

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

NE NW SEC. 9 T5N R65W 6th P.M.

MT-GLENFAIR 5-8-7

ORIGINAL WELLBORE

20 June, 2015

Plan: PROPOSAL #2

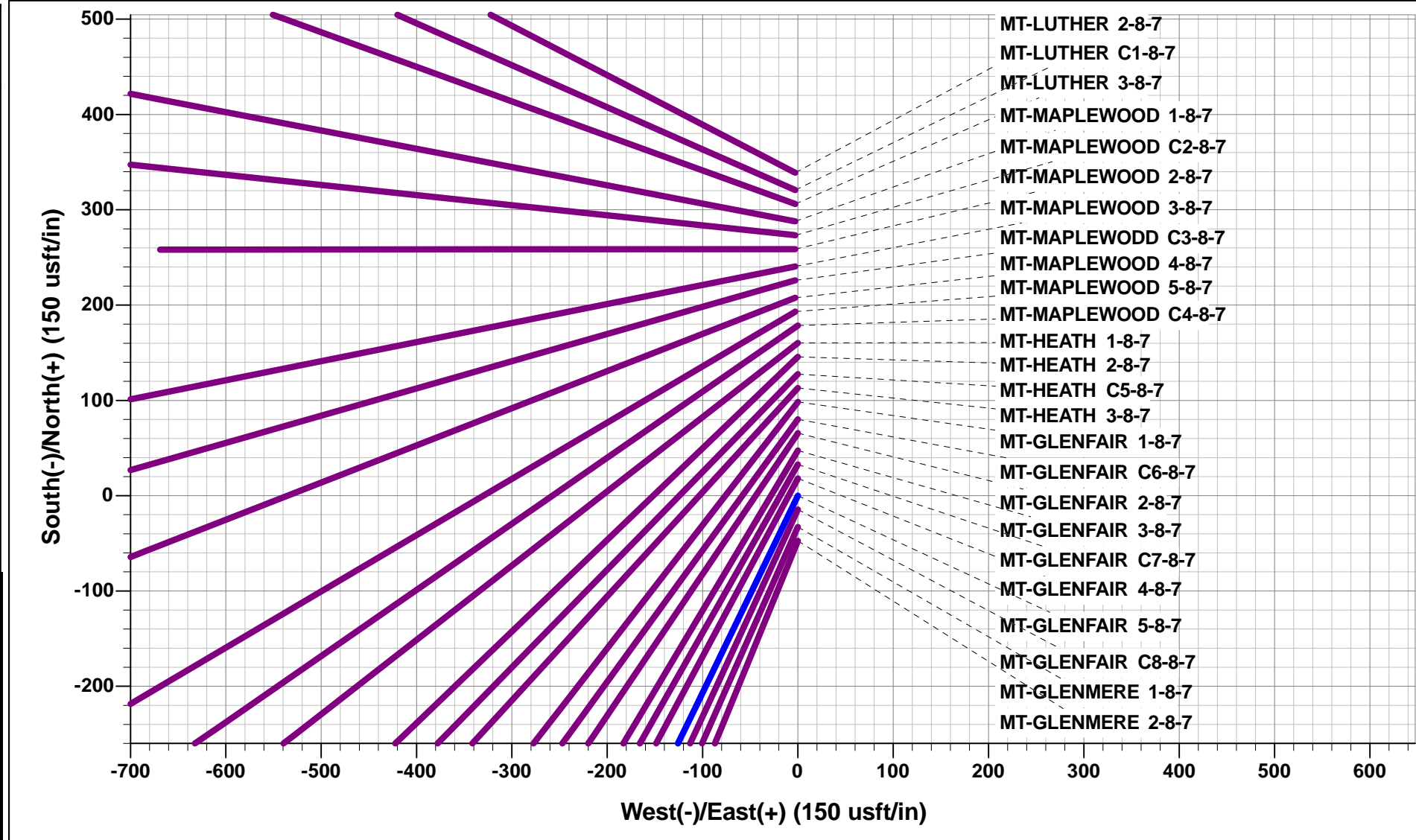




Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NW SEC. 9 T5N R65W 6th P.M.
Well: MT-GLENFAIR 5-8-7
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

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: 1164ft FNL & 1755ft FWL of Sec 9
400.0	400.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE - SURFACE (2°/100ft BUR)
1800.0	1862.7	29.25	205.79	-329.0	-159.0	241.1	365.4	9 5/8" SURFACE CSG
1856.7	1927.7	29.25	205.79	-357.6	-172.8	262.1	397.1	START NUDGE - MAIN (4°/100ft BUR)
2105.5	2233.4	41.48	205.79	-516.6	-249.6	378.6	573.7	EOB TO 41.48° INC
5323.3	6528.6	41.48	205.79	-3078.2	-1487.6	2256.2	3418.8	END OF TANGENT
6272.1	7565.6	0.00	205.79	-3401.7	-1643.9	2493.3	3778.1	EOD TO VERTICAL
6302.1	7595.6	0.00	0.00	-3401.7	-1643.9	2493.3	3778.1	KOP (10°/100ft BUR)
6875.0	8495.5	90.00	270.64	-3395.3	-2216.7	3043.6	4350.9	LANDING PNT :674ft FSL & 460ft FEL of Sec 8
6875.0	18129.0	90.00	270.65	-3286.9	-11849.6	12297.0	13984.4	BHL: 744ft FSL & 460ft FWL of Sec 7

