

# **EXTRACTION OIL & GAS**

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

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

**MEADER 4**

**ORIGINAL WELLBORE**

**25 September, 2015**

**Plan: PROPOSAL #2**



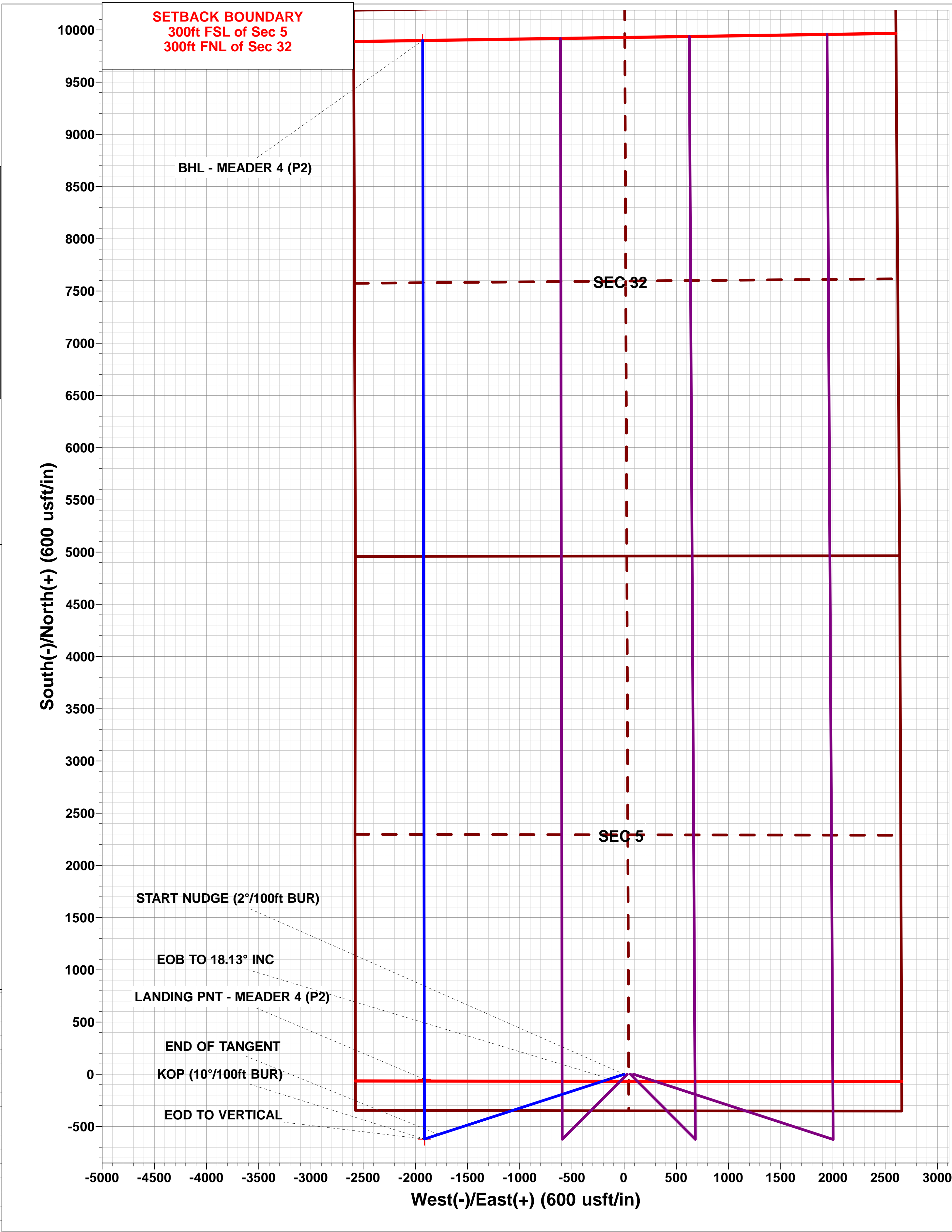
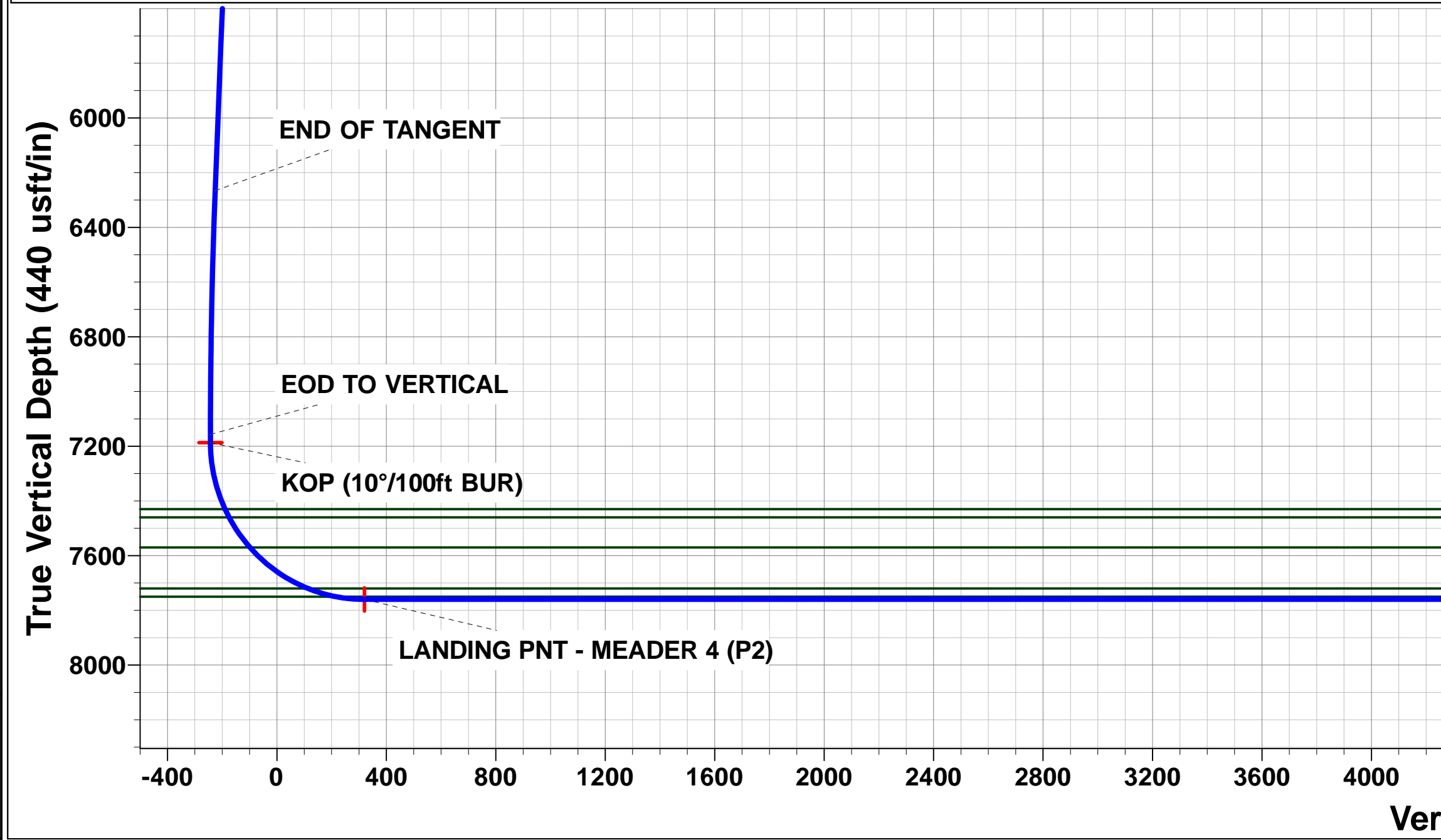
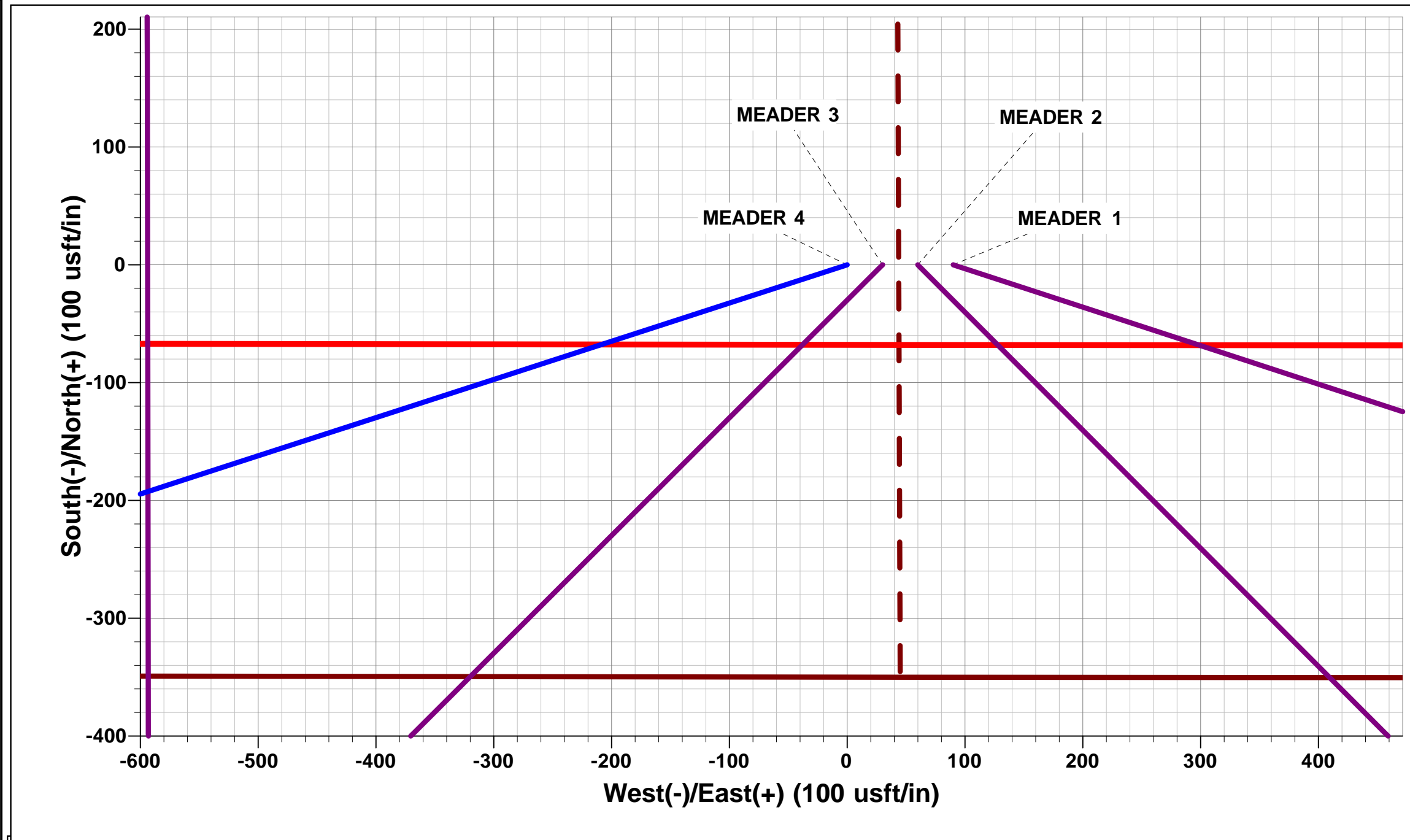
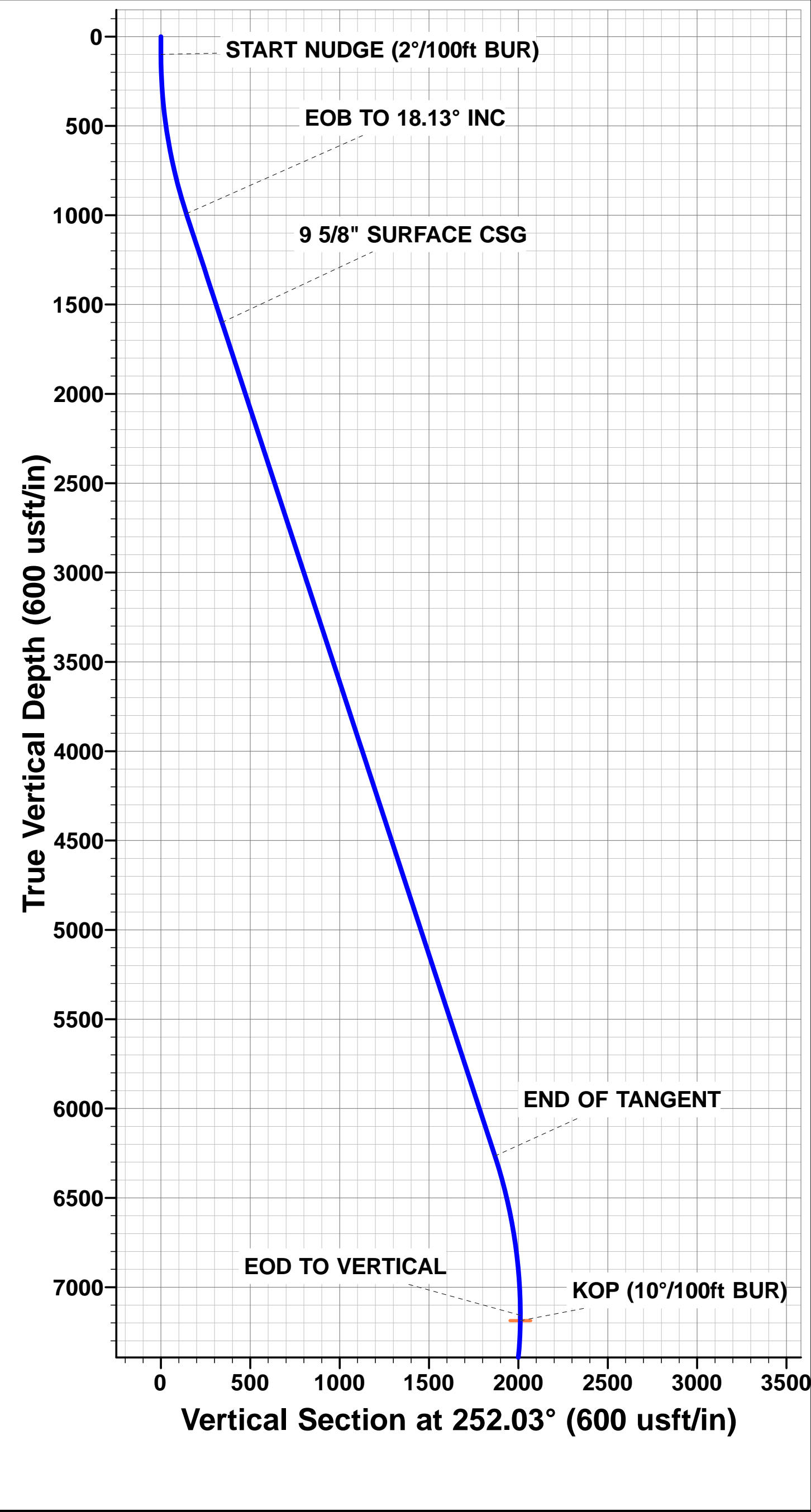


