

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

SW SE SEC. 5 T11N R63W 6th P.M.

MEADER 4

ORIGINAL WELLBORE

08 July, 2015

Plan: PROPOSAL #1





Project: WELD COUNTY, COLORADO (NAD 83)
Site: SW SE SEC. 5 T11N R63W 6th P.M.
Well: MEADER 4
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS								
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation
100.0	100.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
958.2	971.5	17.43	260.49	-21.7	-129.7	4.3	131.6	EOB TO 17.43° INC
1600.0	1644.3	17.43	260.49	-55.0	-328.5	10.8	333.1	9 5/8" SURFACE CSG
6298.8	6569.3	17.43	260.49	-298.7	-1783.6	58.5	1808.4	END OF TANGENT
7157.0	7440.8	0.00	0.00	-320.4	-1913.3	62.8	1939.9	EOD TO VERTICAL
7187.0	7470.8	0.00	0.00	-320.4	-1913.3	62.8	1939.9	KOP (10°/100ft BUR)
7760.0	8370.9	90.00	359.91	252.6	-1914.2	624.7	2512.9	LANDING PNT - MEADER 4
7760.0	17716.8	90.00	359.91	9598.5	-1928.7	9790.3	11858.8	BHL - MEADER 4

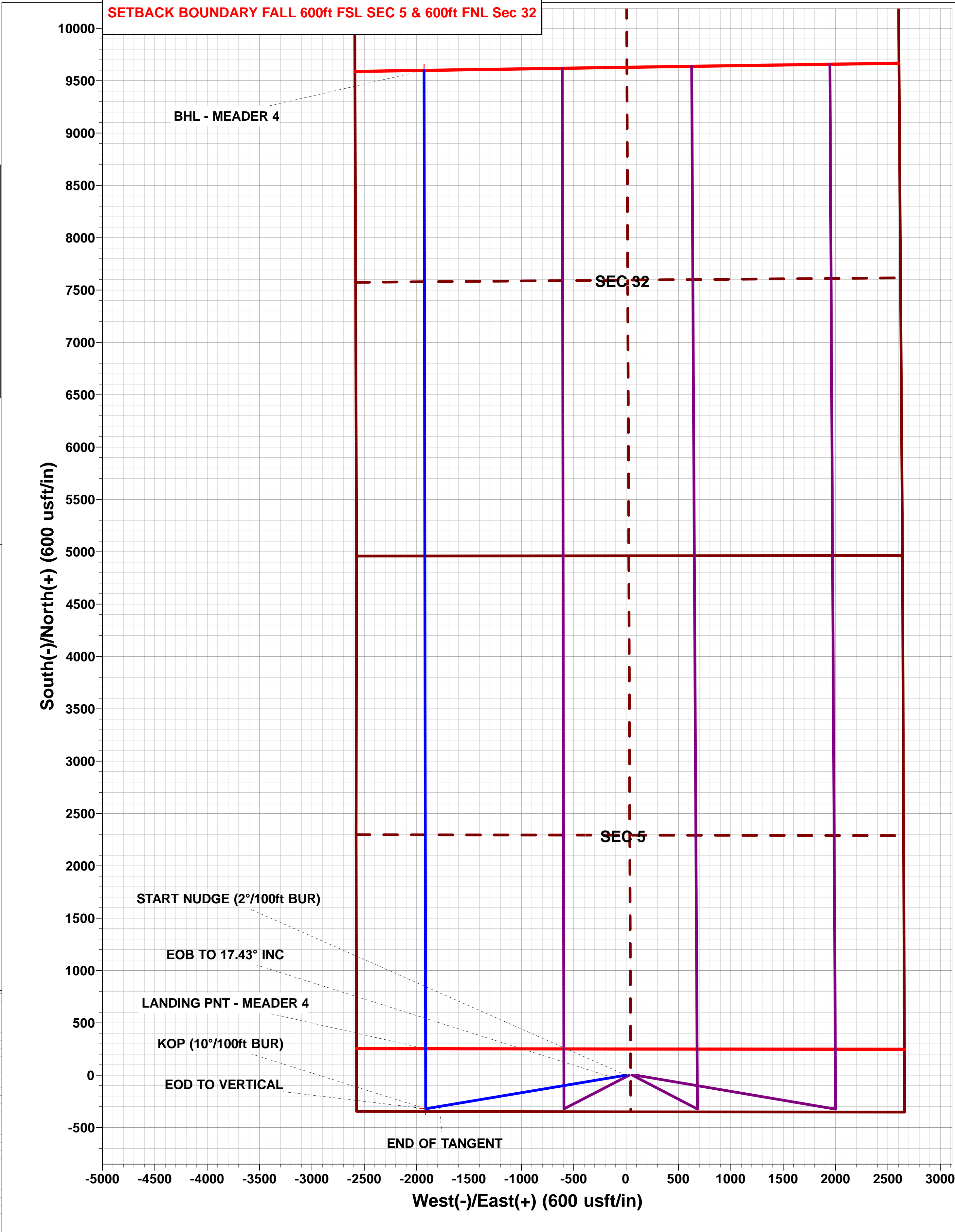
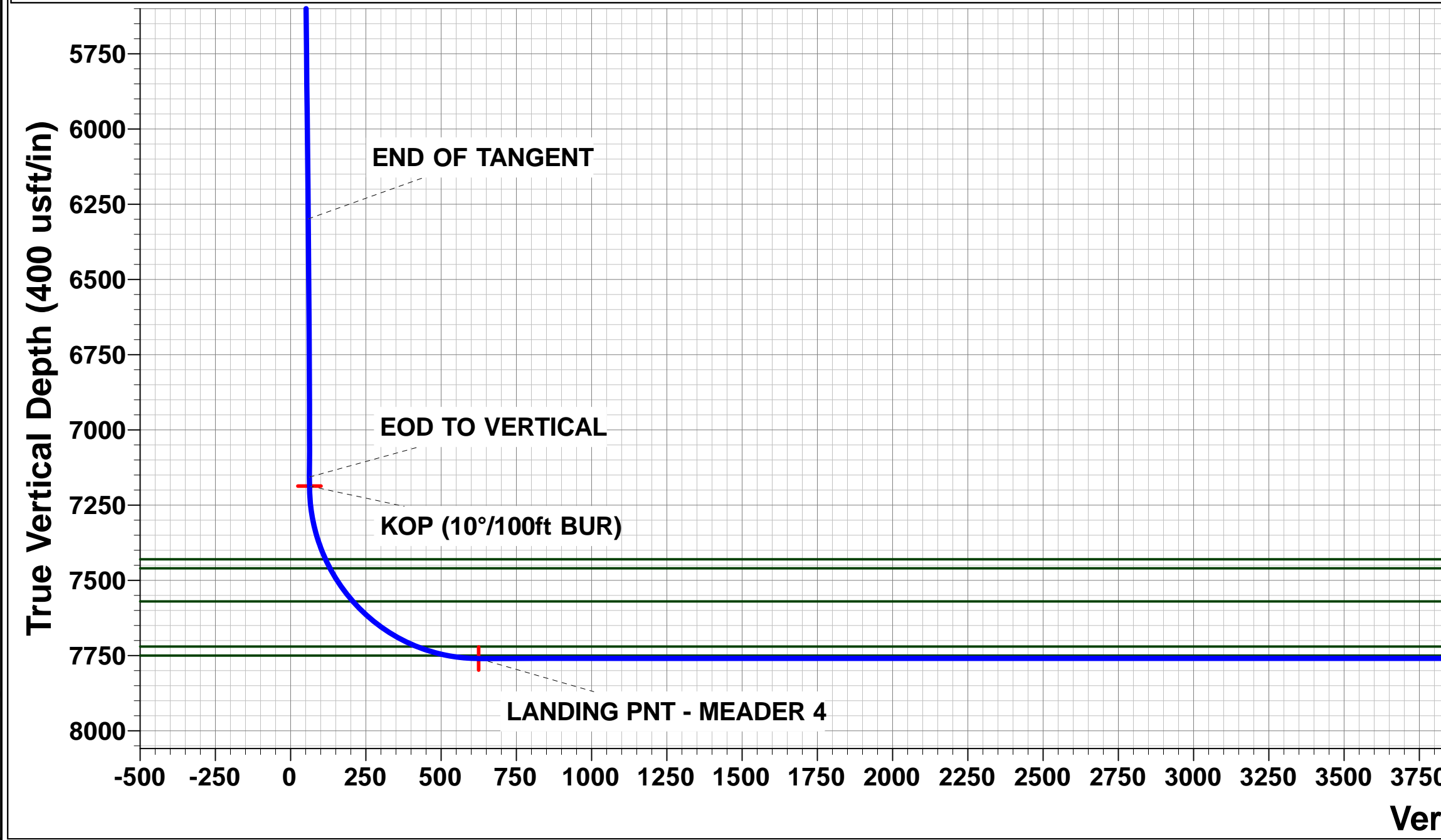
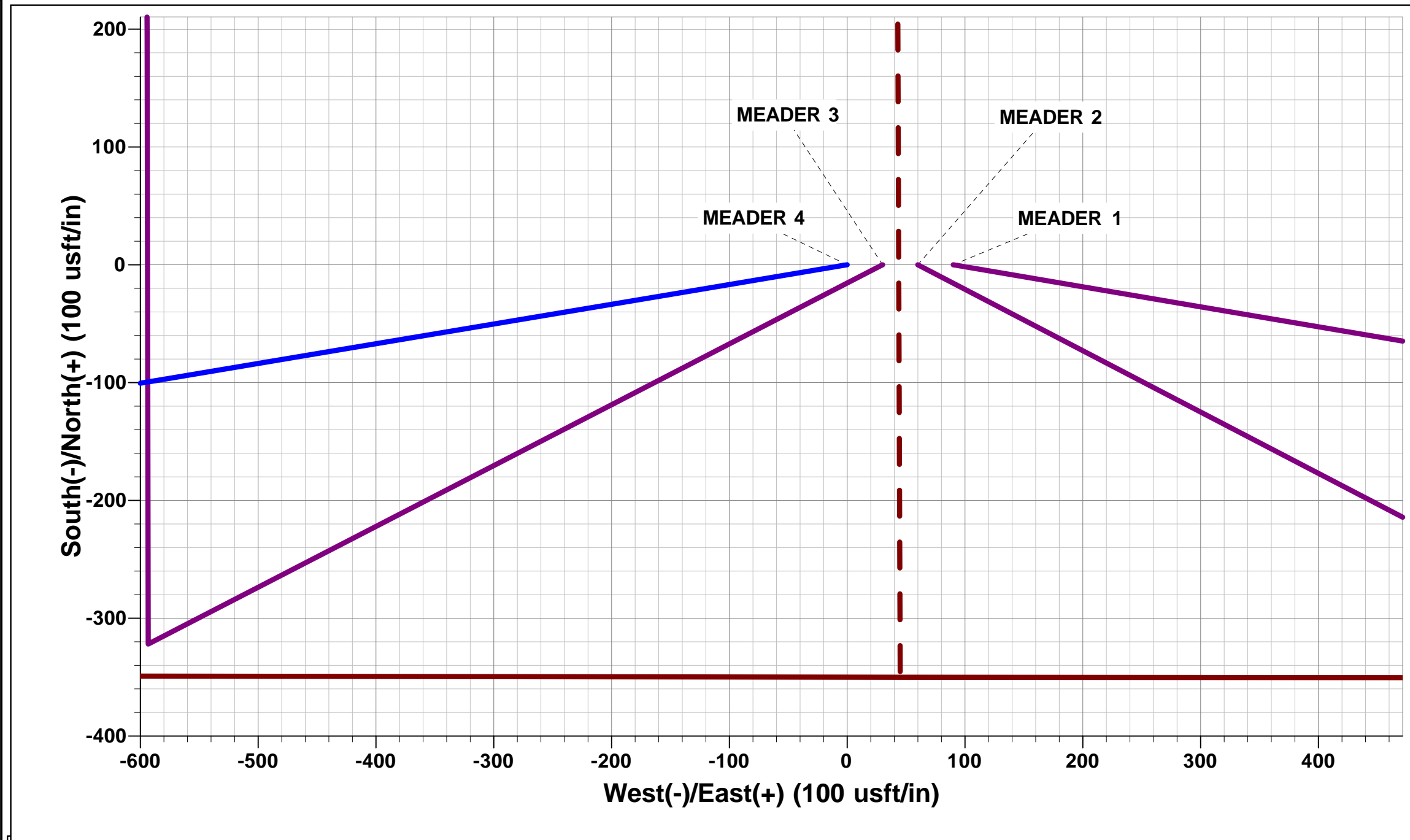
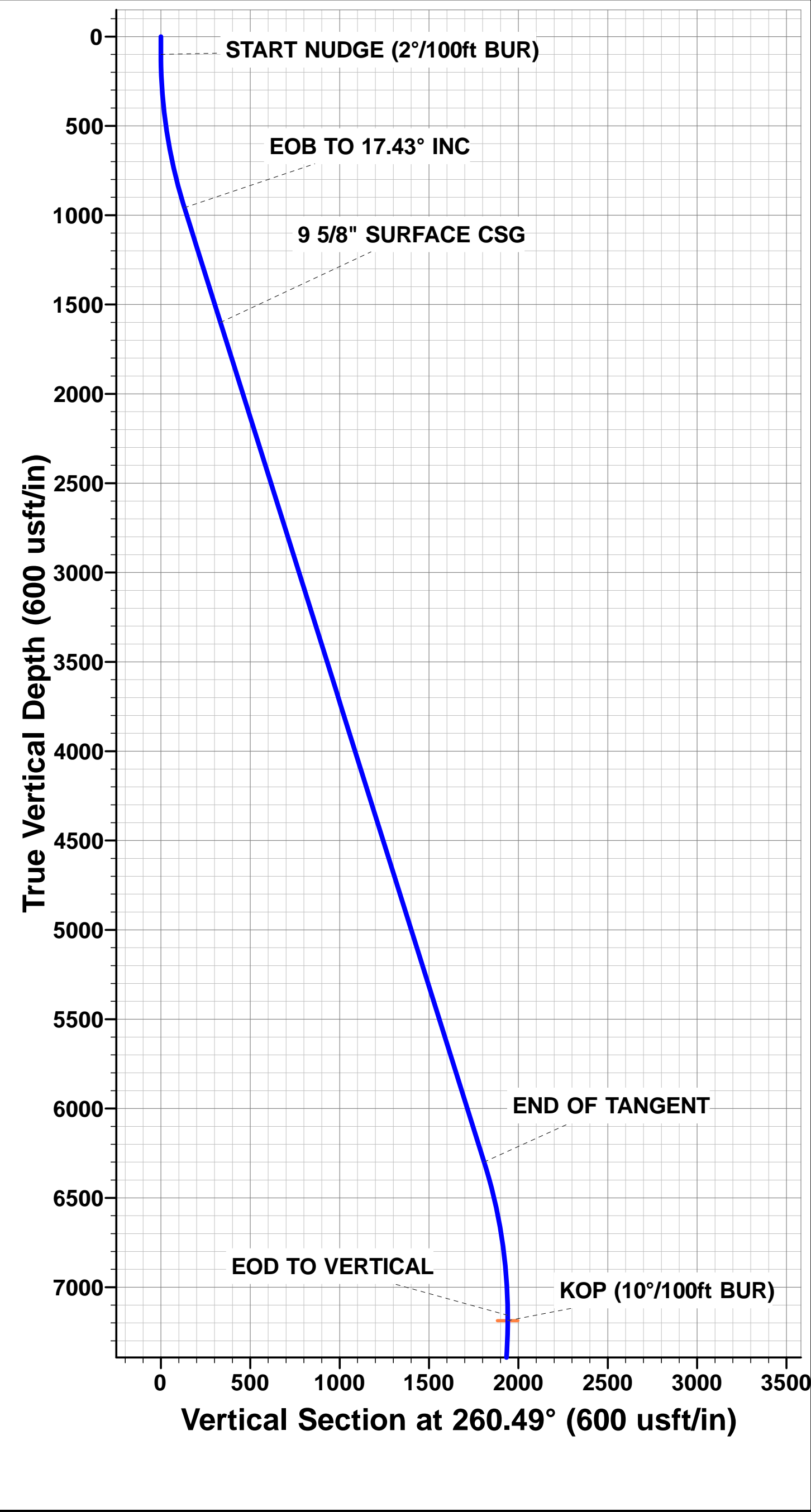
PROPOSED LOCAL COORDINATES:

SHL: 350ft FSL & 2574ft FWL Sec 5

LANDING PNT: 600ft FSL & 660ft FWL Sec 5

BHL: 600ft FNL & 660ft FWL Sec 32

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - MEADER 4	7187.0	-320.4	-1913.3	40.944150	-104.463951
LANDING PNT - MEADER 4	7760.0	252.6	-1914.2	40.945723	-104.463954
BHL - MEADER 4	7760.0	9598.5	-1928.7	40.971374	-104.464009



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MEADER 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5352.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5352.0usft (Original Well Elev)
Site:	SW SE SEC. 5 T11N R63W 6th P.M.	North Reference:	True
Well:	MEADER 4	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	SW SE SEC. 5 T11N R63W 6th P.M.		
Site Position:		Northing:	1,588,823.55 usft
From:	Lat/Long	Easting:	3,288,227.24 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.945030
		Longitude:	-104.456699
		Grid Convergence:	0.67 °

Well	MEADER 4		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	-90.1 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	40.945030
		Longitude:	-104.457025
		Ground Level:	5,336.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	08/07/2015	8.30	67.39	52,924

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 (°)
	7,760.0	0.0	0.0	348.64

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	-5,352.0	0.0	0.0	0.00	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	-5,252.0	0.0	0.0	0.00	0.00	0.00	0.00	
971.5	17.43	260.49	958.2	-4,393.8	-21.7	-129.7	2.00	2.00	0.00	260.49	
6,569.3	17.43	260.49	6,298.8	946.8	-298.7	-1,783.6	0.00	0.00	0.00	0.00	
7,440.8	0.00	0.00	7,157.0	1,805.0	-320.4	-1,913.3	2.00	-2.00	0.00	180.00	
7,470.8	0.00	0.00	7,187.0	1,835.0	-320.4	-1,913.3	0.00	0.00	0.00	0.00	KOP - MEADER 4
8,370.9	90.00	359.91	7,760.0	2,408.0	252.6	-1,914.2	10.00	10.00	-0.01	359.91	LANDING PNT - MI
17,716.8	90.00	359.91	7,760.0	2,408.0	9,598.5	-1,928.7	0.00	0.00	0.00	97.35	BHL - MEADER 4

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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5352.0usft (Original Well Elev)
Site:	SW SE SEC. 5 T11N R63W 6th P.M.	North Reference:	True
Well:	MEADER 4	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	5,352.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
100.0	0.00	0.00	100.0	5,252.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	2.00	260.49	200.0	5,152.02	-0.3	-1.7	0.1	2.00	2.00	0.00
300.0	4.00	260.49	299.8	5,052.16	-1.2	-6.9	0.2	2.00	2.00	0.00
400.0	6.00	260.49	399.5	4,952.55	-2.6	-15.5	0.5	2.00	2.00	0.00
500.0	8.00	260.49	498.7	4,853.30	-4.6	-27.5	0.9	2.00	2.00	0.00
600.0	10.00	260.49	597.5	4,754.53	-7.2	-42.9	1.4	2.00	2.00	0.00
700.0	12.00	260.49	695.6	4,656.38	-10.3	-61.7	2.0	2.00	2.00	0.00
800.0	14.00	260.49	793.1	4,558.94	-14.1	-83.9	2.8	2.00	2.00	0.00
900.0	16.00	260.49	889.6	4,462.36	-18.3	-109.5	3.6	2.00	2.00	0.00
EOB TO 17.43° INC										
971.5	17.43	260.49	958.2	4,393.84	-21.7	-129.7	4.3	2.00	2.00	0.00
1,000.0	17.43	260.49	985.3	4,366.69	-23.1	-138.2	4.5	0.00	0.00	0.00
1,100.0	17.43	260.49	1,080.7	4,271.28	-28.1	-167.7	5.5	0.00	0.00	0.00
1,200.0	17.43	260.49	1,176.1	4,175.87	-33.0	-197.2	6.5	0.00	0.00	0.00
1,300.0	17.43	260.49	1,271.5	4,080.47	-38.0	-226.8	7.4	0.00	0.00	0.00
1,400.0	17.43	260.49	1,366.9	3,985.06	-42.9	-256.3	8.4	0.00	0.00	0.00
1,500.0	17.43	260.49	1,462.4	3,889.65	-47.9	-285.9	9.4	0.00	0.00	0.00
PIERRE										
1,518.5	17.43	260.49	1,480.0	3,872.00	-48.8	-291.3	9.6	0.00	0.00	0.00
1,600.0	17.43	260.49	1,557.8	3,794.24	-52.8	-315.4	10.4	0.00	0.00	0.00
9 5/8" SURFACE CSG										
1,644.3	17.43	260.49	1,600.0	3,752.00	-55.0	-328.5	10.8	0.00	0.00	0.00
1,700.0	17.43	260.49	1,653.2	3,698.83	-57.8	-345.0	11.3	0.00	0.00	0.00
1,800.0	17.43	260.49	1,748.6	3,603.43	-62.7	-374.5	12.3	0.00	0.00	0.00
1,900.0	17.43	260.49	1,844.0	3,508.02	-67.7	-404.1	13.3	0.00	0.00	0.00
2,000.0	17.43	260.49	1,939.4	3,412.61	-72.6	-433.6	14.2	0.00	0.00	0.00
2,100.0	17.43	260.49	2,034.8	3,317.20	-77.6	-463.1	15.2	0.00	0.00	0.00
2,200.0	17.43	260.49	2,130.2	3,221.79	-82.5	-492.7	16.2	0.00	0.00	0.00
2,300.0	17.43	260.49	2,225.6	3,126.39	-87.5	-522.2	17.1	0.00	0.00	0.00
2,400.0	17.43	260.49	2,321.0	3,030.98	-92.4	-551.8	18.1	0.00	0.00	0.00
2,500.0	17.43	260.49	2,416.4	2,935.57	-97.3	-581.3	19.1	0.00	0.00	0.00
2,600.0	17.43	260.49	2,511.8	2,840.16	-102.3	-610.9	20.0	0.00	0.00	0.00
2,700.0	17.43	260.49	2,607.2	2,744.75	-107.2	-640.4	21.0	0.00	0.00	0.00
2,800.0	17.43	260.49	2,702.7	2,649.35	-112.2	-670.0	22.0	0.00	0.00	0.00
2,900.0	17.43	260.49	2,798.1	2,553.94	-117.1	-699.5	23.0	0.00	0.00	0.00
3,000.0	17.43	260.49	2,893.5	2,458.53	-122.1	-729.0	23.9	0.00	0.00	0.00
3,100.0	17.43	260.49	2,988.9	2,363.12	-127.0	-758.6	24.9	0.00	0.00	0.00
3,200.0	17.43	260.49	3,084.3	2,267.72	-132.0	-788.1	25.9	0.00	0.00	0.00
3,300.0	17.43	260.49	3,179.7	2,172.31	-136.9	-817.7	26.8	0.00	0.00	0.00
3,400.0	17.43	260.49	3,275.1	2,076.90	-141.9	-847.2	27.8	0.00	0.00	0.00
3,500.0	17.43	260.49	3,370.5	1,981.49	-146.8	-876.8	28.8	0.00	0.00	0.00
3,600.0	17.43	260.49	3,465.9	1,886.08	-151.8	-906.3	29.7	0.00	0.00	0.00
SUSSEX										
3,619.0	17.43	260.49	3,484.0	1,868.00	-152.7	-911.9	29.9	0.00	0.00	0.00
3,700.0	17.43	260.49	3,561.3	1,790.68	-156.7	-935.8	30.7	0.00	0.00	0.00
3,800.0	17.43	260.49	3,656.7	1,695.27	-161.7	-965.4	31.7	0.00	0.00	0.00
3,900.0	17.43	260.49	3,752.1	1,599.86	-166.6	-994.9	32.7	0.00	0.00	0.00
4,000.0	17.43	260.49	3,847.5	1,504.45	-171.6	-1,024.5	33.6	0.00	0.00	0.00
4,100.0	17.43	260.49	3,943.0	1,409.04	-176.5	-1,054.0	34.6	0.00	0.00	0.00
4,200.0	17.43	260.49	4,038.4	1,313.64	-181.5	-1,083.6	35.6	0.00	0.00	0.00
4,300.0	17.43	260.49	4,133.8	1,218.23	-186.4	-1,113.1	36.5	0.00	0.00	0.00
4,400.0	17.43	260.49	4,229.2	1,122.82	-191.3	-1,142.7	37.5	0.00	0.00	0.00