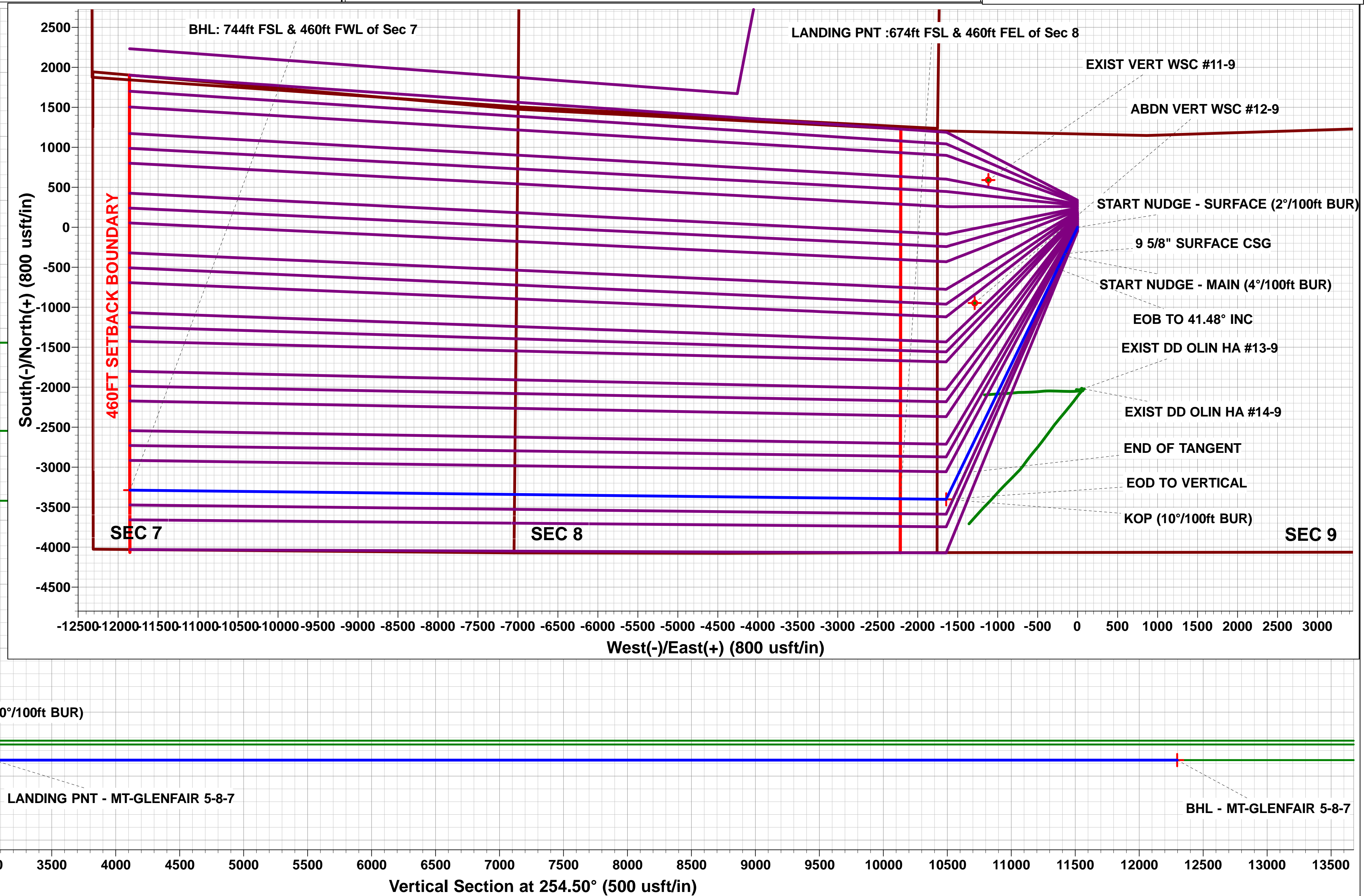
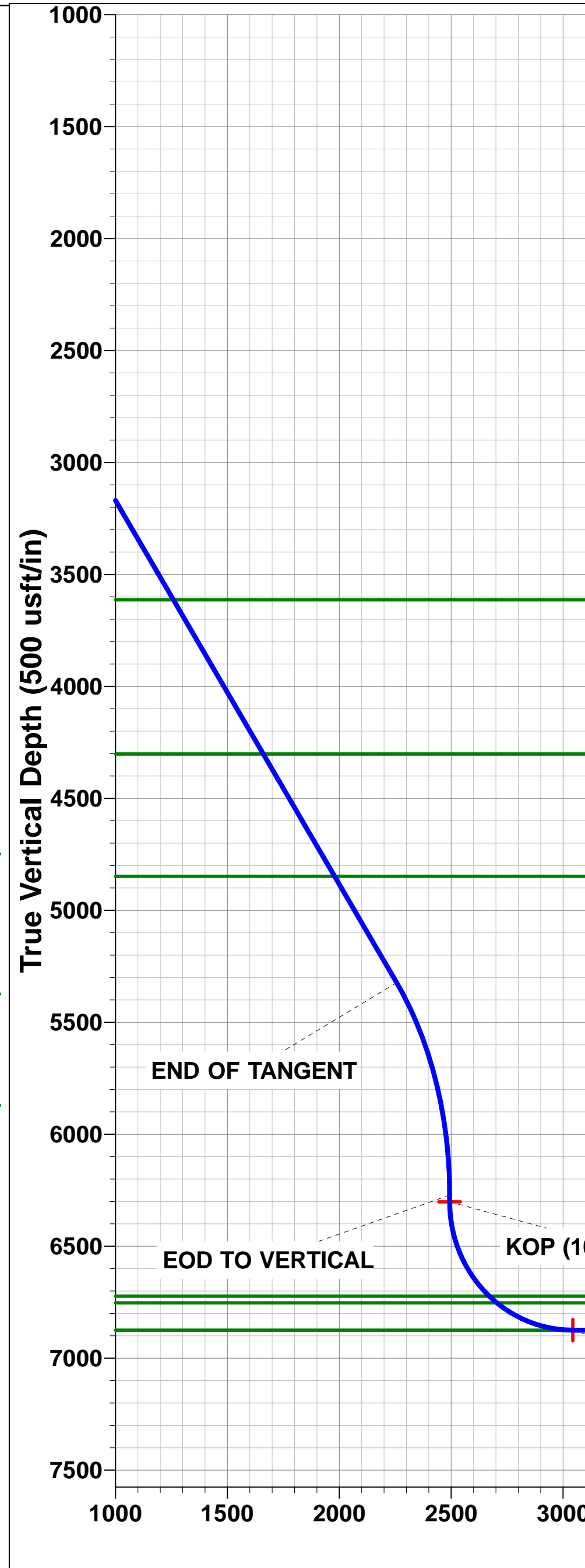
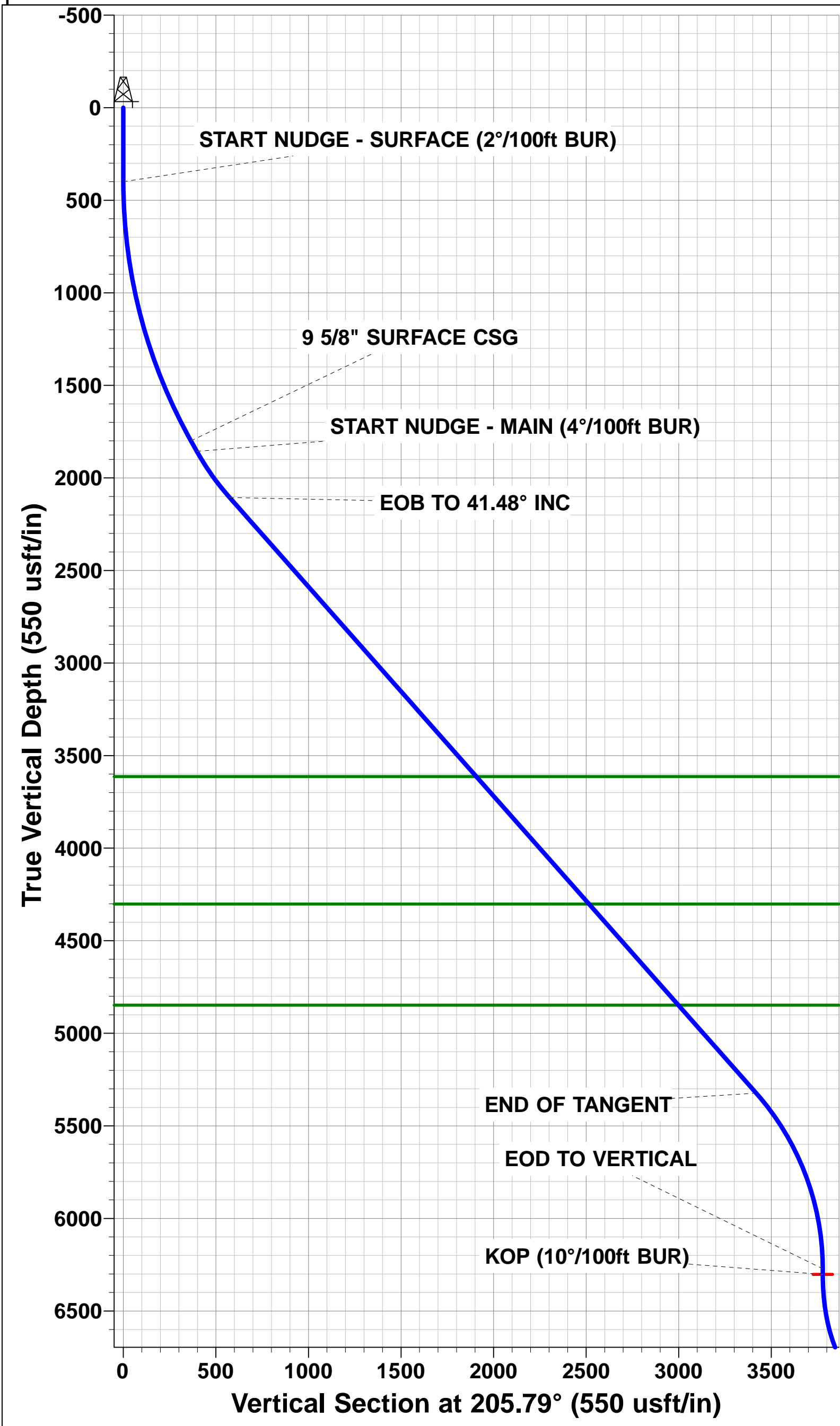
WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
KOP - MT-GLENFAIR 5-8-7	6302.1	-3401.7	-1643.9	40.408292	-104.677563	
LANDING PNT - MT-GLENFAIR 5-8-7	6875.0	-3395.3	-2216.8	40.408310	-104.679620	
BHL - MT-GLENFAIR 5-8-7	6875.0	-3286.9	-11849.6	40.408600	-104.714210	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3613.0	4245.6	PARKMAN
4302.0	5165.3	SUSSEX
4848.0	5894.1	SHANNON
6723.0	8068.4	SHARON SPRINGS
6753.0	8114.7	NIOBRARA
6875.0	8495.5	NIO B TARGET