Project: WELD COUNTY, COLORADO (NAD 83)  
Site: SW SE SEC. 5 T11N R63W 6th P.M.  
Well: MEADER 4  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #2

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Dep	Annotation	
100.0	100.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)	
991.3	1006.3	18.13	252.03	-43.9	-135.2	-17.2	142.2	EOB TO 18.13° INC	
1600.0	1646.8	18.13	252.03	-105.3	-324.8	-41.2	341.4	9 5/8" SURFACE CSG	
6265.8	6556.2	18.13	252.03	-576.4	-1777.6	-225.7	1868.7	END OF TANGENT	
7157.0	7462.5	0.00	0.00	-620.3	-1912.8	-242.9	2010.9	EOD TO VERTICAL	
7187.0	7492.5	0.00	0.00	-620.3	-1912.8	-242.9	2010.9	KOP (10°/100ft BUR)	
7760.0	8392.6	90.00	359.91	-47.2	-1913.7	319.8	2583.9	LANDING PNT - MEADER 4 (P2)	
7760.0	18338.6	90.00	359.91	9898.7	-1929.5	10085.0	12529.9	BHL - MEADER 4 (P2)	

PROPOSED LOCAL COORDINATES:	
SHL: 350ft FSL & 2574ft FWL Sec 5	
LANDING PNT: 300ft FSL & 660ft FWL Sec 5	
BHL: 300ft FNL & 660ft FWL Sec 32	

WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
KOP - MEADER 4 (P2)	7187.0	-620.3	-1912.8	40.943327	-104.463949	
LANDING PNT - MEADER 4 (P2)	7760.0	-47.3	-1913.7	40.944900	-104.463952	
BHL - MEADER 4 (P2)	7760.0	9898.7	-1929.5	40.972198	-104.464012	



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MEADER 4
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Site:</b>	SW SE SEC. 5 T11N R63W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MEADER 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #2		

<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>	SW SE SEC. 5 T11N R63W 6th P.M.		
<b>Site Position:</b>		<b>Northing:</b>	1,588,823.55 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,288,227.24 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	1.10000ft
		<b>Latitude:</b>	40.945030
		<b>Longitude:</b>	-104.456699
		<b>Grid Convergence:</b>	0.67 °

<b>Well</b>	MEADER 4		
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>
	<b>+E/-W</b>	-90.1 usft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	usft
		<b>Latitude:</b>	40.945030
		<b>Longitude:</b>	-104.457025
		<b>Ground Level:</b>	5,336.0 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	08/07/2015	8.30	67.39	52,924

<b>Design</b>	PROPOSAL #2			
<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>
	7,760.0	0.0	0.0	348.97