Planning Report



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Site:	SW SE SEC. 5 T11N R63W 6th P.M.	North Reference:	True
Well:	MEADER 4	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	17.43	260.49	4,324.6	1,027.41	-196.3	-1,172.2	38.5	0.00	0.00	0.00
SHANNON										
4,526.6	17.43	260.49	4,350.0	1,002.00	-197.6	-1,180.1	38.7	0.00	0.00	0.00
4,600.0	17.43	260.49	4,420.0	932.01	-201.2	-1,201.7	39.4	0.00	0.00	0.00
4,700.0	17.43	260.49	4,515.4	836.60	-206.2	-1,231.3	40.4	0.00	0.00	0.00
4,800.0	17.43	260.49	4,610.8	741.19	-211.1	-1,260.8	41.4	0.00	0.00	0.00
4,900.0	17.43	260.49	4,706.2	645.78	-216.1	-1,290.4	42.3	0.00	0.00	0.00
5,000.0	17.43	260.49	4,801.6	550.37	-221.0	-1,319.9	43.3	0.00	0.00	0.00
5,100.0	17.43	260.49	4,897.0	454.97	-226.0	-1,349.5	44.3	0.00	0.00	0.00
5,200.0	17.43	260.49	4,992.4	359.56	-230.9	-1,379.0	45.3	0.00	0.00	0.00
5,300.0	17.43	260.49	5,087.8	264.15	-235.9	-1,408.6	46.2	0.00	0.00	0.00
5,400.0	17.43	260.49	5,183.3	168.74	-240.8	-1,438.1	47.2	0.00	0.00	0.00
5,500.0	17.43	260.49	5,278.7	73.33	-245.8	-1,467.6	48.2	0.00	0.00	0.00
5,600.0	17.43	260.49	5,374.1	-22.07	-250.7	-1,497.2	49.1	0.00	0.00	0.00
5,700.0	17.43	260.49	5,469.5	-117.48	-255.7	-1,526.7	50.1	0.00	0.00	0.00
5,800.0	17.43	260.49	5,564.9	-212.89	-260.6	-1,556.3	51.1	0.00	0.00	0.00
5,900.0	17.43	260.49	5,660.3	-308.30	-265.6	-1,585.8	52.0	0.00	0.00	0.00
6,000.0	17.43	260.49	5,755.7	-403.70	-270.5	-1,615.4	53.0	0.00	0.00	0.00
6,100.0	17.43	260.49	5,851.1	-499.11	-275.5	-1,644.9	54.0	0.00	0.00	0.00
6,200.0	17.43	260.49	5,946.5	-594.52	-280.4	-1,674.5	55.0	0.00	0.00	0.00
6,300.0	17.43	260.49	6,041.9	-689.93	-285.4	-1,704.0	55.9	0.00	0.00	0.00
6,400.0	17.43	260.49	6,137.3	-785.34	-290.3	-1,733.5	56.9	0.00	0.00	0.00
6,500.0	17.43	260.49	6,232.7	-880.74	-295.2	-1,763.1	57.9	0.00	0.00	0.00
END OF TANGENT										
6,569.3	17.43	260.49	6,298.8	-946.84	-298.7	-1,783.6	58.5	0.00	0.00	0.00
6,600.0	16.82	260.49	6,328.2	-976.20	-300.2	-1,792.5	58.8	2.00	-2.00	0.00
6,700.0	14.82	260.49	6,424.4	-1,072.41	-304.7	-1,819.4	59.7	2.00	-2.00	0.00
6,800.0	12.82	260.49	6,521.5	-1,169.51	-308.6	-1,842.9	60.5	2.00	-2.00	0.00
6,900.0	10.82	260.49	6,619.4	-1,267.39	-312.0	-1,863.1	61.1	2.00	-2.00	0.00
7,000.0	8.82	260.49	6,717.9	-1,365.92	-314.8	-1,879.9	61.7	2.00	-2.00	0.00
7,100.0	6.82	260.49	6,817.0	-1,464.98	-317.1	-1,893.3	62.1	2.00	-2.00	0.00
7,200.0	4.82	260.49	6,916.5	-1,564.46	-318.7	-1,903.3	62.5	2.00	-2.00	0.00
7,300.0	2.82	260.49	7,016.2	-1,664.24	-319.8	-1,909.9	62.7	2.00	-2.00	0.00
7,400.0	0.82	260.49	7,116.2	-1,764.18	-320.4	-1,913.0	62.8	2.00	-2.00	0.00
EOD TO VERTICAL										
7,440.8	0.00	0.00	7,157.0	-1,805.00	-320.4	-1,913.3	62.8	2.00	-2.00	0.00
KOP (10°/100ft BUR)										
7,470.8	0.00	0.00	7,187.0	-1,835.00	-320.4	-1,913.3	62.8	0.00	0.00	0.00
7,500.0	2.92	359.91	7,216.2	-1,864.17	-319.7	-1,913.3	63.5	10.00	10.00	0.00
7,600.0	12.92	359.91	7,315.1	-1,963.09	-305.9	-1,913.3	77.0	10.00	10.00	0.00
7,700.0	22.92	359.91	7,410.1	-2,058.12	-275.2	-1,913.4	107.1	10.00	10.00	0.00
SHARON SPRINGS										
7,721.8	25.09	359.91	7,430.0	-2,078.00	-266.3	-1,913.4	115.8	10.00	10.00	0.00
NIOBRARA										
7,755.4	28.45	359.91	7,460.0	-2,108.00	-251.2	-1,913.4	130.7	10.00	10.00	0.00
7,800.0	32.92	359.91	7,498.4	-2,146.37	-228.4	-1,913.4	153.0	10.00	10.00	0.00
NIO B										