Azimuths to True North
Magnetic North: 8.38°

Magnetic Field
Strength: 52645.3snT
Dip Angle: 66.93°
Date: 04/06/2015
Model: IGRF2015



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-GLENFAIR 5-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4652.0usft (SAV 802)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4652.0usft (SAV 802)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENFAIR 5-8-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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 NW SEC. 9 T5N R65W 6th P.M.		
Site Position:		Northing:	1,396,398.95 usft
From:	Lat/Long	Easting:	3,230,631.97 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.418560
		Longitude:	-104.671670
		Grid Convergence:	0.54 °

Well	MT-GLENFAIR 5-8-7		
Well Position	+N/-S	-338.8 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	04/06/2015	8.38	66.93	52,645

Design	PROPOSAL #2			
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	254.50

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	-4,652.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	-4,252.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,862.7	29.25	205.79	1,800.0	-2,852.0	-329.0	-159.0	2.00	2.00	0.00	205.79	
1,927.7	29.25	205.79	1,856.7	-2,795.3	-357.6	-172.8	0.00	0.00	0.00	0.00	
2,233.4	41.48	205.79	2,105.5	-2,546.5	-516.6	-249.6	4.00	4.00	0.00	0.00	
6,528.6	41.48	205.79	5,323.3	671.3	-3,078.2	-1,487.6	0.00	0.00	0.00	0.00	
7,565.6	0.00	0.00	6,272.1	1,620.1	-3,401.7	-1,643.9	4.00	-4.00	0.00	180.00	
7,595.6	0.00	0.00	6,302.1	1,650.1	-3,401.7	-1,643.9	0.00	0.00	0.00	0.00	KOP - MT-GLENFA
8,495.5	90.00	270.64	6,875.0	2,223.0	-3,395.3	-2,216.8	10.00	10.00	-9.93	270.64	LANDING PNT - M
18,129.0	90.00	270.65	6,875.0	2,223.0	-3,286.9	-11,849.6	0.00	0.00	0.00	75.48	BHL - MT-GLENFA