<b>Plan Sections</b>											
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	-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	
1,006.3	18.13	252.03	991.2	-4,360.8	-43.9	-135.2	2.00	2.00	0.00	252.03	
6,556.2	18.13	252.03	6,265.8	913.8	-576.4	-1,777.6	0.00	0.00	0.00	0.00	
7,462.5	0.00	0.00	7,157.0	1,805.0	-620.3	-1,912.8	2.00	-2.00	0.00	180.00	
7,492.5	0.00	0.00	7,187.0	1,835.0	-620.3	-1,912.8	0.00	0.00	0.00	0.00	KOP - MEADER 4 (
8,392.6	90.00	359.91	7,760.0	2,408.0	-47.3	-1,913.7	10.00	10.00	-0.01	359.91	LANDING PNT - MI
18,338.6	90.00	359.91	7,760.0	2,408.0	9,898.7	-1,929.5	0.00	0.00	0.00	-143.04	BHL - MEADER 4 (

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MEADER 4
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Site:</b>	SW SE SEC. 5 T11N R63W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MEADER 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
0.0	0.00	0.00	0.0	5,352.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
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	252.03	200.0	5,152.02	-0.5	-1.7	-0.2	2.00	2.00	0.00
300.0	4.00	252.03	299.8	5,052.16	-2.2	-6.6	-0.8	2.00	2.00	0.00
400.0	6.00	252.03	399.5	4,952.55	-4.8	-14.9	-1.9	2.00	2.00	0.00
500.0	8.00	252.03	498.7	4,853.30	-8.6	-26.5	-3.4	2.00	2.00	0.00
600.0	10.00	252.03	597.5	4,754.53	-13.4	-41.4	-5.3	2.00	2.00	0.00
700.0	12.00	252.03	695.6	4,656.38	-19.3	-59.5	-7.6	2.00	2.00	0.00
800.0	14.00	252.03	793.1	4,558.94	-26.3	-80.9	-10.3	2.00	2.00	0.00
900.0	16.00	252.03	889.6	4,462.36	-34.2	-105.6	-13.4	2.00	2.00	0.00
1,000.0	18.00	252.03	985.3	4,366.73	-43.3	-133.4	-16.9	2.00	2.00	0.00
<b>EOB TO 18.13° INC</b>										
1,006.3	18.13	252.03	991.3	4,360.74	-43.9	-135.2	-17.2	1.99	1.99	0.00
1,100.0	18.13	252.03	1,080.3	4,271.69	-52.8	-163.0	-20.7	0.00	0.00	0.00
1,200.0	18.13	252.03	1,175.3	4,176.65	-62.4	-192.6	-24.5	0.00	0.00	0.00
1,300.0	18.13	252.03	1,270.4	4,081.62	-72.0	-222.1	-28.2	0.00	0.00	0.00
1,400.0	18.13	252.03	1,365.4	3,986.58	-81.6	-251.7	-32.0	0.00	0.00	0.00
1,500.0	18.13	252.03	1,460.5	3,891.54	-91.2	-281.3	-35.7	0.00	0.00	0.00
<b>PIERRE</b>										
1,520.6	18.13	252.03	1,480.0	3,872.00	-93.2	-287.4	-36.5	0.00	0.00	0.00
1,600.0	18.13	252.03	1,555.5	3,796.50	-100.8	-310.9	-39.5	0.00	0.00	0.00
<b>9 5/8" SURFACE CSG</b>										
1,646.8	18.13	252.03	1,600.0	3,752.00	-105.3	-324.8	-41.2	0.00	0.00	0.00
1,700.0	18.13	252.03	1,650.5	3,701.46	-110.4	-340.5	-43.2	0.00	0.00	0.00
1,800.0	18.13	252.03	1,745.6	3,606.43	-120.0	-370.1	-47.0	0.00	0.00	0.00
1,900.0	18.13	252.03	1,840.6	3,511.39	-129.6	-399.7	-50.8	0.00	0.00	0.00
2,000.0	18.13	252.03	1,935.6	3,416.35	-139.2	-429.3	-54.5	0.00	0.00	0.00
2,100.0	18.13	252.03	2,030.7	3,321.31	-148.8	-458.9	-58.3	0.00	0.00	0.00
2,200.0	18.13	252.03	2,125.7	3,226.27	-158.4	-488.5	-62.0	0.00	0.00	0.00
2,300.0	18.13	252.03	2,220.8	3,131.24	-168.0	-518.1	-65.8	0.00	0.00	0.00
2,400.0	18.13	252.03	2,315.8	3,036.20	-177.6	-547.7	-69.5	0.00	0.00	0.00
2,500.0	18.13	252.03	2,410.8	2,941.16	-187.2	-577.3	-73.3	0.00	0.00	0.00
2,600.0	18.13	252.03	2,505.9	2,846.12	-196.8	-606.8	-77.1	0.00	0.00	0.00
2,700.0	18.13	252.03	2,600.9	2,751.08	-206.4	-636.4	-80.8	0.00	0.00	0.00
2,800.0	18.13	252.03	2,696.0	2,656.05	-216.0	-666.0	-84.6	0.00	0.00	0.00
2,900.0	18.13	252.03	2,791.0	2,561.01	-225.6	-695.6	-88.3	0.00	0.00	0.00
3,000.0	18.13	252.03	2,886.0	2,465.97	-235.2	-725.2	-92.1	0.00	0.00	0.00
3,100.0	18.13	252.03	2,981.1	2,370.93	-244.8	-754.8	-95.8	0.00	0.00	0.00
3,200.0	18.13	252.03	3,076.1	2,275.90	-254.4	-784.4	-99.6	0.00	0.00	0.00
3,300.0	18.13	252.03	3,171.1	2,180.86	-264.0	-814.0	-103.4	0.00	0.00	0.00
3,400.0	18.13	252.03	3,266.2	2,085.82	-273.6	-843.6	-107.1	0.00	0.00	0.00
3,500.0	18.13	252.03	3,361.2	1,990.78	-283.2	-873.2	-110.9	0.00	0.00	0.00
3,600.0	18.13	252.03	3,456.3	1,895.74	-292.8	-902.8	-114.6	0.00	0.00	0.00
<b>SUSSEX</b>										
3,629.2	18.13	252.03	3,484.0	1,868.00	-295.6	-911.4	-115.7	0.00	0.00	0.00
3,700.0	18.13	252.03	3,551.3	1,800.71	-302.4	-932.4	-118.4	0.00	0.00	0.00
3,800.0	18.13	252.03	3,646.3	1,705.67	-312.0	-962.0	-122.1	0.00	0.00	0.00
3,900.0	18.13	252.03	3,741.4	1,610.63	-321.5	-991.5	-125.9	0.00	0.00	0.00
4,000.0	18.13	252.03	3,836.4	1,515.59	-331.1	-1,021.1	-129.7	0.00	0.00	0.00
4,100.0	18.13	252.03	3,931.4	1,420.55	-340.7	-1,050.7	-133.4	0.00	0.00	0.00
4,200.0	18.13	252.03	4,026.5	1,325.52	-350.3	-1,080.3	-137.2	0.00	0.00	0.00
4,300.0	18.13	252.03	4,121.5	1,230.48	-359.9	-1,109.9	-140.9	0.00	0.00	0.00
4,400.0	18.13	252.03	4,216.6	1,135.44	-369.5	-1,139.5	-144.7	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MEADER 4