7,890.3	41.94	359.91	7,570.0	-2,218.00	-173.6	-1,913.5	206.8	10.00	10.00	0.00
7,900.0	42.91	359.91	7,577.2	-2,225.16	-167.0	-1,913.5	213.2	10.00	10.00	0.00
8,000.0	52.91	359.91	7,644.1	-2,292.10	-92.9	-1,913.7	285.9	10.00	10.00	0.00
8,100.0	62.91	359.91	7,697.2	-2,345.15	-8.3	-1,913.8	368.9	10.00	10.00	0.00
FORT HAYS										
8,155.5	68.46	359.91	7,720.0	-2,368.00	42.3	-1,913.9	418.5	10.00	10.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MEADER 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5352.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5352.0usft (Original Well Elev)
Site:	SW SE SEC. 5 T11N R63W 6th P.M.	North Reference:	True
Well:	MEADER 4	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)
8,200.0	72.91	359.91	7,734.7	-2,382.71	84.2	-1,913.9	459.6	10.00	10.00	0.00
CODELL										
8,263.7	79.28	359.91	7,750.0	-2,398.00	146.0	-1,914.0	520.2	10.00	10.00	0.00
8,300.0	82.91	359.91	7,755.6	-2,403.62	181.9	-1,914.1	555.4	10.00	10.00	0.00
LANDING PNT - MEADER 4										
8,370.9	90.00	359.91	7,760.0	-2,408.00	252.6	-1,914.2	624.7	10.00	10.00	0.00
8,400.0	90.00	359.91	7,760.0	-2,408.00	281.7	-1,914.3	653.3	0.00	0.00	0.00
8,500.0	90.00	359.91	7,760.0	-2,408.00	381.7	-1,914.4	751.4	0.00	0.00	0.00
8,600.0	90.00	359.91	7,760.0	-2,408.00	481.7	-1,914.6	849.4	0.00	0.00	0.00
8,700.0	90.00	359.91	7,760.0	-2,408.00	581.7	-1,914.7	947.5	0.00	0.00	0.00
8,800.0	90.00	359.91	7,760.0	-2,408.00	681.7	-1,914.9	1,045.6	0.00	0.00	0.00
8,900.0	90.00	359.91	7,760.0	-2,408.00	781.7	-1,915.0	1,143.7	0.00	0.00	0.00
9,000.0	90.00	359.91	7,760.0	-2,408.00	881.7	-1,915.2	1,241.7	0.00	0.00	0.00
9,100.0	90.00	359.91	7,760.0	-2,408.00	981.7	-1,915.4	1,339.8	0.00	0.00	0.00
9,200.0	90.00	359.91	7,760.0	-2,408.00	1,081.7	-1,915.5	1,437.9	0.00	0.00	0.00
9,300.0	90.00	359.91	7,760.0	-2,408.00	1,181.7	-1,915.7	1,535.9	0.00	0.00	0.00
9,400.0	90.00	359.91	7,760.0	-2,408.00	1,281.7	-1,915.8	1,634.0	0.00	0.00	0.00
9,500.0	90.00	359.91	7,760.0	-2,408.00	1,381.7	-1,916.0	1,732.1	0.00	0.00	0.00
9,600.0	90.00	359.91	7,760.0	-2,408.00	1,481.7	-1,916.1	1,830.2	0.00	0.00	0.00
9,700.0	90.00	359.91	7,760.0	-2,408.00	1,581.7	-1,916.3	1,928.2	0.00	0.00	0.00
9,800.0	90.00	359.91	7,760.0	-2,408.00	1,681.7	-1,916.5	2,026.3	0.00	0.00	0.00
9,900.0	90.00	359.91	7,760.0	-2,407.99	1,781.7	-1,916.6	2,124.4	0.00	0.00	0.00
10,000.0	90.00	359.91	7,760.0	-2,407.99	1,881.7	-1,916.8	2,222.4	0.00	0.00	0.00
10,100.0	90.00	359.91	7,760.0	-2,407.99	1,981.7	-1,916.9	2,320.5	0.00	0.00	0.00
10,200.0	90.00	359.91	7,760.0	-2,407.99	2,081.7	-1,917.1	2,418.6	0.00	0.00	0.00
10,300.0	90.00	359.91	7,760.0	-2,407.99	2,181.7	-1,917.2	2,516.6	0.00	0.00	0.00
10,400.0	90.00	359.91	7,760.0	-2,407.99	2,281.7	-1,917.4	2,614.7	0.00	0.00	0.00
10,500.0	90.00	359.91	7,760.0	-2,407.99	2,381.7	-1,917.6	2,712.8	0.00	0.00	0.00
10,600.0	90.00	359.91	7,760.0	-2,407.99	2,481.7	-1,917.7	2,810.9	0.00	0.00	0.00
10,700.0	90.00	359.91	7,760.0	-2,407.99	2,581.7	-1,917.9	2,908.9	0.00	0.00	0.00
10,800.0	90.00	359.91	7,760.0	-2,407.99	2,681.7	-1,918.0	3,007.0	0.00	0.00	0.00
10,900.0	90.00	359.91	7,760.0	-2,407.99	2,781.7	-1,918.2	3,105.1	0.00	0.00	0.00
11,000.0	90.00	359.91	7,760.0	-2,407.99	2,881.7	-1,918.3	3,203.1	0.00	0.00	0.00
11,100.0	90.00	359.91	7,760.0	-2,407.99	2,981.7	-1,918.5	3,301.2	0.00	0.00	0.00
11,200.0	90.00	359.91	7,760.0	-2,407.99	3,081.7	-1,918.6	3,399.3	0.00	0.00	0.00
