

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

SE NE SEC. 22 T6N R67W 6th P.M.

RB 8

ORIGINAL WELLBORE

25 October, 2016

Plan: PROPOSAL #1

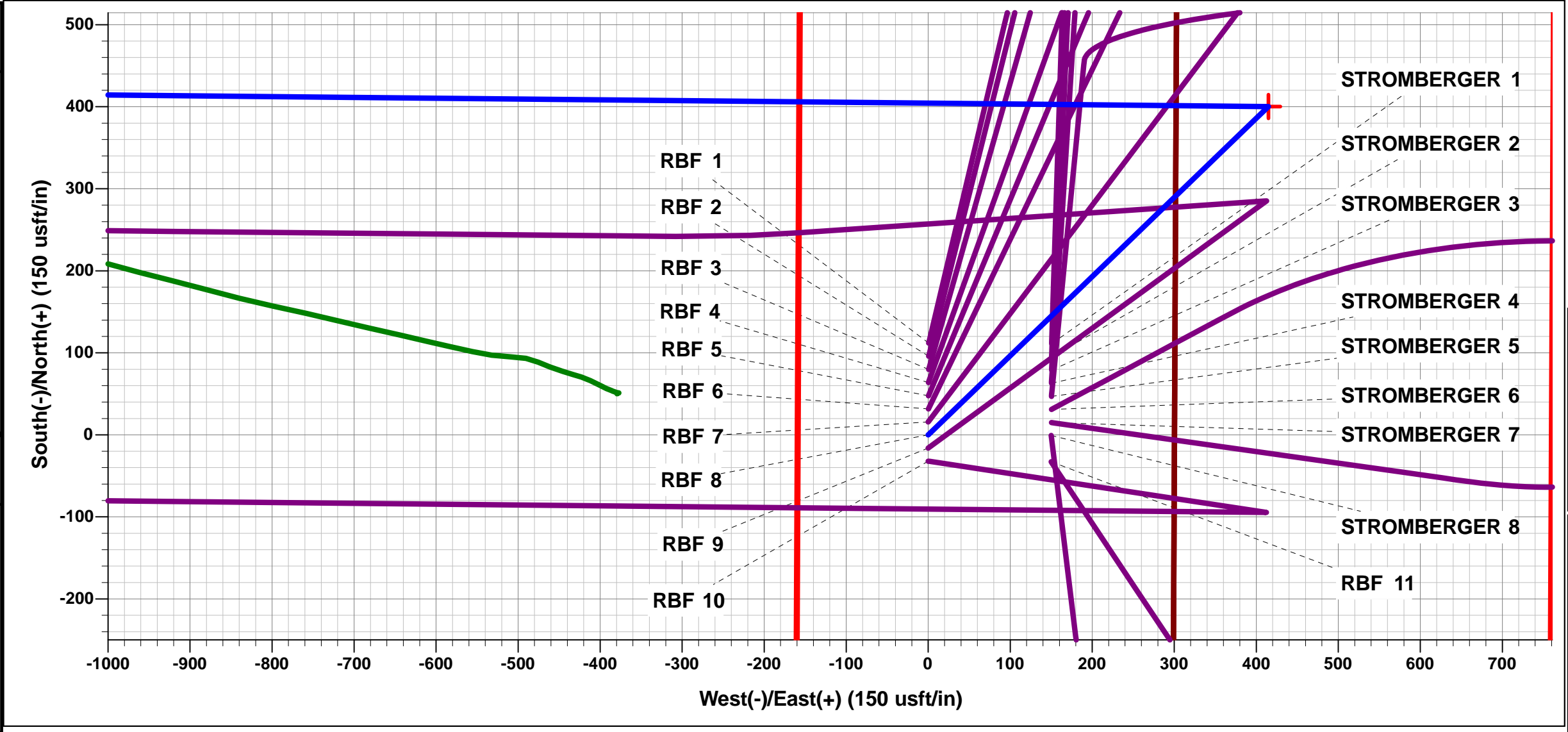




Project: WELD COUNTY, COLORADO (NAD 83)
Site: SE NE SEC. 22 T6N R67W 6th P.M.
Well: RBF 8
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation	
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 2057ft FNL & 300ft FEL of Sec 22	
3243.0	3243.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)	
3838.7	3843.1	12.00	46.03	43.5	45.1	-42.8	62.6	EOB TO 12° INC	
5961.3	6013.1	12.00	46.03	356.7	369.8	-350.9	513.8	END OF TANGENT	
6557.0	6613.2	0.00	0.00	400.2	414.9	-393.6	576.5	EOD TO VERTICAL	
6587.0	6643.2	0.00	0.00	400.2	414.9	-393.6	576.5	KOP (10°/100ft BUR)	
7160.0	7543.2	90.00	270.57	405.9	-158.0	178.9	1149.4	HZ LP: 1650ft FNL & 460ft FEL of Sec 22	
7160.0	17014.5	90.00	270.56	499.5	-9628.9	9641.8	10620.7	BHL: 1650ft FNL & 460ft FWL of Sec 21	

WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
KOP - RBF 8	6587.0	400.2	414.9	40.475160	-104.869910	
BHL - RBF 8	7160.0	499.5	-9628.9	40.475428	-104.906011	
HZ LP - RBF 8	7160.0	405.9	-158.0	40.475176	-104.871969	



