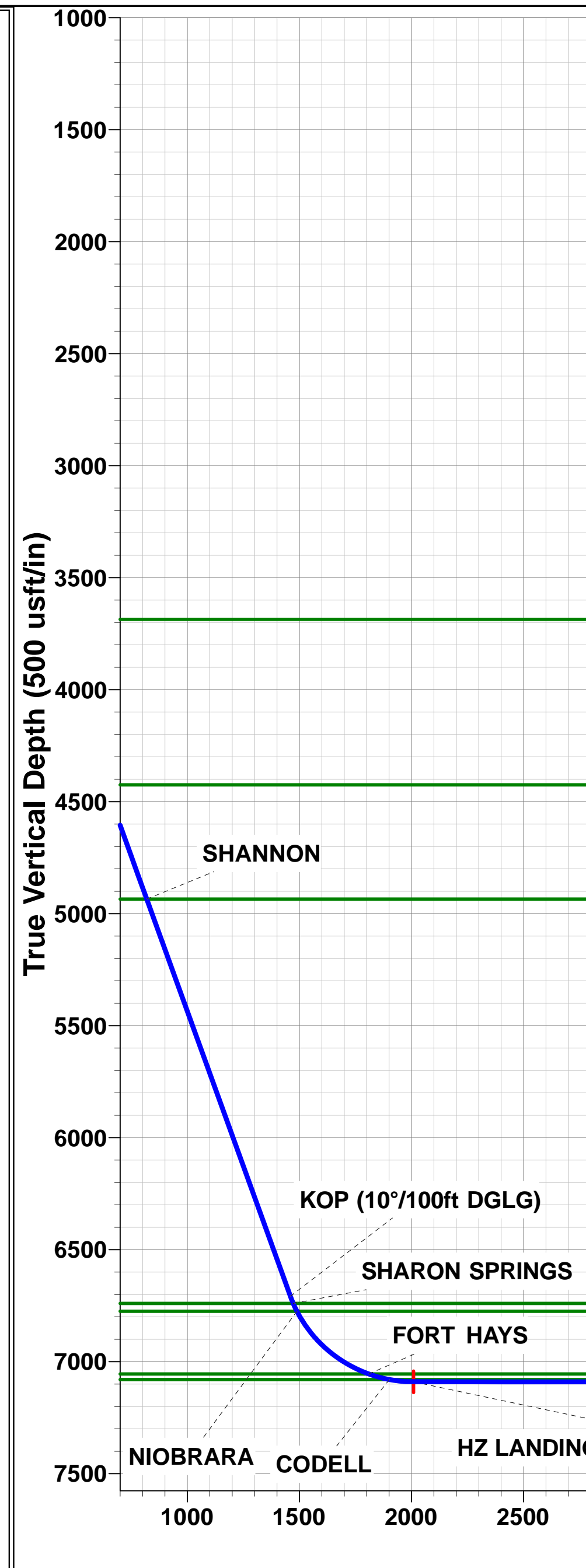
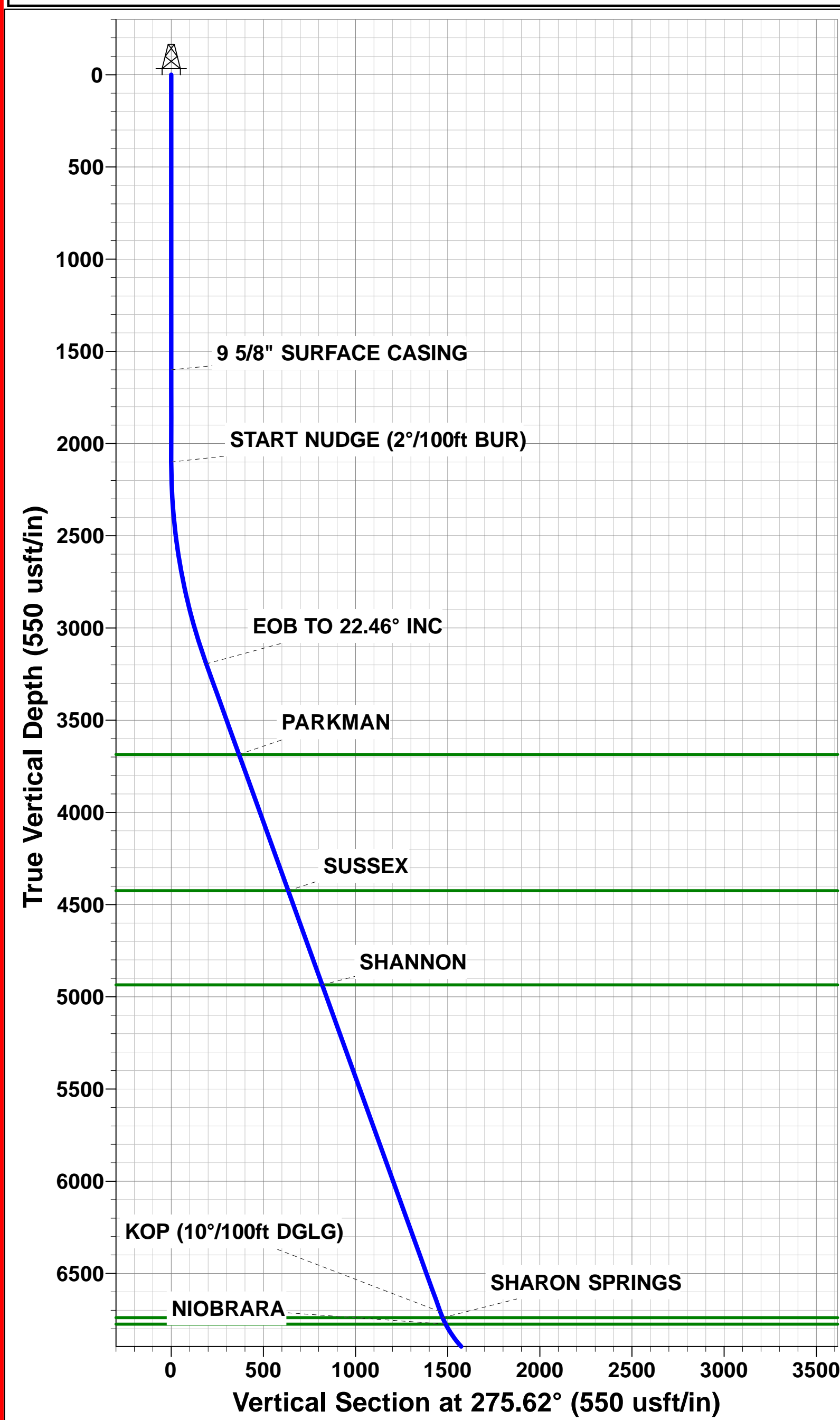
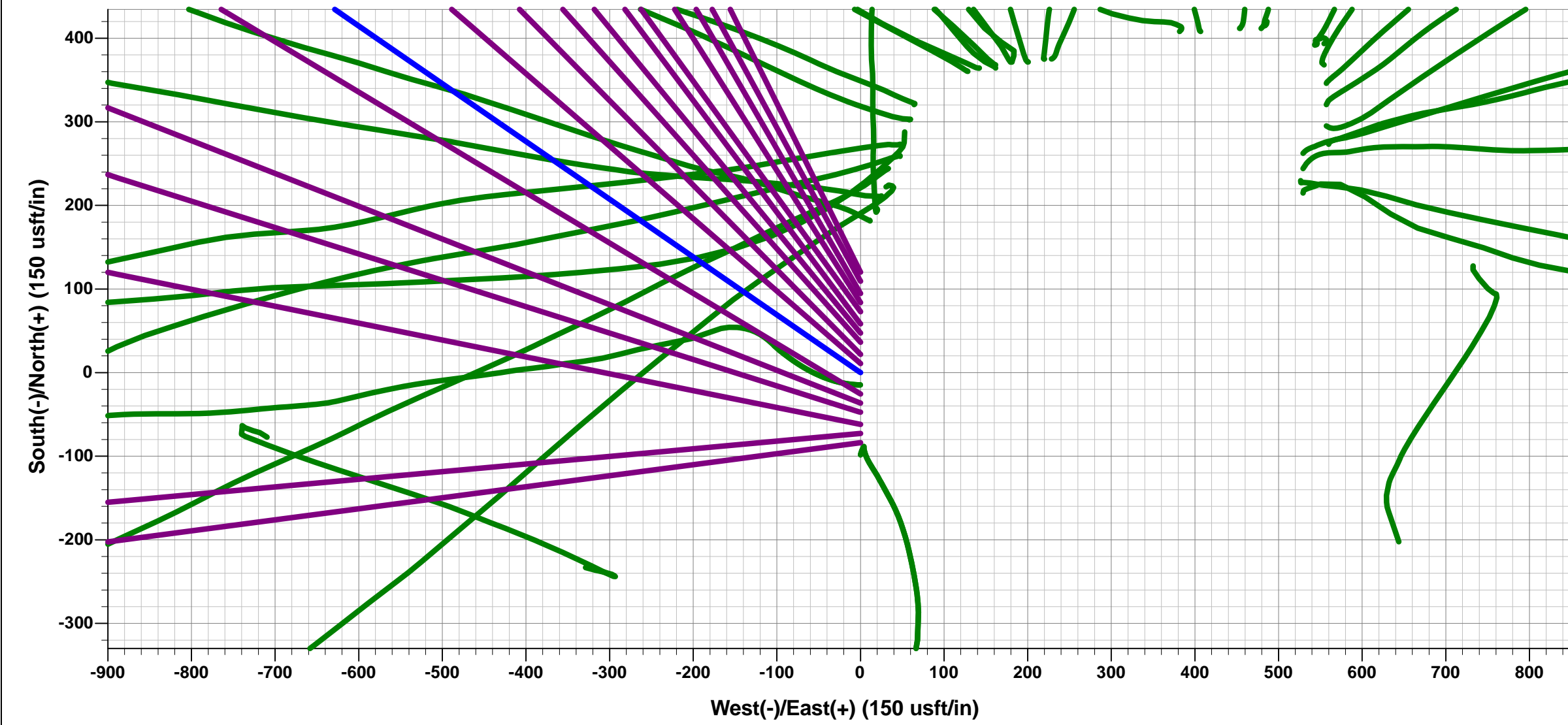
SHL: 562ft FNL & 1305ft FEL of Sec 20  
 LP \*NEW\*: 472ft FSL & 2096ft FWL of Sec 17  
 BHL: 513ft FSL & 2222ft FEL of Sec 13



Azimuths to True North  
 Magnetic North: 8.28°  
 Magnetic Field  
 Strength: 52522.4snT  
 Dip Angle: 66.89°  
 Date: 12/05/2016  
 Model: IGRF2015

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
HZ LANDING PNT *NEW* - GP-JACKSON C8-17-13	7090.0	1042.9	-1916.1	40.393182	-104.689389
BHL - GP-JACKSON C8-17-13	7090.0	1132.0	-11495.7	40.393420	-104.723780



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GP-JACKSON C8-17-13
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4689.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4689.0usft (Original Well Elev)
<b>Site:</b>	NE NE SEC. 20 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	GP-JACKSON C8-17-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

<b>Project</b>	WELD COUNTY, COLORADO (NAD 83)		
<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		Using geodetic scale factor

<b>Site</b>	NE NE SEC. 20 T5N R65W 6th P.M.				
<b>Site Position:</b>		<b>Northing:</b>	1,386,203.84 usft	<b>Latitude:</b>	40.390650
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,227,707.61 usft	<b>Longitude:</b>	-104.682510
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	1.10000ft	<b>Grid Convergence:</b>	0.53 °

<b>Well</b>	GP-JACKSON C8-17-13					
<b>Well Position</b>	<b>+N-S</b>	-120.2 usft	<b>Northing:</b>	1,386,083.62 usft	<b>Latitude:</b>	40.390320
	<b>+E-W</b>	0.0 usft	<b>Easting:</b>	3,227,708.72 usft	<b>Longitude:</b>	-104.682510
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	4,673.0 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	12/05/2016	8.28	66.89	52,522

<b>Design</b>	PROPOSAL #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N-S (usft)</b>	<b>+E-W (usft)</b>	<b>Direction (°)</b>
	7,090.0	0.0	0.0	275.62

<b>Plan Sections</b>											
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	-4,689.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	-2,589.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,222.8	22.46	304.65	3,194.2	-1,494.8	123.5	-178.7	2.00	2.00	0.00	304.65	
7,025.2	22.46	304.65	6,708.3	2,019.3	949.4	-1,373.4	0.00	0.00	0.00	0.00	
7,740.8	90.00	270.53	7,090.0	2,401.0	1,042.9	-1,916.1	10.00	9.44	-4.77	-36.25	HZ LANDING PNT
17,320.8	90.00	270.53	7,090.0	2,401.0	1,132.0	-11,495.7	0.00	0.00	0.00	0.00	BHL - GP-JACKSO