11,300.0	90.00	359.91	7,760.0	-2,407.99	3,181.7	-1,918.8	3,497.4	0.00	0.00	0.00
11,400.0	90.00	359.91	7,760.0	-2,407.99	3,281.7	-1,919.0	3,595.4	0.00	0.00	0.00
11,500.0	90.00	359.91	7,760.0	-2,407.99	3,381.7	-1,919.1	3,693.5	0.00	0.00	0.00
11,600.0	90.00	359.91	7,760.0	-2,407.99	3,481.7	-1,919.3	3,791.6	0.00	0.00	0.00
11,700.0	90.00	359.91	7,760.0	-2,407.99	3,581.7	-1,919.4	3,889.6	0.00	0.00	0.00
11,800.0	90.00	359.91	7,760.0	-2,407.99	3,681.7	-1,919.6	3,987.7	0.00	0.00	0.00
11,900.0	90.00	359.91	7,760.0	-2,407.99	3,781.7	-1,919.7	4,085.8	0.00	0.00	0.00
12,000.0	90.00	359.91	7,760.0	-2,407.99	3,881.7	-1,919.9	4,183.9	0.00	0.00	0.00
12,100.0	90.00	359.91	7,760.0	-2,407.99	3,981.7	-1,920.0	4,281.9	0.00	0.00	0.00
12,200.0	90.00	359.91	7,760.0	-2,407.99	4,081.7	-1,920.2	4,380.0	0.00	0.00	0.00
12,300.0	90.00	359.91	7,760.0	-2,407.99	4,181.7	-1,920.4	4,478.1	0.00	0.00	0.00
12,400.0	90.00	359.91	7,760.0	-2,407.99	4,281.7	-1,920.5	4,576.1	0.00	0.00	0.00
12,500.0	90.00	359.91	7,760.0	-2,407.99	4,381.7	-1,920.7	4,674.2	0.00	0.00	0.00
12,600.0	90.00	359.91	7,760.0	-2,407.99	4,481.7	-1,920.8	4,772.3	0.00	0.00	0.00
12,700.0	90.00	359.91	7,760.0	-2,407.99	4,581.7	-1,921.0	4,870.4	0.00	0.00	0.00
12,800.0	90.00	359.91	7,760.0	-2,407.99	4,681.7	-1,921.1	4,968.4	0.00	0.00	0.00
12,900.0	90.00	359.91	7,760.0	-2,407.99	4,781.7	-1,921.3	5,066.5	0.00	0.00	0.00
13,000.0	90.00	359.91	7,760.0	-2,407.99	4,881.7	-1,921.4	5,164.6	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MEADER 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5352.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5352.0usft (Original Well Elev)
Site:	SW SE SEC. 5 T11N R63W 6th P.M.	North Reference:	True
Well:	MEADER 4	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	359.91	7,760.0	-2,407.99	4,981.7	-1,921.6	5,262.6	0.00	0.00	0.00
13,200.0	90.00	359.91	7,760.0	-2,407.99	5,081.7	-1,921.7	5,360.7	0.00	0.00	0.00
13,300.0	90.00	359.91	7,760.0	-2,407.99	5,181.7	-1,921.9	5,458.8	0.00	0.00	0.00
13,400.0	90.00	359.91	7,760.0	-2,407.99	5,281.7	-1,922.1	5,556.8	0.00	0.00	0.00
13,500.0	90.00	359.91	7,760.0	-2,407.99	5,381.7	-1,922.2	5,654.9	0.00	0.00	0.00
13,600.0	90.00	359.91	7,760.0	-2,407.99	5,481.7	-1,922.4	5,753.0	0.00	0.00	0.00
13,700.0	90.00	359.91	7,760.0	-2,407.99	5,581.7	-1,922.5	5,851.1	0.00	0.00	0.00
13,800.0	90.00	359.91	7,760.0	-2,407.99	5,681.7	-1,922.7	5,949.1	0.00	0.00	0.00
13,900.0	90.00	359.91	7,760.0	-2,407.99	5,781.7	-1,922.8	6,047.2	0.00	0.00	0.00
14,000.0	90.00	359.91	7,760.0	-2,407.99	5,881.7	-1,923.0	6,145.3	0.00	0.00	0.00
14,100.0	90.00	359.91	7,760.0	-2,407.99	5,981.7	-1,923.1	6,243.3	0.00	0.00	0.00
14,200.0	90.00	359.91	7,760.0	-2,407.99	6,081.7	-1,923.3	6,341.4	0.00	0.00	0.00
14,300.0	90.00	359.91	7,760.0	-2,407.99	6,181.7	-1,923.4	6,439.5	0.00	0.00	0.00
14,400.0	90.00	359.91	7,760.0	-2,407.99	6,281.7	-1,923.6	6,537.6	0.00	0.00	0.00
14,500.0	90.00	359.91	7,760.0	-2,407.99	6,381.7	-1,923.8	6,635.6	0.00	0.00	0.00
14,600.0	90.00	359.91	7,760.0	-2,407.99	6,481.7	-1,923.9	6,733.7	0.00	0.00	0.00
14,700.0	90.00	359.91	7,760.0	-2,407.99	6,581.7	-1,924.1	6,831.8	0.00	0.00	0.00
14,800.0	90.00	359.91	7,760.0	-2,407.99	6,681.7	-1,924.2	6,929.8	0.00	0.00	0.00
14,900.0	90.00	359.91	7,760.0	-2,407.99	6,781.7	-1,924.4	7,027.9	0.00	0.00	0.00
15,000.0	90.00	359.91	7,760.0	-2,407.99	6,881.7	-1,924.5	7,126.0	0.00	0.00	0.00