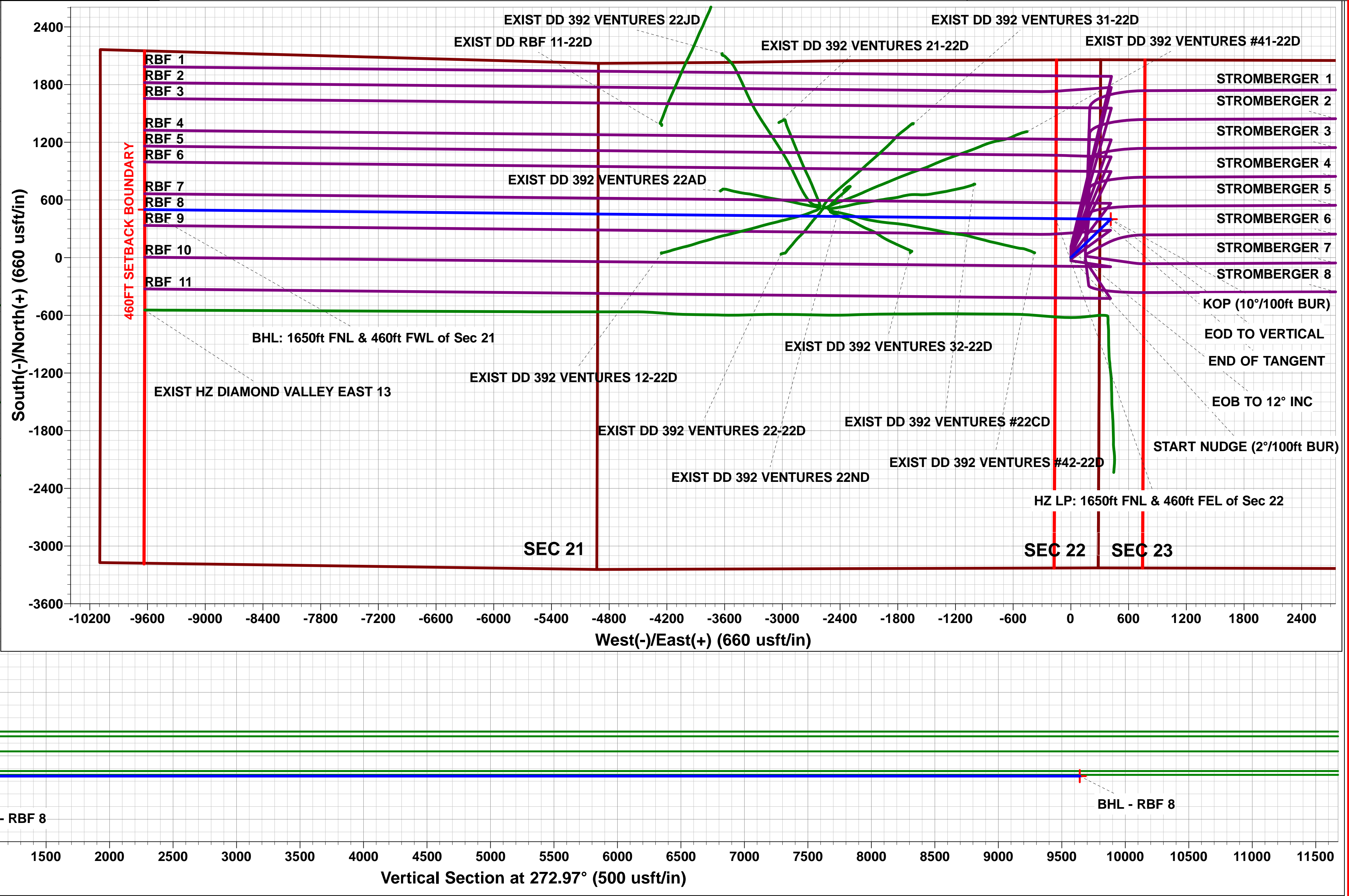
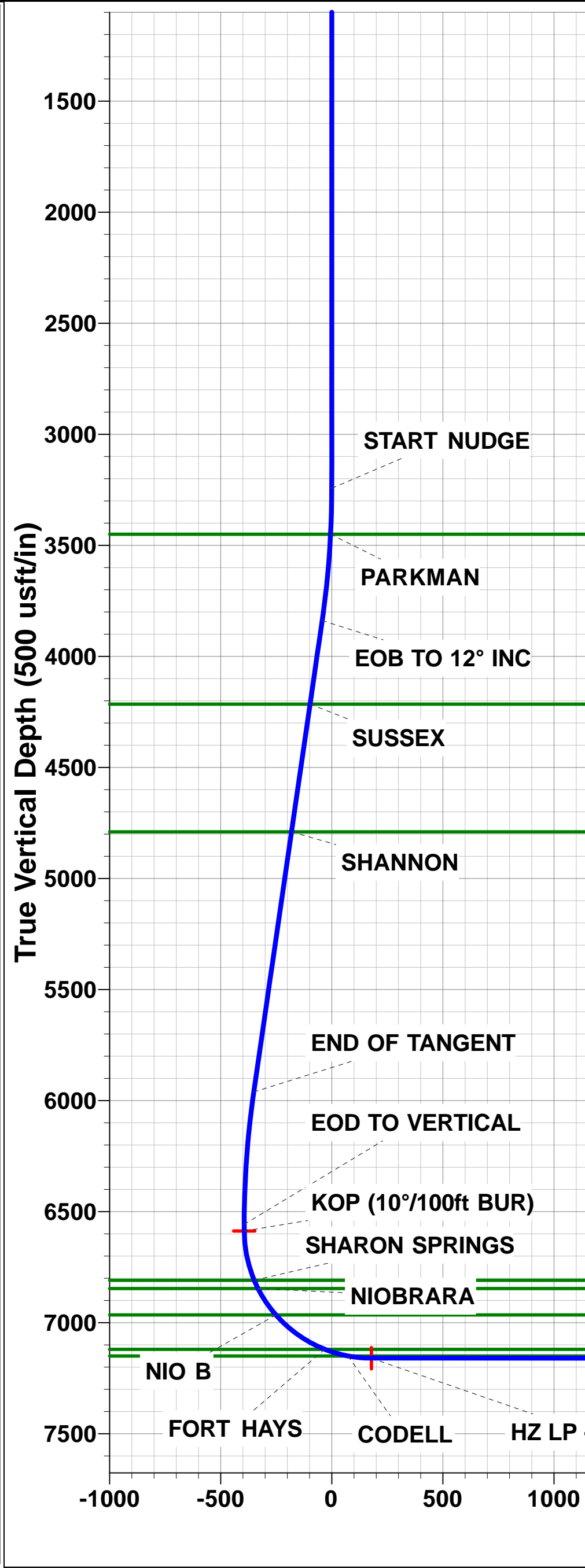
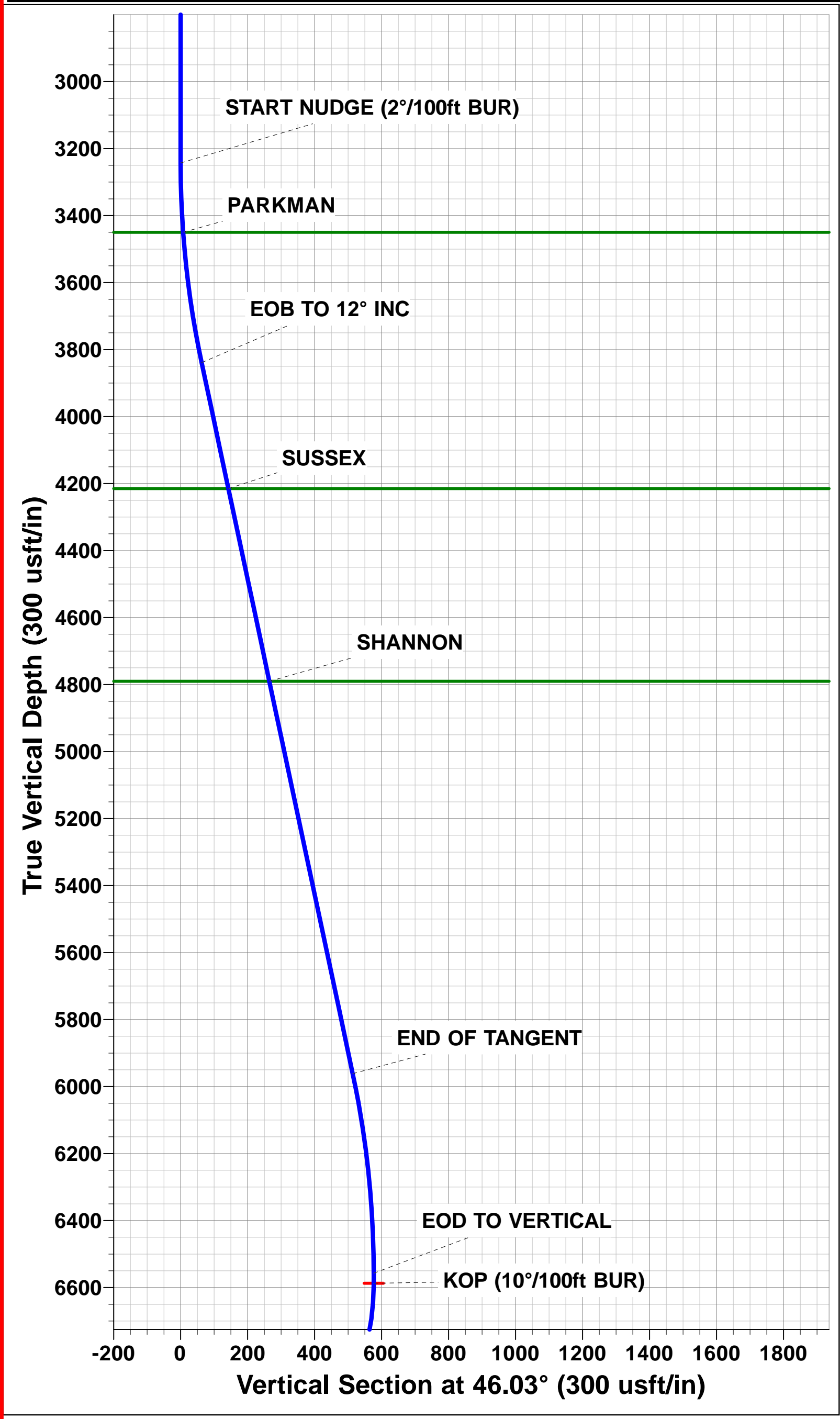
FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3450.0	3450.2	PARKMAN
4215.0	4227.8	SUSSEX
4790.0	4815.6	SHANNON
6809.0	6871.2	SHARON SPRINGS
6846.0	6911.9	NIOBRARA
6965.0	7056.0	NIO B
7120.0	7327.9	FORT HAYS
7150.0	7436.2	CODELL