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<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4689.0usft (Original Well Elev)
<b>Site:</b>	NE NE SEC. 20 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	GP-JACKSON C8-17-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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	4,689.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,589.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,489.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,389.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,289.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,189.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,089.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	3,989.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	3,889.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,789.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,689.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	3,589.00	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	3,489.00	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	3,389.00	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	3,289.00	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	3,189.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>9 5/8" SURFACE CASING</b>										
1,600.0	0.00	0.00	1,600.0	3,089.00	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	2,989.00	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	2,889.00	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	2,789.00	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	2,689.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
2,100.0	0.00	0.00	2,100.0	2,589.00	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	2.00	304.65	2,200.0	2,489.02	1.0	-1.4	1.5	2.00	2.00	0.00
2,300.0	4.00	304.65	2,299.8	2,389.16	4.0	-5.7	6.1	2.00	2.00	0.00
2,400.0	6.00	304.65	2,399.5	2,289.55	8.9	-12.9	13.7	2.00	2.00	0.00
2,500.0	8.00	304.65	2,498.7	2,190.30	15.9	-22.9	24.4	2.00	2.00	0.00
2,600.0	10.00	304.65	2,597.5	2,091.53	24.7	-35.8	38.1	2.00	2.00	0.00
2,700.0	12.00	304.65	2,695.6	1,993.38	35.6	-51.5	54.7	2.00	2.00	0.00
2,800.0	14.00	304.65	2,793.1	1,895.94	48.4	-70.0	74.4	2.00	2.00	0.00
2,900.0	16.00	304.65	2,889.6	1,799.36	63.1	-91.3	97.0	2.00	2.00	0.00
3,000.0	18.00	304.65	2,985.3	1,703.73	79.7	-115.3	122.6	2.00	2.00	0.00
3,100.0	20.00	304.65	3,079.8	1,609.18	98.2	-142.1	151.1	2.00	2.00	0.00