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Site:</b>	SW SE SEC. 5 T11N R63W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MEADER 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
4,500.0	18.13	252.03	4,311.6	1,040.40	-379.1	-1,169.1	-148.4	0.00	0.00	0.00
<b>SHANNON</b>										
<b>4,540.4</b>	<b>18.13</b>	<b>252.03</b>	<b>4,350.0</b>	<b>1,002.00</b>	<b>-383.0</b>	<b>-1,181.1</b>	<b>-150.0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
4,600.0	18.13	252.03	4,406.6	945.36	-388.7	-1,198.7	-152.2	0.00	0.00	0.00
4,700.0	18.13	252.03	4,501.7	850.33	-398.3	-1,228.3	-156.0	0.00	0.00	0.00
4,800.0	18.13	252.03	4,596.7	755.29	-407.9	-1,257.9	-159.7	0.00	0.00	0.00
4,900.0	18.13	252.03	4,691.7	660.25	-417.5	-1,287.5	-163.5	0.00	0.00	0.00
5,000.0	18.13	252.03	4,786.8	565.21	-427.1	-1,317.1	-167.2	0.00	0.00	0.00
5,100.0	18.13	252.03	4,881.8	470.17	-436.7	-1,346.7	-171.0	0.00	0.00	0.00
5,200.0	18.13	252.03	4,976.9	375.14	-446.3	-1,376.2	-174.8	0.00	0.00	0.00
5,300.0	18.13	252.03	5,071.9	280.10	-455.9	-1,405.8	-178.5	0.00	0.00	0.00
5,400.0	18.13	252.03	5,166.9	185.06	-465.5	-1,435.4	-182.3	0.00	0.00	0.00
5,500.0	18.13	252.03	5,262.0	90.02	-475.1	-1,465.0	-186.0	0.00	0.00	0.00
5,600.0	18.13	252.03	5,357.0	-5.01	-484.7	-1,494.6	-189.8	0.00	0.00	0.00
5,700.0	18.13	252.03	5,452.1	-100.05	-494.3	-1,524.2	-193.5	0.00	0.00	0.00
5,800.0	18.13	252.03	5,547.1	-195.09	-503.9	-1,553.8	-197.3	0.00	0.00	0.00
5,900.0	18.13	252.03	5,642.1	-290.13	-513.5	-1,583.4	-201.1	0.00	0.00	0.00
6,000.0	18.13	252.03	5,737.2	-385.17	-523.1	-1,613.0	-204.8	0.00	0.00	0.00
6,100.0	18.13	252.03	5,832.2	-480.20	-532.7	-1,642.6	-208.6	0.00	0.00	0.00
6,200.0	18.13	252.03	5,927.2	-575.24	-542.3	-1,672.2	-212.3	0.00	0.00	0.00
6,300.0	18.13	252.03	6,022.3	-670.28	-551.9	-1,701.8	-216.1	0.00	0.00	0.00
6,400.0	18.13	252.03	6,117.3	-765.32	-561.5	-1,731.4	-219.8	0.00	0.00	0.00
6,500.0	18.13	252.03	6,212.4	-860.36	-571.1	-1,760.9	-223.6	0.00	0.00	0.00
<b>END OF TANGENT</b>										
<b>6,556.2</b>	<b>18.13</b>	<b>252.03</b>	<b>6,265.8</b>	<b>-913.77</b>	<b>-576.4</b>	<b>-1,777.6</b>	<b>-225.7</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
6,600.0	17.25	252.03	6,307.5	-955.50	-580.6	-1,790.2	-227.3	2.00	-2.00	0.00
6,700.0	15.25	252.03	6,403.5	-1,051.50	-589.2	-1,816.8	-230.7	2.00	-2.00	0.00
6,800.0	13.25	252.03	6,500.4	-1,148.42	-596.8	-1,840.3	-233.7	2.00	-2.00	0.00
6,900.0	11.25	252.03	6,598.1	-1,246.13	-603.3	-1,860.4	-236.2	2.00	-2.00	0.00
7,000.0	9.25	252.03	6,696.5	-1,344.53	-608.8	-1,877.4	-238.4	2.00	-2.00	0.00
7,100.0	7.25	252.03	6,795.5	-1,443.49	-613.2	-1,891.0	-240.1	2.00	-2.00	0.00
7,200.0	5.25	252.03	6,894.9	-1,542.89	-616.6	-1,901.4	-241.4	2.00	-2.00	0.00
7,300.0	3.25	252.03	6,994.6	-1,642.61	-618.9	-1,908.4	-242.3	2.00	-2.00	0.00
7,400.0	1.25	252.03	7,094.5	-1,742.53	-620.1	-1,912.2	-242.8	2.00	-2.00	0.00
<b>EOD TO VERTICAL</b>										
<b>7,462.5</b>	<b>0.00</b>	<b>0.00</b>	<b>7,157.0</b>	<b>-1,805.03</b>	<b>-620.3</b>	<b>-1,912.8</b>	<b>-242.9</b>	<b>2.00</b>	<b>-2.00</b>	<b>0.00</b>
<b>KOP (10°/100ft BUR)</b>										
<b>7,492.5</b>	<b>0.00</b>	<b>0.00</b>	<b>7,187.0</b>	<b>-1,835.03</b>	<b>-620.3</b>	<b>-1,912.8</b>	<b>-242.9</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
7,500.0	0.75	359.91	7,194.5	-1,842.53	-620.3	-1,912.8	-242.8	10.03	10.03	0.00
7,600.0	10.75	359.91	7,293.9	-1,941.90	-610.2	-1,912.8	-233.0	10.00	10.00	0.00
7,700.0	20.75	359.91	7,390.0	-2,038.02	-583.1	-1,912.9	-206.4	10.00	10.00	0.00
<b>SHARON SPRINGS</b>										
<b>7,743.4</b>	<b>25.09</b>	<b>359.91</b>	<b>7,430.0</b>	<b>-2,078.00</b>	<b>-566.2</b>	<b>-1,912.9</b>	<b>-189.8</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
<b>NIORARA</b>										
<b>7,777.0</b>	<b>28.45</b>	<b>359.91</b>	<b>7,460.0</b>	<b>-2,108.00</b>	<b>-551.1</b>	<b>-1,912.9</b>	<b>-174.9</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
7,800.0	30.75	359.91	7,480.0	-2,127.97	-539.7	-1,912.9	-163.8	10.00	10.00	0.00
7,900.0	40.75	359.91	7,561.0	-2,209.03	-481.4	-1,913.0	-106.5	10.00	10.00	0.00
<b>NIO B</b>										
<b>7,912.0</b>	<b>41.94</b>	<b>359.91</b>	<b>7,570.0</b>	<b>-2,218.00</b>	<b>-473.5</b>	<b>-1,913.0</b>	<b>-98.7</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
8,000.0	50.75	359.91	7,630.7	-2,278.72	-409.8	-1,913.1	-36.3	10.00	10.00	0.00
8,100.0	60.75	359.91	7,686.9	-2,334.93	-327.3	-1,913.2	44.8	10.00	10.00	0.00
<b>FORT HAYS</b>										
<b>8,177.2</b>	<b>68.46</b>	<b>359.91</b>	<b>7,720.0</b>	<b>-2,368.00</b>	<b>-257.6</b>	<b>-1,913.4</b>	<b>113.2</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>

## Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MEADER 4
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Site:</b>	SW SE SEC. 5 T11N R63W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MEADER 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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	70.75	359.91	7,728.0	-2,375.95	-236.2	-1,913.4	134.2	10.00	10.00	0.00
<b>CODELL</b>										
<b>8,285.3</b>	<b>79.28</b>	<b>359.91</b>	<b>7,750.0</b>	<b>-2,398.00</b>	<b>-153.9</b>	<b>-1,913.5</b>	<b>215.1</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
8,300.0	80.75	359.91	7,752.5	-2,400.54	-139.4	-1,913.5	229.2	10.00	10.00	0.00
<b>LANDING PNT - MEADER 4 (P2)</b>										
<b>8,392.6</b>	<b>90.00</b>	<b>359.91</b>	<b>7,760.0</b>	<b>-2,408.00</b>	<b>-47.2</b>	<b>-1,913.7</b>	<b>319.8</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
8,400.0	90.00	359.91	7,760.0	-2,408.00	-39.8	-1,913.7	327.0	0.00	0.00	0.00
8,500.0	90.00	359.91	7,760.0	-2,407.99	60.2	-1,913.8	425.2	0.00	0.00	0.00
8,600.0	90.00	359.91	7,760.0	-2,407.98	160.2	-1,914.0	523.4	0.00	0.00	0.00
8,700.0	90.00	359.91	7,760.0	-2,407.98	260.2	-1,914.1	621.6	0.00	0.00	0.00
8,800.0	90.00	359.91	7,760.0	-2,407.97	360.2	-1,914.3	719.8	0.00	0.00	0.00
8,900.0	90.00	359.91	7,760.0	-2,407.96	460.2	-1,914.5	817.9	0.00	0.00	0.00
9,000.0	90.00	359.91	7,760.0	-2,407.95	560.2	-1,914.6	916.1	0.00	0.00	0.00
9,100.0	90.00	359.91	7,759.9	-2,407.95	660.2	-1,914.8	1,014.3	0.00	0.00	0.00
9,200.0	90.00	359.91	7,759.9	-2,407.94	760.2	-1,914.9	1,112.5	0.00	0.00	0.00
9,300.0	90.00	359.91	7,759.9	-2,407.93	860.2	-1,915.1	1,210.7	0.00	0.00	0.00
9,400.0	90.00	359.91	7,759.9	-2,407.93	960.2	-1,915.2	1,308.8	0.00	0.00	0.00
9,500.0	90.00	359.91	7,759.9	-2,407.92	1,060.2	-1,915.4	1,407.0	0.00	0.00	0.00
9,600.0	90.00	359.91	7,759.9	-2,407.92	1,160.2	-1,915.5	1,505.2	0.00	0.00	0.00
9,700.0	90.00	359.91	7,759.9	-2,407.91	1,260.2	-1,915.7	1,603.4	0.00	0.00	0.00
9,800.0	90.00	359.91	7,759.9	-2,407.90	1,360.2	-1,915.8	1,701.6	0.00	0.00	0.00
9,900.0	90.00	359.91	7,759.9	-2,407.90	1,460.2	-1,916.0	1,799.8	0.00	0.00	0.00
10,000.0	90.00	359.91	7,759.9	-2,407.89	1,560.2	-1,916.1	1,897.9	0.00	0.00	0.00
10,100.0	90.00	359.91	7,759.9	-2,407.89	1,660.2	-1,916.3	1,996.1	0.00	0.00	0.00
10,200.0	90.00	359.91	7,759.9	-2,407.88	1,760.2	-1,916.5	2,094.3	0.00	0.00	0.00
10,300.0	90.00	359.91	7,759.9	-2,407.88	1,860.2	-1,916.6	2,192.5	0.00	0.00	0.00
10,400.0	90.00	359.91	7,759.9	-2,407.87	1,960.2	-1,916.8	2,290.7	0.00	0.00	0.00
10,500.0	90.00	359.91	7,759.9	-2,407.87	2,060.2	-1,916.9	2,388.8	0.00	0.00	0.00
10,600.0	90.00	359.91	7,759.9	-2,407.86	2,160.2	-1,917.1	2,487.0	0.00	0.00	0.00
10,700.0	90.00	359.91	7,759.9	-2,407.86	2,260.2	-1,917.2	2,585.2	0.00	0.00	0.00
10,800.0	90.00	359.91	7,759.9	-2,407.85	2,360.2	-1,917.4	2,683.4	0.00	0.00	0.00
10,900.0	90.00	359.91	7,759.9	-2,407.85	2,460.2	-1,917.5	2,781.6	0.00	0.00	0.00
11,000.0	90.00	359.91	7,759.8	-2,407.85	2,560.2	-1,917.7	2,879.8	0.00	0.00	0.00
11,100.0	90.00	359.91	7,759.8	-2,407.84	2,660.2	-1,917.9	2,977.9	0.00	0.00	0.00
11,200.0	90.00	359.91	7,759.8	-2,407.84	2,760.2	-1,918.0	3,076.1	0.00	0.00	0.00
11,300.0	90.00	359.91	7,759.8	-2,407.84	2,860.2	-1,918.2	3,174.3	0.00	0.00	0.00
11,400.0	90.00	359.91	7,759.8	-2,407.83	2,960.2	-1,918.3	3,272.5	0.00	0.00	0.00
11,500.0	90.00	359.91	7,759.8	-2,407.83	3,060.2	-1,918.5	3,370.7	0.00	0.00	0.00
11,600.0	90.00	359.91	7,759.8	-2,407.83	3,160.2	-1,918.6	3,468.9	0.00	0.00	0.00
11,700.0	90.00	359.91	7,759.8	-2,407.82	3,260.2	-1,918.8	3,567.0	0.00	0.00	0.00
11,800.0	90.00	359.91	7,759.8	-2,407.82	3,360.2	-1,919.0	3,665.2	0.00	0.00	0.00
11,900.0	90.00	359.91	7,759.8	-2,407.82	3,460.2	-1,919.1	3,763.4	0.00	0.00	0.00
12,000.0	90.00	359.91	7,759.8	-2,407.82	3,560.2	-1,919.3	3,861.6	0.00	0.00	0.00
12,100.0	90.00	359.91	7,759.8	-2,407.82	3,660.2	-1,919.4	3,959.8	0.00	0.00	0.00
12,200.0	90.00	359.91	7,759.8	-2,407.81	3,760.2	-1,919.6	4,058.0	0.00	0.00	0.00
12,300.0	90.00	359.91	7,759.8	-2,407.81	3,860.2	-1,919.7	4,156.1	0.00	0.00	0.00
12,400.0	90.00	359.91	7,759.8	-2,407.81	3,960.2	-1,919.9	4,254.3	0.00	0.00	0.00
12,500.0	90.00	359.91	7,759.8	-2,407.81	4,060.2	-1,920.1	4,352.5	0.00	0.00	0.00
12,600.0	90.00	359.91	7,759.8	-2,407.81	4,160.2	-1,920.2	4,450.7	0.00	0.00	0.00
12,700.0	90.00	359.91	7,759.8	-2,407.81	4,260.2	-1,920.4	4,548.9	0.00	0.00	0.00
12,800.0	90.00	359.91	7,759.8	-2,407.80	4,360.2	-1,920.5	4,647.0	0.00	0.00	0.00
12,900.0	90.00	359.91	7,759.8	-2,407.80	4,460.2	-1,920.7	4,745.2	0.00	0.00	0.00