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-GLENFAIR 5-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4652.0usft (SAV 802)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4652.0usft (SAV 802)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENFAIR 5-8-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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: 1164ft FNL & 1755ft FWL of Sec 9										
0.0	0.00	0.00	0.0	4,652.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,552.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,452.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,352.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE - SURFACE (2°/100ft BUR)										
400.0	0.00	0.00	400.0	4,252.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	2.00	205.79	500.0	4,152.02	-1.6	-0.8	1.2	2.00	2.00	0.00
600.0	4.00	205.79	599.8	4,052.16	-6.3	-3.0	4.6	2.00	2.00	0.00
700.0	6.00	205.79	699.5	3,952.55	-14.1	-6.8	10.4	2.00	2.00	0.00
800.0	8.00	205.79	798.7	3,853.30	-25.1	-12.1	18.4	2.00	2.00	0.00
900.0	10.00	205.79	897.5	3,754.53	-39.2	-18.9	28.7	2.00	2.00	0.00
1,000.0	12.00	205.79	995.6	3,656.38	-56.4	-27.2	41.3	2.00	2.00	0.00
1,100.0	14.00	205.79	1,093.1	3,558.94	-76.6	-37.0	56.2	2.00	2.00	0.00
1,200.0	16.00	205.79	1,189.6	3,462.36	-99.9	-48.3	73.2	2.00	2.00	0.00
1,300.0	18.00	205.79	1,285.3	3,366.73	-126.2	-61.0	92.5	2.00	2.00	0.00
1,400.0	20.00	205.79	1,379.8	3,272.18	-155.6	-75.2	114.0	2.00	2.00	0.00
1,500.0	22.00	205.79	1,473.2	3,178.83	-187.8	-90.8	137.7	2.00	2.00	0.00
1,600.0	24.00	205.79	1,565.2	3,086.79	-223.0	-107.8	163.4	2.00	2.00	0.00
1,700.0	26.00	205.79	1,655.8	2,996.16	-261.1	-126.1	191.3	2.00	2.00	0.00
1,800.0	28.00	205.79	1,744.9	2,907.06	-301.9	-145.9	221.3	2.00	2.00	0.00
9 5/8" SURFACE CSG										
1,862.7	29.25	205.79	1,800.0	2,852.00	-329.0	-159.0	241.1	2.00	2.00	0.00
1,900.0	29.25	205.79	1,832.5	2,819.49	-345.4	-166.9	253.1	0.00	0.00	0.00
START NUDGE - MAIN (4°/100ft BUR)										
1,927.7	29.25	205.79	1,856.7	2,795.32	-357.6	-172.8	262.1	0.00	0.00	0.00
2,000.0	32.15	205.79	1,918.8	2,733.16	-390.8	-188.8	286.4	4.00	4.00	0.00
2,100.0	36.15	205.79	2,001.6	2,650.41	-441.3	-213.3	323.5	4.00	4.00	0.00
2,200.0	40.15	205.79	2,080.2	2,571.78	-496.9	-240.1	364.2	4.00	4.00	0.00
EOB TO 41.48° INC										
2,233.4	41.48	205.79	2,105.5	2,546.51	-516.6	-249.6	378.6	4.00	4.00	0.00
2,300.0	41.48	205.79	2,155.4	2,496.61	-556.3	-268.8	407.7	0.00	0.00	0.00
2,400.0	41.48	205.79	2,230.3	2,421.70	-615.9	-297.6	451.5	0.00	0.00	0.00
2,500.0	41.48	205.79	2,305.2	2,346.78	-675.6	-326.5	495.2	0.00	0.00	0.00
2,600.0	41.48	205.79	2,380.1	2,271.86	-735.2	-355.3	538.9	0.00	0.00	0.00
2,700.0	41.48	205.79	2,455.1	2,196.95	-794.9	-384.1	582.6	0.00	0.00	0.00
2,800.0	41.48	205.79	2,530.0	2,122.03	-854.5	-412.9	626.3	0.00	0.00	0.00
2,900.0	41.48	205.79	2,604.9	2,047.11	-914.1	-441.8	670.0	0.00	0.00	0.00
3,000.0	41.48	205.79	2,679.8	1,972.20	-973.8	-470.6	713.7	0.00	0.00	0.00
3,100.0	41.48	205.79	2,754.7	1,897.28	-1,033.4	-499.4	757.5	0.00	0.00	0.00
3,200.0	41.48	205.79	2,829.6	1,822.36	-1,093.1	-528.2	801.2	0.00	0.00	0.00
3,300.0	41.48	205.79	2,904.6	1,747.45	-1,152.7	-557.0	844.9	0.00	0.00	0.00
3,400.0	41.48	205.79	2,979.5	1,672.53	-1,212.3	-585.9	888.6	0.00	0.00	0.00
3,500.0	41.48	205.79	3,054.4	1,597.61	-1,272.0	-614.7	932.3	0.00	0.00	0.00
3,600.0	41.48	205.79	3,129.3	1,522.70	-1,331.6	-643.5	976.0	0.00	0.00	0.00
3,700.0	41.48	205.79	3,204.2	1,447.78	-1,391.3	-672.3	1,019.7	0.00	0.00	0.00
3,800.0	41.48	205.79	3,279.1	1,372.86	-1,450.9	-701.1	1,063.4	0.00	0.00	0.00
3,900.0	41.48	205.79	3,354.1	1,297.95	-1,510.5	-730.0	1,107.2	0.00	0.00	0.00
4,000.0	41.48	205.79	3,429.0	1,223.03	-1,570.2	-758.8	1,150.9	0.00	0.00	0.00
4,100.0	41.48	205.79	3,503.9	1,148.11	-1,629.8	-787.6	1,194.6	0.00	0.00	0.00
4,200.0	41.48	205.79	3,578.8	1,073.20	-1,689.5	-816.4	1,238.3	0.00	0.00	0.00
PARKMAN										
4,245.6	41.48	205.79	3,613.0	1,039.00	-1,716.7	-829.6	1,258.3	0.00	0.00	0.00