3,200.0	22.00	304.65	3,173.2	1,515.83	118.6	-171.6	182.4	2.00	2.00	0.00
<b>EOB TO 22.46° INC</b>										
3,222.8	22.46	304.65	3,194.2	1,494.77	123.5	-178.7	189.9	2.00	2.00	0.00
3,300.0	22.46	304.65	3,265.6	1,423.38	140.3	-202.9	215.7	0.00	0.00	0.00
3,400.0	22.46	304.65	3,358.0	1,330.96	162.0	-234.4	249.1	0.00	0.00	0.00
3,500.0	22.46	304.65	3,450.5	1,238.54	183.7	-265.8	282.5	0.00	0.00	0.00
3,600.0	22.46	304.65	3,542.9	1,146.13	205.4	-297.2	315.9	0.00	0.00	0.00
3,700.0	22.46	304.65	3,635.3	1,053.71	227.2	-328.6	349.3	0.00	0.00	0.00
<b>PARKMAN</b>										
3,754.9	22.46	304.65	3,686.0	1,003.00	239.1	-345.9	367.6	0.00	0.00	0.00
3,800.0	22.46	304.65	3,727.7	961.29	248.9	-360.0	382.7	0.00	0.00	0.00
3,900.0	22.46	304.65	3,820.1	868.87	270.6	-391.5	416.1	0.00	0.00	0.00
4,000.0	22.46	304.65	3,912.5	776.45	292.3	-422.9	449.5	0.00	0.00	0.00
4,100.0	22.46	304.65	4,005.0	684.04	314.0	-454.3	482.9	0.00	0.00	0.00
4,200.0	22.46	304.65	4,097.4	591.62	335.8	-485.7	516.3	0.00	0.00	0.00
4,300.0	22.46	304.65	4,189.8	499.20	357.5	-517.1	549.7	0.00	0.00	0.00
4,400.0	22.46	304.65	4,282.2	406.78	379.2	-548.6	583.1	0.00	0.00	0.00
4,500.0	22.46	304.65	4,374.6	314.36	400.9	-580.0	616.5	0.00	0.00	0.00
<b>SUSSEX</b>										
4,554.5	22.46	304.65	4,425.0	264.00	412.8	-597.1	634.7	0.00	0.00	0.00

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<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4689.0usft (Original Well Elev)
<b>Site:</b>	NE NE SEC. 20 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	GP-JACKSON C8-17-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
4,600.0	22.46	304.65	4,467.1	221.95	422.6	-611.4	649.9	0.00	0.00	0.00
4,700.0	22.46	304.65	4,559.5	129.53	444.4	-642.8	683.3	0.00	0.00	0.00
4,800.0	22.46	304.65	4,651.9	37.11	466.1	-674.2	716.7	0.00	0.00	0.00
4,900.0	22.46	304.65	4,744.3	-55.31	487.8	-705.7	750.1	0.00	0.00	0.00
5,000.0	22.46	304.65	4,836.7	-147.73	509.5	-737.1	783.5	0.00	0.00	0.00
5,100.0	22.46	304.65	4,929.1	-240.14	531.2	-768.5	816.9	0.00	0.00	0.00
<b>SHANNON</b>										
<b>5,106.3</b>	<b>22.46</b>	<b>304.65</b>	<b>4,935.0</b>	<b>-246.00</b>	<b>532.6</b>	<b>-770.5</b>	<b>819.0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,200.0	22.46	304.65	5,021.6	-332.56	553.0	-799.9	850.3	0.00	0.00	0.00
5,300.0	22.46	304.65	5,114.0	-424.98	574.7	-831.3	883.7	0.00	0.00	0.00
5,400.0	22.46	304.65	5,206.4	-517.40	596.4	-862.8	917.1	0.00	0.00	0.00
5,500.0	22.46	304.65	5,298.8	-609.82	618.1	-894.2	950.5	0.00	0.00	0.00
5,600.0	22.46	304.65	5,391.2	-702.23	639.8	-925.6	983.9	0.00	0.00	0.00