13,000.0	90.00	359.91	7,759.8	-2,407.80	4,560.2	-1,920.8	4,843.4	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MEADER 4
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Site:</b>	SW SE SEC. 5 T11N R63W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MEADER 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
13,100.0	90.00	359.91	7,759.8	-2,407.80	4,660.2	-1,921.0	4,941.6	0.00	0.00	0.00
13,200.0	90.00	359.91	7,759.8	-2,407.80	4,760.2	-1,921.2	5,039.8	0.00	0.00	0.00
13,300.0	90.00	359.91	7,759.8	-2,407.80	4,860.2	-1,921.3	5,138.0	0.00	0.00	0.00
13,400.0	90.00	359.91	7,759.8	-2,407.80	4,960.2	-1,921.5	5,236.1	0.00	0.00	0.00
13,500.0	90.00	359.91	7,759.8	-2,407.80	5,060.2	-1,921.6	5,334.3	0.00	0.00	0.00
13,600.0	90.00	359.91	7,759.8	-2,407.80	5,160.2	-1,921.8	5,432.5	0.00	0.00	0.00
13,700.0	90.00	359.91	7,759.8	-2,407.80	5,260.2	-1,922.0	5,530.7	0.00	0.00	0.00
13,800.0	90.00	359.91	7,759.8	-2,407.80	5,360.2	-1,922.1	5,628.9	0.00	0.00	0.00
13,900.0	90.00	359.91	7,759.8	-2,407.80	5,460.2	-1,922.3	5,727.1	0.00	0.00	0.00
14,000.0	90.00	359.91	7,759.8	-2,407.81	5,560.2	-1,922.4	5,825.2	0.00	0.00	0.00
14,100.0	90.00	359.91	7,759.8	-2,407.81	5,660.2	-1,922.6	5,923.4	0.00	0.00	0.00
14,200.0	90.00	359.91	7,759.8	-2,407.81	5,760.2	-1,922.8	6,021.6	0.00	0.00	0.00
14,300.0	90.00	359.91	7,759.8	-2,407.81	5,860.2	-1,922.9	6,119.8	0.00	0.00	0.00
14,400.0	90.00	359.91	7,759.8	-2,407.81	5,960.2	-1,923.1	6,218.0	0.00	0.00	0.00
14,500.0	90.00	359.91	7,759.8	-2,407.81	6,060.2	-1,923.2	6,316.2	0.00	0.00	0.00
14,600.0	90.00	359.91	7,759.8	-2,407.81	6,160.2	-1,923.4	6,414.3	0.00	0.00	0.00
14,700.0	90.00	359.91	7,759.8	-2,407.82	6,260.2	-1,923.6	6,512.5	0.00	0.00	0.00
14,800.0	90.00	359.91	7,759.8	-2,407.82	6,360.2	-1,923.7	6,610.7	0.00	0.00	0.00
14,900.0	90.00	359.91	7,759.8	-2,407.82	6,460.2	-1,923.9	6,708.9	0.00	0.00	0.00
15,000.0	90.00	359.91	7,759.8	-2,407.82	6,560.2	-1,924.0	6,807.1	0.00	0.00	0.00
15,100.0	90.00	359.91	7,759.8	-2,407.83	6,660.2	-1,924.2	6,905.3	0.00	0.00	0.00
15,200.0	90.00	359.91	7,759.8	-2,407.83	6,760.2	-1,924.4	7,003.4	0.00	0.00	0.00
15,300.0	90.00	359.91	7,759.8	-2,407.83	6,860.2	-1,924.5	7,101.6	0.00	0.00	0.00
15,400.0	90.00	359.91	7,759.8	-2,407.84	6,960.2	-1,924.7	7,199.8	0.00	0.00	0.00
15,500.0	90.00	359.91	7,759.8	-2,407.84	7,060.2	-1,924.8	7,298.0	0.00	0.00	0.00
15,600.0	90.00	359.91	7,759.8	-2,407.84	7,160.2	-1,925.0	7,396.2	0.00	0.00	0.00
15,700.0	90.00	359.91	7,759.8	-2,407.85	7,260.2	-1,925.2	7,494.4	0.00	0.00	0.00
15,800.0	90.00	359.91	7,759.8	-2,407.85	7,360.2	-1,925.3	7,592.5	0.00	0.00	0.00
15,900.0	90.00	359.91	7,759.9	-2,407.85	7,460.2	-1,925.5	7,690.7	0.00	0.00	0.00
16,000.0	90.00	359.91	7,759.9	-2,407.86	7,560.2	-1,925.6	7,788.9	0.00	0.00	0.00
16,100.0	90.00	359.91	7,759.9	-2,407.86	7,660.2	-1,925.8	7,887.1	0.00	0.00	0.00
16,200.0	90.00	359.91	7,759.9	-2,407.87	7,760.1	-1,926.0	7,985.3	0.00	0.00	0.00
16,300.0	90.00	359.91	7,759.9	-2,407.87	7,860.1	-1,926.1	8,083.5	0.00	0.00	0.00
16,400.0	90.00	359.91	7,759.9	-2,407.88	7,960.1	-1,926.3	8,181.6	0.00	0.00	0.00
16,500.0	90.00	359.91	7,759.9	-2,407.88	8,060.1	-1,926.5	8,279.8	0.00	0.00	0.00
16,600.0	90.00	359.91	7,759.9	-2,407.89	8,160.1	-1,926.6	8,378.0	0.00	0.00	0.00
16,700.0	90.00	359.91	7,759.9	-2,407.89	8,260.1	-1,926.8	8,476.2	0.00	0.00	0.00
16,800.0	90.00	359.91	7,759.9	-2,407.90	8,360.1	-1,926.9	8,574.4	0.00	0.00	0.00
16,900.0	90.00	359.91	7,759.9	-2,407.90	8,460.1	-1,927.1	8,672.6	0.00	0.00	0.00
17,000.0	90.00	359.91	7,759.9	-2,407.91	8,560.1	-1,927.3	8,770.7	0.00	0.00	0.00
17,100.0	90.00	359.91	7,759.9	-2,407.91	8,660.1	-1,927.4	8,868.9	0.00	0.00	0.00
17,200.0	90.00	359.91	7,759.9	-2,407.92	8,760.1	-1,927.6	8,967.1	0.00	0.00	0.00
17,300.0	90.00	359.91	7,759.9	-2,407.93	8,860.1	-1,927.8	9,065.3	0.00	0.00	0.00
17,400.0	90.00	359.91	7,759.9	-2,407.93	8,960.1	-1,927.9	9,163.5	0.00	0.00	0.00
17,500.0	90.00	359.91	7,759.9	-2,407.94	9,060.1	-1,928.1	9,261.7	0.00	0.00	0.00
17,600.0	90.00	359.91	7,759.9	-2,407.95	9,160.1	-1,928.3	9,359.9	0.00	0.00	0.00
17,700.0	90.00	359.91	7,760.0	-2,407.95	9,260.1	-1,928.4	9,458.0	0.00	0.00	0.00
17,800.0	90.00	359.91	7,760.0	-2,407.96	9,360.1	-1,928.6	9,556.2	0.00	0.00	0.00
17,900.0	90.00	359.91	7,760.0	-2,407.97	9,460.1	-1,928.7	9,654.4	0.00	0.00	0.00
18,000.0	90.00	359.91	7,760.0	-2,407.97	9,560.1	-1,928.9	9,752.6	0.00	0.00	0.00
18,100.0	90.00	359.91	7,760.0	-2,407.98	9,660.1	-1,929.1	9,850.8	0.00	0.00	0.00
18,200.0	90.00	359.91	7,760.0	-2,407.99	9,760.1	-1,929.2	9,949.0	0.00	0.00	0.00
18,300.0	90.00	359.91	7,760.0	-2,408.00	9,860.1	-1,929.4	10,047.1	0.00	0.00	0.00