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Well:	MT-GLENFAIR 5-8-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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)
4,300.0	41.48	205.79	3,653.7	998.28	-1,749.1	-845.3	1,282.0	0.00	0.00	0.00
4,400.0	41.48	205.79	3,728.6	923.36	-1,808.7	-874.1	1,325.7	0.00	0.00	0.00
4,500.0	41.48	205.79	3,803.6	848.45	-1,868.4	-902.9	1,369.4	0.00	0.00	0.00
4,600.0	41.48	205.79	3,878.5	773.53	-1,928.0	-931.7	1,413.2	0.00	0.00	0.00
4,700.0	41.48	205.79	3,953.4	698.61	-1,987.6	-960.5	1,456.9	0.00	0.00	0.00
4,800.0	41.48	205.79	4,028.3	623.70	-2,047.3	-989.4	1,500.6	0.00	0.00	0.00
4,900.0	41.48	205.79	4,103.2	548.78	-2,106.9	-1,018.2	1,544.3	0.00	0.00	0.00
5,000.0	41.48	205.79	4,178.1	473.86	-2,166.6	-1,047.0	1,588.0	0.00	0.00	0.00
5,100.0	41.48	205.79	4,253.1	398.95	-2,226.2	-1,075.8	1,631.7	0.00	0.00	0.00
SUSSEX										
5,165.3	41.48	205.79	4,302.0	350.00	-2,265.2	-1,094.7	1,660.3	0.00	0.00	0.00
5,200.0	41.48	205.79	4,328.0	324.03	-2,285.8	-1,104.6	1,675.4	0.00	0.00	0.00
5,300.0	41.48	205.79	4,402.9	249.11	-2,345.5	-1,133.5	1,719.2	0.00	0.00	0.00
5,400.0	41.48	205.79	4,477.8	174.19	-2,405.1	-1,162.3	1,762.9	0.00	0.00	0.00
5,500.0	41.48	205.79	4,552.7	99.28	-2,464.8	-1,191.1	1,806.6	0.00	0.00	0.00
5,600.0	41.48	205.79	4,627.6	24.36	-2,524.4	-1,219.9	1,850.3	0.00	0.00	0.00
5,700.0	41.48	205.79	4,702.6	-50.56	-2,584.0	-1,248.8	1,894.0	0.00	0.00	0.00
5,800.0	41.48	205.79	4,777.5	-125.47	-2,643.7	-1,277.6	1,937.7	0.00	0.00	0.00
SHANNON										
5,894.1	41.48	205.79	4,848.0	-196.00	-2,699.8	-1,304.7	1,978.9	0.00	0.00	0.00
5,900.0	41.48	205.79	4,852.4	-200.39	-2,703.3	-1,306.4	1,981.4	0.00	0.00	0.00
6,000.0	41.48	205.79	4,927.3	-275.31	-2,763.0	-1,335.2	2,025.2	0.00	0.00	0.00
6,100.0	41.48	205.79	5,002.2	-350.22	-2,822.6	-1,364.0	2,068.9	0.00	0.00	0.00
6,200.0	41.48	205.79	5,077.1	-425.14	-2,882.2	-1,392.9	2,112.6	0.00	0.00	0.00
6,300.0	41.48	205.79	5,152.1	-500.06	-2,941.9	-1,421.7	2,156.3	0.00	0.00	0.00
6,400.0	41.48	205.79	5,227.0	-574.97	-3,001.5	-1,450.5	2,200.0	0.00	0.00	0.00
6,500.0	41.48	205.79	5,301.9	-649.89	-3,061.2	-1,479.3	2,243.7	0.00	0.00	0.00
END OF TANGENT										
6,528.6	41.48	205.79	5,323.3	-671.31	-3,078.2	-1,487.6	2,256.2	0.00	0.00	0.00
6,600.0	38.63	205.79	5,378.0	-725.96	-3,119.6	-1,507.6	2,286.5	4.00	-4.00	0.00
6,700.0	34.63	205.79	5,458.2	-806.20	-3,173.3	-1,533.5	2,325.9	4.00	-4.00	0.00
6,800.0	30.63	205.79	5,542.4	-890.40	-3,221.8	-1,557.0	2,361.5	4.00	-4.00	0.00
6,900.0	26.63	205.79	5,630.2	-978.16	-3,264.9	-1,577.8	2,393.1	4.00	-4.00	0.00
7,000.0	22.63	205.79	5,721.1	-1,069.05	-3,302.4	-1,595.9	2,420.6	4.00	-4.00	0.00
7,100.0	18.63	205.79	5,814.6	-1,162.62	-3,334.2	-1,611.3	2,443.8	4.00	-4.00	0.00
7,200.0	14.63	205.79	5,910.4	-1,258.42	-3,359.9	-1,623.7	2,462.7	4.00	-4.00	0.00
7,300.0	10.63	205.79	6,008.0	-1,355.98	-3,379.6	-1,633.2	2,477.1	4.00	-4.00	0.00
7,400.0	6.63	205.79	6,106.8	-1,454.83	-3,393.1	-1,639.7	2,487.0	4.00	-4.00	0.00
7,500.0	2.63	205.79	6,206.5	-1,554.49	-3,400.3	-1,643.2	2,492.3	4.00	-4.00	0.00
EOD TO VERTICAL										
7,565.6	0.00	205.79	6,272.1	-1,620.06	-3,401.7	-1,643.9	2,493.3	4.00	-4.00	0.00
KOP (10°/100ft BUR)										
7,595.6	0.00	0.00	6,302.1	-1,650.06	-3,401.7	-1,643.9	2,493.3	0.00	0.00	0.00
7,600.0	0.44	270.64	6,306.5	-1,654.46	-3,401.7	-1,643.9	2,493.4	9.92	9.92	0.00
7,700.0	10.44	270.64	6,405.9	-1,753.89	-3,401.6	-1,653.4	2,502.4	10.00	10.00	0.00
7,800.0	20.44	270.64	6,502.2	-1,850.16	-3,401.3	-1,680.0	2,528.0	10.00	10.00	0.00
7,900.0	30.44	270.64	6,592.3	-1,940.35	-3,400.8	-1,722.9	2,569.2	10.00	10.00	0.00