5,700.0	22.46	304.65	5,483.7	-794.65	661.5	-957.0	1,017.2	0.00	0.00	0.00
5,800.0	22.46	304.65	5,576.1	-887.07	683.3	-988.4	1,050.6	0.00	0.00	0.00
5,900.0	22.46	304.65	5,668.5	-979.49	705.0	-1,019.9	1,084.0	0.00	0.00	0.00
6,000.0	22.46	304.65	5,760.9	-1,071.90	726.7	-1,051.3	1,117.4	0.00	0.00	0.00
6,100.0	22.46	304.65	5,853.3	-1,164.32	748.4	-1,082.7	1,150.8	0.00	0.00	0.00
6,200.0	22.46	304.65	5,945.7	-1,256.74	770.1	-1,114.1	1,184.2	0.00	0.00	0.00
6,300.0	22.46	304.65	6,038.2	-1,349.16	791.9	-1,145.5	1,217.6	0.00	0.00	0.00
6,400.0	22.46	304.65	6,130.6	-1,441.58	813.6	-1,177.0	1,251.0	0.00	0.00	0.00
6,500.0	22.46	304.65	6,223.0	-1,533.99	835.3	-1,208.4	1,284.4	0.00	0.00	0.00
6,600.0	22.46	304.65	6,315.4	-1,626.41	857.0	-1,239.8	1,317.8	0.00	0.00	0.00
6,700.0	22.46	304.65	6,407.8	-1,718.83	878.7	-1,271.2	1,351.2	0.00	0.00	0.00
6,800.0	22.46	304.65	6,500.2	-1,811.25	900.5	-1,302.6	1,384.6	0.00	0.00	0.00
6,900.0	22.46	304.65	6,592.7	-1,903.67	922.2	-1,334.1	1,418.0	0.00	0.00	0.00
7,000.0	22.46	304.65	6,685.1	-1,996.08	943.9	-1,365.5	1,451.4	0.00	0.00	0.00
<b>KOP (10°/100ft DGLG)</b>										
<b>7,025.2</b>	<b>22.46</b>	<b>304.65</b>	<b>6,708.3</b>	<b>-2,019.34</b>	<b>949.4</b>	<b>-1,373.4</b>	<b>1,459.8</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>SHARON SPRINGS</b>										
<b>7,059.8</b>	<b>25.33</b>	<b>299.87</b>	<b>6,740.0</b>	<b>-2,051.00</b>	<b>956.8</b>	<b>-1,385.3</b>	<b>1,472.4</b>	<b>10.00</b>	<b>8.29</b>	<b>-13.83</b>
<b>NIOBRARA</b>										
<b>7,099.1</b>	<b>28.73</b>	<b>295.55</b>	<b>6,775.0</b>	<b>-2,086.00</b>	<b>965.1</b>	<b>-1,401.1</b>	<b>1,488.9</b>	<b>10.00</b>	<b>8.67</b>	<b>-10.98</b>
7,100.0	28.81	295.46	6,775.8	-2,086.80	965.3	-1,401.5	1,489.3	10.00	8.83	-9.75
7,200.0	37.91	287.85	6,859.3	-2,170.27	985.1	-1,452.6	1,542.1	10.00	9.10	-7.61
7,300.0	47.33	282.87	6,932.8	-2,243.79	1,002.7	-1,517.9	1,608.8	10.00	9.42	-4.98
7,400.0	56.91	279.22	6,994.1	-2,305.13	1,017.7	-1,595.2	1,687.3	10.00	9.58	-3.65
7,500.0	66.58	276.30	7,041.4	-2,352.42	1,029.5	-1,682.4	1,775.2	10.00	9.66	-2.92
<b>FORT HAYS</b>										
<b>7,536.8</b>	<b>70.15</b>	<b>275.33</b>	<b>7,055.0</b>	<b>-2,366.00</b>	<b>1,032.9</b>	<b>-1,716.5</b>	<b>1,809.5</b>	<b>10.00</b>	<b>9.70</b>	<b>-2.62</b>
7,600.0	76.29	273.78	7,073.2	-2,384.23	1,037.7	-1,776.7	1,869.9	10.00	9.72	-2.47
<b>CODELL</b>										
<b>7,632.2</b>	<b>79.42</b>	<b>273.01</b>	<b>7,080.0</b>	<b>-2,391.00</b>	<b>1,039.6</b>	<b>-1,808.2</b>	<b>1,901.3</b>	<b>10.00</b>	<b>9.73</b>	<b>-2.36</b>