PROPOSED LOCAL COORDINATES	
SHL: 2057ft FNL & 300ft FEL of Sec 22	
LP: 1650ft FNL & 460ft FEL of Sec 22	
BHL: 1650ft FNL & 460ft FWL of Sec 21	

↑ T
M

Azimuths to True North
Magnetic North: 8.34°

Magnetic Field
Strength: 52493.3snT
Dip Angle: 66.91°
Date: 25/10/2016
Model: IGRF2015



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RBF 8
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Site:	SE NE SEC. 22 T6N R67W 6th P.M.	North Reference:	True
Well:	RBF 8	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	SE NE SEC. 22 T6N R67W 6th P.M.		
Site Position:		Northing:	1,417,027.42 usft
From:	Lat/Long	Easting:	3,175,712.36 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.476424
		Longitude:	-104.868382
		Grid Convergence:	0.41 °

Well	RBF 8		
Well Position	+N/-S	-860.5 usft	Northing:
	+E/-W	-839.9 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	40.474062
		Longitude:	-104.871401
		Ground Level:	4,778.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	25/10/2016	8.34	66.91	52,493

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 (°)
	0.0	0.0	0.0	272.97

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	-4,794.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,243.0	0.00	0.00	3,243.0	-1,551.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,843.1	12.00	46.03	3,838.7	-955.3	43.5	45.1	2.00	2.00	0.00	46.03	
6,013.1	12.00	46.03	5,961.3	1,167.3	356.7	369.8	0.00	0.00	0.00	0.00	
6,613.2	0.00	0.00	6,557.0	1,763.0	400.2	414.9	2.00	-2.00	0.00	180.00	
6,643.2	0.00	0.00	6,587.0	1,793.0	400.2	414.9	0.00	0.00	0.00	0.00	KOP - RBF 8
7,543.2	90.00	270.57	7,160.0	2,366.0	405.9	-158.0	10.00	10.00	0.00	270.57	
17,014.5	90.00	270.56	7,160.0	2,366.0	499.5	-9,628.9	0.00	0.00	0.00	-94.17	BHL - RBF 8