BHL - MEADER 4 (P2)

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MEADER 4
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5352.0usft (Original Well Elev)
<b>Site:</b>	SW SE SEC. 5 T11N R63W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MEADER 4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
18,338.6	90.00	359.91	7,760.0	-2,408.00	9,898.7	-1,929.5	10,085.0	0.00	0.00	0.00

## Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,520.6	1,480.0	PIERRE		0.00	
3,629.2	3,484.0	SUSSEX		0.00	
4,540.4	4,350.0	SHANNON		0.00	
7,743.4	7,430.0	SHARON SPRINGS		0.00	
7,777.0	7,460.0	NIOBRARA		0.00	
7,912.0	7,570.0	NIO B		0.00	
8,177.2	7,720.0	FORT HAYS		0.00	
8,285.3	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)
1,006.3	991.3	-43.9	-135.2	EOB TO 18.13° INC
1,646.8	1,600.0	-105.3	-324.8	9 5/8" SURFACE CSG
6,556.2	6,265.8	-576.4	-1,777.6	END OF TANGENT
7,462.5	7,157.0	-620.3	-1,912.8	EOD TO VERTICAL
7,492.5	7,187.0	-620.3	-1,912.8	KOP (10°/100ft BUR)
8,392.6	7,760.0	-47.2	-1,913.7	LANDING PNT - MEADER 4 (P2)
18,338.6	7,760.0	9,898.7	-1,929.5	BHL - MEADER 4 (P2)