7,700.0	86.02	271.46	7,088.6	-2,399.58	1,042.2	-1,875.3	1,968.4	10.00	9.74	-2.30
<b>HZ LANDING PNT *NEW* - GP-JACKSON C8-17-13</b>										
<b>7,740.8</b>	<b>90.00</b>	<b>270.53</b>	<b>7,090.0</b>	<b>-2,401.00</b>	<b>1,042.9</b>	<b>-1,916.1</b>	<b>2,009.1</b>	<b>10.00</b>	<b>9.74</b>	<b>-2.26</b>
7,800.0	90.00	270.53	7,090.0	-2,401.00	1,043.5	-1,975.3	2,068.0	0.00	0.00	0.00
7,900.0	90.00	270.53	7,090.0	-2,401.00	1,044.4	-2,075.3	2,167.6	0.00	0.00	0.00
8,000.0	90.00	270.53	7,090.0	-2,401.00	1,045.3	-2,175.3	2,267.2	0.00	0.00	0.00
8,100.0	90.00	270.53	7,090.0	-2,401.00	1,046.2	-2,275.3	2,366.8	0.00	0.00	0.00
8,200.0	90.00	270.53	7,090.0	-2,401.00	1,047.2	-2,375.3	2,466.4	0.00	0.00	0.00
8,300.0	90.00	270.53	7,090.0	-2,401.00	1,048.1	-2,475.3	2,566.1	0.00	0.00	0.00
8,400.0	90.00	270.53	7,090.0	-2,401.00	1,049.0	-2,575.2	2,665.7	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GP-JACKSON C8-17-13
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4689.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4689.0usft (Original Well Elev)
<b>Site:</b>	NE NE SEC. 20 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	GP-JACKSON C8-17-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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	270.53	7,090.0	-2,401.00	1,050.0	-2,675.2	2,765.3	0.00	0.00	0.00
8,600.0	90.00	270.53	7,090.0	-2,401.00	1,050.9	-2,775.2	2,864.9	0.00	0.00	0.00
8,700.0	90.00	270.53	7,090.0	-2,401.00	1,051.8	-2,875.2	2,964.5	0.00	0.00	0.00
8,800.0	90.00	270.53	7,090.0	-2,401.00	1,052.8	-2,975.2	3,064.1	0.00	0.00	0.00
8,900.0	90.00	270.53	7,090.0	-2,401.00	1,053.7	-3,075.2	3,163.7	0.00	0.00	0.00
9,000.0	90.00	270.53	7,090.0	-2,401.00	1,054.6	-3,175.2	3,263.3	0.00	0.00	0.00
9,100.0	90.00	270.53	7,090.0	-2,401.00	1,055.5	-3,275.2	3,362.9	0.00	0.00	0.00
9,200.0	90.00	270.53	7,090.0	-2,401.00	1,056.5	-3,375.2	3,462.5	0.00	0.00	0.00
9,300.0	90.00	270.53	7,090.0	-2,401.00	1,057.4	-3,475.2	3,562.1	0.00	0.00	0.00
9,400.0	90.00	270.53	7,090.0	-2,401.00	1,058.3	-3,575.2	3,661.7	0.00	0.00	0.00
9,500.0	90.00	270.53	7,090.0	-2,401.00	1,059.3	-3,675.2	3,761.3	0.00	0.00	0.00
9,600.0	90.00	270.53	7,090.0	-2,401.00	1,060.2	-3,775.2	3,860.9	0.00	0.00	0.00
9,700.0	90.00	270.53	7,090.0	-2,401.00	1,061.1	-3,875.2	3,960.5	0.00	0.00	0.00
9,800.0	90.00	270.53	7,090.0	-2,401.00	1,062.1	-3,975.2	4,060.1	0.00	0.00	0.00
9,900.0	90.00	270.53	7,090.0	-2,401.00	1,063.0	-4,075.2	4,159.7	0.00	0.00	0.00
10,000.0	90.00	270.53	7,090.0	-2,401.00	1,063.9	-4,175.2	4,259.3	0.00	0.00	0.00