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RBF 8
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Site:	SE NE SEC. 22 T6N R67W 6th P.M.	North Reference:	True
Well:	RBF 8	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)
SHL: 2057ft FNL & 300ft FEL of Sec 22										
0.0	0.00	0.00	0.0	4,794.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,694.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,594.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,494.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,394.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,294.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,194.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	4,094.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	3,994.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,894.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,794.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	3,694.00	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	3,594.00	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	3,494.00	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	3,394.00	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	3,294.00	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	3,194.00	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	3,094.00	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	2,994.00	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	2,894.00	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	2,794.00	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	2,694.00	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	2,594.00	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	2,494.00	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	2,394.00	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	2,294.00	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	2,194.00	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	2,094.00	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	1,994.00	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	1,894.00	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	1,794.00	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	1,694.00	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	1,594.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
3,243.0	0.00	0.00	3,243.0	1,551.00	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	1.14	46.03	3,300.0	1,494.00	0.4	0.4	-0.4	2.00	2.00	0.00
3,400.0	3.14	46.03	3,399.9	1,394.08	3.0	3.1	-2.9	2.00	2.00	0.00
PARKMAN										
3,450.2	4.14	46.03	3,450.0	1,344.00	5.2	5.4	-5.1	2.00	2.00	0.00
3,500.0	5.14	46.03	3,499.7	1,294.34	8.0	8.3	-7.9	2.00	2.00	0.00
3,600.0	7.14	46.03	3,599.1	1,194.92	15.4	16.0	-15.2	2.00	2.00	0.00
3,700.0	9.14	46.03	3,698.1	1,095.94	25.3	26.2	-24.8	2.00	2.00	0.00
3,800.0	11.14	46.03	3,796.5	997.50	37.5	38.9	-36.9	2.00	2.00	0.00
EOB TO 12° INC										
3,843.1	12.00	46.03	3,838.7	955.28	43.5	45.1	-42.8	2.00	2.00	0.00
3,900.0	12.00	46.03	3,894.4	899.62	51.7	53.6	-50.8	0.00	0.00	0.00
4,000.0	12.00	46.03	3,992.2	801.81	66.1	68.6	-65.0	0.00	0.00	0.00
4,100.0	12.00	46.03	4,090.0	703.99	80.6	83.5	-79.2	0.00	0.00	0.00
4,200.0	12.00	46.03	4,187.8	606.18	95.0	98.5	-93.4	0.00	0.00	0.00
SUSSEX										
4,227.8	12.00	46.03	4,215.0	579.00	99.0	102.6	-97.4	0.00	0.00	0.00
4,300.0	12.00	46.03	4,285.6	508.37	109.4	113.5	-107.6	0.00	0.00	0.00
4,400.0	12.00	46.03	4,383.4	410.55	123.9	128.4	-121.8	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RBF 8
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Site:	SE NE SEC. 22 T6N R67W 6th P.M.	North Reference:	True
Well:	RBF 8	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)
4,500.0	12.00	46.03	4,481.3	312.74	138.3	143.4	-136.0	0.00	0.00	0.00
4,600.0	12.00	46.03	4,579.1	214.92	152.7	158.3	-150.2	0.00	0.00	0.00
4,700.0	12.00	46.03	4,676.9	117.11	167.2	173.3	-164.4	0.00	0.00	0.00
4,800.0	12.00	46.03	4,774.7	19.29	181.6	188.3	-178.6	0.00	0.00	0.00