8,000.0	40.44	270.64	6,673.7	-2,021.72	-3,400.2	-1,780.8	2,624.8	10.00	10.00	0.00
SHARON SPRINGS										
8,068.4	47.28	270.64	6,723.0	-2,071.00	-3,399.6	-1,828.1	2,670.3	10.00	10.00	0.00
8,100.0	50.44	270.64	6,743.8	-2,091.79	-3,399.4	-1,851.9	2,693.2	10.00	10.00	0.00
NIOBRARA										
8,114.7	51.91	270.64	6,753.0	-2,101.00	-3,399.2	-1,863.4	2,704.2	10.00	10.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-GLENFAIR 5-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4652.0usft (SAV 802)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4652.0usft (SAV 802)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENFAIR 5-8-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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)
8,200.0	60.44	270.64	6,800.4	-2,148.44	-3,398.4	-1,934.2	2,772.2	10.00	10.00	0.00
8,300.0	70.44	270.64	6,842.0	-2,189.95	-3,397.4	-2,025.0	2,859.4	10.00	10.00	0.00
8,400.0	80.44	270.64	6,867.1	-2,215.05	-3,396.3	-2,121.7	2,952.3	10.00	10.00	0.00
LANDING PNT :674ft FSL & 460ft FEL of Sec 8 - NIO B TARGET										
8,495.5	90.00	270.64	6,875.0	-2,223.00	-3,395.3	-2,216.8	3,043.6	10.00	10.00	0.00
8,500.0	90.00	270.64	6,875.0	-2,223.00	-3,395.2	-2,221.2	3,047.9	0.00	0.00	0.00
8,600.0	90.00	270.64	6,875.0	-2,223.00	-3,394.1	-2,321.2	3,144.0	0.00	0.00	0.00
8,700.0	90.00	270.64	6,875.0	-2,223.00	-3,393.0	-2,421.2	3,240.0	0.00	0.00	0.00
8,800.0	90.00	270.64	6,875.0	-2,223.00	-3,391.9	-2,521.2	3,336.1	0.00	0.00	0.00
8,900.0	90.00	270.64	6,875.0	-2,223.00	-3,390.7	-2,621.2	3,432.1	0.00	0.00	0.00
9,000.0	90.00	270.64	6,875.0	-2,223.01	-3,389.6	-2,721.2	3,528.2	0.00	0.00	0.00
9,100.0	90.00	270.64	6,875.0	-2,223.01	-3,388.5	-2,821.2	3,624.3	0.00	0.00	0.00
9,200.0	90.00	270.64	6,875.0	-2,223.01	-3,387.4	-2,921.2	3,720.3	0.00	0.00	0.00
9,300.0	90.00	270.64	6,875.0	-2,223.01	-3,386.3	-3,021.2	3,816.4	0.00	0.00	0.00
9,400.0	90.00	270.64	6,875.0	-2,223.01	-3,385.1	-3,121.2	3,912.4	0.00	0.00	0.00
9,500.0	90.00	270.64	6,875.0	-2,223.01	-3,384.0	-3,221.2	4,008.5	0.00	0.00	0.00
9,600.0	90.00	270.64	6,875.0	-2,223.01	-3,382.9	-3,321.1	4,104.5	0.00	0.00	0.00
9,700.0	90.00	270.64	6,875.0	-2,223.01	-3,381.8	-3,421.1	4,200.6	0.00	0.00	0.00
9,800.0	90.00	270.64	6,875.0	-2,223.01	-3,380.7	-3,521.1	4,296.6	0.00	0.00	0.00
9,900.0	90.00	270.64	6,875.0	-2,223.01	-3,379.5	-3,621.1	4,392.7	0.00	0.00	0.00
10,000.0	90.00	270.64	6,875.0	-2,223.02	-3,378.4	-3,721.1	4,488.8	0.00	0.00	0.00
10,100.0	90.00	270.64	6,875.0	-2,223.02	-3,377.3	-3,821.1	4,584.8	0.00	0.00	0.00
10,200.0	90.00	270.64	6,875.0	-2,223.02	-3,376.2	-3,921.1	4,680.9	0.00	0.00	0.00
10,300.0	90.00	270.64	6,875.0	-2,223.02	-3,375.0	-4,021.1	4,776.9	0.00	0.00	0.00
10,400.0	90.00	270.64	6,875.0	-2,223.02	-3,373.9	-4,121.1	4,873.0	0.00	0.00	0.00
10,500.0	90.00	270.64	6,875.0	-2,223.02	-3,372.8	-4,221.1	4,969.0	0.00	0.00	0.00
10,600.0	90.00	270.64	6,875.0	-2,223.02	-3,371.7	-4,321.1	5,065.1	0.00	0.00	0.00
10,700.0	90.00	270.64	6,875.0	-2,223.02	-3,370.6	-4,421.1	5,161.1	0.00	0.00	0.00
10,800.0	90.00	270.64	6,875.0	-2,223.02	-3,369.4	-4,521.1	5,257.2	0.00	0.00	0.00
10,900.0	90.00	270.64	6,875.0	-2,223.02	-3,368.3	-4,621.1	5,353.3	0.00	0.00	0.00
11,000.0	90.00	270.64	6,875.0	-2,223.02	-3,367.2	-4,721.1	5,449.3	0.00	0.00	0.00
11,100.0	90.00	270.64	6,875.0	-2,223.02	-3,366.1	-4,821.1	5,545.4	0.00	0.00	0.00
11,200.0	90.00	270.64	6,875.0	-2,223.02	-3,364.9	-4,921.0	5,641.4	0.00	0.00	0.00
11,300.0	90.00	270.64	6,875.0	-2,223.02	-3,363.8	-5,021.0	5,737.5	0.00	0.00	0.00
11,400.0	90.00	270.64	6,875.0	-2,223.03	-3,362.7	-5,121.0	5,833.5	0.00	0.00	0.00