10,100.0	90.00	270.53	7,090.0	-2,401.00	1,064.9	-4,275.2	4,359.0	0.00	0.00	0.00
10,200.0	90.00	270.53	7,090.0	-2,401.00	1,065.8	-4,375.2	4,458.6	0.00	0.00	0.00
10,300.0	90.00	270.53	7,090.0	-2,401.00	1,066.7	-4,475.2	4,558.2	0.00	0.00	0.00
10,400.0	90.00	270.53	7,090.0	-2,401.00	1,067.6	-4,575.2	4,657.8	0.00	0.00	0.00
10,500.0	90.00	270.53	7,090.0	-2,401.00	1,068.6	-4,675.2	4,757.4	0.00	0.00	0.00
10,600.0	90.00	270.53	7,090.0	-2,401.00	1,069.5	-4,775.2	4,857.0	0.00	0.00	0.00
10,700.0	90.00	270.53	7,090.0	-2,401.00	1,070.4	-4,875.1	4,956.6	0.00	0.00	0.00
10,800.0	90.00	270.53	7,090.0	-2,401.00	1,071.4	-4,975.1	5,056.2	0.00	0.00	0.00
10,900.0	90.00	270.53	7,090.0	-2,401.00	1,072.3	-5,075.1	5,155.8	0.00	0.00	0.00
11,000.0	90.00	270.53	7,090.0	-2,401.00	1,073.2	-5,175.1	5,255.4	0.00	0.00	0.00
11,100.0	90.00	270.53	7,090.0	-2,401.00	1,074.2	-5,275.1	5,355.0	0.00	0.00	0.00
11,200.0	90.00	270.53	7,090.0	-2,401.00	1,075.1	-5,375.1	5,454.6	0.00	0.00	0.00
11,300.0	90.00	270.53	7,090.0	-2,401.00	1,076.0	-5,475.1	5,554.2	0.00	0.00	0.00
11,400.0	90.00	270.53	7,090.0	-2,401.00	1,077.0	-5,575.1	5,653.8	0.00	0.00	0.00
11,500.0	90.00	270.53	7,090.0	-2,401.00	1,077.9	-5,675.1	5,753.4	0.00	0.00	0.00
11,600.0	90.00	270.53	7,090.0	-2,401.00	1,078.8	-5,775.1	5,853.0	0.00	0.00	0.00
11,700.0	90.00	270.53	7,090.0	-2,401.00	1,079.7	-5,875.1	5,952.6	0.00	0.00	0.00
11,800.0	90.00	270.53	7,090.0	-2,401.00	1,080.7	-5,975.1	6,052.2	0.00	0.00	0.00
11,900.0	90.00	270.53	7,090.0	-2,401.00	1,081.6	-6,075.1	6,151.8	0.00	0.00	0.00
12,000.0	90.00	270.53	7,090.0	-2,401.00	1,082.5	-6,175.1	6,251.5	0.00	0.00	0.00
12,100.0	90.00	270.53	7,090.0	-2,401.00	1,083.5	-6,275.1	6,351.1	0.00	0.00	0.00
12,200.0	90.00	270.53	7,090.0	-2,401.00	1,084.4	-6,375.1	6,450.7	0.00	0.00	0.00
12,300.0	90.00	270.53	7,090.0	-2,401.00	1,085.3	-6,475.1	6,550.3	0.00	0.00	0.00
12,400.0	90.00	270.53	7,090.0	-2,401.00	1,086.3	-6,575.1	6,649.9	0.00	0.00	0.00
12,500.0	90.00	270.53	7,090.0	-2,401.00	1,087.2	-6,675.1	6,749.5	0.00	0.00	0.00
12,600.0	90.00	270.53	7,090.0	-2,401.00	1,088.1	-6,775.1	6,849.1	0.00	0.00	0.00
12,700.0	90.00	270.53	7,090.0	-2,401.00	1,089.0	-6,875.1	6,948.7	0.00	0.00	0.00
12,800.0	90.00	270.53	7,090.0	-2,401.00	1,090.0	-6,975.1	7,048.3	0.00	0.00	0.00
12,900.0	90.00	270.53	7,090.0	-2,401.00	1,090.9	-7,075.1	7,147.9	0.00	0.00	0.00
13,000.0	90.00	270.53	7,090.0	-2,401.00	1,091.8	-7,175.0	7,247.5	0.00	0.00	0.00
13,100.0	90.00	270.53	7,090.0	-2,401.00	1,092.8	-7,275.0	7,347.1	0.00	0.00	0.00