SHANNON										
4,815.6	12.00	46.03	4,790.0	4.00	183.9	190.6	-180.8	0.00	0.00	0.00
4,900.0	12.00	46.03	4,872.5	-78.52	196.0	203.2	-192.8	0.00	0.00	0.00
5,000.0	12.00	46.03	4,970.3	-176.33	210.5	218.2	-207.0	0.00	0.00	0.00
5,100.0	12.00	46.03	5,068.1	-274.15	224.9	233.2	-221.2	0.00	0.00	0.00
5,200.0	12.00	46.03	5,166.0	-371.96	239.4	248.1	-235.4	0.00	0.00	0.00
5,300.0	12.00	46.03	5,263.8	-469.78	253.8	263.1	-249.6	0.00	0.00	0.00
5,400.0	12.00	46.03	5,361.6	-567.59	268.2	278.1	-263.8	0.00	0.00	0.00
5,500.0	12.00	46.03	5,459.4	-665.41	282.7	293.0	-278.0	0.00	0.00	0.00
5,600.0	12.00	46.03	5,557.2	-763.22	297.1	308.0	-292.2	0.00	0.00	0.00
5,700.0	12.00	46.03	5,655.0	-861.04	311.5	323.0	-306.4	0.00	0.00	0.00
5,800.0	12.00	46.03	5,752.8	-958.85	326.0	337.9	-320.6	0.00	0.00	0.00
5,900.0	12.00	46.03	5,850.7	-1,056.66	340.4	352.9	-334.8	0.00	0.00	0.00
6,000.0	12.00	46.03	5,948.5	-1,154.48	354.8	367.9	-349.0	0.00	0.00	0.00
END OF TANGENT										
6,013.1	12.00	46.03	5,961.3	-1,167.29	356.7	369.8	-350.9	0.00	0.00	0.00
6,100.0	10.26	46.03	6,046.6	-1,252.55	368.4	381.9	-362.3	2.00	-2.00	0.00
6,200.0	8.26	46.03	6,145.2	-1,351.24	379.5	393.5	-373.3	2.00	-2.00	0.00
6,300.0	6.26	46.03	6,244.4	-1,450.44	388.3	402.6	-381.9	2.00	-2.00	0.00
6,400.0	4.26	46.03	6,344.0	-1,550.01	394.7	409.2	-388.2	2.00	-2.00	0.00
6,500.0	2.26	46.03	6,443.8	-1,649.84	398.6	413.3	-392.1	2.00	-2.00	0.00
6,600.0	0.26	46.03	6,543.8	-1,749.81	400.2	414.9	-393.6	2.00	-2.00	0.00
EOD TO VERTICAL										
6,613.2	0.00	0.00	6,557.0	-1,763.01	400.2	414.9	-393.6	2.00	-2.00	0.00
KOP (10°/100ft BUR)										
6,643.2	0.00	0.00	6,587.0	-1,793.01	400.2	414.9	-393.6	0.00	0.00	0.00
6,700.0	5.68	270.57	6,643.7	-1,849.72	400.2	412.1	-390.8	10.00	10.00	0.00
6,800.0	15.68	270.57	6,741.9	-1,947.86	400.4	393.6	-372.3	10.00	10.00	0.00
SHARON SPRINGS										
6,871.2	22.80	270.57	6,809.0	-2,015.00	400.6	370.1	-348.9	10.00	10.00	0.00
6,900.0	25.68	270.57	6,835.3	-2,041.30	400.8	358.3	-337.1	10.00	10.00	0.00
NIOBRARA										
6,911.9	26.87	270.57	6,846.0	-2,052.00	400.8	353.0	-331.8	10.00	10.00	0.00
7,000.0	35.68	270.57	6,921.2	-2,127.19	401.3	307.3	-286.1	10.00	10.00	0.00
NIO B										
7,056.0	41.28	270.57	6,965.0	-2,171.00	401.6	272.5	-251.4	10.00	10.00	0.00
7,100.0	45.68	270.57	6,996.9	-2,202.93	401.9	242.2	-221.1	10.00	10.00	0.00
7,200.0	55.68	270.57	7,060.2	-2,266.21	402.7	165.0	-143.9	10.00	10.00	0.00
7,300.0	65.68	270.57	7,109.1	-2,315.12	403.6	77.9	-56.9	10.00	10.00	0.00
FORT HAYS										
7,327.9	68.48	270.57	7,120.0	-2,326.00	403.8	52.2	-31.2	10.00	10.00	0.00
7,400.0	75.68	270.57	7,142.2	-2,348.16	404.5	-16.3	37.3	10.00	10.00	0.00
CODELL										
7,436.2	79.30	270.57	7,150.0	-2,356.00	404.8	-51.7	72.6	10.00	10.00	0.00
7,500.0	85.68	270.57	7,158.3	-2,364.33	405.5	-114.9	135.7	10.00	10.00	0.00
HZ LP: 1650ft FNL & 460ft FEL of Sec 22										
7,543.2	90.00	270.57	7,160.0	-2,365.96	405.9	-158.0	178.9	10.00	10.00	0.00
7,600.0	90.00	270.57	7,160.0	-2,365.96	406.5	-214.8	235.6	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RBF 8
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Site:	SE NE SEC. 22 T6N R67W 6th P.M.	North Reference:	True
Well:	RBF 8	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)
7,700.0	90.00	270.57	7,160.0	-2,365.96	407.5	-314.8	335.5	0.00	0.00	0.00
7,800.0	90.00	270.57	7,160.0	-2,365.96	408.5	-414.8	435.4	0.00	0.00	0.00
7,900.0	90.00	270.57	7,160.0	-2,365.96	409.4	-514.8	535.3	0.00	0.00	0.00
8,000.0	90.00	270.57	7,160.0	-2,365.96	410.4	-614.8	635.3	0.00	0.00	0.00
8,100.0	90.00	270.57	7,160.0	-2,365.96	411.4	-714.8	735.2	0.00	0.00	0.00
8,200.0	90.00	270.57	7,160.0	-2,365.96	412.4	-814.8	835.1	0.00	0.00	0.00
8,300.0	90.00	270.57	7,160.0	-2,365.96	413.4	-914.8	935.0	0.00	0.00	0.00
8,400.0	90.00	270.57	7,160.0	-2,365.96	414.4	-1,014.8	1,034.9	0.00	0.00	0.00
8,500.0	90.00	270.57	7,160.0	-2,365.96	415.4	-1,114.8	1,134.8	0.00	0.00	0.00
8,600.0	90.00	270.57	7,160.0	-2,365.96	416.4	-1,214.8	1,234.7	0.00	0.00	0.00