11,500.0	90.00	270.64	6,875.0	-2,223.03	-3,361.6	-5,221.0	5,929.6	0.00	0.00	0.00
11,600.0	90.00	270.64	6,875.0	-2,223.03	-3,360.5	-5,321.0	6,025.6	0.00	0.00	0.00
11,700.0	90.00	270.64	6,875.0	-2,223.03	-3,359.3	-5,421.0	6,121.7	0.00	0.00	0.00
11,800.0	90.00	270.64	6,875.0	-2,223.03	-3,358.2	-5,521.0	6,217.8	0.00	0.00	0.00
11,900.0	90.00	270.64	6,875.0	-2,223.03	-3,357.1	-5,621.0	6,313.8	0.00	0.00	0.00
12,000.0	90.00	270.64	6,875.0	-2,223.03	-3,356.0	-5,721.0	6,409.9	0.00	0.00	0.00
12,100.0	90.00	270.64	6,875.0	-2,223.03	-3,354.8	-5,821.0	6,505.9	0.00	0.00	0.00
12,200.0	90.00	270.64	6,875.0	-2,223.03	-3,353.7	-5,921.0	6,602.0	0.00	0.00	0.00
12,300.0	90.00	270.64	6,875.0	-2,223.03	-3,352.6	-6,021.0	6,698.0	0.00	0.00	0.00
12,400.0	90.00	270.64	6,875.0	-2,223.03	-3,351.5	-6,121.0	6,794.1	0.00	0.00	0.00
12,500.0	90.00	270.64	6,875.0	-2,223.03	-3,350.3	-6,221.0	6,890.1	0.00	0.00	0.00
12,600.0	90.00	270.64	6,875.0	-2,223.03	-3,349.2	-6,321.0	6,986.2	0.00	0.00	0.00
12,700.0	90.00	270.64	6,875.0	-2,223.03	-3,348.1	-6,421.0	7,082.2	0.00	0.00	0.00
12,800.0	90.00	270.64	6,875.0	-2,223.03	-3,347.0	-6,520.9	7,178.3	0.00	0.00	0.00
12,900.0	90.00	270.64	6,875.0	-2,223.03	-3,345.8	-6,620.9	7,274.4	0.00	0.00	0.00
13,000.0	90.00	270.64	6,875.0	-2,223.03	-3,344.7	-6,720.9	7,370.4	0.00	0.00	0.00
13,100.0	90.00	270.64	6,875.0	-2,223.03	-3,343.6	-6,820.9	7,466.5	0.00	0.00	0.00
13,200.0	90.00	270.64	6,875.0	-2,223.03	-3,342.5	-6,920.9	7,562.5	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-GLENFAIR 5-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4652.0usft (SAV 802)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4652.0usft (SAV 802)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENFAIR 5-8-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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)
13,300.0	90.00	270.64	6,875.0	-2,223.03	-3,341.3	-7,020.9	7,658.6	0.00	0.00	0.00
13,400.0	90.00	270.64	6,875.0	-2,223.03	-3,340.2	-7,120.9	7,754.6	0.00	0.00	0.00
13,500.0	90.00	270.64	6,875.0	-2,223.03	-3,339.1	-7,220.9	7,850.7	0.00	0.00	0.00
13,600.0	90.00	270.64	6,875.0	-2,223.03	-3,338.0	-7,320.9	7,946.7	0.00	0.00	0.00
13,700.0	90.00	270.64	6,875.0	-2,223.03	-3,336.8	-7,420.9	8,042.8	0.00	0.00	0.00
13,800.0	90.00	270.64	6,875.0	-2,223.03	-3,335.7	-7,520.9	8,138.9	0.00	0.00	0.00
13,900.0	90.00	270.65	6,875.0	-2,223.03	-3,334.6	-7,620.9	8,234.9	0.00	0.00	0.00
14,000.0	90.00	270.65	6,875.0	-2,223.03	-3,333.5	-7,720.9	8,331.0	0.00	0.00	0.00
14,100.0	90.00	270.65	6,875.0	-2,223.03	-3,332.3	-7,820.9	8,427.0	0.00	0.00	0.00
14,200.0	90.00	270.65	6,875.0	-2,223.03	-3,331.2	-7,920.9	8,523.1	0.00	0.00	0.00
14,300.0	90.00	270.65	6,875.0	-2,223.03	-3,330.1	-8,020.9	8,619.1	0.00	0.00	0.00
14,400.0	90.00	270.65	6,875.0	-2,223.03	-3,329.0	-8,120.8	8,715.2	0.00	0.00	0.00
14,500.0	90.00	270.65	6,875.0	-2,223.03	-3,327.8	-8,220.8	8,811.2	0.00	0.00	0.00
14,600.0	90.00	270.65	6,875.0	-2,223.03	-3,326.7	-8,320.8	8,907.3	0.00	0.00	0.00
14,700.0	90.00	270.65	6,875.0	-2,223.03	-3,325.6	-8,420.8	9,003.3	0.00	0.00	0.00
14,800.0	90.00	270.65	6,875.0	-2,223.03	-3,324.4	-8,520.8	9,099.4	0.00	0.00	0.00
14,900.0	90.00	270.65	6,875.0	-2,223.03	-3,323.3	-8,620.8	9,195.4	0.00	0.00	0.00
15,000.0	90.00	270.65	6,875.0	-2,223.03	-3,322.2	-8,720.8	9,291.5	0.00	0.00	0.00
15,100.0	90.00	270.65	6,875.0	-2,223.03	-3,321.1	-8,820.8	9,387.6	0.00	0.00	0.00
15,200.0	90.00	270.65	6,875.0	-2,223.03	-3,319.9	-8,920.8	9,483.6	0.00	0.00	0.00
15,300.0	90.00	270.65	6,875.0	-2,223.02	-3,318.8	-9,020.8	9,579.7	0.00	0.00	0.00