13,200.0	90.00	270.53	7,090.0	-2,401.00	1,093.7	-7,375.0	7,446.7	0.00	0.00	0.00
13,300.0	90.00	270.53	7,090.0	-2,401.00	1,094.6	-7,475.0	7,546.3	0.00	0.00	0.00
13,400.0	90.00	270.53	7,090.0	-2,401.00	1,095.6	-7,575.0	7,645.9	0.00	0.00	0.00
13,500.0	90.00	270.53	7,090.0	-2,401.00	1,096.5	-7,675.0	7,745.5	0.00	0.00	0.00
13,600.0	90.00	270.53	7,090.0	-2,401.00	1,097.4	-7,775.0	7,845.1	0.00	0.00	0.00
13,700.0	90.00	270.53	7,090.0	-2,401.00	1,098.4	-7,875.0	7,944.7	0.00	0.00	0.00
13,800.0	90.00	270.53	7,090.0	-2,401.00	1,099.3	-7,975.0	8,044.4	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GP-JACKSON C8-17-13
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4689.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4689.0usft (Original Well Elev)
<b>Site:</b>	NE NE SEC. 20 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	GP-JACKSON C8-17-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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	270.53	7,090.0	-2,401.00	1,100.2	-8,075.0	8,144.0	0.00	0.00	0.00
14,000.0	90.00	270.53	7,090.0	-2,401.00	1,101.1	-8,175.0	8,243.6	0.00	0.00	0.00
14,100.0	90.00	270.53	7,090.0	-2,401.00	1,102.1	-8,275.0	8,343.2	0.00	0.00	0.00
14,200.0	90.00	270.53	7,090.0	-2,401.00	1,103.0	-8,375.0	8,442.8	0.00	0.00	0.00
14,300.0	90.00	270.53	7,090.0	-2,401.00	1,103.9	-8,475.0	8,542.4	0.00	0.00	0.00
14,400.0	90.00	270.53	7,090.0	-2,401.00	1,104.9	-8,575.0	8,642.0	0.00	0.00	0.00
14,500.0	90.00	270.53	7,090.0	-2,401.00	1,105.8	-8,675.0	8,741.6	0.00	0.00	0.00
14,600.0	90.00	270.53	7,090.0	-2,401.00	1,106.7	-8,775.0	8,841.2	0.00	0.00	0.00
14,700.0	90.00	270.53	7,090.0	-2,401.00	1,107.7	-8,875.0	8,940.8	0.00	0.00	0.00
14,800.0	90.00	270.53	7,090.0	-2,401.00	1,108.6	-8,975.0	9,040.4	0.00	0.00	0.00
14,900.0	90.00	270.53	7,090.0	-2,401.00	1,109.5	-9,075.0	9,140.0	0.00	0.00	0.00
15,000.0	90.00	270.53	7,090.0	-2,401.00	1,110.5	-9,175.0	9,239.6	0.00	0.00	0.00
15,100.0	90.00	270.53	7,090.0	-2,401.00	1,111.4	-9,275.0	9,339.2	0.00	0.00	0.00
15,200.0	90.00	270.53	7,090.0	-2,401.00	1,112.3	-9,375.0	9,438.8	0.00	0.00	0.00
15,300.0	90.00	270.53	7,090.0	-2,401.00	1,113.2	-9,474.9	9,538.4	0.00	0.00	0.00
15,400.0	90.00	270.53	7,090.0	-2,401.00	1,114.2	-9,574.9	9,638.0	0.00	0.00	0.00
15,500.0	90.00	270.53	7,090.0	-2,401.00	1,115.1	-9,674.9	9,737.6	0.00	0.00	0.00
15,600.0	90.00	270.53	7,090.0	-2,401.00	1,116.0	-9,774.9	9,837.3	0.00	0.00	0.00
15,700.0	90.00	270.53	7,090.0	-2,401.00	1,117.0	-9,874.9	9,936.9	0.00	0.00	0.00