8,700.0	90.00	270.57	7,160.0	-2,365.96	417.4	-1,314.8	1,334.6	0.00	0.00	0.00
8,800.0	90.00	270.57	7,160.0	-2,365.96	418.4	-1,414.8	1,434.6	0.00	0.00	0.00
8,900.0	90.00	270.57	7,160.0	-2,365.96	419.4	-1,514.8	1,534.5	0.00	0.00	0.00
9,000.0	90.00	270.57	7,160.0	-2,365.96	420.4	-1,614.8	1,634.4	0.00	0.00	0.00
9,100.0	90.00	270.57	7,160.0	-2,365.96	421.4	-1,714.8	1,734.3	0.00	0.00	0.00
9,200.0	90.00	270.57	7,160.0	-2,365.96	422.4	-1,814.8	1,834.2	0.00	0.00	0.00
9,300.0	90.00	270.57	7,160.0	-2,365.96	423.4	-1,914.8	1,934.1	0.00	0.00	0.00
9,400.0	90.00	270.57	7,160.0	-2,365.96	424.3	-2,014.8	2,034.0	0.00	0.00	0.00
9,500.0	90.00	270.57	7,160.0	-2,365.96	425.3	-2,114.7	2,133.9	0.00	0.00	0.00
9,600.0	90.00	270.57	7,160.0	-2,365.96	426.3	-2,214.7	2,233.9	0.00	0.00	0.00
9,700.0	90.00	270.57	7,160.0	-2,365.96	427.3	-2,314.7	2,333.8	0.00	0.00	0.00
9,800.0	90.00	270.57	7,160.0	-2,365.96	428.3	-2,414.7	2,433.7	0.00	0.00	0.00
9,900.0	90.00	270.57	7,160.0	-2,365.96	429.3	-2,514.7	2,533.6	0.00	0.00	0.00
10,000.0	90.00	270.57	7,160.0	-2,365.96	430.3	-2,614.7	2,633.5	0.00	0.00	0.00
10,100.0	90.00	270.57	7,160.0	-2,365.96	431.3	-2,714.7	2,733.4	0.00	0.00	0.00
10,200.0	90.00	270.57	7,160.0	-2,365.96	432.3	-2,814.7	2,833.3	0.00	0.00	0.00
10,300.0	90.00	270.57	7,160.0	-2,365.96	433.3	-2,914.7	2,933.2	0.00	0.00	0.00
10,400.0	90.00	270.57	7,160.0	-2,365.96	434.3	-3,014.7	3,033.2	0.00	0.00	0.00
10,500.0	90.00	270.57	7,160.0	-2,365.96	435.3	-3,114.7	3,133.1	0.00	0.00	0.00
10,600.0	90.00	270.57	7,160.0	-2,365.96	436.2	-3,214.7	3,233.0	0.00	0.00	0.00
10,700.0	90.00	270.57	7,160.0	-2,365.96	437.2	-3,314.7	3,332.9	0.00	0.00	0.00
10,800.0	90.00	270.57	7,160.0	-2,365.96	438.2	-3,414.7	3,432.8	0.00	0.00	0.00
10,900.0	90.00	270.57	7,160.0	-2,365.96	439.2	-3,514.7	3,532.7	0.00	0.00	0.00
11,000.0	90.00	270.57	7,160.0	-2,365.96	440.2	-3,614.7	3,632.6	0.00	0.00	0.00
11,100.0	90.00	270.57	7,160.0	-2,365.96	441.2	-3,714.7	3,732.5	0.00	0.00	0.00
11,200.0	90.00	270.57	7,160.0	-2,365.96	442.2	-3,814.7	3,832.4	0.00	0.00	0.00
11,300.0	90.00	270.57	7,160.0	-2,365.96	443.2	-3,914.7	3,932.4	0.00	0.00	0.00
11,400.0	90.00	270.57	7,160.0	-2,365.96	444.2	-4,014.7	4,032.3	0.00	0.00	0.00
11,500.0	90.00	270.57	7,160.0	-2,365.97	445.2	-4,114.6	4,132.2	0.00	0.00	0.00
11,600.0	90.00	270.57	7,160.0	-2,365.97	446.2	-4,214.6	4,232.1	0.00	0.00	0.00
11,700.0	90.00	270.57	7,160.0	-2,365.97	447.1	-4,314.6	4,332.0	0.00	0.00	0.00
11,800.0	90.00	270.57	7,160.0	-2,365.97	448.1	-4,414.6	4,431.9	0.00	0.00	0.00
11,900.0	90.00	270.57	7,160.0	-2,365.97	449.1	-4,514.6	4,531.8	0.00	0.00	0.00
12,000.0	90.00	270.57	7,160.0	-2,365.97	450.1	-4,614.6	4,631.7	0.00	0.00	0.00
12,100.0	90.00	270.57	7,160.0	-2,365.97	451.1	-4,714.6	4,731.7	0.00	0.00	0.00
12,200.0	90.00	270.57	7,160.0	-2,365.97	452.1	-4,814.6	4,831.6	0.00	0.00	0.00
12,300.0	90.00	270.57	7,160.0	-2,365.97	453.1	-4,914.6	4,931.5	0.00	0.00	0.00
12,400.0	90.00	270.57	7,160.0	-2,365.97	454.1	-5,014.6	5,031.4	0.00	0.00	0.00
12,500.0	90.00	270.57	7,160.0	-2,365.97	455.1	-5,114.6	5,131.3	0.00	0.00	0.00
12,600.0	90.00	270.57	7,160.0	-2,365.97	456.0	-5,214.6	5,231.2	0.00	0.00	0.00
12,700.0	90.00	270.57	7,160.0	-2,365.97	457.0	-5,314.6	5,331.1	0.00	0.00	0.00
12,800.0	90.00	270.57	7,160.0	-2,365.97	458.0	-5,414.6	5,431.0	0.00	0.00	0.00
12,900.0	90.00	270.57	7,160.0	-2,365.97	459.0	-5,514.6	5,531.0	0.00	0.00	0.00
13,000.0	90.00	270.57	7,160.0	-2,365.97	460.0	-5,614.6	5,630.9	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RBF 8
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Site:	SE NE SEC. 22 T6N R67W 6th P.M.	North Reference:	True
Well:	RBF 8	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)
13,100.0	90.00	270.57	7,160.0	-2,365.97	461.0	-5,714.6	5,730.8	0.00	0.00	0.00
13,200.0	90.00	270.57	7,160.0	-2,365.97	462.0	-5,814.6	5,830.7	0.00	0.00	0.00
13,300.0	90.00	270.57	7,160.0	-2,365.97	463.0	-5,914.6	5,930.6	0.00	0.00	0.00
13,400.0	90.00	270.57	7,160.0	-2,365.97	463.9	-6,014.6	6,030.5	0.00	0.00	0.00