15,100.0	90.00	359.91	7,760.0	-2,407.99	6,981.7	-1,924.7	7,224.0	0.00	0.00	0.00
15,200.0	90.00	359.91	7,760.0	-2,407.99	7,081.7	-1,924.8	7,322.1	0.00	0.00	0.00
15,300.0	90.00	359.91	7,760.0	-2,407.99	7,181.7	-1,925.0	7,420.2	0.00	0.00	0.00
15,400.0	90.00	359.91	7,760.0	-2,407.99	7,281.7	-1,925.1	7,518.3	0.00	0.00	0.00
15,500.0	90.00	359.91	7,760.0	-2,407.99	7,381.7	-1,925.3	7,616.3	0.00	0.00	0.00
15,600.0	90.00	359.91	7,760.0	-2,407.99	7,481.7	-1,925.4	7,714.4	0.00	0.00	0.00
15,700.0	90.00	359.91	7,760.0	-2,407.99	7,581.7	-1,925.6	7,812.5	0.00	0.00	0.00
15,800.0	90.00	359.91	7,760.0	-2,407.99	7,681.7	-1,925.7	7,910.5	0.00	0.00	0.00
15,900.0	90.00	359.91	7,760.0	-2,407.99	7,781.7	-1,925.9	8,008.6	0.00	0.00	0.00
16,000.0	90.00	359.91	7,760.0	-2,407.99	7,881.7	-1,926.1	8,106.7	0.00	0.00	0.00
16,100.0	90.00	359.91	7,760.0	-2,407.99	7,981.7	-1,926.2	8,204.8	0.00	0.00	0.00
16,200.0	90.00	359.91	7,760.0	-2,407.99	8,081.7	-1,926.4	8,302.8	0.00	0.00	0.00
16,300.0	90.00	359.91	7,760.0	-2,408.00	8,181.7	-1,926.5	8,400.9	0.00	0.00	0.00
16,400.0	90.00	359.91	7,760.0	-2,408.00	8,281.7	-1,926.7	8,499.0	0.00	0.00	0.00
16,500.0	90.00	359.91	7,760.0	-2,408.00	8,381.7	-1,926.8	8,597.0	0.00	0.00	0.00
16,600.0	90.00	359.91	7,760.0	-2,408.00	8,481.7	-1,927.0	8,695.1	0.00	0.00	0.00
16,700.0	90.00	359.91	7,760.0	-2,408.00	8,581.7	-1,927.1	8,793.2	0.00	0.00	0.00
16,800.0	90.00	359.91	7,760.0	-2,408.00	8,681.7	-1,927.3	8,891.2	0.00	0.00	0.00
16,900.0	90.00	359.91	7,760.0	-2,408.00	8,781.7	-1,927.4	8,989.3	0.00	0.00	0.00
17,000.0	90.00	359.91	7,760.0	-2,408.00	8,881.7	-1,927.6	9,087.4	0.00	0.00	0.00
17,100.0	90.00	359.91	7,760.0	-2,408.00	8,981.7	-1,927.7	9,185.5	0.00	0.00	0.00
17,200.0	90.00	359.91	7,760.0	-2,408.00	9,081.7	-1,927.9	9,283.5	0.00	0.00	0.00
17,300.0	90.00	359.91	7,760.0	-2,408.00	9,181.7	-1,928.0	9,381.6	0.00	0.00	0.00
17,400.0	90.00	359.91	7,760.0	-2,408.00	9,281.7	-1,928.2	9,479.7	0.00	0.00	0.00
17,500.0	90.00	359.91	7,760.0	-2,408.00	9,381.7	-1,928.3	9,577.7	0.00	0.00	0.00
17,600.0	90.00	359.91	7,760.0	-2,408.00	9,481.7	-1,928.5	9,675.8	0.00	0.00	0.00
17,700.0	90.00	359.91	7,760.0	-2,408.00	9,581.7	-1,928.6	9,773.9	0.00	0.00	0.00
BHL - MEADER 4										
17,716.8	90.00	359.91	7,760.0	-2,408.00	9,598.5	-1,928.7	9,790.3	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MEADER 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5352.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5352.0usft (Original Well Elev)
Site:	SW SE SEC. 5 T11N R63W 6th P.M.	North Reference:	True
Well:	MEADER 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Formations					
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,518.5	1,480.0	PIERRE		0.00	
3,619.0	3,484.0	SUSSEX		0.00	
4,526.6	4,350.0	SHANNON		0.00	
7,721.8	7,430.0	SHARON SPRINGS		0.00	
7,755.4	7,460.0	NIOBRARA		0.00	
7,890.3	7,570.0	NIO B		0.00	
8,155.5	7,720.0	FORT HAYS		0.00	
8,263.7	7,750.0	CODELL		0.00	

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
100.0	100.0	0.0	0.0	START NUDGE (2°/100ft BUR)
971.5	958.2	-21.7	-129.7	EOB TO 17.43° INC
1,644.3	1,600.0	-55.0	-328.5	9 5/8" SURFACE CSG
6,569.3	6,298.8	-298.7	-1,783.6	END OF TANGENT
7,440.8	7,157.0	-320.4	-1,913.3	EOD TO VERTICAL
7,470.8	7,187.0	-320.4	-1,913.3	KOP (10°/100ft BUR)
8,370.9	7,760.0	252.6	-1,914.2	LANDING PNT - MEADER 4
17,716.8	7,760.0	9,598.5	-1,928.7	BHL - MEADER 4