15,800.0	90.00	270.53	7,090.0	-2,401.00	1,117.9	-9,974.9	10,036.5	0.00	0.00	0.00
15,900.0	90.00	270.53	7,090.0	-2,401.00	1,118.8	-10,074.9	10,136.1	0.00	0.00	0.00
16,000.0	90.00	270.53	7,090.0	-2,401.00	1,119.8	-10,174.9	10,235.7	0.00	0.00	0.00
16,100.0	90.00	270.53	7,090.0	-2,401.00	1,120.7	-10,274.9	10,335.3	0.00	0.00	0.00
16,200.0	90.00	270.53	7,090.0	-2,401.00	1,121.6	-10,374.9	10,434.9	0.00	0.00	0.00
16,300.0	90.00	270.53	7,090.0	-2,401.00	1,122.5	-10,474.9	10,534.5	0.00	0.00	0.00
16,400.0	90.00	270.53	7,090.0	-2,401.00	1,123.5	-10,574.9	10,634.1	0.00	0.00	0.00
16,500.0	90.00	270.53	7,090.0	-2,401.00	1,124.4	-10,674.9	10,733.7	0.00	0.00	0.00
16,600.0	90.00	270.53	7,090.0	-2,401.00	1,125.3	-10,774.9	10,833.3	0.00	0.00	0.00
16,700.0	90.00	270.53	7,090.0	-2,401.00	1,126.3	-10,874.9	10,932.9	0.00	0.00	0.00
16,800.0	90.00	270.53	7,090.0	-2,401.00	1,127.2	-10,974.9	11,032.5	0.00	0.00	0.00
16,900.0	90.00	270.53	7,090.0	-2,401.00	1,128.1	-11,074.9	11,132.1	0.00	0.00	0.00
17,000.0	90.00	270.53	7,090.0	-2,401.00	1,129.1	-11,174.9	11,231.7	0.00	0.00	0.00
17,100.0	90.00	270.53	7,090.0	-2,401.00	1,130.0	-11,274.9	11,331.3	0.00	0.00	0.00
17,200.0	90.00	270.53	7,090.0	-2,401.00	1,130.9	-11,374.9	11,430.9	0.00	0.00	0.00
17,300.0	90.00	270.53	7,090.0	-2,401.00	1,131.9	-11,474.9	11,530.5	0.00	0.00	0.00
<b>BHL - GP-JACKSON C8-17-13</b>										
<b>17,320.8</b>	<b>90.00</b>	<b>270.53</b>	<b>7,090.0</b>	<b>-2,401.00</b>	<b>1,132.0</b>	<b>-11,495.7</b>	<b>11,551.3</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Formations**

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,754.9	3,686.0	PARKMAN			
4,554.5	4,425.0	SUSSEX			
5,106.3	4,935.0	SHANNON			
7,059.8	6,740.0	SHARON SPRINGS			
7,099.1	6,775.0	NIOBRARA			
7,536.8	7,055.0	FORT HAYS			
7,632.2	7,080.0	CODELL			

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GP-JACKSON C8-17-13
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4689.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4689.0usft (Original Well Elev)
<b>Site:</b>	NE NE SEC. 20 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	GP-JACKSON C8-17-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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
2,100.0	2,100.0	0.0	0.0	START NUDGE (2°/100ft BUR)
3,222.8	3,194.2	123.5	-178.7	EOB TO 22.46° INC
7,025.2	6,708.3	949.4	-1,373.4	KOP (10°/100ft DGLG)
7,740.8	7,090.0	1,042.9	-1,916.1	HZ LANDING PNT *NEW* - GP-JACKSON C8-17-13
17,320.8	7,090.0	1,132.0	-11,495.7	BHL - GP-JACKSON C8-17-13