13,500.0	90.00	270.57	7,160.0	-2,365.97	464.9	-6,114.5	6,130.4	0.00	0.00	0.00
13,600.0	90.00	270.57	7,160.0	-2,365.98	465.9	-6,214.5	6,230.3	0.00	0.00	0.00
13,700.0	90.00	270.57	7,160.0	-2,365.98	466.9	-6,314.5	6,330.2	0.00	0.00	0.00
13,800.0	90.00	270.57	7,160.0	-2,365.98	467.9	-6,414.5	6,430.2	0.00	0.00	0.00
13,900.0	90.00	270.57	7,160.0	-2,365.98	468.9	-6,514.5	6,530.1	0.00	0.00	0.00
14,000.0	90.00	270.57	7,160.0	-2,365.98	469.9	-6,614.5	6,630.0	0.00	0.00	0.00
14,100.0	90.00	270.57	7,160.0	-2,365.98	470.9	-6,714.5	6,729.9	0.00	0.00	0.00
14,200.0	90.00	270.57	7,160.0	-2,365.98	471.8	-6,814.5	6,829.8	0.00	0.00	0.00
14,300.0	90.00	270.56	7,160.0	-2,365.98	472.8	-6,914.5	6,929.7	0.00	0.00	0.00
14,400.0	90.00	270.56	7,160.0	-2,365.98	473.8	-7,014.5	7,029.6	0.00	0.00	0.00
14,500.0	90.00	270.56	7,160.0	-2,365.98	474.8	-7,114.5	7,129.5	0.00	0.00	0.00
14,600.0	90.00	270.56	7,160.0	-2,365.98	475.8	-7,214.5	7,229.5	0.00	0.00	0.00
14,700.0	90.00	270.56	7,160.0	-2,365.98	476.8	-7,314.5	7,329.4	0.00	0.00	0.00
14,800.0	90.00	270.56	7,160.0	-2,365.98	477.8	-7,414.5	7,429.3	0.00	0.00	0.00
14,900.0	90.00	270.56	7,160.0	-2,365.98	478.7	-7,514.5	7,529.2	0.00	0.00	0.00
15,000.0	90.00	270.56	7,160.0	-2,365.98	479.7	-7,614.5	7,629.1	0.00	0.00	0.00
15,100.0	90.00	270.56	7,160.0	-2,365.98	480.7	-7,714.5	7,729.0	0.00	0.00	0.00
15,200.0	90.00	270.56	7,160.0	-2,365.99	481.7	-7,814.5	7,828.9	0.00	0.00	0.00
15,300.0	90.00	270.56	7,160.0	-2,365.99	482.7	-7,914.5	7,928.8	0.00	0.00	0.00
15,400.0	90.00	270.56	7,160.0	-2,365.99	483.7	-8,014.5	8,028.8	0.00	0.00	0.00
15,500.0	90.00	270.56	7,160.0	-2,365.99	484.6	-8,114.5	8,128.7	0.00	0.00	0.00
15,600.0	90.00	270.56	7,160.0	-2,365.99	485.6	-8,214.4	8,228.6	0.00	0.00	0.00
15,700.0	90.00	270.56	7,160.0	-2,365.99	486.6	-8,314.4	8,328.5	0.00	0.00	0.00
15,800.0	90.00	270.56	7,160.0	-2,365.99	487.6	-8,414.4	8,428.4	0.00	0.00	0.00
15,900.0	90.00	270.56	7,160.0	-2,365.99	488.6	-8,514.4	8,528.3	0.00	0.00	0.00
16,000.0	90.00	270.56	7,160.0	-2,365.99	489.6	-8,614.4	8,628.2	0.00	0.00	0.00
16,100.0	90.00	270.56	7,160.0	-2,365.99	490.6	-8,714.4	8,728.1	0.00	0.00	0.00
16,200.0	90.00	270.56	7,160.0	-2,365.99	491.5	-8,814.4	8,828.0	0.00	0.00	0.00
16,300.0	90.00	270.56	7,160.0	-2,365.99	492.5	-8,914.4	8,928.0	0.00	0.00	0.00
16,400.0	90.00	270.56	7,160.0	-2,365.99	493.5	-9,014.4	9,027.9	0.00	0.00	0.00
16,500.0	90.00	270.56	7,160.0	-2,366.00	494.5	-9,114.4	9,127.8	0.00	0.00	0.00
16,600.0	90.00	270.56	7,160.0	-2,366.00	495.5	-9,214.4	9,227.7	0.00	0.00	0.00
16,700.0	90.00	270.56	7,160.0	-2,366.00	496.5	-9,314.4	9,327.6	0.00	0.00	0.00
16,800.0	90.00	270.56	7,160.0	-2,366.00	497.4	-9,414.4	9,427.5	0.00	0.00	0.00
16,900.0	90.00	270.56	7,160.0	-2,366.00	498.4	-9,514.4	9,527.4	0.00	0.00	0.00
17,000.0	90.00	270.56	7,160.0	-2,366.00	499.4	-9,614.4	9,627.3	0.00	0.00	0.00
BHL: 1650ft FNL & 460ft FWL of Sec 21										
17,014.5	90.00	270.56	7,160.0	-2,366.00	499.5	-9,628.9	9,641.8	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RBF 8
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4794.0usft (Original Well Elev)
Site:	SE NE SEC. 22 T6N R67W 6th P.M.	North Reference:	True
Well:	RBF 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Formations					
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,450.2	3,450.0	PARKMAN			
4,227.8	4,215.0	SUSSEX			
4,815.6	4,790.0	SHANNON			
6,871.2	6,809.0	SHARON SPRINGS			
6,911.9	6,846.0	NIOBRARA			
7,056.0	6,965.0	NIO B			
7,327.9	7,120.0	FORT HAYS			
7,436.2	7,150.0	CODELL			

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	SHL: 2057ft FNL & 300ft FEL of Sec 22
3,243.0	3,243.0	0.0	0.0	START NUDGE (2°/100ft BUR)
3,843.1	3,838.7	43.5	45.1	EOB TO 12° INC
6,013.1	5,961.3	356.7	369.8	END OF TANGENT
6,613.2	6,557.0	400.2	414.9	EOD TO VERTICAL
6,643.2	6,587.0	400.2	414.9	KOP (10°/100ft BUR)
7,543.2	7,160.0	405.9	-158.0	HZ LP: 1650ft FNL & 460ft FEL of Sec 22
17,014.5	7,160.0	499.5	-9,628.9	BHL: 1650ft FNL & 460ft FWL of Sec 21