15,400.0	90.00	270.65	6,875.0	-2,223.02	-3,317.7	-9,120.8	9,675.7	0.00	0.00	0.00
15,500.0	90.00	270.65	6,875.0	-2,223.02	-3,316.6	-9,220.8	9,771.8	0.00	0.00	0.00
15,600.0	90.00	270.65	6,875.0	-2,223.02	-3,315.4	-9,320.8	9,867.8	0.00	0.00	0.00
15,700.0	90.00	270.65	6,875.0	-2,223.02	-3,314.3	-9,420.8	9,963.9	0.00	0.00	0.00
15,800.0	90.00	270.65	6,875.0	-2,223.02	-3,313.2	-9,520.8	10,059.9	0.00	0.00	0.00
15,900.0	90.00	270.65	6,875.0	-2,223.02	-3,312.0	-9,620.8	10,156.0	0.00	0.00	0.00
16,000.0	90.00	270.65	6,875.0	-2,223.02	-3,310.9	-9,720.7	10,252.0	0.00	0.00	0.00
16,100.0	90.00	270.65	6,875.0	-2,223.02	-3,309.8	-9,820.7	10,348.1	0.00	0.00	0.00
16,200.0	90.00	270.65	6,875.0	-2,223.02	-3,308.7	-9,920.7	10,444.2	0.00	0.00	0.00
16,300.0	90.00	270.65	6,875.0	-2,223.02	-3,307.5	-10,020.7	10,540.2	0.00	0.00	0.00
16,400.0	90.00	270.65	6,875.0	-2,223.02	-3,306.4	-10,120.7	10,636.3	0.00	0.00	0.00
16,500.0	90.00	270.65	6,875.0	-2,223.02	-3,305.3	-10,220.7	10,732.3	0.00	0.00	0.00
16,600.0	90.00	270.65	6,875.0	-2,223.02	-3,304.2	-10,320.7	10,828.4	0.00	0.00	0.00
16,700.0	90.00	270.65	6,875.0	-2,223.02	-3,303.0	-10,420.7	10,924.4	0.00	0.00	0.00
16,800.0	90.00	270.65	6,875.0	-2,223.01	-3,301.9	-10,520.7	11,020.5	0.00	0.00	0.00
16,900.0	90.00	270.65	6,875.0	-2,223.01	-3,300.8	-10,620.7	11,116.5	0.00	0.00	0.00
17,000.0	90.00	270.65	6,875.0	-2,223.01	-3,299.6	-10,720.7	11,212.6	0.00	0.00	0.00
17,100.0	90.00	270.65	6,875.0	-2,223.01	-3,298.5	-10,820.7	11,308.6	0.00	0.00	0.00
17,200.0	90.00	270.65	6,875.0	-2,223.01	-3,297.4	-10,920.7	11,404.7	0.00	0.00	0.00
17,300.0	90.00	270.65	6,875.0	-2,223.01	-3,296.3	-11,020.7	11,500.7	0.00	0.00	0.00
17,400.0	90.00	270.65	6,875.0	-2,223.01	-3,295.1	-11,120.7	11,596.8	0.00	0.00	0.00
17,500.0	90.00	270.65	6,875.0	-2,223.01	-3,294.0	-11,220.6	11,692.9	0.00	0.00	0.00
17,600.0	90.00	270.65	6,875.0	-2,223.01	-3,292.9	-11,320.6	11,788.9	0.00	0.00	0.00
17,700.0	90.00	270.65	6,875.0	-2,223.01	-3,291.7	-11,420.6	11,885.0	0.00	0.00	0.00
17,800.0	90.00	270.65	6,875.0	-2,223.00	-3,290.6	-11,520.6	11,981.0	0.00	0.00	0.00
17,900.0	90.00	270.65	6,875.0	-2,223.00	-3,289.5	-11,620.6	12,077.1	0.00	0.00	0.00
18,000.0	90.00	270.65	6,875.0	-2,223.00	-3,288.3	-11,720.6	12,173.1	0.00	0.00	0.00
18,100.0	90.00	270.65	6,875.0	-2,223.00	-3,287.2	-11,820.6	12,269.2	0.00	0.00	0.00
BHL: 744ft FSL & 460ft FWL of Sec 7										
18,129.0	90.00	270.65	6,875.0	-2,223.00	-3,286.9	-11,849.6	12,297.0	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-GLENFAIR 5-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4652.0usft (SAV 802)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4652.0usft (SAV 802)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENFAIR 5-8-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Formations					
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,245.6	3,613.0	PARKMAN			
5,165.3	4,302.0	SUSSEX			
5,894.1	4,848.0	SHANNON			
8,068.4	6,723.0	SHARON SPRINGS			
8,114.7	6,753.0	NIOBRARA			
8,495.5	6,875.0	NIO B TARGET			

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	SHL: 1164ft FNL & 1755ft FWL of Sec 9
400.0	400.0	0.0	0.0	START NUDGE - SURFACE (2°/100ft BUR)
1,862.7	1,800.0	-329.0	-159.0	9 5/8" SURFACE CSG
1,927.7	1,856.7	-357.6	-172.8	START NUDGE - MAIN (4°/100ft BUR)
2,233.4	2,105.5	-516.6	-249.6	EOB TO 41.48° INC
6,528.6	5,323.3	-3,078.2	-1,487.6	END OF TANGENT
7,565.6	6,272.1	-3,401.7	-1,643.9	EOD TO VERTICAL
7,595.6	6,302.1	-3,401.7	-1,643.9	KOP (10°/100ft BUR)
8,495.5	6,875.0	-3,395.3	-2,216.7	LANDING PNT :674ft FSL & 460ft FEL of Sec 8
18,129.0	6,875.0	-3,286.9	-11,849.6	BHL: 744ft FSL & 460ft FWL of Sec 7